EUROPEAN ENERGY AND TRANSPORT

Trends to 2030 – update 2005

Directorate-General
for Energy and Transport

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EUROPEAN ENERGY AND TRANSPORT

Trends to 2030 – update 2005

European Commission

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Executive Summary

The Baseline 2005 report provides an update of the "Trends to 2030" published in 2003. The new Baseline takes into account a high energy import price environment, the unsatisfactory economic growth of recent years and the more subdued growth prospects taking into account demographic developments. It includes, furthermore, new policies and measures implemented in the Member States. The results were derived with the PRIMES model by a consortium led by the National Technical University of Athens, supported by some more specialised models.

The Baseline for the EU and each of its Member States simulates current trends and policies as implemented in the Member States by the end of 2004. While informing about the development of policy relevant indicators, such as the renewables shares in 2010, the Baseline does not assume that indicative targets, as set out in Directives, will be necessarily met. The numerical values for these indicators are outcomes of the modelling; they reflect implemented policies rather than targets. This applies also for CO_2 emissions.

The projections for passenger and freight transport activity, which are a key driver for energy demand, stem from the "partial implementation scenario" of the mid-term review of the Transport White Paper; this provides a transport forecast under current conditions.

In addition to its role as a trend projection, the Baseline is a reference development for policy scenarios. Policy scenarios that will be constructed with reference to the Baseline examine – among other things – the achievement of energy policy targets. The Baseline scenario is used as the reference for additional policy-relevant scenario analyses addressing issues such as renewables, nuclear, energy efficiency, energy import prices, alternative fuels in transport and the effects of transport policy action as well as climate change.

Assumptions

The baseline scenario for EU-25 represents current trends and policies as implemented in the Member States up to the end of 2004. In particular, the baseline modelling assumes a continuation of policies on economic reform (Lisbon) and the completion of the internal energy market. The baseline scenario includes current policies on energy efficiency and renewables, without assuming that specific targets are necessarily met. For example, the renewables shares in electricity are modelling results (some 18% in 2010 for the EU) that show the effects of policies or their absence in the Member States. On transport, the baseline assumes that the targets agreed for 2008/09 with the car industry on the reduction of specific CO_2 emissions for new cars are achieved without assuming a further strengthening of targets thereafter. The baseline assumes furthermore that decisions on nuclear phase-out in some old Member States will be implemented as decided and that certain nuclear plants with safety concerns in new Member States will be closed as agreed. Nevertheless, in Member States without a phase-out decision, the baseline scenario assumptions result in considerable investment in new nuclear capacity depending on the economics of power generation and the overall energy policy context in the individual countries.

The baseline does not take into account possible additional action in the Member States for living up to their Kyoto commitments, nor the possible development of climate change policy for the years after 2012. CO_2 emissions are modelling results based on the development of the energy economy, which in turn reflects among other things policies implemented so far. For the purpose of the baseline a CO_2 price of 5 €/t CO_2 has been assumed up to 2030 for those sectors covered by the EU Emission Trading Scheme (ETS) as a reflection of the medium-term price level of the emerging international carbon market (including Clean Development Mechanism) and the EU ETS being connected to it.

The 2005 update of the energy baseline takes into account lower economic growth expectations (2.0% on average up to 2030) in line with DG ECFIN short and long term projections as well as slightly increasing population up to 2020, which is more or less stagnant thereafter.

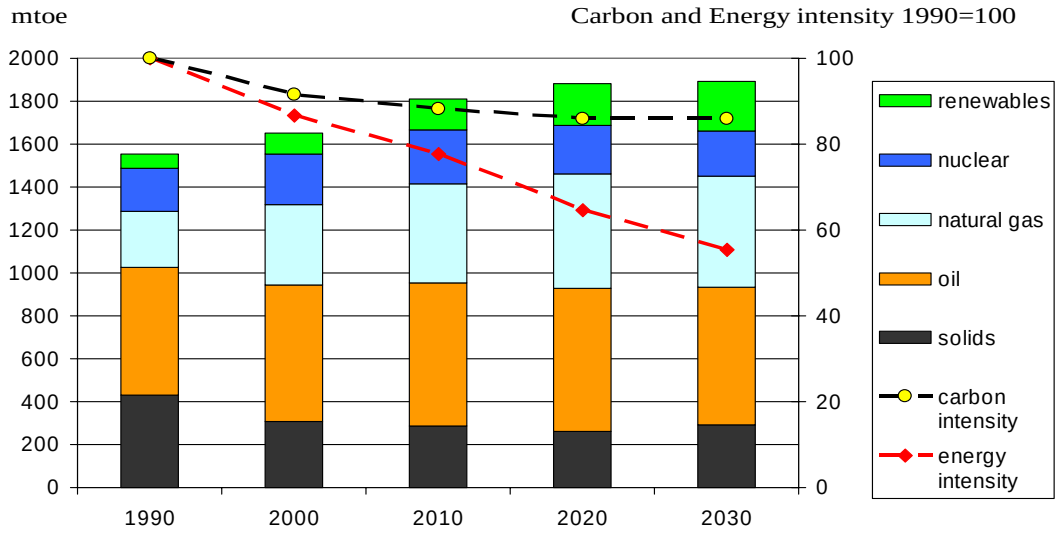
The projections are based on a high oil price environment with oil prices of 55$/bbl on average in 2005 and 58$/bbl in 2030 (prices are in 2005 money; in nominal terms this could be 95 $/bbl in 2030 if one can assume that the inflation target of the ECB of 2% pa would be achieved)[1]. The baseline price assumptions for the EU are the result of world energy modelling with the POLES model that derives price trajectories for oil, gas and coal under a conventional wisdom view of the development of the world energy system[2].

Overall results on energy consumption

Total EU-25 energy consumption continues to increase up to 2030. In 2030 energy consumption is 15% higher than it was 2000; the growth rates of energy become smaller over time with consumption virtually stabilising post 2020 reflecting low economic growth and stagnating population (see graph 1).

The 15 % increase of energy consumption by 2030 is much lower than the growth of GDP over the same period (79%) so that energy intensity (= ratio between energy consumption and GDP) improves by 1.5 % pa up to 2030 after having seen an improvement of 1.4% pa in the 1990s. There has been a slowing down of energy intensity improvements in recent years following sluggish economic growth with lower capital turn-over towards energy efficient equipment; this raises energy consumption growth and has an adverse effect on the expected energy intensity improvement in this decade (only 1.1% pa).

Graph 1: Energy consumption by fuel and carbon and energy intensity



1 A soaring oil price scenario is under preparation, in which the oil price in 2030 reaches almost 100$/bbl in 2005 money. Work on price scenarios will be reported in a further publication, similar to the present one.

2 For comparison, oil prices in this baseline are similar to those used in the DG RTD sponsored update of the WETO project (World Energy Technology Outlook), but higher than those assumed in the 2005 update of the IEA World Energy Outlook

The energy consumption increase of 240 mtoe between 2000 and 2030 will be met by natural gas and renewables, which are the only energy sources that increase their market shares.

Oil remains the most important fuel, although its consumption in 2030 should not exceed the current level. Natural gas demand is expected to expand considerably by 140 mtoe up to 2030 after the substantial increase already seen in the 1990s. Solid fuels are projected to decrease somewhat by 2020 and to come back almost to the current level in 2030 following high oil and gas prices and the nuclear phase-out in certain Member States.

Renewables increase more than all other fuels in relative terms (more than doubling their contribution from current levels by the year 2030). In absolute terms they increase by 135 mtoe from 2000 to 2030 contributing nearly as much as natural gas towards the increase of energy demand.

Following the political decisions on nuclear-phase out in certain old Member States and the closure of plants with safety concerns in some new Member States, nuclear is somewhat smaller in 2030 than it was in 2000 (minus 11 %). Although nuclear generation has been rising in recent years, after 2010 the agreed policies on nuclear and the replacement cycles for older plants lead to more nuclear plant closure than there will be new investment. Nevertheless, high fossil fuel prices encourage significant investment in new nuclear power stations (including the new EPR type) in several Member States.

The carbon free and indigenous energy sources, renewables and nuclear, increase their joint contribution considerably by almost one third or nearly 100 mtoe up to 2030.

Consequently, carbon intensity (ratio of CO_2 emission to energy consumption) improves in large parts of the projection period. However, this improvement comes to a halt post 2020 as nuclear plants are progressively retired and largely replaced by coal.

Despite the increase in fossil fuel use, their share in total energy consumption falls through 2030 reaching 77% (compared with 80% in 2000); the shares of solid fuels and oil decline by 3 and 5 percentage points respectively while the gas share increases 5 percentage points.

Share of energy sources in total energy consumptions (in %):

	1990	2000	2010	2020	2030
Solid fuels	27.8	18.5	15.8	13.8	15.5
Oil	38.3	38.4	36.9	35.5	33.8
Gas	16.7	22.8	25.5	28.1	27.3
Nuclear	12.7	14.4	13.7	12.1	11.1
Renewables	4.4	5.8	7.9	10.4	12.2

The renewables share rises throughout the projection period from less than 6% in 2000 to 8% in 2010, to over 10% in 2020 and to 12% in 2030. Nevertheless, under baseline conditions the EU target on renewables for 2010 will not be achieved and meeting the 20% target under discussion for renewables will require almost a doubling of the share compared with the baseline development[3].

[3] A policy scenario is being prepared that is designed to have a renewables share close to 20% in 2020 reflecting possible targets put forward in the present policy debate. A further publication, similar to the present one, will report on such a scenario as well as an energy efficiency scenario and its combination with renewables scenarios.

The share of nuclear in total energy consumption remains close to 14% up to 2010, from where it decreases to 11% by 2030; in total the share of indigenous and carbon free energy sources rises from 20% in 2000 to 23% in 2030.

Production, import dependency and CO_2 emissions

While energy consumption increases at a rather low pace through 2030, there is a steep decline in indigenous production, in particular of hydrocarbons, solid fuels and nuclear. Only renewables production is expected to increase In 2030, current baseline projections have oil production declining by 73%, gas production would be 59% lower and solid fuel production is expected to sink by 41%. Nuclear generation might decrease by 11%, whereas the production of renewables should more than double between 2000 and 2030. All together, total indigenous energy production in 2030 would be 25% lower than it was in 2000.

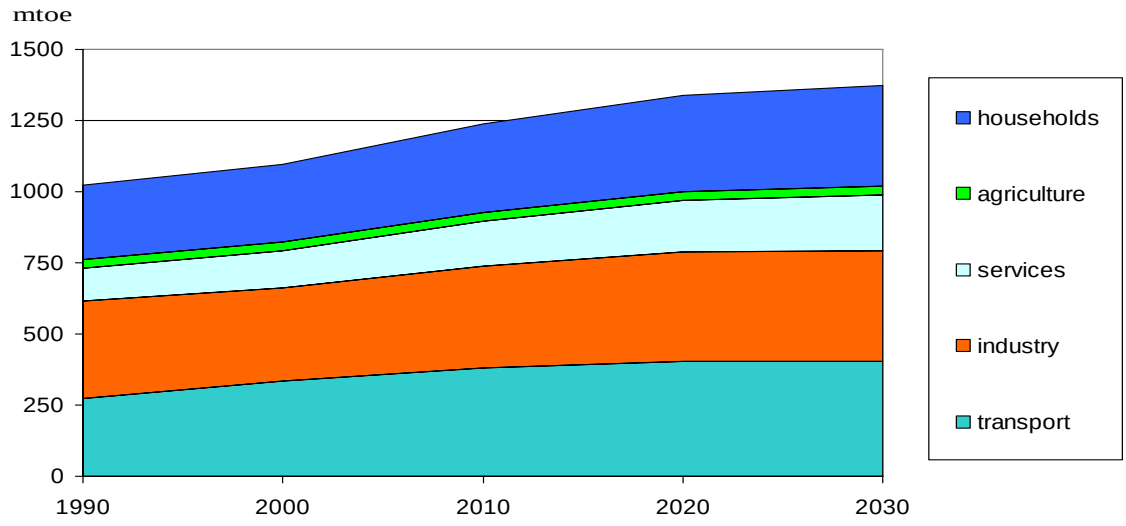
Import dependency continues growing to two thirds in 2030, which is up nearly 15 percentage points from today's level. Import dependency for oil continues to be highest reaching 94% in 2030. Gas import dependency rises substantially from somewhat over 50% at present to 84% in 2030. Similarly, solid fuel supplies will be increasingly based on imports reaching 59% in 2030.

Energy related **CO_2 emissions** (including international air transport) sank between 1990 and 2000; in 2005 they have returned to the 1990 level. However, over the next years, CO_2 emissions are projected to increase significantly exceeding the 1990 level by 3% in 2010 and by 5% in 2030. The strong short term increase to 2010 is due to high price increases for oil and particularly gas that encourage coal use in power stations. In the long term, the moderate further CO_2 increase reflects low energy consumption growth and the rather strong role of the CO_2 free sources renewables and nuclear.

Final energy demand

Final energy consumption for transport and stationary purposes (e.g. in industry, services and households) increases by 25% from 2000 to 2030. This is 10 percentage points more than the growth of total energy demand (which, in addition to final energy, includes also losses in electricity generation and other transformation processes). The lower percentage increase of total energy consumption compared with final energy demand means that there are significant improvements in the transformation efficiency of the EU energy system over the next decades. The replacement of old power stations with more efficient ones is driving this development.

Graph 2: Final energy consumption by sector



Final energy demand rises most in the services sector due to the increasing share of services in modern economies. Energy demand for services is projected to be 49% higher in 2030 than it was in 2000. This development is driven by increasing demand for electricity (e.g. office equipment). With this strong penetration of electricity in the service sector, there is a considerably smaller increase in CO_2 emissions from services (+17% by 2030) compared with the 49% increase of energy demand [4].

On the contrary, energy demand in agriculture increases least, growing nevertheless by 10% between 2000 and 2030.

Household energy demand is expected to rise by 29% between 2000 and 2030. The increasing number of households (+ 25% up to 2030) following demographic and lifestyle changes towards smaller household size is an important factor for this development. On the other hand, there are some saturation effects concerning heating energy demand. The increasing use of electric appliances and air conditioning entail rising electricity demand (+ 83%). Given this shift towards electricity use in households, CO_2 emissions from households increase significantly slower (+ 8%) than energy demand (+29%).

Transport energy demand in 2030 is projected to be 21% higher than in 2000. After having seen very high growth rates in the 1990s, the increase of energy use for transportation decelerates. In the projection period, transport energy demand growth rates decline over time reaching the lowest value in the decade to 2030. This reflects the declining growth rates over time of both passenger and freight transport activity. In addition, there are important fuel efficiency improvements in particular in passenger transport (e.g. private cars). Therefore, energy demand in transport grows less than transport activity (in passenger- and tonne-km).

Contrary to the past, the projection period has some significant fuel switching in the transport sector as a result of the implementation of the biofuels Directive. Under baseline conditions the biofuels share in 2010 rises strongly to almost 4% - however, falling somewhat short of the indicative target of 5.75. Nevertheless, this target would be nearly met in 2015 (5.5%) and the share continues increasing up to 2030 to reach 8.3%. No other alternative fuels are penetrating in this scenario reflecting current policies and the cost development in the modelling of "non-conventional" fuels relative to petrol and diesel. As a consequence, CO_2 emissions from transport are expected to grow less than energy use (13% versus 21% from 2000 to 2030).

Energy demand in industry is 19% higher in 2030 compared with 2000. This rather low growth reflects shifts in the industrial production structure towards less energy intensive branches focusing on higher value added. Energy intensity in industry (energy consumption in industry related to value added) improves therefore by 1.2% pa up to 2030. This shift in the production structure entails also much higher use of electricity in industry (+ 34%), which in turn results in CO_2 emissions that increase significantly less than energy demand (+ 9% compared with + 19%).

Overall, electricity is the fastest rising fuel in final demand (+ 58% up to 2030). There is also strong growth of heat from CHP and district heating (+ 39%). Natural gas continues to make major inroads for heating purposes (+28%). Oil demand increases only moderately due to limited consumption growth in transportation and its replacement by gas and electricity in stationary uses. Solid fuels continue to decline strongly so that their use becomes more and more concentrated on some heavy industries. Renewables almost double their contribution – however from a rather small basis in final demand encompassing both traditional uses, such as wood combustion, but also solar water heating and biofuels in transport. Higher deployment of biofuels

[4] It should be noted that CO_2 emissions are accounted for in the sectors where they occur (e.g. power generation) and not in the sectors that ultimately cause them, such as services or households using more and more electricity.

is the major driving force for greater renewables penetration in final demand (as distinct from renewables use for power generation, where hydro and wind are established sources with a great potential for further wind penetration).

Power generation

Following soaring electricity demand, power generation is expected to grow considerably given the limited potential for higher electricity imports from outside the EU. Electricity production is expected to increase by 51 % between 2000 and 2030. An increasing share of electricity will be produced in form of combined heat and power (up almost 10 percentage points to reach a 24 % CHP share in 2030).

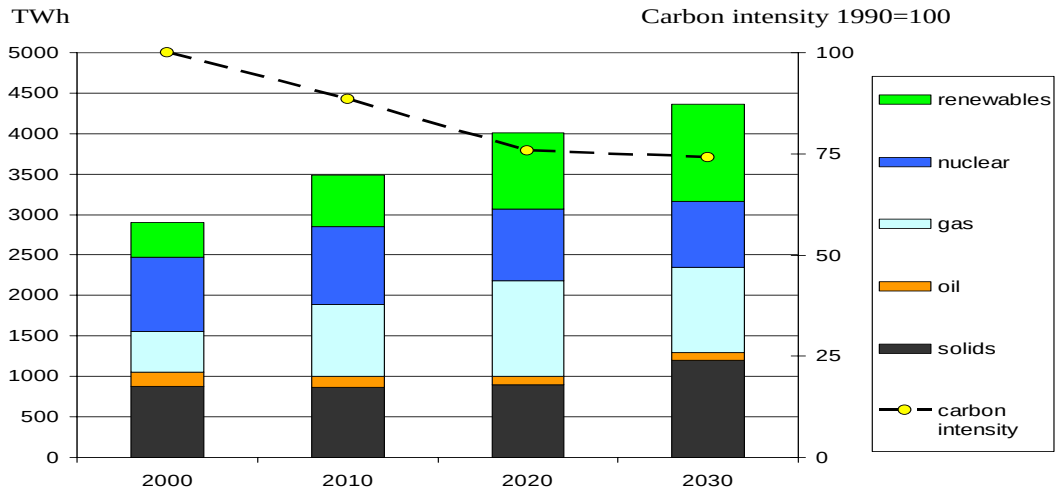
The structure of power generation changes significantly in favour of renewables and natural gas while nuclear and solid fuels lose market shares.

The renewables share in power generation rises to 18% in 2010 – which falls however short of the indicative target of the renewables electricity directive – indicating that the measures implemented in the Member States by the end of 2004 are not yet sufficient. In any case, the baseline shows a dynamic development in renewables penetration in electricity, as the renewables share rises further to 23% in 2020 and 28% in 2030.

This development is clearly driven by the high growth rates of wind energy – especially in this decade; but growth rates are still impressing in coming decades. In total, wind energy in 2030 provides twenty times as much electricity as was available from this source in 2000. The increase of wind over 30 years in absolute terms (420 TWh) corresponds to the total present day electricity consumption in the UK. In 2030, wind power is expected to produce more electricity than hydro.

Biomass use for power generation also rises considerably; solar PV has high growth rates from a small basis, while the additional contribution from hydro power is small as a result of limited additional potential and environmental restrictions.

Graph 3: Electricity production by fuel and carbon intensity



Nuclear, the other major CO_2 free energy source for power generation, declines as a result of political decisions. The nuclear share falls from over 30% to only 19% in 2030 despite considerable investment in new nuclear plants in countries without restrictions on nuclear (largely replacing old nuclear plants). Overall, the share of indigenous and carbon free sources (renewables plus nuclear) remains flat at the current level of 45-46% throughout the projection period.

Solid fuels lose market shares in power generation in the medium terms and compensate these losses in later years towards 2030 in their function as replacement for nuclear and also as a result of the competitiveness losses of natural gas following increasing gas prices. Nevertheless, gas continues to gain market share due to its advantages as clean, efficient and low carbon fuel. The role of oil diminishes further in power generation. Overall, the share of fossil fuels remains flat at broadly 55%.

As a result of these changes towards fuels with a low (gas) or zero carbon content (renewables and nuclear), CO_2 emissions from power generation (+10% by 2030) grow considerably slower than electricity production (+ 51%). Consequently, the carbon intensity of power generation declines considerably. However, in the long term post 2020 the decrease of carbon intensity comes to a halt on account of the nuclear phase-out becoming effective and the ensuing replacement of nuclear with coal, which is not sufficiently compensated by the further penetration of renewables. In addition, high oil and gas prices discourage further penetration of natural gas leaving much scope for solid fuels in the baseline that does not assume that CO_2 targets will be necessarily met.

The increasing electricity demand and to some extent the higher penetration of intermittent renewables require substantially higher power generation capacities. The net capacity increase from 2000 to 2030 amounts to 430 GW, which corresponds to two thirds of the present generation capacity. In addition, the power plants that will be closed over the next decades needs be replaced.

Challenges

While there have been certain improvements in terms of policy relevant indicators compared with the "Trends to 2030" of 2003 (slightly higher share of non-fossil fuels and especially renewables, slightly lower growth of energy demand and import dependency than modelled in 2003), this 2005 Baseline shows several challenges ahead for energy policy. This concerns in particular energy efficiency to curtail energy demand growth as well as action on renewables to achieve agreed targets, to further diversify energy supply and reduce CO_2 emissions.

Energy consumption continues growing with supplies being increasingly met by imports, which come to a large extent from geopolitically unstable regions. With decreasing indigenous fossil fuel production and a limited combined contribution from renewables and nuclear, the EU dependency on imports grows to about two thirds in 2030.

Energy demand growth is particularly strong for natural gas, which needs to be imported in increasing quantities over wider distances. Renewables also increase their contribution while the shares of solid fuels, oil and nuclear decline. There are issues concerning the achievement of agreed targets. This concerns reaching the 12% renewables share objective for 2010 as well as meeting Kyoto targets. The Baseline has increasing CO_2 emissions which is clearly incompatible with EU climate change policy.

Better energy efficiency should contribute to reducing CO_2 emissions, improving European competitiveness and will be important for managing external dependency in the context of high energy import prices and a difficult geopolitical environment. The increased use of indigenous and CO2 free energy sources, (renewables and nuclear) will help in living up to the EU's commitments on greenhouse gas emission through keeping CO_2 emissions under control, while at the same time improving energy security.

1. EU-25 energy and transport reference case to 2030 (baseline)

1.1. Introduction

The baseline scenario provides projections of energy demand, supply and transformation on the basis of current knowledge, technology forecasting and policies. The baseline scenario for EU-25 represents current trends and policies as implemented in the Member States up to the end of 2004.

The new baseline scenario, used in the present analysis, involves a major update from the one presented in the latest publication of DG TREN "Scenarios on Key drives" in 2004. More specifically, the latest available data have been incorporated in the model database as regards:

- energy balances by member-state (statistics available up to 2003-EUROSTAT)
- energy prices and fiscal policies (statistics up to 2005)
- macroeconomic data (statistics available up to 2004-EUROSTAT) plus DG ECFIN projections
- power generation data (2005 update of power plant inventory, plant investment and decommissioning schedules, latest cogeneration data from EUROSTAT)
- 2005 updated statistics and latest potential estimations for renewables

Furthermore, the new Baseline takes into account a high energy import price environment, the unsatisfactory economic growth of recent years and the more subdued growth prospects taking into account demographic developments. It also includes new policies and measures implemented in the Member States. The results were derived with the PRIMES model by a consortium led by the National Technical University of Athens, supported by some more specialised models.

The scenario, as well as the model's database, includes the year 2000 as a base year for which a complete statistical database exists. However the figures for year 2005 are also based on statistical information, rather than being pure model results; in other words the model results for 2005 are partly 'calibrated' to available statistics.

1.2. Main assumptions of the Baseline Scenario [5]

The definition of the Baseline scenario is important because it constitutes the basis for further policy analysis in addition to its function as a projection on the basis of current trends and policies.

The Baseline scenario includes existing trends and the effects of policies in place and/or in the process of being implemented by the end of 2004. In particular, the baseline modelling assumes a continuation of policies on economic reform (Lisbon) and the completion of the internal energy market. The baseline scenario includes current policies on energy efficiency and renewables, without assuming that specific targets are necessarily met. On transport, the baseline assumes that the targets agreed for 2008 with the car industry on the reduction of specific CO_2 emissions for new cars are achieved without assuming a further strengthening of targets thereafter. The baseline assumes

[5] Demographic and macro-economic assumptions by country and by group of countries (EU-25, EU-15, NMS, EU-27, EU-28 and Europe-30) and country can be found in Appendix 1

furthermore that decisions on nuclear phase-out in some old Member States will be implemented as decided and that certain nuclear plants with safety concerns in new Member States will be closed as agreed. Nevertheless, in Member States without a phase-out decision, the baseline scenario assumptions result in considerable investment in new nuclear capacity depending on the economics of power generation and the overall energy policy context in the individual countries.

While informing about the development of policy relevant indicators, such as the renewables shares in 2010, the Baseline does not assume that indicative targets, as set out in Directives, will be necessarily met. The numerical values for these indicators are outcomes of the modelling; they reflect implemented policies rather than targets. This applies also for CO_2 emissions. For analytical reasons the Baseline scenario excludes all additional policies and measures that aim at further reductions of CO_2 emissions so as to comply with the Kyoto emission commitments. The establishment of an emission trading regime in Europe is included in the Baseline scenario assuming a permit price of 5 €00/t CO_2 for those sectors covered by the EU Emission Trading Scheme (ETS) as a reflection of the medium-term price level of the emerging international carbon market (including Clean Development Mechanism) and the EU ETS being connected to it.

Tax rates reflect the situation of July 2005 in the EU-25 Member States; thereafter they increase with inflation. As regards new Member States a gradual convergence of energy taxes towards those in EU-15 has been assumed. By 2010, the first year after 2005 with modelling results, all EU-15 Member States are assumed to comply with the energy taxation Directive,[6] whereas the compliance period for the new Member States (NMS) is prolonged according to the amendments of 29.4.2004 of the taxation Directive.

The Baseline scenario is used as the reference for additional policy-relevant scenario analyses addressing issues such as renewables, nuclear, energy efficiency, energy import prices, alternative fuels in transport and the effects of transport policy action as well as climate change.

The main assumptions underlying the Baseline scenario are presented below.

1.2.1. Demographic and weather assumptions

Population is an important determinant both of overall economic performance and of energy trends, especially in the transportation, household and services sectors. EUROSTAT figures have been used in the PRIMES Baseline scenario both as regards historical data and projections for the evolution of population in the EU-25 Member States.

Table 1-1: Population trends in the EU-25, 1990 to 2030

	Million inhabitants				
	1990	**2000**	**2010**	**2020**	**2030**
EU15	365.75	378.06	390.65	397.46	398.74
NMS	75.04	74.85	73.40	71.81	70.63
EU-25	440.79	452.92	464.05	469.27	469.37
	annual growth rate				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU15	0.33	0.33	0.17	0.03	0.18
NMS	-0.02	-0.20	-0.22	-0.17	-0.19
EU-25	0.27	0.24	0.11	0.00	0.12

Source: EUROSTAT.

[6] European Commission Directive 2003/96/EC of the European Parliament and of the Council, 27 October 2003, on restructuring the Community framework for the taxation of energy products and electricity and its amendments of 29.4.2004.

EU-25 population is projected to remain rather stable, peaking in 2025 at some 470 million (see Table 1-1). The population in NMS is projected to decline by some 4.2 million people or 5.6% between 2000 and 2030. The NMS accounts by 2030 for 15.0% of the EU-25 population, compared to 16.5% in 2000.

Another key demographic factor that plays an important role as regards the growth of energy demand in households is the household size (i.e. number of persons per household). Rising life expectancy, combined with declining birth rates and changes in societal and economic conditions, are the main drivers for a significant decline in average household size, both in the EU-15 and in NMS. Following UN projections,[7] average household size in the EU-15 is expected to decline from 2.4 persons in 2000 to 1.98 persons in 2030 (-0.65% pa in 2000-2030). The corresponding decline in NMS is less pronounced (-0.53% pa, from 2.66 persons per household in 2000 to 2.27 persons in 2030). This trend gives rise to significant growth in the number of households, which increase by 47.2 million between 2000 and 2030 (+0.8% pa in 2000-2030) in the EU-25 despite the rather stable evolution of population (see Table 1-2). Growth in the number of households is one of the key drivers of energy demand in the residential sector.

Table 1-2: Number of households in EU-25, 1990 to 2030

	Million households				
	1990	**2000**	**2010**	**2020**	**2030**
EU15	141.14	157.37	175.15	190.25	201.59
NMS	25.70	28.18	30.05	30.63	31.16
EU-25	166.85	185.55	205.20	220.88	232.75
	annual growth rate				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU15	1.09	1.08	0.83	0.58	0.83
NMS	0.92	0.65	0.19	0.17	0.34
EU-25	1.07	1.01	0.74	0.52	0.76

Source: Global Urban Observatory and Statistics Unit of UN-HABITAT, PRIMES.

Weather conditions, which are important in determining both the intensity and the overall pattern of energy use (mainly as regards heating requirements), are assumed to remain unchanged over the projection period, i.e. the degree-days parameter is taken as constant at 2000 levels.

1.2.2. Macroeconomic assumptions

The economic outlook presented below is based on a number of underlying assumptions. For example, the recent economic slowdown is assumed to be transitory, and the longer-term global economic climate is assumed to remain generally positive, although economic growth rates in this update are considerably lower than in the Trends to 2030 of 2003. In addition, the EU-25 is projected to benefit from economic and monetary unification as well as from a continued increase in world trade, as barriers continue to fall. Increases in commodity prices and inflation are assumed to remain modest.

The economic growth assumptions have been chosen in order to evaluate the energy, transport and environmental consequences of an economic development that accommodates policy efforts to reduce unemployment and to cope with an ageing population. Still higher economic growth might materialise if the Lisbon economic reform agenda is successfully implemented. On the other hand, with the weak state of the

[7] United Nations (2002) Global Urban Observatory and Statistics Unit of UN-HABITAT (UN Centre for Human Settlements): Human Settlement Statistical Database version 4: Data and forecasts of population, number of households and household size (http://www.unchs.org/habrdd/CONTENTS.html) for EU-15 Member States; Human Settlement Statistical Database version 4 (http://www.unhabitat.org/programmes/guo/guo_hsdb4.asp) for new Member States.

economy seen in the last few years, lower growth rates than those shown in the Baseline are also possible.

The slowdown in economic growth for NMS between 1990 and 2000 (+1.8% pa compared to +2.1% for the EU-15) largely reflects the major reforms of political and economic structures that Central and Eastern European countries (CEEC) have experienced since the early 1990s. These included: industrial restructuring and privatisation; establishment of viable legal structures and regulatory systems; reform of capital markets and trade policies, etc., which in turn induced a deep recession between 1990 and 1993 in all countries except Poland.

The GDP projections for EU-25 Member States are based on Economic and Financial Affairs DG forecasts of April 2005 for the short term (2004-2006)[8] and the long term (2005-2030),[9] adjusted to reflect recent developments, for the horizon to 2030. Furthermore, additional inputs were taken into account from Member States' stability programmes and long-term projections, and the results of the GEM-E3 model.[10] Economic growth is not uniformly distributed across countries, but the convergence of Member States' economies (including NMS) is assumed to continue over the projection period. Furthermore, the integration of new Member States into the European Union is assumed to generate accelerated growth for their economies.

Table 1-3: Evolution of gross domestic product in EU-25, 1990 to 2030

	000 MEuro'00				
	1990	**2000**	**2010**	**2020**	**2030**
EU15	6982	8572	10391	12836	14949
NMS	313	375	555	821	1103
EU-25	7295	8947	10947	13656	16051
	annual growth rate				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU15	2.07	1.94	2.13	1.54	1.87
NMS	1.82	4.01	3.98	3.00	3.66
EU-25	2.06	2.04	2.24	1.63	1.97

Source: EUROSTAT, Economic and Financial Affairs DG, PRIMES.[11]

The Baseline economic outlook of EU-25 is dominated by the evolution of the EU-15 economy. This is because the contribution of new Member States, despite their much faster growth over the projection period (+3.7% pa in 2000-2030 compared to +1.9% pa in EU-15), remains rather limited in terms of overall EU-25 GDP (see Table 1-3). By 2030, NMS GDP reaches 6.9% of EU-25 economic activity compared to 4.2% in 2000 and, consequently, overall economic growth of EU-25 (+2.0% pa) follows closely that of the EU-15.

8 European Commission Economic Forecasts, Spring 2005 (EUROPEAN ECONOMY. No. 2/ 2005. Office for Official Publications of the EC. ISBN92-894-8881-6). Also available at: http://europa.eu.int/comm/economy_finance/publications/european_economy/2005/ee205en.pdf .

9 European Commission, DG-ECFIN "Long Run Labour Productivity and Potential Growth Rate Projections For the EU25 countries up to 2050 (information note for Members of the EPC's working group an ageing populations)", ECFIN/50485/04-EN.

10 The GEM-E3 model has been constructed under the co-ordination of NTUA within collaborative projects supported by DG-RESEARCH involving CES-KULeuven and ZEW.

11 Incorporating results obtained from the GEM-E3 model runs (this applies to all the macroeconomic assumptions).

Table 1-4: Per capita GDP in EU-25

	Euro'00 per capita				
	1990	**2000**	**2010**	**2020**	**2030**
EU15	19089	22674	26600	32295	37490
NMS	4169	5007	7565	11427	15612
EU-25	16549	19754	23589	29101	34198
	annual growth rate				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU15	1.74	1.61	1.96	1.50	1.69
NMS	1.85	4.21	4.21	3.17	3.86
EU-25	1.79	1.79	2.12	1.63	1.85

Source: EUROSTAT, Economic and Financial Affairs DG, PRIMES.

However, the convergence of NMS economies towards EU-15 levels remains far from complete even by 2030 (see Table 1-4). Despite much faster growth of per capita income projected in NMS than in EU-15 (+3.9% pa in 2000-2030 compared to +1.7% pa), per capita GDP in NMS amounts to 41.6% of the corresponding EU-15 figure in 2030 (compared, however, to only 21.8% in 2000).

The projected evolution of sectoral value added in EU-25 is given in Table 1-5. The Baseline assumptions for economic growth of the EU-25 Member States reflect the long established trend of structural changes in developed economies, away from the primary and secondary sectors and towards services and high value-added products (less material and energy-intensive products). However the pace of change is expected to decelerate in the long run.

Table 1-5: Evolution of sectoral value added in EU-25

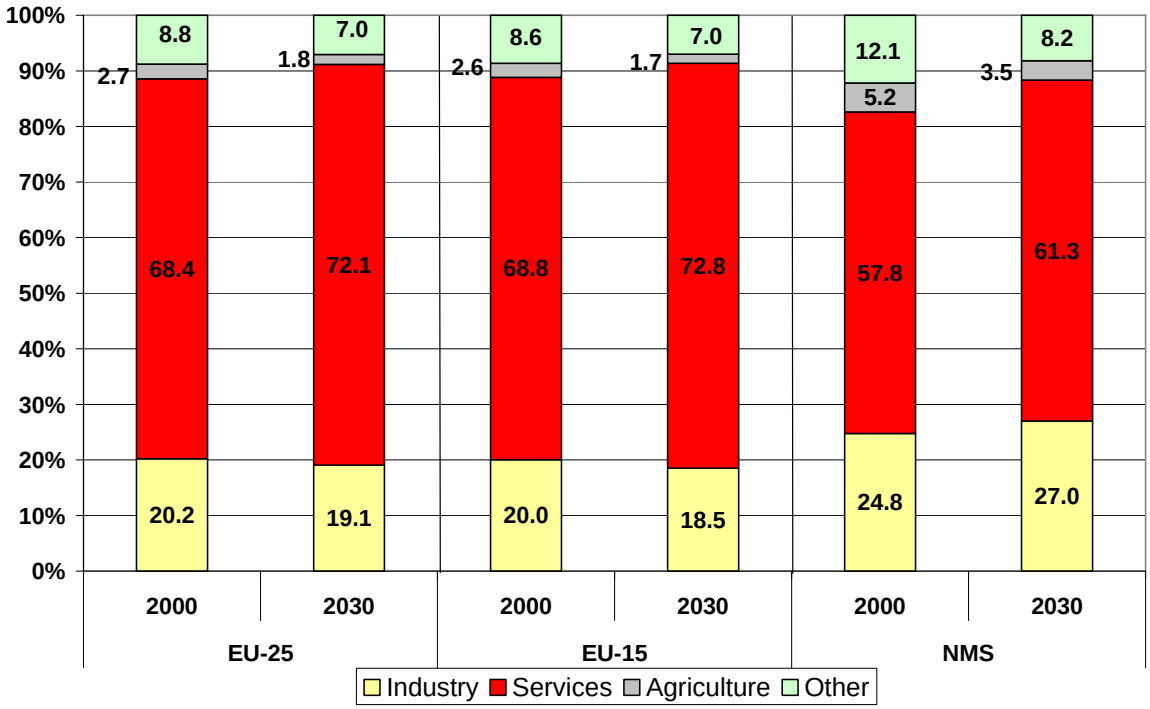
	000 MEuro'00				
	1990	**2000**	**2010**	**2020**	**2030**
Gross Value added	**6797**	**8332**	**10230**	**12785**	**15009**
Industry	1460	1685	1974	2454	2863
Energy intensive	323	380	454	563	653
Non Energy intensive	1137	1305	1520	1892	2210
Construction	430	435	500	604	683
Services	4462	5696	7210	9126	10819
Agriculture	197	221	230	253	269
Energy branch	248	295	316	348	374
	annual growth rate				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Gross Value added	**2.06**	**2.07**	**2.25**	**1.62**	**1.98**
Industry	1.45	1.60	2.20	1.55	1.78
Energy intensive	1.64	1.80	2.17	1.51	1.82
Non Energy intensive	1.39	1.54	2.21	1.57	1.77
Construction	0.10	1.40	1.92	1.24	1.52
Services	2.47	2.39	2.38	1.72	2.16
Agriculture	1.16	0.37	0.96	0.63	0.65
Energy branch	1.77	0.69	0.96	0.72	0.79

Source: EUROSTAT, Economic and Financial Affairs DG, PRIMES.

Services value added increases over the projection period at rates above average, implying a continuous increase of its share in total economic activity (72.1% in 2030 compared to 68.4% in 2000). This increase in market share of services occurs to the detriment of all other sectors of the economy. The market share of industrial activity, which grows at rates slightly below average, declines by 0.9 percentage points over the projection period (from 20.2% in 2000 to 19.1% in 2030). The lowest economic growth is projected for agriculture (+0.65% pa in 2000-2030), while the energy branch and construction sectors are also projected to exhibit a significant decline in terms of market shares, growing by 0.8% pa and 1.5% pa, respectively, to 2030.

As illustrated in Figure 1-1, the existing structural differences between the EU-15 and the NMS economies in 2000, are not projected to be fully eliminated by 2030. The new Member States' economies are projected to remain more reliant on industry, the market share of which is projected to increase from 2000 levels in the horizon to 2030 by 3.5 percentage points compared to a decline by 1.5 percentage points in the EU-15. Thus, in 2030 the market share of industrial activity in the NMS economies is projected to be some 8.5 percentage point higher than in the EU-15; in 2000 industry's share in value added in the NMS exceeded the corresponding share in EU-15 by 4.8 percentage points. Services sector exhibits a strong growth both in the EU-15 and the NMS (+4 percentage points and +3.5 percentage points in 2030 respectively from 2000 levels) with the share of services in the EU-15 being, however, 11.5 percentage points higher than in the NMS by 2030. Agriculture and other economic activities (construction and energy sector) continuously lose market share over the projection period both in the EU-15 and the NMS, however even by 2030 the NMS economies are projected to remain more reliant on such activities (accounting for 11.7% of gross value added in 2030 from 17.3% in 2000) than the EU-15 (8.7% in 2030 compared to 11.2% in 2000).

Figure 1-1: Structure of the EU-25 economy, shares in gross value added 2000, 2030



Source: PRIMES.

The key features of the macroeconomic and demographic outlook of EU-25, EU-15 and NMS (but also Europe-30 including in addition Bulgaria, Romania, Turkey, Norway and Switzerland) as well as sectoral forecasts are presented in Appendix 1.

1.2.3. International fuel prices

The Baseline projections on the evolution of international fuel prices describe a world with relatively abundant oil and gas resources and moderate international energy price increases until 2030, however from relatively high levels already reached in 2005. Compared with the "Trends to 2030" of 2003, energy import prices in this update are

considerably higher. These projections derive from the output of the POLES model.[12] These assumptions on primary energy prices follow from a conventional wisdom view of the development of the world energy system taking into account the rather high price levels seen up to mid 2005 (when the energy modelling for this update started). [13]

Table 1-6: International price assumptions

	Average border prices in the EU-25 ($05/boe)				
	1990	**2000**	**2010**	**2020**	**2030**
Crude oil	32.4	31.3	44.6	48.1	57.6
Natural gas	18.3	16.8	33.9	37.0	44.7
Hard coal	15.4	8.4	12.5	14.1	14.9
	annual growth rate				
		1990-2000	**2000-2010**	**2010-2020**	**2020-2030**
Crude oil		-0.34	3.59	0.76	1.82
Natural gas		-0.88	7.29	0.89	1.91
Hard coal		-5.86	4.04	1.18	0.58

Source: POLES

The evolution of primary fuel prices is illustrated in Table 1-6. Oil prices in this modelling are projected to decrease over the next few years from their high 2005 level of 55US$(2005). The 2010 oil price is projected at 44.6US$(2005), from where it grows smoothly to reach by 2030 57.6US$(2005). Natural gas prices are assumed to reach 33.9US$(2005) per barrel of oil equivalent in 2010 from 30.3 US$(2005) in 2005. This means a medium term decrease in the oil–gas price gap. With increasing gas-to-gas competition gas prices are decoupled from oil prices in the second part of the projection period as the difference between both prices becomes larger. Coal prices decline from 13.3 US$(2005) in 2005 to reach 12.5 US$(2005) in 2010, and exhibit a smooth increase thereafter to reach 14.9 US$(2005) in 2030.

1.2.4. Policy assumptions

The Baseline scenario assumes that agreed policies addressing economic actors in the EU-25 Member States, as known by the end of 2004, will continue. It presumes that all current policies and those in the process of being implemented at the end of 2004 will continue in the future. However, in the Baseline scenario it is not assumed that the indicative targets, as set out in various EC Directives (renewables electricity Directive 2001/77, Directive 2003/30 on renewable energy in transport and any additional follow-up Directives, etc.) will be necessarily met. The numerical values for these indicators are outcomes of the modelling; they reflect implemented policies rather than targets.

This approach allows the Baseline scenario to be considered as the benchmark against which a number of alternative policies can be judged, assisting policy analysts in the evaluation of alternative measures. Hence, the Baseline scenario takes into account:

- Technological progress, induced both by economic growth and by modernisation of installations in all sectors of the economy, thereby improving the efficiency of the energy system.

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[12] The POLES model is a global sectoral model of the world energy system. The development of the POLES model has been partially funded under the Joule II and Joule III programmes of DG XII of the European Commission. Since 1997 the model has been fully operational and can produce detailed long-term (2030) world energy and CO_2 emission outlooks with demand, supply and price projections by main region. The model splits the world into 26 regions. For the model design see the model reference manual: *POLES 2.2. European Commission, DG XII, December 1996.*

[13] For comparison, oil prices in this baseline are similar to those used in the DG RTD sponsored update of the WETO project (World Energy Technology Outlook), but higher than those assumed in the 2005 update of the IEA World Energy Outlook

- The restructuring of the sectoral pattern of economic growth, which gradually shifts away from traditional energy-intensive products and concentrates on high value added activities, thereby reducing energy intensity.
- The effects from restructuring of markets through the liberalisation of electricity and gas in the EU, which proceeds in line with EC directives; liberalisation is assumed to be fully implemented in the period to 2010.[14] Completion of the internal electricity and gas markets is also assumed to take place in the new Member States.
- The restructuring in power and steam generation, which is enabled by mature gas-based power generation technologies that are efficient, involve low capital costs and are flexible regarding plant size, co-generation and independent power production.
- Changes in primary energy production patterns (especially in many new Member States), characterised by the closure of unprofitable coalmines that took place in the 1990s and which is expected to continue to some extent over the next few decades.
- Energy policies that aim at promoting renewable energy (wind, small hydro, solar energy, biomass and waste) and co-generation are assumed to continue, involving subsidies on capital costs and preferential electricity selling prices. Rather than imposing the indicative targets of the EC renewables electricity Directive[15] for each Member State, the Baseline includes policy measures in view of higher renewables deployment in individual countries.
- Continuation of energy efficiency measures in the Member States.
- Ongoing infrastructure projects involving the introduction of natural gas. These are assumed to be completed in the next few years.
- Differences in current policies of EU-25 Member States as regards nuclear capacity, taking into account policy decisions as regards nuclear phase out in Belgium, Germany and Sweden; and plans concerning nuclear plant refurbishment/closure, as already agreed or under negotiation with the European Commission for new Member States.
- The effects arising from the voluntary agreement reached between the European Commission and the European automobile industry on specific CO_2 emissions from new cars (followed in 1999 by similar agreements with Korean and Japanese car manufacturers).[16]

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[14] This country-by-country modelling has focused on the dynamics of the energy system within a country, while considering trade in fuels between countries. The analysis has fully taken into account the economic opportunities of electricity and gas trade within the EU Internal Energy Market as well as the engineering and operating constraints of the European transmission system as this evolves in relation to the completion of new interconnectors as planned in the context of the Trans-european Energy Networks. The extension and stabilisation of the UCTE system has also been considered. The endogenous treatment of electricity and gas imports and exports is a new feature of the PRIMES model (PRIMES ver.2005)

[15] European Commission Directive 2001/77/EC of the European Parliament and of the Council on *The Promotion of Electricity Produced from Renewable Energy Sources in the Internal Electricity Market*. Brussels, 27 September 2001.

[16] European Commission (2000) *Commission recommendations on the reduction of CO_2 emissions from passenger cars*, Official Journal of the European Communities, No L 40/49-13.2.99, L 100/57-20.4.2000 and L 100/55-20.4.2000. Also available at: http://europa.eu.int/comm/environment/co2/co2_agreements.htm

- Concerning the use of biofuels in transportation, it was assumed that all countries would follow EU rules[17] sooner or later. The impact of blending gasoline and diesel with biofuels on final consumer prices was assumed to be negligible, since higher fuel production costs will probably be offset by tax reductions scheduled to be implemented on these fuel blends.

The establishment of an emission trading regime in Europe[18] is included in the Baseline scenario assuming a permit price of 5 €00/t CO_2 (constant from 2010 onwards), which reflects the expected medium-term price level of the emerging international carbon market (including Clean Development Mechanism) and the EU ETS being connected to it; this assumption can also be justified by a multitude of other diverging influences.[19]

In line with the Baseline philosophy, policy initiatives related to climate change are included only to the extent that they are agreed policy measures. For the purposes of the study it is assumed that no specific new policies and measures aimed at meeting Kyoto targets in 2008-2012, and possible more severe ones in the future, are implemented over the next 25 years. This assumption may be judged somewhat unrealistic; but it does help maintain the benchmark character of the reference case, allowing it to serve as a Baseline for comparisons with alternative CO_2 abatement policy scenarios.

However, it is assumed that stringent regulation for acid rain pollutants continues, especially for large combustion plants. Similarly, other clean air policies are assumed to continue.

1.2.5. Committed investment and decommissioning in power generation

The Baseline scenario assumes that all capacity expansion and decommissioning plans in power generation, already decided, would take place as indicated in the EURPROG report of EURELECTRIC and other statistical sources (e.g. EPIC)[20]. Beyond 2010 plant decommissioning occurs on the basis of technical lifetimes and agreed policies on nuclear phase-out.

1.2.6. Other Assumptions

The discount rate plays an important role within the PRIMES model. It is a crucial element in the determination of investment decisions by economic agents regarding

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17 European Commission Communication COM(2001) 547 of the European Commission of 07/11/01 on an action plan and two proposals for Directives to foster the use of alternative fuels for transport, starting with the regulatory and fiscal promotion of biofuels. Also at: http://europa.eu.int/comm/energy/library/comm2001-547-en.pdf

18 European Commission Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emissions allowance trading within the Community and amending Council Directive 96/61/EC.

19 In Spring 2006 the permit price stood at around 25 €00/t CO2 but nearly all permits have been given out for free ("grandfathering"). Real costs are incurred only to the extent that permits actually need to be bought for a marginal part of the activity of trading sectors. However, holders of permits consider them increasingly as property rights (given that they could sell them instead of using them); and thus these opportunity costs increase electricity prices. On the other hand, as no real costs are involved for permits given out for free, the "windfall profit" from permits can be considered as a "subsidy" on capital investment (baseline has much capital expansion in power generation putting upward pressure on prices); this might be mitigated through "windfall profit". Furthermore, permit prices may decrease once emissions registries in all Member States are full up and running, as well as, through higher use of project based Kyoto instruments (such as CDM and Joint Implementation).

20 EURPROG report of 2005. The Epic database, developed by ESAP SA, gives a technical description, unit by unit, of power generation capacity. For EU-25 it contains more than 26,500 units above 100 kW. More information is available at www.esap.be.

energy using equipment. Three (real) rates are currently used within the model. The first, used mostly for large utilities, is set at 8%; the second, used for large industrial and commercial entities, is set at 12%; the third, used for households in determining their spending on transportation and household equipment, is set at 17.5%.

1.3. Baseline scenario results[21]

1.3.1. Main Findings

Between 1990 and 2000 primary energy needs grew by 6.3% in the EU-25 energy system exhibiting a strong decoupling from GDP growth that reached 22.7%, with energy intensity of the EU-25 energy system (expressed as primary energy demand per unit of GDP) improving at a rate of 1.4% pa in 1990-2000. In the same period CO_2 emissions[22] decreased by -2.7% implying a significant improvement in the carbon intensity (-0.9% pa in 1990-2000) of the EU-25 energy system. The changes in the fuel mix during this decade, in combination to the restructuring of CEEC economies were the key driver for this improvement.

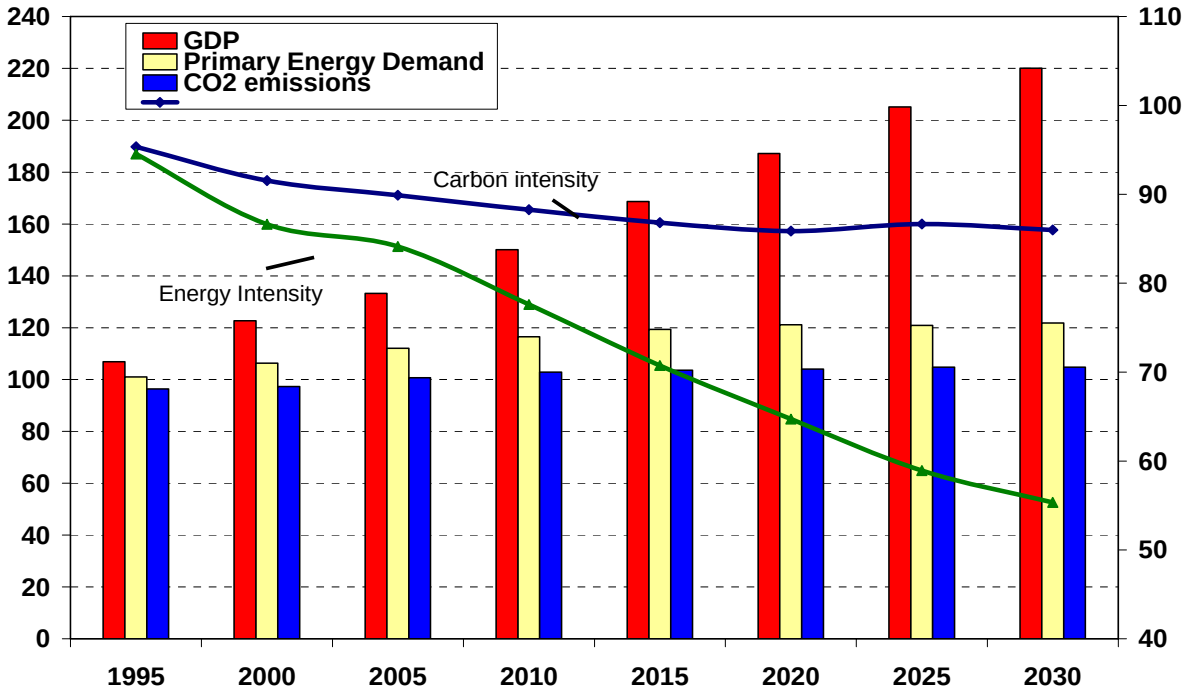
The results of the Baseline scenario show that, despite the evidence of some saturation for some energy uses in the EU-25, energy demand is expected to continue to grow, albeit at rates significantly lower than those experienced in the recent past.

Figure 1-2 illustrates the links between GDP, energy use and CO_2 emissions growth from 1990 to 2030 (with energy and carbon intensity plotted against the secondary axis).

[21] Aggregate results by country and by group of countries (EU-25, EU-15, NMS, EU-27, EU-28 and Europe-30) can be found in Appendix 2.

[22] It should be noted here that, within the PRIMES model, aviation includes both national and international flights from the EU, without distinguishing between the two (data on the split between domestic and international aviation are not currently available) following the corresponding EUROSTAT convention as regards energy consumption in aviation. Consequently total CO_2 emissions from aviation are accounted for at the level of each Member State. However, consumption of international maritime bunkers is excluded from the analysis according to EUROSTAT conventions; consequently it is not accounted for in national CO_2 emissions. According to the Guidelines for National Greenhouse Gas Inventories of the Intergovernmental Panel on Climate Change (IPCC), both emissions based upon fuel sold to aircraft engaged in international transport and to international maritime fleets should not be included in national totals, but reported separately.

Figure 1-2: EU-25 primary energy indicators (index 1990=100), 1995-2030



Source: PRIMES.

Primary energy demand in the EU-25 is projected to increase at an annual rate of 0.5% in 2000 to 2030 compared to an annual growth rate of 2.0% for GDP, implying that the energy intensity of the EU-25 energy system will improve at a rate of 1.5% pa in 2000-2030. CO_2 emissions are foreseen to grow throughout the projection period, but at lower rates than those for primary energy demand. In 2010, CO_2 emissions are projected to exceed the 1990 level by +2.8% (whereas the corresponding growth for primary energy needs reaches +16.5%). In 2030 CO_2 emissions exceed the 1990 level by 4.7% (+21.8% for primary energy demand). Nevertheless, the strong decoupling between EU-25 energy demand and CO_2 emissions, which occurred between 1990 and 2000, is not projected to continue in the long run with a near stabilisation of carbon intensity from 2015 onwards (improving at rate of 0.2% pa in 2000-2030) as a reflection of a declining nuclear share that is not compensated sufficiently by additional renewables penetration.

1.3.2. Primary Energy Needs

Total indigenous production of primary energy in EU-25 is expected to decline continuously over the projection period (-0.9% pa in 2000-2030). As illustrated in Table 1-7 the decline is more pronounced in fossil fuels production while, in contrast, renewable energy forms are expected to grow over the projection period. Indigenous production of solid fuels declines by some 41% in the 2000-2030 period (-53% for coal, -17% for lignite) driven by the increasing competitiveness of imported coal and natural gas. Crude oil and natural gas production also experiences a significant decline (-73% and -59% respectively from 2000 levels by 2030) due to the exhaustion of currently exploited reserves.

Table 1-7: Primary production of fuels in EU-25

	Mtoe				
	1990	**2000**	**2010**	**2020**	**2030**
Solid Fuels	351.6	204.1	154.5	131.1	120.2
Hard coal	237.3	136.1	97.2	76.8	63.6
Lignite	114.4	68.0	57.3	54.3	56.6
Liquid Fuels	120.4	163.6	117.2	53.0	43.4
Natural Gas	139.7	196.7	172.2	98.3	79.8
Nuclear	196.9	237.7	248.8	228.6	210.8
Renewable En. Sources	68.9	96.5	143.8	195.5	230.8
Total	**877.5**	**898.6**	**836.4**	**706.5**	**685.1**
EU-15	707.9	761.6	709.6	580.5	551.7
NMS	169.6	137.0	126.8	126.0	133.4
	Annual Growth Rate (%)				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Solid Fuels	-5.3	-2.7	-1.6	-0.9	-1.8
Hard coal	-5.4	-3.3	-2.3	-1.9	-2.5
Lignite	-5.1	-1.7	-0.5	0.4	-0.6
Liquid Fuels	3.1	-3.3	-7.6	-2.0	-4.3
Natural Gas	3.5	-1.3	-5.4	-2.1	-3.0
Nuclear	1.9	0.5	-0.8	-0.8	-0.4
Renewable En. Sources	3.4	4.1	3.1	1.7	3.0
Total	**0.2**	**-0.7**	**-1.7**	**-0.3**	**-0.9**
EU-15	0.7	-0.7	-2.0	-0.5	-1.1
NMS	-2.1	-0.8	-0.1	0.6	-0.1

Source: PRIMES.

Nuclear production is projected to experience limited growth to 2010. Thereafter it is likely to decline steeply (-15% between 2010 and in 2030), as a result of the nuclear phase-out policies decided in certain EU-15 Member States. In other countries the decommissioning of nuclear plants at the end of their lifetime is not always compensated by new nuclear investment. As regards the use of renewable energy forms in the EU-25 energy system, policy measures and technological progress are the key drivers for the significant boost projected (+140% in 2000-2030). By 2015, renewable energy forms become the second most important indigenous energy source (after nuclear) in the EU-25 energy system and from 2025 onwards the most important one.

Primary energy demand in the EU-25 rose some 6.3% between 1990 and 2000 with very different trends in EU-15 (+10%) and NMS (-16.6%). In new Member States, the slowdown of economic activity in CEEC, the massive closure of old energy-inefficient factories and increasing energy prices progressively aligned to world energy market levels, led to a rapid decline of primary energy needs in the nineties. It is important to note that, before 1990, the CEEC were characterised by the world's highest energy intensity after the Former Soviet Union. This situation resulted from an industrial structure based on energy-intensive industries (steel, cement, chemicals) using energy inefficiently; and very low energy prices, as energy consumption was largely supplied from the Former Soviet Union at prices usually well below world market levels. New Member States accounted in 2000 for some 11.9% of primary energy needs in EU-25 (from 15.2% in 1990) compared to 16.5% of the population and 4.2% of GDP, clearly reflecting the great inefficiencies that still prevailed in the NMS energy system.

In the Baseline scenario primary energy demand is projected to grow by 14.6% in EU-25 between 2000 and 2030 (see Table 1-8), with energy needs growing significantly faster in NMS (+45.6%) compared to the EU-15 (+10.4%). The increase in primary energy needs is more pronounced in the short term (+9.6% in 2010 from 2000 levels) as sluggish economic growth in recent years limits the scope for energy intensity improvements (only +1.1% pa in 2000-2010 compared to +1.5% pa in 2000-2030). In the long run consumption virtually stabilises reflecting a more service oriented economy, low economic growth, saturation effects in the demand side and stagnating population. By 2030 primary energy demand in NMS is projected to reach 15.1% of overall energy

needs in EU-25. Thus, the evolution of EU-25 primary energy needs is still dominated by prevailing trends in the EU-15 energy system over the projection period.

Table 1-8: Primary energy demand in EU-25

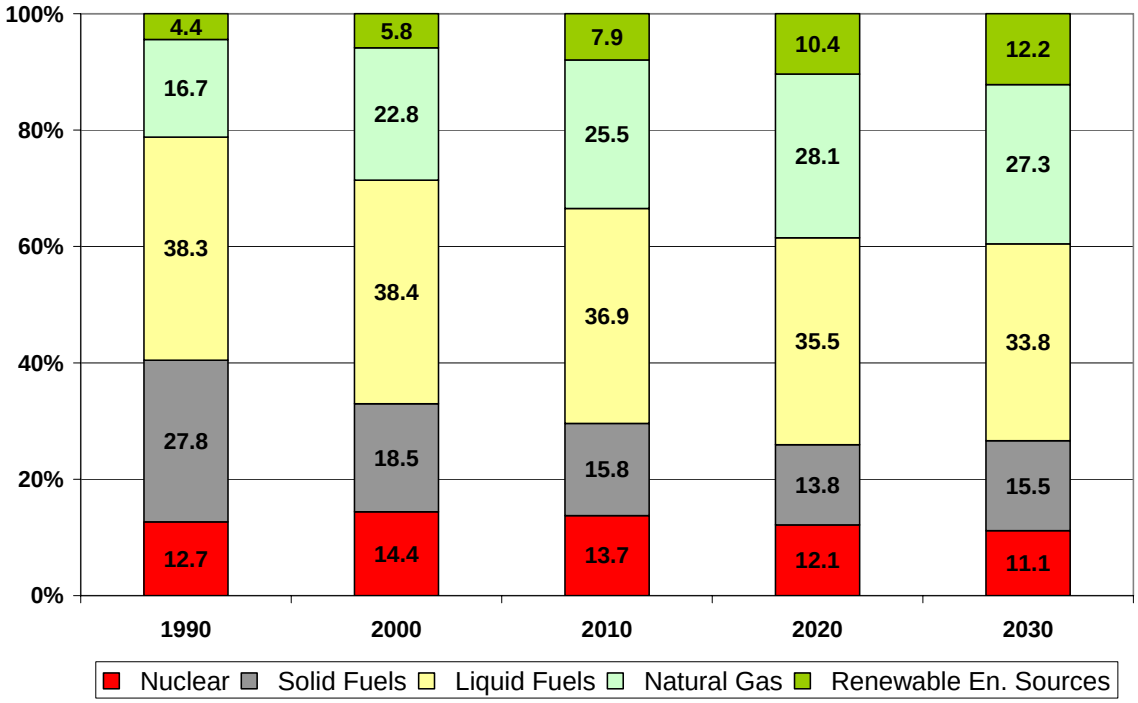
	Mtoe				
	1990	**2000**	**2010**	**2020**	**2030**
Solid Fuels	431.9	306.5	286.8	259.5	293.1
Liquid Fuels	595.7	634.7	668.7	669.9	640.5
Natural Gas	260.5	376.3	462.2	529.7	517.8
Nuclear	196.9	237.7	248.8	228.6	210.8
Renewable En. Sources	68.9	96.5	143.8	195.5	230.8
Total	**1556.2**	**1653.8**	**1812.5**	**1885.3**	**1895.2**
EU-15	1320.0	1456.9	1587.0	1623.8	1608.5
NMS	236.2	196.9	225.5	261.5	286.7
	Annual Growth Rate (%)				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Solid Fuels	-3.4	-0.7	-1.0	1.2	-0.1
Liquid Fuels	0.6	0.5	0.0	-0.4	0.0
Natural Gas	3.7	2.1	1.4	-0.2	1.1
Nuclear	1.9	0.5	-0.8	-0.8	-0.4
Renewable En. Sources	3.4	4.1	3.1	1.7	3.0
Total	**0.6**	**0.9**	**0.4**	**0.1**	**0.5**
EU-15	1.0	0.9	0.2	-0.1	0.3
NMS	-1.8	1.4	1.5	0.9	1.3

Source: PRIMES.

Natural gas and renewable energy forms are projected to remain the fastest growing fuels in the EU-25 energy system (as was the case during the last decade), growing at rates 2 and 6 times faster respectively than overall energy needs over the projection period (+1.1% pa in 2000-2030 for natural gas; and +3.0% pa for renewable energy forms). Primary energy demand for liquid fuels remains rather stable over the projection period (+1% in 2030 from 2000 levels). Solid fuels, after a strong decline to 2020, are projected to regain some market share in the EU-25 energy system beyond 2025 as a result of the increasing competitiveness of imported coal and also nuclear plant decommissioning. By 2030, primary energy demand for solid fuels is projected to come close to that observed in 2000 (-4.4% from 2000 levels in 2030). Novel energy forms, such as hydrogen and methanol, are not projected to make significant inroads in the EU-25 energy system in the period to 2030 under Baseline conditions.

In the Baseline, the EU-25 energy system dependence on fossil fuels is projected to exhibit a significant decline, combined, in addition, with significant changes occurring in the fuel mix (see Figure 1-3). Following a substantial decline during the last decade (from 27.8% of primary energy needs in 1990, down to 18.5% in 2000), the share of solid fuels is projected to decline further to 2020 (accounting then for 13.8% of primary energy needs), regaining some market share thereafter (15.5% in 2030). Liquid fuels are also projected to exhibit a modest decline, with their market share reaching 33.8% in 2030 compared to 38.4% in 2000. In contrast natural gas, spurred by its rapid penetration both on the demand and the supply sides, accounts by 2030 for 27.3% of primary energy needs (+4.6 percentage points compared to 2000 levels), with a peak share of 28.1% observed, however, in 2020. Overall, in the Baseline case, the share of fossil fuels is projected to reach 76.6% of primary energy demand in the EU-25 energy system by 2030 compare to 79.7% in 2000.

Figure 1-3: Structure of primary energy demand in EU-25.



Source: PRIMES.

As regards non fossil fuels, nuclear energy accounts for 11.1% of primary energy demand in 2030 (compared to 14.4% in 2000) following the political decisions on nuclear-phase out in certain old Member States and the closure of plants with safety concerns in some new Member States, and the decommissioning of old nuclear power plants at the end of their lifetimes with a default value of 40 years in this modelling exercise. Nevertheless, high fossil fuel prices encourage significant investment in new nuclear power stations (including the new EPR type) in several Member States. The share of renewable energy forms increases significantly from 5.8% of primary energy demand in 2000 to reach 12.2% in 2030. It should be recalled that the Baseline models policy measures in support of renewables but does not assume that indicative targets on renewables are necessarily met (e.g. renewables electricity Directive of 2001).

Table 1-9: Import dependency in EU-25

	%				
	1990	**2000**	**2010**	**2020**	**2030**
Solid fuels	17.5	30.8	46.1	49.5	59.0
Liquid fuels	80.9	76.4	83.7	92.7	93.8
Natural gas	47.5	49.6	62.8	81.4	84.6
Total	**44.7**	**47.2**	**55.0**	**63.5**	**64.9**
EU-15	47.5	49.5	56.6	65.4	66.8
NMS	28.7	30.1	44.1	52.0	53.7

Source: PRIMES.

The combined effect of increasing primary energy demand (in absolute terms) for fossil fuels and declining primary production results in a significant growth of **import dependency** for the EU-25 energy system from 47.2% in 2000 up to 64.9% in 2030 (see Table 1-9), an increase of close to 18 percentage points. By 2030, 93.8% of EU-25 oil demand (including bunkers) will be satisfied by imports compared to 76.4% in 2000. Oil imports are projected to continue consisting mainly of crude oil, as net imports of oil products will remain marginal. The EU-25 external dependence in terms of natural gas is projected to increase sharply, reaching 84.6% by 2030 compared to 49.6% in 2000. As regards solid fuels, though import dependency under Baseline assumptions is also

projected to grow significantly, it remains at lower levels compared to oil and gas, reaching by 2030 59.0% - up from 30.8% in 2000.

Import dependency in the EU-15 energy system is projected to reach 66.8% in 2030. The current position of new Member States, with an import dependency of 30.1% in 2000 compared to 49.5% in the EU-15 allows for a less pronounced growth of import dependency in the NMS reaching 53.7% in 2030. However, in percentage point terms the growth of import dependency in NMS is significantly higher than in the EU15 (+23.6 percentage point in 2030 from 2000 levels compared to +17.3 percentage points in the EU15). Faster growing energy needs in NMS, combined with a steep decline of indigenous solid fuels production, are the main reasons for this trend.

The increasing dependence of the EU-25 energy system on energy imports (close to two thirds of primary energy needs in 2030) raises significant concerns as regards the security of supply in the long run. This is especially the case for natural gas given the increasing dependence upon gas imports from a limited number of suppliers and the need for long distance transport infrastructures, as well as the increasing natural gas demand in other world regions such as Asia. In the oil market, supply is increasingly concentrated in the Middle East while North Sea production declines. On the other hand, the world coal market remains well diversified with abundant supplies.

1.3.3. Final Energy Demand projections

Final demand sectors have undergone significant changes both in the EU-15 and the NMS during the last decade. In EU-15, changes in the 1990s related mainly to shifts towards less energy-intensive manufacturing industries and services, higher standards of living, associated with widespread ownership of private cars and domestic appliances, increasing comfort levels in space heating and cooling, and changes in the fuel mix away from solid and liquid fuels towards gas and electricity uses. As regards new Member States, the restructuring of Central and Eastern European countries' economies between 1990 and 2000, including the massive closure of old energy-inefficient factories and increasing energy prices progressively aligned to world energy market levels, explain the changes on the demand side.

Between 1990 and 2000 final energy demand in EU-25 increased by 7% with the EU-15 exhibiting growth of 12%, whilst energy demand in NMS declined by -20%. Under Baseline assumptions, the factors that prevailed during the last decade in EU-15 are assumed to continue to do so in the future, while they are also likely to become important for NMS as the restructuring in CEEC progresses and economic conditions improve, further stimulated by the process of convergence.

Final energy demand in EU-25 is projected to increase by 25.1% between 2000 and 2030, well above that projected for primary energy needs (+14.6%). This difference reflects the significant efficiency gains in power generation expected under Baseline assumptions. Overall final energy demand growth is significantly lower in the EU-15 than in the NMS regions (+19.9% compared to +65.6% respectively in 2000-2030), exhibiting, in addition, significant differences in terms of growth patterns (see Table 1-10). Thus, while demand growth in EU-15 is projected to peak in the next decade and to decelerate afterwards, energy demand in NMS is projected to exhibit similar levels of growth between 2010 and 2020 compared to the present decade and then to slow down in the long run. The main drivers for these different growth patterns include the different economic evolution between EU-15 and NMS and the likely faster development of saturation effects for a number of energy uses beyond 2010 in the EU-15.

1.3.3.1. Final energy demand by sector

The evolution of energy demand by sector for the EU-25 energy system is illustrated in Table 1-10. Between 1990 and 2000, structural changes in the EU-15 industrial sectors, combined with the impacts of industrial restructuring in CEEC, led to a decline of energy

demand in **industry** by -3%. In the same period industrial value added increased by 15.4% with implied intensity gains in the sector reaching 1.7% pa. In the period 2000-2030, energy demand in EU-25 industry is projected to grow by 18.6% driven by higher economic growth (sectoral value added increases by 70% between 2000 and 2030). Energy intensity gains remain significant over the projection period (+1.2% pa) driven by structural changes towards less energy-intensive manufacturing processes but also by the exploitation of energy saving options; changes in the fuel mix towards fuels allowing for higher efficiency in use also contribute to this development.

Table 1-10: Final energy demand in EU-25 by sector

			Mtoe		
	1990	**2000**	**2010**	**2020**	**2030**
Industry	341.1	330.1	356.4	382.4	391.6
En. intensive industries	216.8	211.6	220.8	228.4	224.9
Other industrial sectors	124.3	118.4	135.7	154.0	166.6
Domestic	407.6	432.3	500.5	550.6	576.6
Residential	261.0	273.3	312.0	338.7	351.3
Tertiary	146.6	159.0	188.5	211.9	225.3
Transport	273.2	333.0	381.1	405.5	402.3
Total	**1021.9**	**1095.4**	**1238.0**	**1338.5**	**1370.5**
EU-15	866.5	970.7	1086.7	1155.1	1163.9
NMS	155.5	124.7	151.3	183.4	206.5
			Annual Growth Rate (%)		
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Industry	-0.3	0.8	0.7	0.2	0.6
En. intensive industries	-0.2	0.4	0.3	-0.2	0.2
Other industrial sectors	-0.5	1.4	1.3	0.8	1.1
Domestic	0.6	1.5	1.0	0.5	1.0
Residential	0.5	1.3	0.8	0.4	0.8
Tertiary	0.8	1.7	1.2	0.6	1.2
Transport	2.0	1.4	0.6	-0.1	0.6
Total	**0.7**	**1.2**	**0.8**	**0.2**	**0.7**
EU-15	1.1	1.1	0.6	0.1	0.6
NMS	-2.2	2.0	1.9	1.2	1.7

Source: PRIMES.

Energy demand in the **tertiary** sector exhibited a limited increase in the last decade (+0.8% pa). However, demand growth in the sector was much slower than that of economic activity, which increased by 2.4% pa in 1990-2000, implying energy intensity gains that reached up to 1.6% pa. In the Baseline scenario energy demand in the tertiary sector is likely to continue growing over the projection period (+1.2% pa in 2000-2030) while the expected continuation of the restructuring of the EU-25 economy towards services leads to an economic growth of 2.1% pa. The improvement of energy intensity in this sector (energy consumption per unit of value added) is projected to reach +0.9% pa in 2000-2030.

The EU-25 **residential** sector also exhibited limited growth in terms of energy demand (+0.5% pa) between 1990 and 2000. The restructuring of CEEC economies (involving a more rational use of energy in the context of increasing energy prices), technological improvements (both in buildings and equipment), changes in the fuel mix, and saturation effects in many end uses for the EU-15 are some of the reasons for the limited growth of household energy needs. In the period to 2010, energy demand in households is projected to grow by 1.3% pa, but to decelerate afterwards to 0.8% pa in 2010-2020 and 0.4% pa in 2020-2030. The implied energy intensity improvement[23] in the residential sector reaches +1.1% pa in 2000-2030 compared to +1.5% pa observed in the last decade.

[23] Energy intensity in households is computed using per capita income as the denominator.

The **transport sector** exhibited the highest demand growth between 1990 and 2000 (+2.0% pa), accounting for some 80% of the total increase of EU-25 final energy demand. Following the strong decline of energy needs in industry in the same decade, the transport sector (excluding marine bunkers) became by 2000 the largest demand side sector - accounting for 30.4% of final energy demand compared to 26.7% in 1990. The predominant role of the transport sector in final energy demand growth is projected to continue under Baseline assumptions in the horizon to 2010 (+1.4% pa). However beyond that period the combined effect of decoupling of transport activity[24] from economic growth (especially in passenger transport in EU-15) and technological progress lead to a deceleration of transport demand growth in 2010-2020 (+0.8% pa) and even a decline of transport demand energy needs in 2020-2030 (-0.1% pa). Thus, the transport sector is projected to be the third fastest growing demand sector over the projection period (+20.8% in 2000-2030 compared to +18.6% in industry, +41.7% in the tertiary and +28.5% in the residential sector). Transport in EU-25 is expected to account for 30% of final energy demand in 2030, remaining still the largest demand side sector.

1.3.3.2. Final energy demand by fuel

The demand side of the EU-25 energy system has undergone significant changes in terms of the fuel mix during the last decade as a result of shifts towards the use of more efficient energy forms. Demand for solid fuels declined by more than 50% between 1990 and 2000 while demand growth for liquid fuels (+0.9% pa) was significantly lower than that in the transport sector (+2.0% pa), implying a decline in oil consumption in all other final demand sectors. Natural gas (growing by 2.3% pa - a rate more than three times higher than average) and electricity (+1.8% pa) made some significant inroads on the demand side during the last decade, substituting for solids and liquid fuels. Demand for biomass and waste also increased at rates above average, although still representing a rather small proportion of final energy needs in 2000; while demand for distributed steam exhibited a growth at rates slightly above average in the last decade.

Under Baseline assumptions these trends are also projected to prevail in the future evolution of final energy demand in EU-25 (see Table 1-11). Liquid fuels are expected to remain the main energy carrier in the EU-25 energy demand sectors over the projection period, but growing at rates well below average, constantly losing market share. By 2030 some 77 % of liquid fuels demand is projected to arise from the transport sector, compared to close to 65% in 2000. Solid fuels demand declines over the projection period and, by 2030, they become an obsolete energy form in final use except for some heavy industries. Demand for biomass and waste grows over the projection period at rates above average as the increasing use in industry more than counterbalances the fall in the number of rural households. Electricity demand is projected to exhibit the highest growth among the main energy carriers in the demand side over the period (+1.5% pa in 2000-2030). However, the projected electricity demand growth (+1.5% pa) can be considered as modest given that, historically, electricity use grew at rates above GDP. Saturation effects, technological progress and the exploitation of energy savings options are the main reasons limiting electricity demand growth in the Baseline scenario. Demand growth for natural gas (+0.8% pa in 2000-2030) decelerates in the long run due to some saturation in space heating, limitations in infrastructure but also technological factors, such as the lack in widespread availability of gas as a transport fuel. The exploitation of cogeneration opportunities leads to significant growth of demand for distributed steam (+1.1% pa) over the outlook period. Novel final energy forms, such as hydrogen and ethanol, do not progress under Baseline assumptions primarily because of

[24] The projections for passenger and freight transport activity, which are a key driver for energy demand, stem from the "partial implementation scenario" of the ASSESS study prepared for DG-TREN in the context of the mid-term review of the Transport White Paper.

cost considerations. Finally, other renewable energy forms, such as solar energy used in water heaters, grow quite rapidly (+5.7% pa in 2000-2030) but they remain insignificant as a proportion of overall final consumption.

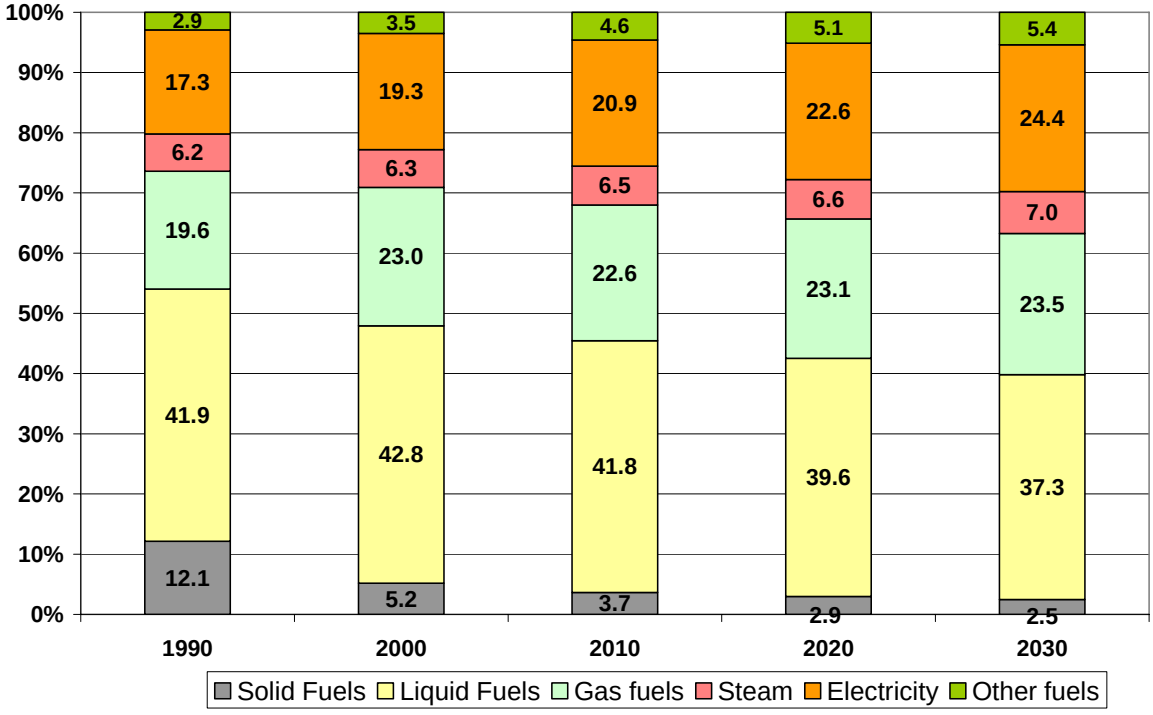
Table 1-11: Final energy demand in EU-25 by fuel

			Mtoe		
	1990	**2000**	**2010**	**2020**	**2030**
Solid Fuels	123.9	56.6	45.2	39.4	34.0
Liquid Fuels	428.1	468.3	517.3	529.9	511.8
Gas fuels	200.2	251.9	279.2	309.7	321.4
Heat (from CHP/Dist. Heating)	63.1	68.7	80.2	87.7	95.3
Electricity	176.5	211.4	259.3	302.9	334.0
New fuels (hydrogen etc.)	0.0	0.0	0.3	1.2	1.8
Biomass-waste	29.6	37.7	54.6	64.8	67.8
Other renewables	0.5	0.8	1.9	2.9	4.1
Total	**1021.9**	**1095.4**	**1238.0**	**1338.5**	**1370.5**
			Annual Growth Rate (%)		
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Solid Fuels	-7.5	-2.2	-1.4	-1.5	-1.7
Liquid Fuels	0.9	1.0	0.2	-0.3	0.3
Gas fuels	2.3	1.0	1.0	0.4	0.8
Heat (from CHP/Dist. Heating)	0.9	1.6	0.9	0.8	1.1
Electricity	1.8	2.1	1.6	1.0	1.5
New fuels (hydrogen etc.)	-	-	13.4	4.6	-
Biomass-waste	2.4	3.8	1.7	0.5	2.0
Other renewables	5.2	9.1	4.5	3.7	5.7
Total	**0.7**	**1.2**	**0.8**	**0.2**	**0.7**

Source: PRIMES.

The changes of the fuel mix in final demand sectors in the Baseline are illustrated in Figure 1-4.

Figure 1-4: Structure of Final Energy Demand by fuel in EU-25.



Source: PRIMES.

By 2030 solid fuels account for 2.5% of energy needs on the demand side, compared to 5.2% in 2000 and 12.1% in 1990. Oil is also projected to lose market share dropping to 37.3% in 2030 from 42.8% in 2000. It should be noted here that part of oil consumption

refers to biofuels blended in gasoline and diesel oil used for transport purposes as a result of the implementation of the biofuels Directive. Under baseline conditions the biofuels share in 2010 rises strongly to almost 4% of gasoline and diesel oil consumption in the transport sector - however, falling somewhat short of the indicative target of 5.75. Nevertheless, this target would be nearly met in 2015 (5.5%) and the share continues increasing up to 2030 to reach 8.3%. Thus, biofuels account for 1% of final energy demand in 2010 (from 0.05% in 2000) rising to 1.7% in 2020 and 2.0 in 2030.

The share of gas rises to 23.5% by 2030, while that of distributed steam reaches 7.0% by 2030 (from 6.3% in 2000) because of increasing use of steam from co-generation plants. The most notable change is the increase by 5.1 percentage points in the share of electricity though, even by 2030, it accounts for less than a quarter of final energy demand.

1.3.4. Electricity and steam generation

1.3.4.1. Electricity and steam demand

As discussed in the preceding section, demand for electricity will exhibit growth at rates well above average over the projection period. The increasing number of processes, appliances and applications that can use energy only in the form of electricity, but also issues related to the favourable characteristics of electricity (easy controllability, cleanliness at the point of use, etc.), lead to the increasing use of electricity in the EU-25 energy system. This projection is in line with the well-established long-term trend towards increased electrification in most sectors of developed economies.

Table 1-12: Electricity requirements by sector in EU-25[25]

			TWh		
	1990	**2000**	**2010**	**2020**	**2030**
Industry	921.5	1042.2	1199.9	1318.5	1396.5
Residential	568.7	694.6	880.5	1097.5	1272.3
Tertiary	502.7	651.9	856.2	1032.4	1144.4
Transports	59.1	68.8	78.7	73.9	71.0
Energy sector	268.7	267.9	298.8	312.2	317.2
Trans. and distr. Losses	160.4	200.3	195.1	195.9	190.7
(Net imports)	25.4	24.9	26.0	24.7	25.6
Electricity generation	**2455.7**	**2900.8**	**3483.2**	**4005.8**	**4366.6**
EU-15	2138.9	2576.5	3082.7	3484.7	3735.4
NMS	316.7	324.3	400.4	521.0	631.2

			Annual Growth Rate (%)		
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Industry	1.2	1.4	0.9	0.6	1.0
Residential	2.0	2.4	2.2	1.5	2.0
Tertiary	2.6	2.8	1.9	1.0	1.9
Transports	1.5	1.4	-0.6	-0.4	0.1
Energy sector	0.0	1.1	0.4	0.2	0.6
Trans. and distr. Losses	2.2	-0.3	0.0	-0.3	-0.2
(Net imports)	-0.2	0.4	-0.5	0.4	0.1
Electricity generation	**1.7**	**1.8**	**1.4**	**0.9**	**1.4**
EU-15	1.9	1.8	1.2	0.7	1.2
NMS	0.2	2.1	2.7	1.9	2.2

Source: PRIMES.

Electricity requirements in EU-25 have shown an average increase of 1.7% pa between 1990 and 2000. Demand growth in the current EU-15 reached 1.9% pa while in NMS electricity requirements exhibited limited growth from 1990 levels (+0.2% pa). The

[25] Electricity consumption in refineries as well as on-site auto-consumption of electricity in the power generation sector are included in the energy sector.

restructuring of CEEC economies led to a decline of electricity demand in NMS by -1.0% pa in 1990-1995, which was strongly related to the progressive ending of subsidy policies for electricity prices. However, this downward trend was reversed in the second part of the last decade with electricity demand rising by 1.5% pa.

Under Baseline assumptions total electricity generation is projected to expand by 1.4% pa in 2000-2030 (see Table 1-12). Demand growth will be especially rapid in the tertiary and the residential sector, while electricity demand in industry grows at rates below average.

The different levels of electrification achieved in the EU-15 and in the NMS by 2000 are also reflected in the evolution of electricity demand to 2030. Thus, while electricity demand increases by 1.2% pa in the EU-15 between 2000 and 2030, with a decelerating pace over time, much more pronounced growth is projected for new Member States (+2.2% pa in 2000-2030) with an accelerating pace in the period to 2020.

Distributed steam demand in the EU-25 energy system increased at a rate of +1.5% pa in 1990-2000 as the massive closure of inefficient district heating units in the nineties in CEEC, was more than counterbalanced by the increase in the use of distributed steam in the EU-15 energy system. The decrease in NMS reached -2.6% pa clearly reflecting the restructuring of their energy system, which was characterised in the past by high levels of district heating utilisation with great inefficiencies that prevailed mainly at the level of steam distribution in CEEC in the past. In contrast, the use of distributed steam grew by +3.7% pa in the EU-15, driven by the further exploitation of cogeneration potential.

Table 1-13: Distributed steam requirements by sector in EU-25[26]

			TWh		
	1990	**2000**	**2010**	**2020**	**2030**
Industry	426.5	471.3	565.6	638.8	713.3
Residential	194.4	211.8	238.9	243.3	254.8
Tertiary	112.7	115.9	127.8	137.6	140.3
Energy sector	4.4	63.9	106.1	130.0	154.4
Trans. and distr. Losses	31.3	32.8	26.2	28.1	29.1
Total	**769.3**	**895.7**	**1064.5**	**1177.8**	**1291.9**
EU-15	453.0	651.8	773.9	845.7	910.2
NMS	316.3	243.9	290.6	332.1	381.7
			Annual Growth Rate (%)		
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Industry	1.0	1.8	1.2	1.1	1.4
Residential	0.9	1.2	0.2	0.5	0.6
Tertiary	0.3	1.0	0.7	0.2	0.6
Energy sector	30.8	5.2	2.1	1.7	3.0
Trans. and distr. Losses	0.5	-2.2	0.7	0.3	-0.4
Total	**1.5**	**1.7**	**1.0**	**0.9**	**1.2**
EU-15	3.7	1.7	0.9	0.7	1.1
NMS	-2.6	1.8	1.3	1.4	1.5

Source: PRIMES.

The shift towards the decentralisation of electricity and steam production, projected to occur over the outlook period, as well as technological progress allowing for smaller-scale distribution networks, are the key drivers for the further growth of distributed steam demand in the EU-15 (+1.1% pa in 2000-2030) and the reversal of past trends in NMS (+1.5% pa in 2000-2030). Overall distributed steam demand (i.e. excluding industrial and refinery boilers) is projected to grow in the EU-25 by 1.2% pa between 2000 and 2030 (see Table 1-13). Industry is projected to remain the dominant user of steam over the outlook period, with distributed steam demand in the energy sector, a potentially large

[26] Including on-site consumption of non-marketed steam from industrial co-generation units.

user of steam (mainly in refineries), exhibiting the highest growth over the outlook period.

1.3.4.2. Capacities

Increasing energy requirements for electricity and steam lead to a large expansion of installed capacity in the EU-25 energy system, which is projected to increase by 66% in 2030 from 2000 levels (see Table 1-14). The rise in capacity is higher than the electricity production increase because more pronounced penetration of renewables with lower load factors compared to fossil fuel plants means higher capacity requirements.

Technological advances and the progressive deregulation of electricity markets - with smaller companies entering the market preferring plants with shorter lead times, lower capital costs and higher efficiency - are projected to cause significant growth in the use of gas for electricity generation. This is mainly through the extensive use of gas turbine combined cycle units. Thus installed capacity of gas fired plants is projected to increase dramatically, especially in the period to 2020, reaching 360 GW by 2030 from 132 GW in 2000. Gas accounts for close to 33% of total EU-25 generating capacity in 2030 compared to 20% in 2000.

The growth of gas-fired power plants occurs mainly at the expense of conventional solid and oil fired power plants, as well as nuclear power plants. The nuclear sector faces four major issues: the closure of unsafe nuclear plants in NMS; substantial decommissioning of existing nuclear plants beyond 2015; the nuclear phase-out policies in certain EU-15 Member States; and the likely decisions of economic actors not to replace all decommissioned nuclear with new nuclear plants on economic grounds. These factors result in a continuous decline of nuclear capacity, which by 2030 accounts for no more than 9.2% of total installed capacity in EU-25 (from 21.3% in 2000).

Installed capacity of solids fired power plants is projected to decline very rapidly both in absolute terms and as a share of total installed capacity in the horizon to 2010 (from 189 MW in 2000 down to 156.5 MW in 2010 with a market share of 19.3% - a decline of 9.2 percentage point from 2000 levels). In the horizon to 2020 installed capacity of solid fuel fired power plants is projected to remain rather stable whereas their market share exhibits a further decline to 16.6%. However, under Baseline assumptions, a predominant role in the replacement of retired nuclear plants will be played by advanced coal technologies (supercritical units and other clean coal technologies, e.g. IGCC and PFBC) as they are projected to become a cost-effective option in the long run, on the basis of the currently prevailing technology forecasts for power generation and the assumed evolution of international fuel prices. Thus solids fired capacity is projected to exhibit a significant growth in 2020-2030 with installed capacity exceeding 211 GW in 2030 (19.3% of total installed capacity). As regards oil fired power plants their capacity is projected to continuously decline over the projection period accounting by 2030 for just 3.2% of total installed capacity compared to 11.2% in 2000.

Renewable energy forms are also expected to have an important role in power generation in future. However, capacity expansion in hydropower plants is projected to be rather limited over the outlook period as a result of the already high exploitation of suitable sites in the EU-25 energy system and environmental restrictions especially in Nordic countries. This results in a decreasing share for hydro plants (from 14.7% in 2000 to 10.2% in 2030). In contrast, given supportive policies for renewable energy forms in the EU-15 - also likely to develop in new Member States - wind turbine capacity increases substantially, reaching by 2030 up to 183 GW (16.7% of total installed capacity) compared to less than 13 GW in 2000. Solar photovoltaic energy starts emerging mainly beyond 2020 (accounting for 0.9% of total installed capacity by 2030).

Table 1-14: Power generation capacity by type of plant in EU-25, 1995-2030.

	GW$_e$			
	2000	**2010**	**2020**	**2030**
Nuclear energy	141.1	136.4	116.9	101.2
Renewable energy (excl. biomass-waste)	110.1	184.2	241.5	305.9
Hydro (pumping excluded)	97.2	103.9	108.6	112.2
Lakes	52.2	56.0	57.8	58.5
Run of river	45.0	48.0	50.8	53.7
Wind power	12.8	78.4	127.6	182.9
Wind on-shore	12.8	70.1	109.0	138.7
Wind off-shore	0.0	8.3	18.6	44.3
Solar	0.2	1.7	4.8	10.4
Other renewables (tidal etc.)	0.0	0.2	0.4	0.4
Thermal power	410.5	490.1	584.6	689.6
Solids fired	188.9	156.5	156.8	211.2
Oil fired	74.3	66.0	47.9	35.0
Gas fired	131.9	245.4	321.2	360.1
Natural gas	119.2	233.6	311.7	352.0
Derived gasses	12.7	11.8	9.5	8.2
Biomass-waste fired	14.5	20.7	57.1	81.6
Fuel cells	0.0	0.0	0.0	0.0
Geothermal heat	1.0	1.4	1.5	1.6
Total	**661.7**	**810.7**	**943.0**	**1096.7**
EU-15	588.1	724.4	828.5	930.0
NMS	73.7	86.3	114.5	166.7
of which CHP	***113.0***	***150.9***	***209.0***	***248.0***
EU-15	*88.5*	*124.7*	*175.5*	*194.0*
NMS	*24.4*	*26.2*	*33.4*	*54.0*
	% share			
	2000	**2010**	**2020**	**2030**
Nuclear energy	21.3	16.8	12.4	9.2
Renewable energy (excl. biomass-waste)	16.6	22.7	25.6	27.9
Hydro (pumping excluded)	14.7	12.8	11.5	10.2
Lakes	7.9	6.9	6.1	5.3
Run of river	6.8	5.9	5.4	4.9
Wind power	1.9	9.7	13.5	16.7
Wind on-shore	1.9	8.6	11.6	12.6
Wind off-shore	0.0	1.0	2.0	4.0
Solar	0.0	0.2	0.5	0.9
Other renewables (tidal etc.)	0.0	0.0	0.0	0.0
Thermal power	62.0	60.4	62.0	62.9
Solids fired	28.5	19.3	16.6	19.3
Oil fired	11.2	8.1	5.1	3.2
Gas fired	19.9	30.3	34.1	32.8
Natural gas	18.0	28.8	33.1	32.1
Derived gasses	1.9	1.5	1.0	0.7
Biomass-waste fired	2.2	2.6	6.1	7.4
Fuel cells	0.0	0.0	0.0	0.0
Geothermal heat	0.2	0.2	0.2	0.1
Total	**100.0**	**100.0**	**100.0**	**100.0**
EU-15	88.9	89.4	87.9	84.8
NMS	11.1	10.6	12.1	15.2
of which CHP	***17.1***	***18.6***	***22.2***	***22.6***
EU-15	*13.4*	*15.4*	*18.6*	*17.7*
NMS	*3.7*	*3.2*	*3.5*	*4.9*

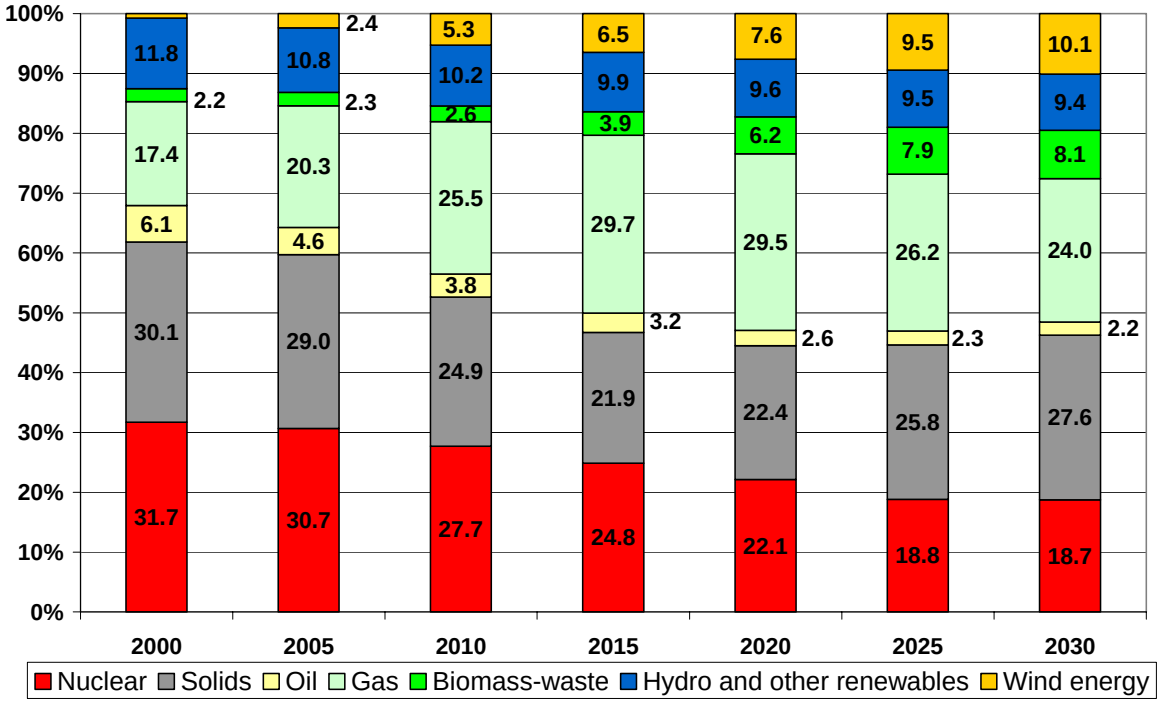
Source: PRIMES.

The strong shift towards a gas based power generation system combined with electricity market liberalisation is also projected to encourage the more widespread exploitation of cogeneration options. CHP power plants capacity is projected to increase from 113 GW in 2000 to 248 GW in 2030. By 2030, 22.6% of total EU-25 electricity generation capacity will come from cogeneration units compared to 17.1% in 2000.

1.3.4.3. Electricity and steam generation by fuel type

As a result of nuclear phase-out policies and decommissioning of existing nuclear capacity that is not always replaced by new nuclear plants due to economic considerations, nuclear electricity generation declines quite dramatically in the long run accounting for 18.7% of electricity production in 2030 compared to 31.7% in 2000 (see Figure 1-5).

Figure 1-5: Electricity generation by fuel in EU-25



Source: PRIMES.

Electricity production from solid fuels exhibits a continuous decline in the short/medium term, but it later recovers as a replacement fuel for nuclear both in absolute terms and as a share of total electricity generated (27.6% in 2030 compared to 30.1% in 2000). The emerging gap in the medium term is largely covered by greater use of natural gas, which in 2015-2025 is projected to become the main energy input for electricity generation. It is interesting to note, however, that beyond 2020 gas use exhibits a decline both in absolute terms and as regards its share in electricity generation. Thus in 2030 it is solid fuels that become the main energy input for power generation, a trend largely related to the increasing cost-effectiveness of coal fired technologies expected in that period and the assumed absence of additional climate change policies in the Baseline that would negatively affect solid fuel use. [27]

The contribution of renewable energy forms in power generation (including biomass and waste) is projected to grow over time, reaching 27.6% of total electricity production in 2030 from 14.7% in 2000. The limited potential for further exploitation and, consequently, the declining share of electricity generation from hydropower largely offsets the increasing contribution of wind energy in electricity generation, taking into account the rapidly growing electricity demand. Moreover, it should be recalled that the indicative targets of Directive 2001/77 of September 2001 were not assumed to be necessarily met in the Baseline.

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[27] This Baseline scenario reflecting current trends and policies does not include carbon sequestration as an option in power generation.

Higher cogeneration capacity allows for an increasing share of electricity generation from CHP power plants in electricity generation reaching 24.3% in 2030 compared to 14.5% in 2000. This is also reflected in heat/steam generation, with district heating plants (producing only heat) continuously losing market share under Baseline conditions (accounting for 11.4% of distributed steam supplies in 2030, down from 17.4% of total distributed steam in 2000).

1.3.4.4. Fuel input and efficiency in power generation

Fuel input in power generation is projected to experience lower growth (0.4% pa in 2000-2030) than the increases in electricity generation (1.4% pa) and in steam cogeneration (1.2% pa).

Table 1-15: Fuel use for electricity generation in EU-25

			Mtoe		
	1990	**2000**	**2010**	**2020**	**2030**
Hard coal	166.9	148.0	159.3	145.0	184.1
Lignite	79.4	66.5	55.6	53.5	56.2
Oil products	49.0	41.9	31.6	23.3	19.8
Gas	47.1	105.5	152.8	182.7	155.2
Biomass-Waste	10.2	21.2	29.1	53.6	69.4
Nuclear energy	196.8	237.7	248.8	228.6	210.8
Geothermal Heat	2.8	2.9	3.7	4.6	5.3
Total	**552.2**	**623.7**	**681.0**	**691.4**	**700.8**
EU-15	463.5	542.2	587.5	584.4	583.1
NMS	88.7	81.5	93.5	107.0	117.7
			Annual Growth Rate (%)		
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Hard coal	-1.2	0.7	-0.9	2.4	0.7
Lignite	-1.8	-1.8	-0.4	0.5	-0.6
Oil products	-1.6	-2.8	-3.0	-1.6	-2.5
Gas	8.4	3.8	1.8	-1.6	1.3
Biomass-waste	7.6	3.2	6.3	2.6	4.0
Nuclear energy	1.9	0.5	-0.8	-0.8	-0.4
Geothermal Heat	0.6	2.3	2.3	1.3	2.0
Total	**1.2**	**0.9**	**0.2**	**0.1**	**0.4**
EU-15	1.6	0.8	-0.1	0.0	0.2
NMS	-0.8	1.4	1.4	1.0	1.2

Source: PRIMES.

As illustrated in Table 1-15, consumption of gas in power generation peaks in 2020 but declines thereafter accounting for 22% of power generation fuel consumption by 2030 compared to 17% in 2000. Beyond 2010, and especially in the long run, coal is projected to make a strong come back accounting by 2030 for 26.2% of power generation fuel consumption (+2.5 percentage points higher than in 2000). This, however, is not the case for lignite because the emergence of advanced solid fired technologies in the EU-25 power generation system is projected to be accompanied by a strong shift towards use of imported coal. Imported coal prices are lower than those for much domestically-produced coal and lignite; and state aids for coal and in some cases also lignite are assumed to be substantially reduced by 2030. Consumption of biomass and waste also grows at rates above average over the projection period but these fuels are expected to account for less than 10% of total fuel input in 2030 (3.4% in 2000).

The significantly lower growth of fuel inputs in power generation compared to the corresponding electricity and steam production largely reflects the investment choices of electricity generators towards technologies with high conversion efficiencies, such as gas turbine combined cycle plants, and certain renewable energy forms. The replacement of nuclear power plants (with efficiency typically between 33-35%) by other forms of generation (with efficiencies of some 55% for gas combined cycles or 100% as attributed by statistical conventions for e.g. hydro and wind) further contributes to this

development. Efficiency of EU-25 thermal electricity production increases by 11.4 percentage points between 2000 and 2030 to reach 47.5%.

1.3.5. The outlook for energy-related CO_2 emissions

The evolution of the EU-25 energy system in the last decade has been characterised by a strong decoupling of energy demand from economic growth and, in addition, by a decoupling between energy demand and CO_2 emissions growth. While primary energy needs increased by 6.3% in 1990-2000, CO_2 emissions declined in the same period by -2.7%. The restructuring of CEEC economies was the main driver for this trend (CO_2 emissions in NMS in 2000 were 22.7% lower than in 1990). In EU-15 structural shifts towards less energy-intensive uses, technological progress and changes in the fuel mix all limited the CO_2 emissions growth to 1.9% between 1990 and 2000. As a result in 2000 new Member States accounted for 14.9% of overall CO_2 emissions at the EU-25 level compared to 18.7% in 1990.

CO_2 emissions, under Baseline assumptions, are projected to grow over the outlook period (+0.2% pa in 2000-2030; see Table 1-16). The growth is more pronounced in the NMS (+0.5% pa) than in the EU-15 (+0.2% pa). However, even in 2030, CO_2 emissions in NMS remain at levels significantly below those observed in 1990 (-9.0% lower) while emissions in the EU-15 are projected to rise by +7.9% from 1990 levels.

Table 1-16: CO_2 emissions by sector in EU-25

	Mt CO_2				
	1990	**2000**	**2010**	**2020**	**2030**
Power generation	1264.3	1250.0	1328.0	1303.7	1392.5
District heating	98.3	44.9	33.9	29.6	31.5
New fuels (hydrogen etc.) prod.	0.0	0.0	0.2	1.2	2.2
Energy Branch	141.5	144.9	123.7	112.7	97.5
Industry	698.9	567.7	577.0	595.2	569.8
Residential	506.1	452.1	482.7	494.9	486.7
Tertiary	274.2	244.6	261.8	275.8	281.9
Transport	792.7	969.9	1074.6	1115.5	1092.9
Total	**3776.1**	**3674.1**	**3881.9**	**3928.6**	**3955.0**
EU-15	3068.4	3127.0	3290.9	3301.0	3311.0
NMS	707.7	547.1	591.0	627.5	644.0
	Annual Growth Rate (%)				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
Power generation	-0.1	0.6	-0.2	0.7	0.4
District heating	-7.5	-2.8	-1.3	0.6	-1.2
New fuels (hydrogen etc.) prod.	-	-	20.4	5.8	-
Energy Branch	0.2	-1.6	-0.9	-1.4	-1.3
Industry	-2.1	0.2	0.3	-0.4	0.0
Residential	-1.1	0.7	0.3	-0.2	0.2
Tertiary	-1.1	0.7	0.5	0.2	0.5
Transport	2.0	1.0	0.4	-0.2	0.4
Total	**-0.3**	**0.6**	**0.1**	**0.1**	**0.2**
EU-15	0.4	0.5	0.0	0.0	0.2
NMS	-5.0	0.8	0.6	0.3	0.5

Source: PRIMES.

In the period 2000-2010, CO_2 emissions for EU-25 are projected to grow by 5.7%, exceeding the 1990 level by +2.8%. The strong short term increase to 2010 is due to high price increases for oil and particularly gas that encourage coal use in power stations, as well as the limited investment in energy efficient equipment, both in the demand and the supply side, caused by the slowdown of economic growth in the EU-25 that occurred in the recent past. Beyond 2010, CO_2 emissions are projected to rise at a much slower pace (+1.2 in 2010-2020, +0.7% in 2020-2030), with the demand side being the main driver for emissions growth in 2010-2020 and the power generation sector becoming the main driver for this increase in 2020-2030 due to the massive decommissioning of nuclear power plants and increasing competitiveness of coal in the power sector.

Following a substantial decline in 1990-2000 (-2.1% pa), driven mainly by the shift away from energy intensive industrial activities in the EU15 and restructuring of CEEC economies, CO_2 emissions in **industry** are projected to exhibit an increase in the horizon to 2020 and to decline thereafter, so that industrial CO_2 emissions in 2030 are virtually back to the 2000 level (just +0.4% higher in 30 years); in the same period industrial energy demand increases by 18.6%. The shift towards the use of electricity and co-generated steam are the key drivers for the significant carbon intensity gains achieved in the sector (0.6% pa in 2000-2030). In 2030 industry accounts for 14.4% of total CO_2 emissions in the EU-25 energy system; 1 percentage point less than in 2000.

CO_2 emissions in the **tertiary and the residential** sector increase by 15.2% and 7.7% respectively with carbon intensity gains reaching 0.7% pa in the tertiary sector and 0.6% pa in the residential sector as increasing demand requirements mainly arise for electricity specific energy uses. Despite the fact that the tertiary sector exhibits the highest growth in CO_2 emissions among all sectors of the EU-25 energy system, its share in total CO_2 emissions remains rather small (7.1% in 2030 from 6.7% in 2000). The share of the residential sector in total CO_2 emissions remains stable over the projection period (12.3% both in 2000 and 2030).

The growth of CO_2 emissions in the **transport** sector decelerates over the projection period and even becomes negative in the long run. This slowdown in transport emissions growth takes place in spite of modal shifts towards less energy efficient modes. Technological progress, the projected decoupling of transport activity from economic growth and the increasing penetration of biofuels blended in gasoline and diesel oil allowing for carbon intensity gains explain the above trend. In 2030 CO_2 emissions in the transport sector are projected to be 12.7% higher than in 2000 (with carbon intensity in the sector improving by 0.2% pa) accounting for 27.6% of total CO_2 emissions, up from 26.4% in 2000.

By 2030 **power generation** accounts for 35.2% of total CO_2 emissions (from 34.0% in 2000) with emissions in the sector increasing by 10% from 2000 levels compared to an increase of electricity generation by 50.5%. Carbon intensity improvements of 0.8% pa arise from the structural changes in the sector towards the use of low (gas) or zero (renewables and nuclear) carbon content fuels. However, beyond 2020 carbon intensity improvement is limited to 0.2% pa as a result of the declining contribution of nuclear energy and the ensuing replacement of nuclear with coal, which is not sufficiently compensated by the further penetration of renewables. In addition, high oil and gas prices discourage further penetration of natural gas leaving much scope for solid fuels in the baseline that does not assume that CO_2 targets will be necessarily met.

It is important to note that the demand for transport, as well as for electricity and steam, derives from various social and economic activities related to different economic sectors (industry, services, agriculture, and households). Furthermore, to the extent that final demand sectors, such as industry, services and households, switch to more electricity or steam, they "export" considerable CO_2 emissions caused by their activities to the power and steam generation sector.[28]

1.3.6. Key indicators

In the Baseline case, total GDP growth from 1990 to 2030 reaches 120% (see Table 1-17). The corresponding increase in primary energy demand is limited to 21.8%, reflecting a considerable improvement in energy intensity (energy demand per unit of

[28] The breakdown of CO_2 emissions by sector is based on the statistical conventions of EUROSTAT and others, with power and steam generation being one sector. Therefore, future emissions are calculated to reflect this convention, and the projected CO_2 emissions are reported in line with these statistical practices.

GDP). The role of energy intensity gains remains considerable over the whole projection period leading to strong decoupling between energy demand growth and GDP growth. Energy intensity gains in 1990-2010 reach 22.4% and improve a further 22.3% in 2010-2030 compared to the 1990 level (-28.7% on the basis of the 2010 level).

Table 1-17: Key indicators for the EU-25 energy system

	Index (1990 = 100)				
	1990	**2000**	**2010**	**2020**	**2030**
Gross Domestic Product	100	123	150	187	220
Gross Inland Consumption	100	106	116	121	122
CO_2 emissions	100	97	103	104	105
Energy intensity	100	87	78	65	55
Carbon intensity	100	92	88	86	86
CO_2 emissions / unit of GDP	100	79	69	56	48

Source: PRIMES.

CO_2 emissions grow more slowly than energy demand, the carbon intensity (CO_2 emissions per unit of primary energy needs) of the EU-25 energy system improves, however, by no more than 5.6% between 2000 and 2030 compared to an improvement of 8.4% in 1990-2000. Beyond 2020 carbon intensity worsens slightly and CO_2 emissions rise accordingly to exceed in 2030 the 1990 level by 4.7%. Given the above described energy intensity gains, the carbon intensity of the economy (i.e. CO_2 emissions per unit of GDP) evolves favourably with one unit of GDP in 2030 being produced with only 47.6% of the CO_2 emissions emitted in 1990. However, the challenge of climate change and the Kyoto process might require deep cuts in emissions up to 2030; and therefore much better results than projected in the Baseline case might well be needed.

Convergence between old and new Member States

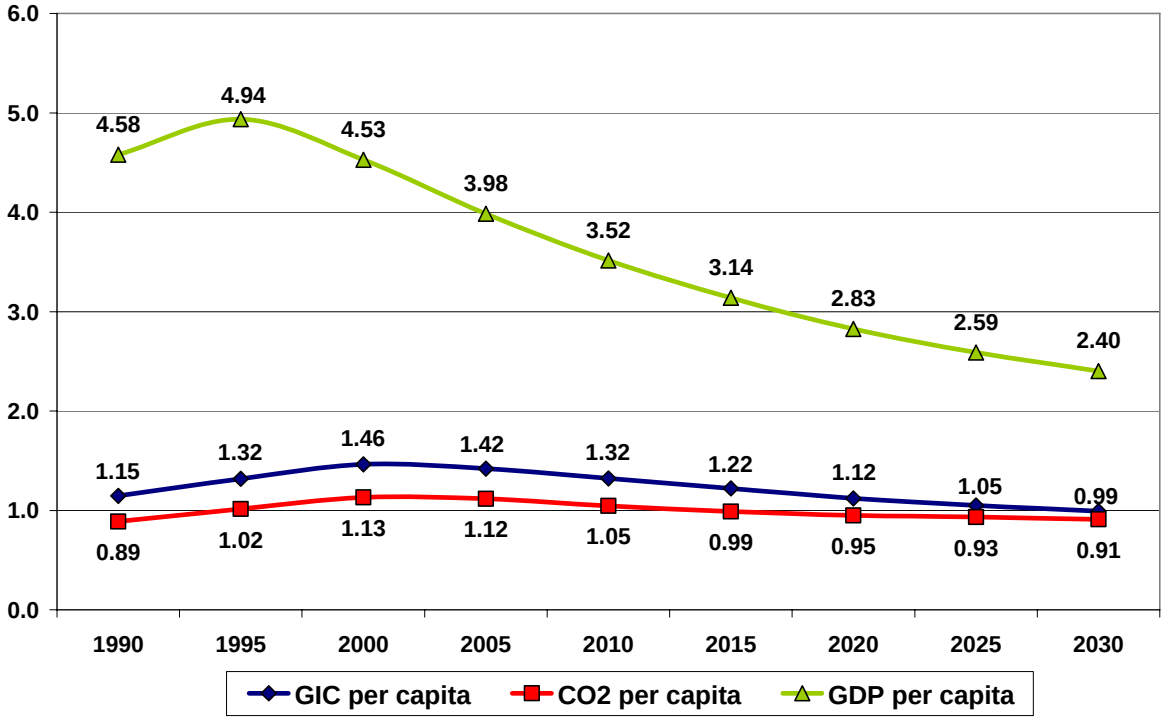
The Baseline trends in energy consumption and economic growth materialise both in the new Member States and in EU-15 as there will be convergence between the old and new Member States. The NMS energy system is characterised by modernisation and economic restructuring away from energy-intensive activities, by energy efficiency improvements and more rational use of energy, and by progressive implementation of EU policies.

However, differences between the EU-15 energy system and that of the new Member States remain significant, as can be seen by comparing per capita levels of key indicators of the energy system, namely GDP, gross inland consumption (GIC) and CO_2 emissions (see Figure 1-6). By 2030, GDP per capita in EU-15 remains some 2.4 times higher than in new Member States compared to close to 5 times higher in 2000. This indicates that, despite the significant improvements in new Member States' economies, convergence with the EU-15 might not be completed by 2030.

On the other hand, convergence in terms of energy consumed per capita very pronounced, with EU-15 citizens consuming by 2030 1% less energy per person than citizens in the NMS (compared to 46% more in NMS in 2000). This result is largely explained by the significantly higher dematerialisation of the EU-15 energy system compared to that of the NMS (industrial activity in the NMS accounts for 27% of gross value added in 2030 compared to 18.5% in the EU-15, whereas that of services in NMS is limited to 61.3% - 11.5 percentage points lower than in the EU-15). Furthermore differences in the power generation sector contribute to explain the convergence of per capita consumption at the level of primary energy needs despite of higher GDP per capita in EU-15. These differences in power generation include a higher contribution of nuclear energy in the NMS than in the EU-15 (accounting in 2030 for 20.4% of electricity generation in the NMS versus 18.4% in the EU-15), the slower development of renewable energy forms (17.4% in the NMS versus 29.3% in the EU-15), the less pronounced improvement of thermal power plants efficiency (reaching 45.3% in 2030 for the NMS compared to 47.9% in the EU-15) and also the exporting character of the NMS

power sector (more than 55% of electricity imports in the EU-15 being satisfied by NMS in 2030). Such differences contribute to bringing about higher energy consumption in NMS, which compensates for lower energy demand per capita in NMS that would otherwise follow from lower per capita income.

Figure 1-6: Convergence in EU-25 (ratios: EU-15 to NMS)



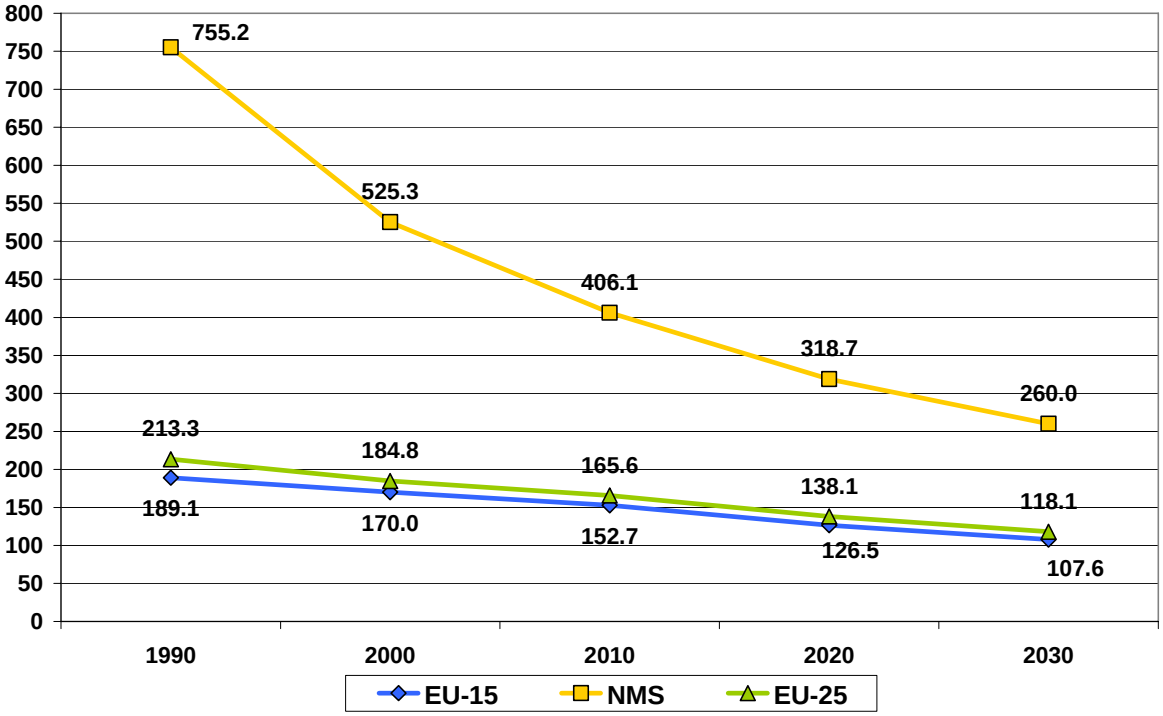
Source: PRIMES.

CO_2 emissions per capita in 2000 were 13% higher in the EU-15 than in the NMS, whereas they had been 11% lower in 1990 in EU-15 compared with the NMS due to energy inefficient and carbon intensive structures that prevailed in CEEC. The restructuring in CEEC in the 1990s resulted in a decline of CO_2 emissions by an astonishing -22.7% for the NMS region in 1990-2000 as well as in lower per capita CO_2 emissions in 2000 compared with EU-15. However, in the long term this development is reversed again with CO_2 emissions per capita in 2030 in the EU-15 being 9% lower than in the NMS. The more pronounced growth of energy consumption in the NMS combined with the higher use of carbon intensive energy forms (and especially indigenous solid fuels) are the key drivers for this result. In 2030 the share of carbon free fuels in total primary energy needs reaches 22.7% in the NMS compared to 23.4% for the EU-15, whereas that of solid fuels declines to 26% (from 46.1% in 2000), remaining, however, 12.4 percentage points higher than that in the EU-15 (13.6% in 2030 from 14.8% in 2000).

The energy intensity (primary energy demand per unit of GDP) of the EU-25 energy system improves at a rate of 1.5% pa in 2000-2030 compared to 1.4% pa in 1990-2000). Energy intensity reaches 118 toe per million € in 2030 from 213 in 1990. However, as illustrated in Figure 1-7, the pace of improvement is significantly different between the EU-15 and the NMS. Following a substantial improvement in energy intensity of 3.6% pa during the last decade, driven by the economic restructuring of CEEC, energy intensity in NMS is projected to further improve at rates well above the EU-25 average over the projection period (-2.3% pa in 2000-2030) reaching 260 toe per million € in 2030 compared to 755 toe per million € in 1990. The energy intensity improvement in EU-15 is less pronounced with a decrease from 189 toe per million € in 1990 to 108 in 2030 (-1.5% pa in 2000-2030). Nevertheless, energy intensity for NMS remains, even by

2030, more than twice that of the EU-15 (compared to 4 times higher in 1990 and 3 times higher in 2000).

Figure 1-7: Evolution of energy intensity in EU-25 (in toe per MEuro'00)



Source: PRIMES.

1.4. Concluding remarks

The EU-25 energy system will need to deal with a number of major challenges over the next 30 years, including issues related to security of supply, tightening environmental pressures, competitive energy prices and critical investment decisions. The integration of the new Member States in the EU is not projected to cause radical changes in the projected evolution of the EU-25 energy system in the period to 2030. This is because of the relatively small size of the new Member States, both in economic and in energy terms, compared to the current EU-15. However the urgency with which these issues will become increasingly important for the energy system is certainly affected by the enlargement of the EU.

The GDP in EU-25 is projected to increase by close to 80% between 2000 and 2030 (or +2.0% pa) while the growth of primary energy demand is projected to be only 15% (or 0.5% pa) in the same period. This is a rate significantly lower than that observed historically, but demonstrates that there is still no complete decoupling between energy demand and economic growth. Energy intensity gains of 1.5% pa are driven by structural changes on the demand side, better efficiency and technology in the individual sectors, and investment decisions in power generation.

The further dematerialization of EU-25 industry, combined with structural changes within sectors, strong saturation effects for a number of energy uses, improvements in thermal characteristics of buildings in the tertiary and household sectors, the slowdown in transport activity growth and the impacts arising from the EU agreement with car manufacturers, all contribute towards the decoupling of energy demand from economic growth. Improvements in energy technology, and changes in the fuel mix towards more efficient energy forms, also have a positive impact on energy intensity. In particular, the changes projected to occur in power generation towards the use of renewable energy forms and more efficient technologies and fuels further contribute to this tendency. The

huge inefficiencies that prevailed in new Member States, and especially in CEEC, in the past and consequently the larger scope for efficiency gains compared to the EU-15, also act in favour of the decoupling between energy demand and economic growth in the EU-25.

The EU-25 energy system will remain dominated by fossil fuels over the next 30 years. Their share is projected, however, to decline by more than 3 percentage points over the projection period, reaching 76.6% of overall energy needs by 2030 compared to 79.7% in 2000. This trend occurs despite the substantial decline in nuclear power plant capacity due to occur beyond 2015, following the nuclear phase-out policies in certain Member States, the closure of nuclear plants with safety concerns in some new Member States, or the decisions of economic actors who do not always replace decommissioned nuclear plants with new nuclear units; the share of nuclear energy in primary energy needs decreases to 11.1% in 2030 from 14.4% in 2000. The gap generated is satisfied by renewable energy forms that grow at a pace 6 times higher than that of overall primary energy needs (3.0% pa in 2000-2030). The exploitation of renewable options in power generation is the key driver for this result. However, even in 2030, the renewables share amounts to only 12.2% of primary energy needs (+6.3 percentage points from 2000 levels), well below indicative targets set within the EU-25 even over the horizon to 2010.

The use of fuels in the EU-25 energy system will become increasingly specialised. Solid fuel consumption declines over the period to 2020 but strongly increases thereafter as a highly competitive option in power generation in replacement of nuclear but also of natural gas. Higher natural gas import prices and maturity of advanced coal technologies are the key drivers for this result. By 2030 the bulk of solid fuels consumption occurs in power generation and in process-specific industrial uses (iron and steel, and cement). Oil becomes a fuel overwhelmingly used in the transport sector and as a petrochemical feedstock, growing at rates significantly lower than average. By 2030 its share in gross inland consumption declines to about 34%, about 4.5 percentage points below 2000 levels. Gas demand is projected to continue growing strongly over the period to 2020 (+1.7% pa in 2000-2020) but decline thereafter (-0.2% in 2020-2030), due to reduced competitiveness against coal in power generation but also limited potential under baseline conditions for further changes in the fuel mix towards the use of gas in the final demand sectors. Renewable energy forms are projected to remain the fastest growing energy carrier in the EU-25 energy system over the projection period (+3.0% pa in 2000-2030). Novel energy forms (hydrogen, methanol etc.) do not make significant inroads under Baseline assumptions primarily due to cost considerations.

The projected increase in the use of fossil fuels has a twofold impact upon the EU-25 energy system. First, fossil fuels are mainly imported and - with their continuing dominance – close to two thirds of EU-25 primary energy requirements will need to be imported by 2030, compared to slightly less than half in 2000. The most significant change regarding EU-25 energy security relates to the increasing dependence upon gas imports from a limited number of suppliers and significantly more distant locations. Secondly, fossil fuels give rise to CO_2 emissions. CO_2 emissions for EU-25 are projected to continuously increase over the projection period exceeding the 1990 level by +2.8% in 2010 and +4.7% in 2030.

Developments in transport and power generation will have a dominant role in the future evolution of the EU-25 energy system. The transport sector is characterised by increasing energy needs over the projection period, although some decoupling of transport activity from economic growth is projected in the long run; and it also suffers from the lack of alternatives under baseline conditions as regards changes in the fuel mix towards less carbon intensive fuels. In the EU-25 power generation sector some 83% of the installed capacity by 2030 will need to be commissioned over the next three decades. This key sector will, therefore, face strategic technology and fuel choice dilemmas over that period. In turn, the solutions to these will have a major effect upon the overall EU-25 energy system in the long run. Therefore, energy and transport policies will face

considerable challenges in dealing with those energy security and climate change issues that will become increasingly critical in the period to 2030 for the EU-25 energy system.

While the policy challenges emerging from this Baseline are similar to the ones shown in the "Trends to 2030" of 2003 and the "Scenarios on key drivers" of 2004, there are some improvements in policy relevant indicators on the basis of somewhat different assumptions. The previous baseline included higher GDP growth, lower oil prices and policies up to the end of 2001. Compared with the previous baseline of 2003 the new 2005 baseline exhibits the following main differences:

- The renewables share is up in comparison with the old baseline (between half a percentage point for 2010 and 3.5 percentage points for 2030);
- The contribution of nuclear is also higher (11% in 2030 compared with only 9.5% in the old baseline);
- Import dependency in 2030 is now projected at 65% (two percentage points less than in the previous baseline);
- CO_2 emissions in the long term develop more favourably (increase in 2020 over 1990 level is cut by 4 percentage points and the increase up to 2030 is 9 percentage points lower reaching a level of just 5% above the 1990 emissions;
- However, for 2010, CO_2 emissions are now projected to be somewhat higher reflecting strong coal use following high gas prices as well as the disappointing energy intensity developments in recent years, which are due to sluggish economic growth that does not provide for enough modernisation of the economy and investment in energy efficient new technology;
- The share of indigenous and carbon free fuels in electricity generation (renewables and nuclear) stabilises at current levels (some 45%) rather than decreasing markedly as projected in the 2003 baseline; carbon intensity develops somewhat more favourably than in the 2003 baseline, in which there was a worsening after 2015 due to considerable nuclear decline, replacement with coal and slow renewables penetration.

2. EU-27 and Europe-30 energy and transport outlook to 2030

2.1. Introduction

Further to the EU-25 energy system, the analysis performed in the context of the study also dealt with the future evolution of the energy systems of Bulgaria and Romania (likely to accede the European Union in the beginning of 2007), as well as those of Turkey (EU candidate), Norway and Switzerland. Developments in both candidate and neighbouring countries will influence energy developments in the wider European energy system.

The Baseline scenario for the energy system of candidate and neighbouring countries was constructed following the same approach as that for EU Member States, i.e. it is based on current trends and policies. Chapter 2 of this report provides a short presentation of the evolution of the EU-27 (EU-25 plus Bulgaria and Romania) and the Europe-30 energy systems and the key differences to the projected evolution for the EU-25 energy system.

2.2. Main assumptions

In the context of Europe-30, the EU-25 accounted for some 80.5% of population in 2000, a share increasing to 85.9% for the enlarged EU-27 (following the accession in the European Union of Bulgaria and Romania). As illustrated Table 2-1 the highest population growth (0.22% pa in 2000-2030) is foreseen at the Europe-30 level (driven by increasing population in Turkey), whereas the significant population decline in Bulgaria and Romania (from 30.6 million in 2000 down to 25.4 million in 2030 according to EUROSTAT projections) limits the population growth at 0.08% pa in 2000-2030 for the EU-27 (compared to 0.12% for the EU-25). By 2030 the EU-25 accounts for 78.2% of population in Europe-30 and the EU-27 for 82.4% (2.3 and 3.5 percentage points below 2000 levels, respectively).

Table 2-1: Population trends in EU-27 and Europe-30, 1990 to 2030

	Million inhabitants				
	1990	**2000**	**2010**	**2020**	**2030**
EU-25	440.79	452.92	464.05	469.27	469.37
EU-27	472.71	483.52	492.84	496.41	494.78
Europe-30	539.95	562.68	582.13	594.59	600.25
	annual growth rate				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU-25	0.27	0.24	0.11	0.00	0.12
EU-27	0.23	0.19	0.07	-0.03	0.08
Europe-30	0.41	0.34	0.21	0.09	0.22

Source: EUROSTAT.

In the Baseline scenario, the Bulgarian and Romanian economies are projected to see accelerated growth with GDP rising between 2000 and 2030 by 390% or 5.4% pa. However, their share in the EU-27 economy remains small (1.6% in 2030 from 0.9% in 2000). Consequently, economic growth in the EU-27 is similar to that of the EU-25 (see Table 2-2). At the Europe-30 level, economic growth is projected to reach 2.1% pa in 2000-2030 (compared to 2.0% pa for the EU-25 and the EU-27), driven by the accelerated growth of the Turkish economy (5.4% pa). In 2030, the economies of Turkey, Norway and Switzerland account for 10% of Europe-30 GDP compared to 6.6% in 2000.

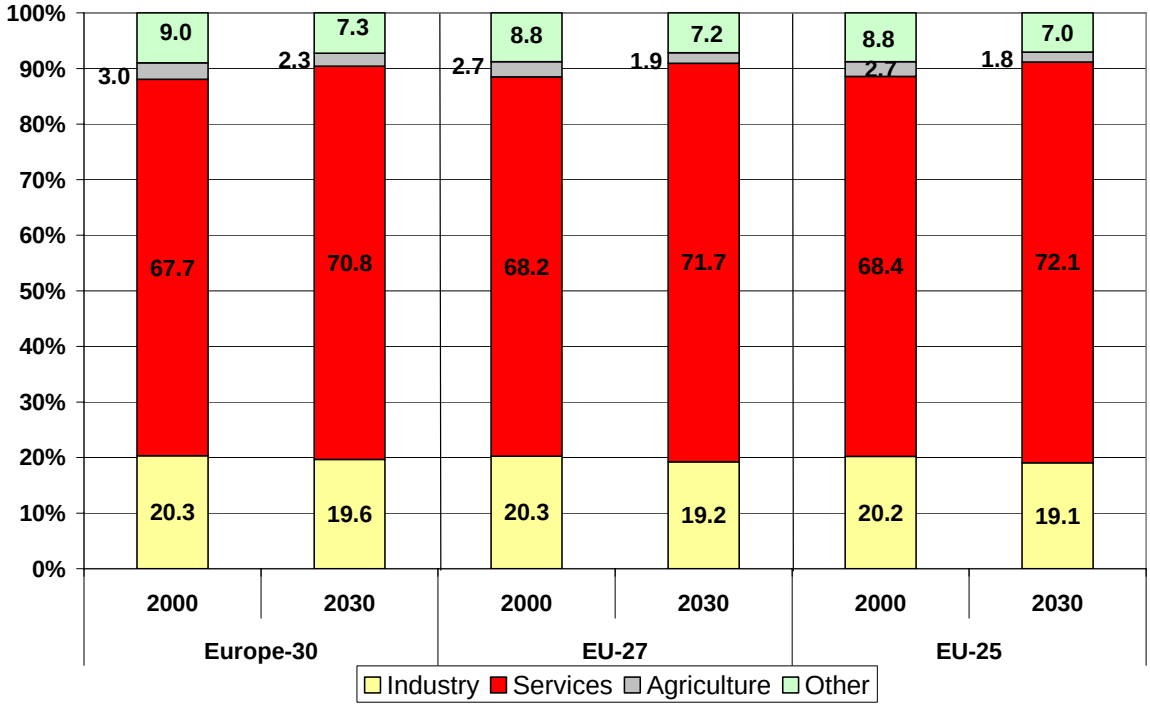
Table 2-2: Evolution of gross domestic product in EU-27 and Europe-30, 1990 to 2030

	000 MEuro'00				
	1990	**2000**	**2010**	**2020**	**2030**
EU-25	7295	8947	10947	13656	16051
EU-27	7359	9001	11044	13825	16316
Europe-30	7877	9666	11899	15058	18137
	annual growth rate				
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU-25	2.06	2.04	2.24	1.63	1.97
EU-27	2.03	2.07	2.27	1.67	2.00
Europe-30	2.07	2.10	2.38	1.88	2.12

Source: EUROSTAT, Economic and Financial Affairs DG, PRIMES.

As illustrated in Figure 2-1, structural differences between the EU-25, the EU-27 and the Europe-30 economies in 2000 are rather limited, reflecting the predominant role of the EU-25 economy in Europe-30.

Figure 2-1: Structure of the economy, shares in gross value added 2000, 2030: EU-27 and Europe-30 compared with EU-25



Source: PRIMES.

By 2030 services are projected to account for 70.8% in 2030 (compared to 71.7% in the EU-27 and 72.1% in the EU-25), with their market share increasing by 4.1 percentage points (compared to 3.5 and 3.7 percentage points, respectively, in the EU-27 and the EU-25). The growth in the market share of services takes place to the detriment of all other economic activities with the market share of agricultural activity exhibiting the strongest decline (-1.7 percentage points in Europe-30, -1.6 in the EU-27 and -1.8 in the EU-25). In 2030, industrial activity accounts for 19.6% of total economic activity in Europe-30, 19.2% in the EU-27 and 19.1% in the EU-25 (-0.7, -1.1 and -1.1 percentage points, respectively from 2000 levels).

2.3. Energy and CO_2 emission developments in EU-27 and Europe-30

Primary energy needs in Bulgaria and Romania are projected to grow at a rate of 1.9% pa in 2000-2030, a rate close to four times higher than that in the EU-25 (see Table 2-3).

Bulgaria and Romania account in 2030 for 4.9% of primary energy needs in the EU-27 from 3.2% in 2000. An even more pronounced growth of primary energy needs is projected for Turkey, Norway and Switzerland (+2.3% pa in 2000-2030). The evolution of the Turkish energy system is the key driver for this result (primary energy needs grow at a rate of 3.2% pa in 2000-2030) whereas energy requirements in Norway and Switzerland grow at a much slower pace (+0.3% pa and +0.5% pa, respectively). In 2030, Turkey, Norway and Switzerland account for 11.5% of primary energy requirements in Europe-30 (+4.4 percentage points from 2000 levels).

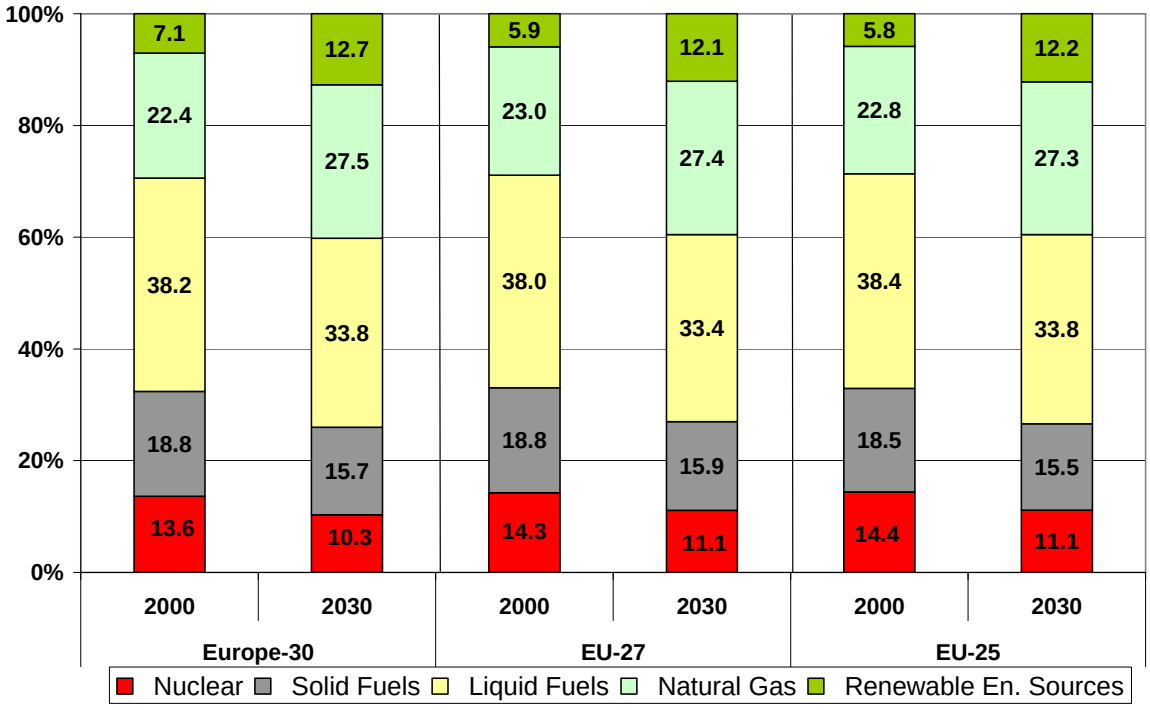
Table 2-3: Gross inland consumption in EU-27 and Europe -30

			Mtoe		
	1990	**2000**	**2010**	**2020**	**2030**
EU-25	1556.2	1653.8	1812.5	1885.3	1895.2
BU,RO	89.3	55.3	65.9	84.5	97.1
EU-27	**1645.5**	**1709.1**	**1878.5**	**1969.8**	**1992.3**
TU,NO,SW	106.1	130.0	153.8	201.7	258.6
Europe-30	**1751.6**	**1839.1**	**2032.2**	**2171.5**	**2250.9**
			Annual Growth Rate (%)		
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU-25	0.6	0.9	0.4	0.1	0.5
BU,RO	-4.7	1.8	2.5	1.4	1.9
EU-27	**0.4**	**0.9**	**0.5**	**0.1**	**0.5**
TU,NO,SW	2.1	1.7	2.8	2.5	2.3
Europe-30	**0.5**	**1.0**	**0.7**	**0.4**	**0.7**

Source: PRIMES.

As regards the structure of primary energy needs by fuel similar evolution patterns to those projected for the EU-25 energy system are also projected for Europe-30 and EU-27 (see Figure 2-2).

Figure 2-2: Structure of primary energy demand, shares in 2000, 2030: EU-27 and Europe-30 compared with EU-25



Source: PRIMES.

The market shares of natural gas and renewable energy forms are projected to grow well above 2000 levels, an increase occurring to the detriment of oil, solid fuels and nuclear energy. In 2030, fossil fuels account for 77% of primary energy needs in Europe-30

(from 79.3% in 2000), 76.7% in the EU-27 (from 79.7% in 2000) and 76.6% in the EU-25 (from 79.7% in 2000). The renewables shares in EU-27 are similar to those in EU-25 both in 2000 and 2030, whereas in Europe-30 the renewables share is somewhat higher particularly due to large hydro use in Norway and also in Switzerland.

Another important issue for the Europe-30 energy system in the long run is the rising import dependency. Higher energy requirements combined with lower indigenous fossil fuel production and declining nuclear generation, lead to an import dependency for Europe-30 of 56.3% by 2030, up from 36.4% in 2000 (see Table 2-4). However, import dependency in Europe-30 remains 8.6 percentage points lower than in the EU-25 in 2030 (compared to 10.8 percentage points lower in 2000), a result strongly related to Norwegian indigenous oil and gas resources.

Table 2-4: Import dependency in EU-27 and Europe-30

			%		
	1990	**2000**	**2010**	**2020**	**2030**
EU-25	44.7	47.2	55.0	63.5	64.9
EU-27	44.6	46.7	54.4	62.9	64.2
Europe-30	38.9	36.4	44.4	52.4	56.3

Source: PRIMES.

The generally greater reliance of Bulgaria and Romania on indigenous energy sources (mainly solid fuels) means slightly lower import dependence for the EU-27 than in the EU-25 (0.7 percentage points lower in 2030 from 0.5 percentage points lower in 2000) with a slightly lower increase in EU-27 compared with EU-25.

Table 2-5: Evolution of CO_2 emissions in EU-27 and Europe-30

			Mt CO_2		
	1990	**2000**	**2010**	**2020**	**2030**
EU-25	3776.1	3674.1	3881.9	3928.6	3955.0
BU,RO	233.7	126.1	160.9	203.1	225.4
EU-27	**4009.9**	**3800.2**	**4042.8**	**4131.6**	**4180.4**
TU,NO,SW	197.8	276.6	333.6	447.9	575.0
Europe-30	**4207.7**	**4076.8**	**4376.4**	**4579.5**	**4755.4**
			Annual Growth Rate (%)		
	90/00	**00/10**	**10/20**	**20/30**	**00/30**
EU-25	-0.3	0.6	0.1	0.1	0.2
BU,RO	-6.0	2.5	2.4	1.1	2.0
EU-27	**-0.5**	**0.6**	**0.2**	**0.1**	**0.3**
TU,NO,SW	3.4	1.9	3.0	2.5	2.5
Europe-30	**-0.3**	**0.7**	**0.5**	**0.4**	**0.5**

Source: PRIMES.

The higher share of fossil fuels in total primary energy needs for Europe-30 and the EU-27 energy systems in comparison to the EU-25, in combination to the higher growth of energy requirements is also clearly reflected in the evolution of energy related CO_2 emissions (see Table 2-5). In 2000-2030 CO_2 emissions are projected to grow at a rate of 0.3% pa in the EU-27 (0.1 percentage points more than in the EU-25 as CO_2 emissions in Bulgaria and Romania are projected to grow at a rate of 2.0 pa). In Europe-30, CO_2 emissions increase by 0.5% pa between 2000 and 2030 with emissions growing at a rate of 3.1% pa in Turkey and remaining rather stable over the projection period for Norway and Switzerland.

However, CO_2 emissions growth from 1990 levels in less pronounced for the EU-27 energy system than in EU-25 (0.8% compared to 2.8% in 2010, 4.3% compared to 4.7% in 2030). This result reflects the substantial CO_2 emissions decline of -32.2% that occurred between 1990 and 2000 in Bulgaria and Romania arising from the restructuring of their economies. On the other hand CO_2 emissions in Europe-30 are projected to exceed the 1990 level by +4.0% in 2010 and by +13.0% in 2030 (8.3 percentage point

more than in the EU-25, a result strongly influenced by developments in Turkey involving high population and economic growth.

2.4. Concluding remarks

The challenges for energy policy are very similar at the EU-27 and the EU-25 levels. Energy consumption continues growing with supplies being increasingly met by imports, which come to a large extent from geopolitically unstable regions. With decreasing indigenous fossil fuel production and a limited combined contribution from renewables and nuclear, the EU dependency on imports grows to about two thirds in 2030.

Energy demand growth is particularly strong for natural gas, which needs to be imported in increasing quantities over wider distances. Renewables also increase their contribution while the shares of solid fuels, oil and nuclear decline. There are issues concerning the achievement of agreed targets. This concerns reaching the 12% renewables share objective for 2010 as well as meeting Kyoto targets. The Baseline has increasing CO_2 emissions for EU-25 as well as for EU-27 and the renewables share stays well below 12% in 2010.

This picture is rather similar at the Europe-30 level showing increasing import dependency, albeit at a lower level, as well as a low renewables penetration and rising CO_2 emissions.

Glossary

Carbon intensity: The amount of CO_2 by weight emitted per unit of energy consumed or produced (t of CO_2/tonne of oil equivalent (toe) or MWh)

Clean coal units: A number of innovative, new technologies designed to use coal in a more efficient and cost-effective manner while enhancing environmental protection. Among the most promising technologies are fluidised-bed combustion (PFBC), integrated gasification combined cycle (IGCC), coal liquefaction and coal gasification.

CO_2 Emissions to GDP: The amount of CO_2 by weight emitted per unit of GDP (carbon intensity of GDP - t of CO_2/MEuro'00).

Cogeneration thermal plant: A system using a common energy source to produce both electricity and steam for other uses, resulting in increased fuel efficiency (see also: CHP).

Combined Cycle Gas Turbine plant (CCGT): A technology which combines gas turbines and steam turbines, connected to one or more electrical generators at the same plant. The gas turbine (usually fuelled by natural gas or oil) produces mechanical power, which drives the generator, and heat in the form of hot exhaust gases. These gases are fed to a boiler, where steam is raised at pressure to drive a conventional steam turbine, which is also connected to an electrical generator. This has the effect of producing additional electricity from the same fuel compared to an open cycle turbine.

Combined Heat and Power: This means cogeneration of useful heat and power (electricity) in a single process. In contrast to conventional power plants that convert only a limited part of the primary energy into electricity with the remainder of this energy being discharged as waste heat. CHP makes use of large parts of this energy for e.g. industrial processes, district heating, and space heating. CHP therefore improves energy efficiency (see also: cogeneration thermal plant).

Efficiency for thermal electricity production: A measure of the efficiency of converting a fuel to electricity and useful heat; heat and electricity output divided by the calorific value of input fuel times 100 (for expressing this ratio in percent).

Efficiency indicator in freight transport (activity related): Energy efficiency in freight transport is computed on the basis of energy use per tonne-km. Given the existence of inconsistencies between transport and energy statistics, absolute numbers (especially at the level of individual Member States) might be misleading in some cases. For that reason, the numbers given are only illustrative of the trends in certain cases.

Efficiency indicator in passenger transport (activity related): Energy efficiency in passenger transport is computed on the basis of energy use per passenger-km travelled. Issues related to consistency of transport and energy statistics also apply to passenger transport (see also: Efficiency indicator in freight transport).

Energy branch consumption: Energy consumed in refineries, electricity and steam generation and in other transformation processes; it does not include the energy input for transformation as such.

Energy intensity: energy consumption/GDP or another indicator for economic activity

Energy intensive industries: Iron and steel, non-ferrous, chemicals, non-metallic minerals, and paper and pulp industries.

Final energy demand: Energy finally consumed in the transport, industrial, household and tertiary sectors with tertiary comprising services and agriculture. It excludes deliveries to the energy transformation sector (e.g. power plants) and to the energy branch. It includes electricity consumption in the above final demand sectors.

Freight transport activity: Expressed in tonne kilometres (1 Gtkm = 10^9 tkm); one tkm = one tonne transported a distance of one km. It should be noted that inland navigation includes both waterborne inland transport activity and domestic sea shipping. However, international short sea shipping is not included in the above category as, according to EUROSTAT energy balances, energy needs for international shipping are allocated to bunkers.

Fuel cells: A fuel cell is an electrochemical energy conversion device converting hydrogen and oxygen into electricity and heat with the help of catalysts. The fuel cell provides a direct current voltage that can be used to power various electrical devices including motors and lights.

Fuel input to power generation: Fuel use in electricity, CHP plants and heat plants.

Gas: Includes natural gas, blast furnace gas, coke-oven gas and gasworks gas.

Generation capacity: The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer.

Geothermal plant: A plant in which the prime mover is a steam turbine. The turbine is driven either by steam produced from hot water or by natural steam that derives its energy from heat in rocks or fluids beneath the surface of the earth. The energy is extracted by drilling and/or pumping.

Gross Inland Consumption: Quantity of energy consumed within the borders of a country. It is calculated as primary production + recovered products + imports +/- stock changes – exports – bunkers (i.e. quantities supplied to sea-going ships).

Gross Inland Consumption/GDP: Energy intensity indicator calculated as the ratio of total energy consumption to GDP – (toe/MEuro'00).

Hydro power plant: A plant producing energy with the use of moving water. For the purposes of these energy balance projections, hydro excludes pumped storage plants that generate electricity during peak load periods by using water previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available.

Non fossil fuels: Nuclear and renewable energy sources.

Non-energy uses: Non-energy consumption of energy carriers in petrochemicals and other sectors, such as chemical feedstocks, lubricants and asphalt for road construction.

Nuclear power plant: A plant in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. They include new nuclear designs (such as the EPR as well as the AP1000 and AP600) with passive safety features (which reduce core fusion probability from 10^{-5}/year of existing nuclear plants to less than 5.10^{-7}/year).

Oil: Includes refinery gas, liquefied petroleum gas, kerosene, gasoline, diesel oil, fuel oil, crude oil, naphtha and feedstocks.

Open cycle units: A turbine connected to an electrical generator. Less efficient than a combined cycle gas turbine (CCGT) because it does not recover and use the heat of the exhaust gases. Open cycle units include polyvalent units, monovalent coal-lignite units, monovalent oil-gas units and monovalent biomass-waste units.

Passenger transport activity: Expressed in passenger kilometres (1 Gpkm = 10^9 pkm); one pkm relates to one person travelling a distance of one km. Passenger transport activity includes energy consuming passenger transport on roads (public and private), by rail, in airplanes and on ships as far as this takes place on rivers, canals, lakes and as domestic sea shipping; international short sea shipping is not included as, according to

EUROSTAT energy balances, energy needs for international shipping are allocated to bunkers.

Primary production: Total indigenous production.

Renewable energy sources: Energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include: biomass, hydro, wind, geothermal, solar, wave and tidal energy.

Solar power plant: A plant producing energy with the use of radiant energy from the sun; includes solar thermal and photovoltaic (direct conversion of solar energy into electricity) plants.

Solids: Include both primary products (hard coal and lignite) and derived fuels (patent fuels, coke, tar, pitch and benzol).

Supercritical polyvalent units: A power plant for which the evaporator part of the boiler operates at pressures above 22.1 MegaPascals (MPa). The cycle-medium in this case is a single phase fluid with homogenous properties and thus there is no need to separate steam from water in a drum, allowing for higher efficiency in power generation.

Thermal power plants: Type of electric generating station in which the source of energy for the prime mover is heat.

Wind power plant: Typically a group of wind turbines interconnected to a common utility system through a system of transformers, distribution lines, and (usually) one substation. Operation, control, and maintenance functions are often centralised through a network of computerised monitoring systems, supplemented by visual inspection.

APPENDIX 1: Baseline scenario demographic and macroeconomic assumptions

Summary assumptions by country and groups of countries

BASELINE SCENARIO

EU-25: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	440.8	452.9	464.1	469.3	469.4	0.3	0.2	0.1	0.0					
Average household size (persons)	2.6	2.4	2.3	2.1	2.0	-0.8	-0.8	-0.6	-0.5					
Number of households (Million)	166.8	185.5	205.2	220.9	232.7	1.1	1.0	0.7	0.5					
Gross Domestic product (in 000 MEuro'00)	**7294.7**	**8947.0**	**10946.8**	**13656.3**	**16051.4**	**2.1**	**2.0**	**2.2**	**1.6**					
Households expenditure (in 000 MEuro'00)	**4254.7**	**5192.0**	**6327.8**	**7822.6**	**9163.7**	**2.0**	**2.0**	**2.1**	**1.6**					
Gross Value Added (in 000 MEuro'00)	**6796.9**	**8332.2**	**10230.4**	**12785.3**	**15009.0**	**2.1**	**2.1**	**2.3**	**1.6**					
Industry	1459.7	1685.0	1974.0	2454.3	2863.3	1.4	1.6	2.2	1.6	21.5	20.2	19.3	19.2	19.1
iron and steel	48.7	43.5	47.1	51.7	54.7	-1.1	0.8	0.9	0.6	0.7	0.5	0.5	0.4	0.4
non ferrous metals	18.3	21.3	25.7	30.5	33.9	1.5	1.9	1.7	1.1	0.3	0.3	0.3	0.2	0.2
chemicals	139.1	183.6	236.5	308.9	371.7	2.8	2.6	2.7	1.9	2.0	2.2	2.3	2.4	2.5
petrochemicals,fertilisers and others	90.7	106.3	126.0	149.0	166.1	1.6	1.7	1.7	1.1	1.3	1.3	1.2	1.2	1.1
pharmaceuticals and cosmetics	48.4	77.4	110.5	159.8	205.5	4.8	3.6	3.8	2.5	0.7	0.9	1.1	1.3	1.4
non metallic minerals	70.1	79.5	89.1	105.9	118.6	1.3	1.1	1.7	1.1	1.0	1.0	0.9	0.8	0.8
paper, pulp, printing	133.6	157.5	174.1	216.2	252.6	1.7	1.0	2.2	1.6	2.0	1.9	1.7	1.7	1.7
paper and pulp production	46.4	51.8	55.4	65.6	74.4	1.1	0.7	1.7	1.3	0.7	0.6	0.5	0.5	0.5
printing and publishing	87.2	105.7	118.7	150.6	178.2	1.9	1.2	2.4	1.7	1.3	1.3	1.2	1.2	1.2
food, drink, tobacco	174.8	203.5	245.3	307.1	359.6	1.5	1.9	2.3	1.6	2.6	2.4	2.4	2.4	2.4
textiles and leather	109.8	92.5	78.9	78.4	79.0	-1.7	-1.6	-0.1	0.1	1.6	1.1	0.8	0.6	0.5
engineering	614.3	721.2	865.1	1089.4	1280.9	1.6	1.8	2.3	1.6	9.0	8.7	8.5	8.5	8.5
other industries	150.9	182.4	212.2	266.3	312.3	1.9	1.5	2.3	1.6	2.2	2.2	2.1	2.1	2.1
Construction	430.3	434.7	499.8	604.4	683.4	0.1	1.4	1.9	1.2	6.3	5.2	4.9	4.7	4.6
Services	4461.9	5695.7	7210.4	9125.5	10818.9	2.5	2.4	2.4	1.7	65.6	68.4	70.5	71.4	72.1
market services	1591.9	2131.2	2740.7	3538.4	4251.8	3.0	2.5	2.6	1.9	23.4	25.6	26.8	27.7	28.3
non-market services	1448.2	1711.2	2077.2	2435.9	2702.9	1.7	2.0	1.6	1.0	21.3	20.5	20.3	19.1	18.0
trade	1421.8	1853.3	2392.5	3151.3	3864.2	2.7	2.6	2.8	2.1	20.9	22.2	23.4	24.6	25.7
Agriculture	197.3	221.5	229.8	252.8	269.1	1.2	0.4	1.0	0.6	2.9	2.7	2.2	2.0	1.8
Energy sector	247.7	295.3	316.4	348.3	374.1	1.8	0.7	1.0	0.7	3.6	3.5	3.1	2.7	2.5

Source: PRIMES

BASELINE SCENARIO

EU15: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	365.7	378.1	390.7	397.5	398.7	0.3	0.3	0.2	0.0					
Average household size (persons)	2.6	2.4	2.2	2.1	2.0	-0.8	-0.7	-0.7	-0.5					
Number of households (Million)	141.1	157.4	175.1	190.3	201.6	1.1	1.1	0.8	0.6					
Gross Domestic product (in 000 MEuro'00)	**6981.9**	**8572.2**	**10391.5**	**12835.7**	**14948.8**	**2.1**	**1.9**	**2.1**	**1.5**					
Households expenditure (in 000 MEuro'00)	**4074.3**	**4972.5**	**5997.3**	**7329.2**	**8496.5**	**2.0**	**1.9**	**2.0**	**1.5**					
Gross Value Added (in 000 MEuro'00)	**6517.5**	**8001.9**	**9742.6**	**12065.2**	**14042.0**	**2.1**	**2.0**	**2.2**	**1.5**					
Industry	1394.1	1603.2	1839.2	2253.4	2602.1	1.4	1.4	2.1	1.4	21.4	20.0	18.9	18.7	18.5
iron and steel	45.6	40.4	44.2	48.3	50.9	-1.2	0.9	0.9	0.5	0.7	0.5	0.5	0.4	0.4
non ferrous metals	17.8	20.4	24.4	28.9	32.1	1.4	1.8	1.7	1.1	0.3	0.3	0.3	0.2	0.2
chemicals	133.9	177.7	227.4	293.5	350.3	2.9	2.5	2.6	1.8	2.1	2.2	2.3	2.4	2.5
petrochemicals,fertilisers and others	86.7	103.0	120.9	141.5	156.1	1.7	1.6	1.6	1.0	1.3	1.3	1.2	1.2	1.1
pharmaceuticals and cosmetics	47.2	74.7	106.5	152.0	194.2	4.7	3.6	3.6	2.5	0.7	0.9	1.1	1.3	1.4
non metallic minerals	66.2	74.3	80.4	92.8	101.9	1.2	0.8	1.4	0.9	1.0	0.9	0.8	0.8	0.7
paper, pulp, printing	128.5	151.9	164.9	203.0	236.5	1.7	0.8	2.1	1.5	2.0	1.9	1.7	1.7	1.7
paper and pulp production	43.8	49.8	52.6	62.1	70.5	1.3	0.5	1.7	1.3	0.7	0.6	0.5	0.5	0.5
printing and publishing	84.7	102.1	112.2	140.9	166.0	1.9	1.0	2.3	1.7	1.3	1.3	1.2	1.2	1.2
food, drink, tobacco	163.8	188.0	218.1	266.6	306.8	1.4	1.5	2.0	1.4	2.5	2.3	2.2	2.2	2.2
textiles and leather	101.5	86.6	71.8	70.2	70.0	-1.6	-1.9	-0.2	0.0	1.6	1.1	0.7	0.6	0.5
engineering	593.4	692.3	815.1	1013.6	1180.4	1.6	1.6	2.2	1.5	9.1	8.7	8.4	8.4	8.4
other industries	143.5	171.6	192.9	236.6	273.1	1.8	1.2	2.1	1.4	2.2	2.1	2.0	2.0	1.9
Construction	406.5	414.2	474.1	563.7	629.7	0.2	1.4	1.7	1.1	6.2	5.2	4.9	4.7	4.5
Services	4314.7	5504.6	6926.5	8698.2	10225.9	2.5	2.3	2.3	1.6	66.2	68.8	71.1	72.1	72.8
market services	1556.7	2083.8	2667.8	3425.4	4091.7	3.0	2.5	2.5	1.8	23.9	26.0	27.4	28.4	29.1
non-market services	1394.1	1654.5	2004.6	2339.9	2583.4	1.7	1.9	1.6	1.0	21.4	20.7	20.6	19.4	18.4
trade	1363.8	1766.3	2254.1	2932.9	3550.8	2.6	2.5	2.7	1.9	20.9	22.1	23.1	24.3	25.3
Agriculture	180.7	204.2	206.1	223.8	235.5	1.2	0.1	0.8	0.5	2.8	2.6	2.1	1.9	1.7
Energy sector	221.5	275.7	296.7	326.1	348.9	2.2	0.7	0.9	0.7	3.4	3.4	3.0	2.7	2.5

Source: PRIMES

BASELINE SCENARIO

New Member States: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	75.0	74.9	73.4	71.8	70.6	0.0	-0.2	-0.2	-0.2					
Average household size (persons)	2.9	2.7	2.4	2.3	2.3	-0.9	-0.8	-0.4	-0.3					
Number of households (Million)	25.7	28.2	30.1	30.6	31.2	0.9	0.6	0.2	0.2					
Gross Domestic product (in 000 MEuro'00)	**312.8**	**374.8**	**555.3**	**820.6**	**1102.7**	**1.8**	**4.0**	**4.0**	**3.0**					
Households expenditure (in 000 MEuro'00)	**180.4**	**219.5**	**330.4**	**493.4**	**667.2**	**2.0**	**4.2**	**4.1**	**3.1**					
Gross Value Added (in 000 MEuro'00)	**279.4**	**330.3**	**487.9**	**720.0**	**966.9**	**1.7**	**4.0**	**4.0**	**3.0**					
Industry	65.6	81.8	134.8	200.9	261.3	2.2	5.1	4.1	2.7	23.5	24.8	27.6	27.9	27.0
iron and steel	3.1	3.0	3.6	4.1	4.5	-0.2	1.7	1.3	0.9	1.1	0.9	0.7	0.6	0.5
non ferrous metals	0.5	0.9	1.2	1.6	1.8	5.6	3.2	2.3	1.5	0.2	0.3	0.3	0.2	0.2
chemicals	5.3	6.0	9.2	15.4	21.3	1.2	4.4	5.3	3.3	1.9	1.8	1.9	2.1	2.2
petrochemicals,fertilisers and others	4.0	3.3	4.1	5.8	7.5	-2.0	2.1	3.6	2.6	1.4	1.0	0.8	0.8	0.8
pharmaceuticals and cosmetics	1.2	2.7	5.1	9.6	13.8	7.9	6.7	6.6	3.7	0.4	0.8	1.0	1.3	1.4
non metallic minerals	3.9	5.2	8.6	13.1	16.6	3.0	5.2	4.3	2.4	1.4	1.6	1.8	1.8	1.7
paper, pulp, printing	5.2	5.6	9.3	13.2	16.1	0.7	5.2	3.6	2.0	1.9	1.7	1.9	1.8	1.7
paper and pulp production	2.6	2.0	2.8	3.4	3.9	-2.9	3.6	2.1	1.3	0.9	0.6	0.6	0.5	0.4
printing and publishing	2.5	3.6	6.5	9.7	12.2	3.5	6.1	4.2	2.3	0.9	1.1	1.3	1.4	1.3
food, drink, tobacco	11.1	15.5	27.2	40.6	52.8	3.4	5.8	4.1	2.7	4.0	4.7	5.6	5.6	5.5
textiles and leather	8.3	5.9	7.1	8.2	9.1	-3.3	1.9	1.4	1.1	3.0	1.8	1.5	1.1	0.9
engineering	20.9	28.9	49.3	75.1	99.8	3.3	5.5	4.3	2.9	7.5	8.8	10.1	10.4	10.3
other industries	7.4	10.8	19.3	29.6	39.2	3.8	6.0	4.4	2.8	2.6	3.3	4.0	4.1	4.1
Construction	23.7	20.6	25.7	40.7	53.8	-1.4	2.3	4.7	2.8	8.5	6.2	5.3	5.6	5.6
Services	147.3	191.0	283.9	427.3	593.0	2.6	4.0	4.2	3.3	52.7	57.8	58.2	59.3	61.3
market services	35.2	47.4	72.9	112.9	160.1	3.0	4.4	4.5	3.5	12.6	14.4	14.9	15.7	16.6
non-market services	54.1	56.6	72.6	96.0	119.6	0.5	2.5	2.8	2.2	19.4	17.1	14.9	13.3	12.4
trade	58.0	87.0	138.4	218.4	313.4	4.1	4.8	4.7	3.7	20.8	26.3	28.4	30.3	32.4
Agriculture	16.6	17.3	23.7	29.0	33.6	0.4	3.2	2.1	1.5	6.0	5.2	4.9	4.0	3.5
Energy sector	26.1	19.5	19.7	22.2	25.3	-2.9	0.1	1.2	1.3	9.4	5.9	4.0	3.1	2.6

Source: PRIMES

BASELINE SCENARIO

EU-27: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	472.7	483.5	492.8	496.4	494.8	0.2	0.2	0.1	0.0					
Average household size (persons)	2.7	2.5	2.3	2.1	2.0	-0.8	-0.8	-0.6	-0.5					
Number of households (Million)	177.0	196.5	216.6	232.2	243.8	1.0	1.0	0.7	0.5					
Gross Domestic product (in 000 MEuro'00)	**7358.9**	**9001.0**	**11044.1**	**13825.4**	**16315.6**	**2.0**	**2.1**	**2.3**	**1.7**					
Households expenditure (in 000 MEuro'00)	**4298.2**	**5232.0**	**6400.6**	**7938.0**	**9331.0**	**2.0**	**2.0**	**2.2**	**1.6**					
Gross Value Added (in 000 MEuro'00)	**6859.9**	**8382.6**	**10318.6**	**12935.7**	**15242.0**	**2.0**	**2.1**	**2.3**	**1.7**					
Industry	1479.4	1699.3	1998.9	2497.7	2932.0	1.4	1.6	2.3	1.6	21.6	20.3	19.4	19.3	19.2
iron and steel	49.6	44.2	48.1	52.9	56.2	-1.1	0.8	1.0	0.6	0.7	0.5	0.5	0.4	0.4
non ferrous metals	18.5	21.3	25.7	30.5	34.0	1.4	1.9	1.7	1.1	0.3	0.3	0.2	0.2	0.2
chemicals	140.7	184.6	238.8	313.5	379.5	2.8	2.6	2.8	1.9	2.1	2.2	2.3	2.4	2.5
petrochemicals,fertilisers and others	92.1	106.8	127.0	150.8	169.0	1.5	1.7	1.7	1.1	1.3	1.3	1.2	1.2	1.1
pharmaceuticals and cosmetics	48.6	77.7	111.8	162.7	210.5	4.8	3.7	3.8	2.6	0.7	0.9	1.1	1.3	1.4
non metallic minerals	71.3	80.2	90.0	107.5	120.9	1.2	1.2	1.8	1.2	1.0	1.0	0.9	0.8	0.8
paper, pulp, printing	134.1	158.0	175.0	217.8	255.2	1.7	1.0	2.2	1.6	2.0	1.9	1.7	1.7	1.7
paper and pulp production	46.8	52.0	55.7	65.9	74.9	1.1	0.7	1.7	1.3	0.7	0.6	0.5	0.5	0.5
printing and publishing	87.4	106.0	119.3	151.8	180.3	2.0	1.2	2.4	1.7	1.3	1.3	1.2	1.2	1.2
food, drink, tobacco	178.8	208.1	253.3	319.5	377.7	1.5	2.0	2.3	1.7	2.6	2.5	2.5	2.5	2.5
textiles and leather	111.7	94.7	81.7	82.4	84.3	-1.6	-1.5	0.1	0.2	1.6	1.1	0.8	0.6	0.6
engineering	620.8	724.3	870.9	1101.3	1301.9	1.6	1.9	2.4	1.7	9.0	8.6	8.4	8.5	8.5
other industries	153.9	183.9	215.3	272.3	322.3	1.8	1.6	2.4	1.7	2.2	2.2	2.1	2.1	2.1
Construction	433.0	437.6	505.5	615.3	701.7	0.1	1.5	2.0	1.3	6.3	5.2	4.9	4.8	4.6
Services	4484.8	5717.9	7251.5	9197.6	10931.3	2.5	2.4	2.4	1.7	65.4	68.2	70.3	71.1	71.7
market services	1598.0	2136.7	2754.3	3562.8	4289.9	2.9	2.6	2.6	1.9	23.3	25.5	26.7	27.5	28.1
non-market services	1452.8	1717.5	2086.6	2451.7	2727.2	1.7	2.0	1.6	1.1	21.2	20.5	20.2	19.0	17.9
trade	1434.0	1863.7	2410.6	3183.1	3914.2	2.7	2.6	2.8	2.1	20.9	22.2	23.4	24.6	25.7
Agriculture	212.0	229.2	240.7	267.6	288.6	0.8	0.5	1.1	0.8	3.1	2.7	2.3	2.1	1.9
Energy sector	250.7	298.6	322.0	357.5	388.3	1.8	0.8	1.1	0.8	3.7	3.6	3.1	2.8	2.5

Source: PRIMES

BASELINE SCENARIO

EU-28: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	528.9	551.0	570.0	582.2	587.5	0.4	0.3	0.2	0.1					
Average household size (persons)	2.8	2.6	2.4	2.3	2.2	-0.7	-0.8	-0.6	-0.5					
Number of households (Million)	188.7	211.6	236.2	256.1	271.6	1.2	1.1	0.8	0.6					
Gross Domestic product (in 000 MEuro'00)	**7511.4**	**9217.8**	**11370.5**	**14408.7**	**17374.7**	**2.1**	**2.1**	**2.4**	**1.9**					
Households expenditure (in 000 MEuro'00)	**4408.1**	**5385.6**	**6618.6**	**8314.0**	**9999.5**	**2.0**	**2.1**	**2.3**	**1.9**					
Gross Value Added (in 000 MEuro'00)	**7018.4**	**8606.7**	**10654.2**	**13535.5**	**16331.0**	**2.1**	**2.2**	**2.4**	**1.9**					
Industry	1511.6	1748.0	2078.8	2644.5	3206.2	1.5	1.7	2.4	1.9	21.5	20.3	19.5	19.5	19.6
iron and steel	51.6	46.9	51.3	56.9	61.3	-0.9	0.9	1.1	0.7	0.7	0.5	0.5	0.4	0.4
non ferrous metals	18.8	21.6	25.9	30.8	34.3	1.4	1.9	1.7	1.1	0.3	0.3	0.2	0.2	0.2
chemicals	143.9	189.4	246.9	328.7	407.9	2.8	2.7	2.9	2.2	2.1	2.2	2.3	2.4	2.5
petrochemicals,fertilisers and others	95.3	111.5	134.4	163.3	189.9	1.6	1.9	2.0	1.5	1.4	1.3	1.3	1.2	1.2
pharmaceuticals and cosmetics	48.6	78.0	112.5	165.3	218.0	4.8	3.7	3.9	2.8	0.7	0.9	1.1	1.2	1.3
non metallic minerals	73.9	83.8	94.8	116.2	136.3	1.3	1.2	2.1	1.6	1.1	1.0	0.9	0.9	0.8
paper, pulp, printing	135.1	159.5	177.7	222.9	264.9	1.7	1.1	2.3	1.7	1.9	1.9	1.7	1.6	1.6
paper and pulp production	47.4	52.6	56.5	67.2	76.7	1.0	0.7	1.7	1.3	0.7	0.6	0.5	0.5	0.5
printing and publishing	87.7	106.9	121.2	155.8	188.2	2.0	1.3	2.5	1.9	1.2	1.2	1.1	1.2	1.2
food, drink, tobacco	182.0	214.4	264.2	339.2	414.2	1.7	2.1	2.5	2.0	2.6	2.5	2.5	2.5	2.5
textiles and leather	119.8	102.0	89.3	91.8	97.3	-1.6	-1.3	0.3	0.6	1.7	1.2	0.8	0.7	0.6
engineering	624.0	734.1	894.4	1151.3	1405.1	1.6	2.0	2.6	2.0	8.9	8.5	8.4	8.5	8.6
other industries	162.6	196.2	234.2	306.5	384.8	1.9	1.8	2.7	2.3	2.3	2.3	2.2	2.3	2.4
Construction	442.0	447.6	517.3	636.6	743.7	0.1	1.5	2.1	1.6	6.3	5.2	4.9	4.7	4.6
Services	4569.8	5844.6	7449.0	9556.4	11585.1	2.5	2.5	2.5	1.9	65.1	67.9	69.9	70.6	70.9
market services	1616.0	2159.2	2791.1	3641.7	4467.7	2.9	2.6	2.7	2.1	23.0	25.1	26.2	26.9	27.4
non-market services	1471.8	1746.4	2133.6	2537.1	2877.4	1.7	2.0	1.7	1.3	21.0	20.3	20.0	18.7	17.6
trade	1482.0	1939.0	2524.3	3377.6	4240.1	2.7	2.7	3.0	2.3	21.1	22.5	23.7	25.0	26.0
Agriculture	239.0	259.7	277.0	325.0	381.9	0.8	0.6	1.6	1.6	3.4	3.0	2.6	2.4	2.3
Energy sector	256.1	306.8	332.1	373.1	414.1	1.8	0.8	1.2	1.0	3.6	3.6	3.1	2.8	2.5

Source: PRIMES

BASELINE SCENARIO

EUROPE - 30: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	540.0	562.7	582.1	594.6	600.3	0.4	0.3	0.2	0.1					
Average household size (persons)	2.8	2.6	2.4	2.3	2.2	-0.7	-0.8	-0.6	-0.5					
Number of households (Million)	193.5	217.1	242.4	263.0	278.8	1.2	1.1	0.8	0.6					
Gross Domestic product (in 000 MEuro'00)	**7877.3**	**9665.6**	**11898.8**	**15057.8**	**18137.4**	**2.1**	**2.1**	**2.4**	**1.9**					
Households expenditure (in 000 MEuro'00)	**4613.4**	**5634.9**	**6917.6**	**8684.4**	**10436.6**	**2.0**	**2.1**	**2.3**	**1.9**					
Gross Value Added (in 000 MEuro'00)	**7340.7**	**9000.6**	**11123.8**	**14116.6**	**17016.6**	**2.1**	**2.1**	**2.4**	**1.9**					
Industry	1568.1	1829.4	2172.6	2761.5	3343.6	1.6	1.7	2.4	1.9	21.4	20.3	19.5	19.6	19.6
iron and steel	53.4	48.4	53.6	59.5	63.9	-1.0	1.0	1.0	0.7	0.7	0.5	0.5	0.4	0.4
non ferrous metals	20.1	23.4	28.1	33.4	37.3	1.5	1.9	1.7	1.1	0.3	0.3	0.3	0.2	0.2
chemicals	150.9	201.0	260.0	345.2	427.5	2.9	2.6	2.9	2.2	2.1	2.2	2.3	2.4	2.5
petrochemicals,fertilisers and others	98.3	114.6	136.6	165.3	191.6	1.5	1.8	1.9	1.5	1.3	1.3	1.2	1.2	1.1
pharmaceuticals and cosmetics	52.6	86.3	123.4	179.9	235.9	5.1	3.6	3.8	2.7	0.7	1.0	1.1	1.3	1.4
non metallic minerals	75.4	86.1	97.3	119.2	139.6	1.3	1.2	2.0	1.6	1.0	1.0	0.9	0.8	0.8
paper, pulp, printing	144.0	168.5	187.8	235.5	279.6	1.6	1.1	2.3	1.7	2.0	1.9	1.7	1.7	1.6
paper and pulp production	50.7	55.0	59.2	70.4	80.4	0.8	0.7	1.7	1.3	0.7	0.6	0.5	0.5	0.5
printing and publishing	93.3	113.5	128.6	165.1	199.2	2.0	1.3	2.5	1.9	1.3	1.3	1.2	1.2	1.2
food, drink, tobacco	187.0	222.4	272.8	349.8	426.9	1.7	2.1	2.5	2.0	2.5	2.5	2.5	2.5	2.5
textiles and leather	120.9	103.8	91.0	93.6	99.2	-1.5	-1.3	0.3	0.6	1.6	1.2	0.8	0.7	0.6
engineering	650.2	771.2	938.2	1207.1	1471.2	1.7	2.0	2.6	2.0	8.9	8.6	8.4	8.6	8.6
other industries	166.3	204.6	243.7	318.3	398.4	2.1	1.8	2.7	2.3	2.3	2.3	2.2	2.3	2.3
Construction	457.7	464.0	534.7	655.6	764.4	0.1	1.4	2.1	1.5	6.2	5.2	4.8	4.6	4.5
Services	4788.3	6096.5	7758.8	9943.3	12045.1	2.4	2.4	2.5	1.9	65.2	67.7	69.7	70.4	70.8
market services	1713.2	2273.1	2931.7	3819.5	4680.9	2.9	2.6	2.7	2.1	23.3	25.3	26.4	27.1	27.5
non-market services	1536.6	1815.0	2214.2	2633.1	2987.6	1.7	2.0	1.7	1.3	20.9	20.2	19.9	18.7	17.6
trade	1538.5	2008.4	2612.9	3490.7	4376.5	2.7	2.7	2.9	2.3	21.0	22.3	23.5	24.7	25.7
Agriculture	246.5	267.2	284.7	333.1	390.4	0.8	0.6	1.6	1.6	3.4	3.0	2.6	2.4	2.3
Energy sector	280.1	343.6	373.0	423.0	473.2	2.1	0.8	1.3	1.1	3.8	3.8	3.4	3.0	2.8

Source: PRIMES

BASELINE SCENARIO
AUSTRIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	7.7	8.0	8.3	8.4	8.5	0.4	0.3	0.2	0.1					
Average household size (persons)	2.6	2.5	2.4	2.3	2.2	-0.3	-0.5	-0.4	-0.4					
Number of households (Million)	3.0	3.2	3.5	3.7	3.9	0.7	0.8	0.7	0.4					
Gross Domestic product (in 000 MEuro'00)	**163.5**	**210.4**	**254.6**	**309.0**	**353.9**	**2.6**	**1.9**	**2.0**	**1.4**					
Households expenditure (in 000 MEuro'00)	**93.6**	**115.7**	**136.8**	**165.2**	**188.4**	**2.1**	**1.7**	**1.9**	**1.3**					
Gross Value Added (in 000 MEuro'00)	**146.2**	**189.1**	**229.7**	**279.5**	**320.7**	**2.6**	**2.0**	**2.0**	**1.4**					
Industry	29.5	38.4	49.7	60.8	70.0	2.7	2.6	2.0	1.4	20.2	20.3	21.6	21.8	21.8
iron and steel	1.4	1.7	2.1	2.2	2.3	1.9	2.4	0.5	0.2	0.9	0.9	0.9	0.8	0.7
non ferrous metals	0.5	0.7	1.1	1.5	1.8	3.9	4.4	3.0	2.4	0.3	0.4	0.5	0.5	0.6
chemicals	1.7	2.5	3.5	4.5	5.4	4.1	3.5	2.5	1.9	1.1	1.3	1.5	1.6	1.7
petrochemicals,fertilisers and others	1.1	1.4	1.8	2.1	2.4	1.8	2.6	1.9	1.2	0.8	0.7	0.8	0.8	0.8
pharmaceuticals and cosmetics	0.5	1.1	1.7	2.4	3.0	7.9	4.5	3.1	2.4	0.4	0.6	0.8	0.8	0.9
non metallic minerals	2.3	2.3	2.7	3.2	3.5	0.1	1.4	1.8	0.9	1.6	1.2	1.2	1.1	1.1
paper, pulp, printing	2.7	3.9	4.4	5.2	5.8	3.8	1.1	1.7	1.1	1.8	2.1	1.9	1.8	1.8
paper and pulp production	1.3	1.9	1.9	2.1	2.3	4.1	0.2	0.9	0.7	0.9	1.0	0.8	0.8	0.7
printing and publishing	1.4	2.0	2.4	3.0	3.5	3.6	1.9	2.3	1.4	1.0	1.1	1.1	1.1	1.1
food, drink, tobacco	3.3	4.5	5.1	6.2	7.0	3.2	1.3	1.9	1.3	2.2	2.4	2.2	2.2	2.2
textiles and leather	2.3	1.9	1.8	1.7	1.7	-1.9	-0.6	-0.2	-0.1	1.6	1.0	0.8	0.6	0.5
engineering	11.1	15.0	21.1	26.6	31.4	3.1	3.5	2.4	1.7	7.6	7.9	9.2	9.5	9.8
other industries	4.3	6.0	8.0	9.8	11.1	3.2	2.9	2.1	1.2	3.0	3.2	3.5	3.5	3.4
Construction	10.4	14.2	16.2	19.0	21.3	3.1	1.4	1.6	1.2	7.1	7.5	7.1	6.8	6.6
Services	96.8	124.6	148.9	182.3	210.0	2.6	1.8	2.0	1.4	66.2	65.9	64.8	65.2	65.5
market services	27.9	38.7	47.2	58.3	68.4	3.3	2.0	2.1	1.6	19.1	20.5	20.6	20.8	21.3
non-market services	33.2	39.5	42.6	49.9	54.6	1.8	0.8	1.6	0.9	22.7	20.9	18.6	17.8	17.0
trade	35.7	46.3	59.1	74.2	87.0	2.6	2.5	2.3	1.6	24.4	24.5	25.7	26.5	27.1
Agriculture	4.3	4.9	5.8	6.7	7.3	1.2	1.8	1.4	0.9	3.0	2.6	2.5	2.4	2.3
Energy sector	5.1	7.1	9.0	10.8	12.2	3.3	2.5	1.8	1.2	3.5	3.7	3.9	3.8	3.8

Source: PRIMES

BASELINE SCENARIO
BELGIUM: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	10.0	10.2	10.6	10.8	11.0	0.3	0.3	0.2	0.2					
Average household size (persons)	2.6	2.4	2.3	2.2	2.1	-0.6	-0.6	-0.5	-0.4					
Number of households (Million)	3.9	4.2	4.6	5.0	5.3	0.8	0.9	0.8	0.6					
Gross Domestic product (in 000 MEuro'00)	**200.1**	**247.9**	**302.9**	**370.1**	**431.7**	**2.2**	**2.0**	**2.0**	**1.5**					
Households expenditure (in 000 MEuro'00)	**108.0**	**132.2**	**157.1**	**185.9**	**213.1**	**2.0**	**1.7**	**1.7**	**1.4**					
Gross Value Added (in 000 MEuro'00)	**188.0**	**229.1**	**278.0**	**336.6**	**390.2**	**2.0**	**2.0**	**1.9**	**1.5**					
Industry	39.8	46.4	53.4	62.5	71.5	1.6	1.4	1.6	1.3	21.1	20.3	19.2	18.6	18.3
iron and steel	3.6	2.6	2.7	2.8	2.8	-3.1	0.3	0.1	0.0	1.9	1.1	1.0	0.8	0.7
non ferrous metals	1.1	1.0	1.3	1.4	1.5	-0.4	2.3	1.0	0.3	0.6	0.4	0.5	0.4	0.4
chemicals	6.2	9.6	12.2	14.9	17.6	4.5	2.5	2.0	1.7	3.3	4.2	4.4	4.4	4.5
petrochemicals,fertilisers and others	4.1	6.1	7.1	7.9	8.4	4.0	1.5	1.1	0.6	2.2	2.7	2.6	2.4	2.2
pharmaceuticals and cosmetics	2.0	3.4	5.1	6.9	9.2	5.3	4.0	3.1	2.8	1.1	1.5	1.8	2.1	2.3
non metallic minerals	2.1	2.1	2.1	2.5	2.7	0.2	0.0	1.5	0.9	1.1	0.9	0.8	0.7	0.7
paper, pulp, printing	2.9	3.3	3.9	4.7	5.3	1.1	1.9	1.8	1.4	1.6	1.4	1.4	1.4	1.4
paper and pulp production	1.6	1.2	1.4	1.6	1.8	-3.4	1.7	1.5	0.9	0.9	0.5	0.5	0.5	0.4
printing and publishing	1.3	2.1	2.6	3.1	3.6	5.0	1.9	1.9	1.6	0.7	0.9	0.9	0.9	0.9
food, drink, tobacco	5.2	5.1	6.1	7.0	7.8	-0.1	1.7	1.4	1.0	2.8	2.2	2.2	2.1	2.0
textiles and leather	2.7	2.6	2.2	2.2	2.2	-0.3	-1.5	-0.1	0.0	1.4	1.1	0.8	0.7	0.6
engineering	12.8	16.2	18.3	21.6	25.1	2.4	1.2	1.7	1.5	6.8	7.1	6.6	6.4	6.4
other industries	3.2	3.8	4.5	5.5	6.5	1.8	1.6	2.1	1.7	1.7	1.7	1.6	1.6	1.7
Construction	10.1	11.6	13.1	15.0	16.7	1.4	1.2	1.3	1.1	5.4	5.1	4.7	4.5	4.3
Services	128.6	158.9	199.9	246.4	288.4	2.1	2.3	2.1	1.6	68.4	69.4	71.9	73.2	73.9
market services	44.1	62.7	78.1	96.9	115.2	3.6	2.2	2.2	1.7	23.4	27.3	28.1	28.8	29.5
non-market services	45.0	52.3	64.0	75.4	81.2	1.5	2.0	1.7	0.7	23.9	22.8	23.0	22.4	20.8
trade	39.6	44.0	57.7	74.0	92.0	1.1	2.8	2.5	2.2	21.0	19.2	20.8	22.0	23.6
Agriculture	2.6	3.7	3.7	4.0	4.1	3.7	0.0	0.8	0.3	1.4	1.6	1.3	1.2	1.1
Energy sector	7.0	8.5	7.9	8.8	9.6	2.0	-0.7	1.0	0.9	3.7	3.7	2.9	2.6	2.4

Source: PRIMES

BASELINE SCENARIO
CYPRUS: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	0.6	0.7	0.8	0.9	0.9	1.9	1.2	1.0	0.6					
Average household size (persons)	4.6	4.7	4.5	4.5	4.6	0.1	-0.4	0.1	0.2					
Number of households (Million)	0.1	0.1	0.2	0.2	0.2	1.8	1.6	0.9	0.4					
Gross Domestic product (in 000 MEuro'00)	**6.3**	**9.9**	**14.2**	**19.9**	**24.9**	**4.5**	**3.7**	**3.5**	**2.3**					
Households expenditure (in 000 MEuro'00)	**3.6**	**6.5**	**9.6**	**13.7**	**17.0**	**6.0**	**3.9**	**3.6**	**2.2**					
Gross Value Added (in 000 MEuro'00)	**5.9**	**9.3**	**13.4**	**19.0**	**23.8**	**4.7**	**3.7**	**3.5**	**2.3**					
Industry	0.7	0.9	1.2	1.7	2.1	2.7	2.4	3.3	2.3	12.3	10.2	9.0	8.8	8.8
iron and steel	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
non ferrous metals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
chemicals	0.0	0.1	0.1	0.1	0.1	7.2	0.9	3.0	2.0	0.6	0.7	0.5	0.5	0.5
petrochemicals,fertilisers and others	0.0	0.0	0.0	0.0	0.0	3.4	-0.8	0.7	0.4	0.2	0.2	0.1	0.1	0.1
pharmaceuticals and cosmetics	0.0	0.1	0.1	0.1	0.1	8.8	1.4	3.5	2.3	0.4	0.5	0.4	0.4	0.4
non metallic minerals	0.1	0.1	0.2	0.2	0.3	0.1	4.1	3.3	1.6	1.8	1.2	1.2	1.2	1.1
paper, pulp, printing	0.0	0.1	0.1	0.1	0.1		1.6	2.4	1.2	0.0	0.9	0.8	0.7	0.6
paper and pulp production	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
printing and publishing	0.0	0.1	0.1	0.1	0.1		1.6	2.4	1.2	0.0	0.9	0.8	0.7	0.6
food, drink, tobacco	0.2	0.3	0.4	0.6	0.7	6.3	2.8	3.3	2.3	2.8	3.2	3.0	2.9	2.9
textiles and leather	0.2	0.1	0.1	0.1	0.1	-7.3	-3.7	-0.2	0.5	2.7	0.8	0.4	0.3	0.2
engineering	0.1	0.1	0.2	0.3	0.5	1.5	4.2	4.9	3.9	2.0	1.5	1.6	1.8	2.1
other industries	0.1	0.2	0.2	0.3	0.3	1.7	1.9	2.6	1.6	2.4	1.8	1.5	1.4	1.3
Construction	0.8	0.6	1.0	1.5	1.8	-2.3	5.4	3.5	1.8	13.2	6.6	7.8	7.8	7.4
Services	3.9	7.1	10.3	14.7	18.7	6.2	3.7	3.6	2.4	65.7	76.2	76.4	77.4	78.4
market services	1.1	2.1	3.4	4.9	6.3	6.7	4.8	3.9	2.5	18.6	22.6	25.0	25.9	26.4
non-market services	1.1	1.9	2.9	4.0	4.8	5.9	4.2	3.4	1.9	18.1	20.4	21.3	21.1	20.3
trade	1.7	3.1	4.1	5.8	7.5	6.1	2.7	3.6	2.7	29.0	33.3	30.1	30.5	31.7
Agriculture	0.3	0.4	0.5	0.6	0.7	1.4	2.8	1.7	1.3	5.7	4.1	3.8	3.2	2.9
Energy sector	0.2	0.3	0.4	0.5	0.6	3.5	4.6	2.7	1.6	3.2	2.8	3.1	2.8	2.6

Source: PRIMES

BASELINE SCENARIO
CZECH REPUBLIC: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	10.4	10.3	10.1	9.9	9.7	-0.1	-0.1	-0.2	-0.2					
Average household size (persons)	2.9	2.6	2.4	2.3	2.3	-0.9	-0.7	-0.4	-0.3					
Number of households (Million)	3.6	3.9	4.2	4.2	4.3	0.8	0.5	0.2	0.0					
Gross Domestic product (in 000 MEuro'00)	**59.0**	**60.4**	**84.3**	**117.1**	**147.3**	**0.2**	**3.4**	**3.3**	**2.3**					
Households expenditure (in 000 MEuro'00)	**30.4**	**32.1**	**45.7**	**65.8**	**84.0**	**0.6**	**3.6**	**3.7**	**2.5**					
Gross Value Added (in 000 MEuro'00)	**53.1**	**56.6**	**77.3**	**105.0**	**130.4**	**0.6**	**3.2**	**3.1**	**2.2**					
Industry	13.0	15.2	24.0	32.6	40.3	1.6	4.7	3.1	2.1	24.4	26.9	31.1	31.1	30.9
iron and steel	0.6	0.8	1.0	1.1	1.1	2.6	1.8	0.9	0.7	1.2	1.4	1.3	1.0	0.9
non ferrous metals	0.1	0.1	0.2	0.2	0.2	10.0	2.1	1.1	0.7	0.1	0.2	0.2	0.2	0.2
chemicals	1.3	1.0	1.3	1.9	2.7	-2.0	2.3	4.0	3.3	2.4	1.8	1.7	1.8	2.0
petrochemicals,fertilisers and others	1.1	0.8	0.9	1.2	1.5	-3.7	1.6	2.6	2.5	2.1	1.4	1.2	1.1	1.1
pharmaceuticals and cosmetics	0.2	0.3	0.4	0.8	1.2	5.7	4.2	6.6	4.4	0.3	0.5	0.5	0.7	0.9
non metallic minerals	0.9	1.3	1.9	2.7	3.3	4.0	3.5	3.5	2.1	1.7	2.4	2.4	2.5	2.5
paper, pulp, printing	1.5	0.9	1.2	1.6	2.0	-5.5	3.5	3.0	2.1	2.9	1.5	1.6	1.6	1.5
paper and pulp production	1.0	0.4	0.5	0.7	0.8	-7.9	2.8	2.2	1.7	1.8	0.7	0.7	0.6	0.6
printing and publishing	0.6	0.4	0.7	1.0	1.2	-2.3	4.2	3.7	2.3	1.1	0.8	0.9	0.9	0.9
food, drink, tobacco	1.4	1.8	2.9	4.0	5.1	2.6	4.7	3.4	2.4	2.7	3.2	3.7	3.8	3.9
textiles and leather	2.0	1.0	0.9	0.9	0.9	-7.0	-0.7	0.3	0.3	3.7	1.7	1.1	0.9	0.7
engineering	3.6	6.4	11.0	15.1	18.6	6.0	5.5	3.2	2.1	6.8	11.4	14.3	14.3	14.3
other industries	1.6	1.8	3.6	5.1	6.4	1.2	7.2	3.5	2.2	3.0	3.2	4.7	4.9	4.9
Construction	6.5	3.0	3.3	4.7	5.8	-7.4	0.9	3.6	2.1	12.2	5.3	4.2	4.5	4.4
Services	24.1	31.6	43.3	60.3	76.2	2.7	3.2	3.4	2.4	45.3	55.8	56.0	57.4	58.5
market services	8.4	9.6	14.8	21.3	26.8	1.4	4.5	3.7	2.3	15.7	16.9	19.2	20.3	20.5
non-market services	6.9	7.7	9.0	11.5	14.2	1.2	1.5	2.6	2.1	12.9	13.7	11.6	11.0	10.9
trade	8.8	14.2	19.5	27.5	35.3	4.9	3.2	3.5	2.5	16.6	25.2	25.2	26.2	27.1
Agriculture	1.9	2.9	2.8	3.1	3.3	4.3	-0.2	0.9	0.7	3.5	5.1	3.6	2.9	2.5
Energy sector	7.7	3.9	3.9	4.4	4.8	-6.6	0.1	1.1	0.9	14.5	6.9	5.1	4.2	3.7

Source: PRIMES

BASELINE SCENARIO
DENMARK: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	5.1	5.3	5.5	5.5	5.6	0.4	0.2	0.1	0.1					
Average household size (persons)	2.3	2.2	2.1	2.0	1.9	-0.4	-0.6	-0.5	-0.4					
Number of households (Million)	2.2	2.4	2.6	2.8	2.9	0.7	0.8	0.7	0.5					
Gross Domestic product (in 000 MEuro'00)	**136.3**	**171.6**	**202.2**	**235.2**	**269.2**	**2.3**	**1.7**	**1.5**	**1.4**					
Households expenditure (in 000 MEuro'00)	**67.6**	**81.7**	**97.5**	**112.5**	**128.1**	**1.9**	**1.8**	**1.4**	**1.3**					
Gross Value Added (in 000 MEuro'00)	**124.7**	**154.4**	**181.6**	**211.0**	**241.3**	**2.2**	**1.6**	**1.5**	**1.4**					
Industry	21.0	24.8	26.5	30.3	34.1	1.7	0.7	1.4	1.2	16.8	16.1	14.6	14.4	14.1
iron and steel	0.3	0.3	0.3	0.3	0.3	1.8	-0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1
non ferrous metals	0.1	0.1	0.2	0.3	0.3	3.1	4.2	2.6	2.1	0.1	0.1	0.1	0.1	0.1
chemicals	1.5	3.6	3.9	4.6	5.3	9.0	0.8	1.8	1.4	1.2	2.3	2.1	2.2	2.2
petrochemicals,fertilisers and others	0.6	1.1	1.1	1.2	1.3	6.2	0.4	1.1	0.7	0.5	0.7	0.6	0.6	0.5
pharmaceuticals and cosmetics	0.9	2.5	2.8	3.4	4.0	10.4	1.0	2.1	1.7	0.7	1.6	1.5	1.6	1.7
non metallic minerals	1.0	1.2	1.1	1.3	1.4	1.5	-0.5	1.2	1.2	0.8	0.8	0.6	0.6	0.6
paper, pulp, printing	2.6	2.6	2.4	2.8	3.1	-0.2	-0.6	1.3	1.2	2.1	1.7	1.3	1.3	1.3
paper and pulp production	0.9	0.5	0.5	0.6	0.7	-4.6	0.1	1.1	0.8	0.7	0.3	0.3	0.3	0.3
printing and publishing	1.8	2.0	1.9	2.2	2.4	1.4	-0.8	1.4	1.3	1.4	1.3	1.0	1.0	1.0
food, drink, tobacco	3.9	4.0	4.6	5.3	6.0	0.3	1.3	1.4	1.2	3.1	2.6	2.5	2.5	2.5
textiles and leather	1.0	0.7	0.5	0.5	0.5	-3.0	-3.0	-0.4	-0.3	0.8	0.5	0.3	0.2	0.2
engineering	7.5	9.1	10.1	11.4	12.9	1.9	1.0	1.3	1.2	6.0	5.9	5.5	5.4	5.3
other industries	3.1	3.2	3.4	3.8	4.3	0.4	0.6	1.3	1.2	2.5	2.1	1.9	1.8	1.8
Construction	6.4	7.3	8.4	9.6	10.9	1.4	1.3	1.4	1.2	5.1	4.8	4.6	4.6	4.5
Services	89.7	111.0	135.2	158.7	183.4	2.2	2.0	1.6	1.5	71.9	71.9	74.5	75.2	76.0
market services	30.3	35.9	43.5	51.8	60.8	1.7	1.9	1.8	1.6	24.3	23.2	23.9	24.5	25.2
non-market services	32.4	37.7	42.9	46.7	49.6	1.5	1.3	0.9	0.6	26.0	24.4	23.6	22.1	20.5
trade	27.0	37.4	48.8	60.2	73.0	3.3	2.7	2.1	1.9	21.6	24.2	26.9	28.5	30.2
Agriculture	4.2	5.5	5.8	6.2	6.4	2.8	0.5	0.7	0.3	3.4	3.6	3.2	2.9	2.6
Energy sector	3.5	5.8	5.7	6.3	6.6	5.3	-0.1	0.9	0.6	2.8	3.7	3.2	3.0	2.7

Source: PRIMES

BASELINE SCENARIO
ESTONIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	1.6	1.4	1.3	1.2	1.2	-1.3	-0.4	-0.5	-0.4					
Average household size (persons)	2.6	2.4	2.1	1.9	1.7	-0.6	-1.6	-1.0	-1.2					
Number of households (Million)	0.6	0.6	0.6	0.7	0.7	-0.7	1.2	0.5	0.9					
Gross Domestic product (in 000 MEuro'00)	**6.6**	**5.9**	**10.3**	**15.4**	**20.9**	**-1.1**	**5.6**	**4.2**	**3.1**					
Households expenditure (in 000 MEuro'00)	**3.6**	**3.4**	**6.0**	**9.2**	**12.5**	**-0.5**	**5.9**	**4.3**	**3.1**					
Gross Value Added (in 000 MEuro'00)	**6.0**	**5.3**	**9.2**	**13.8**	**18.6**	**-1.1**	**5.6**	**4.1**	**3.1**					
Industry	1.5	1.0	2.2	3.4	4.6	-3.9	8.2	4.5	3.2	24.7	18.6	23.7	24.4	24.8
iron and steel	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
non ferrous metals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
chemicals	0.0	0.0	0.1	0.2	0.2	3.3	6.7	6.8	4.5	0.5	0.8	0.9	1.1	1.3
petrochemicals,fertilisers and others	0.0	0.0	0.1	0.1	0.2	3.1	6.2	6.7	4.3	0.5	0.8	0.8	1.0	1.2
pharmaceuticals and cosmetics	0.0	0.0	0.0	0.0	0.0	10.0	15.2	8.4	6.0	0.0	0.0	0.1	0.1	0.1
non metallic minerals	0.0	0.1	0.1	0.2	0.2	8.4	6.2	4.2	2.7	0.5	1.2	1.3	1.3	1.3
paper, pulp, printing	0.0	0.1	0.2	0.3	0.3	9.5	8.3	4.0	2.6	0.6	1.5	2.0	2.0	1.9
paper and pulp production	0.0	0.0	0.1	0.1	0.1	15.4	8.8	3.3	1.3	0.1	0.4	0.6	0.5	0.4
printing and publishing	0.0	0.1	0.1	0.2	0.3	7.9	8.2	4.2	3.0	0.5	1.1	1.4	1.4	1.4
food, drink, tobacco	0.3	0.2	0.3	0.4	0.5	-6.2	3.9	3.6	2.4	5.5	3.3	2.8	2.6	2.5
textiles and leather	0.5	0.1	0.3	0.3	0.3	-12.1	5.5	1.7	1.0	9.1	2.8	2.8	2.2	1.8
engineering	0.2	0.3	0.6	0.9	1.4	3.5	8.4	5.0	4.1	3.0	4.7	6.1	6.7	7.4
other industries	0.3	0.2	0.7	1.2	1.6	-3.9	12.2	5.1	3.3	5.6	4.2	7.8	8.5	8.7
Construction	0.4	0.4	0.9	1.4	1.8	-0.6	8.8	4.8	2.7	6.7	7.1	9.6	10.2	9.8
Services	2.5	3.4	5.5	8.3	11.4	3.1	4.9	4.2	3.2	42.0	64.1	59.9	60.1	61.0
market services	0.8	1.1	1.7	2.7	3.8	3.6	4.6	4.4	3.6	13.0	20.7	18.8	19.3	20.4
non-market services	0.7	0.8	1.1	1.6	2.1	2.1	3.1	3.6	2.8	11.4	15.8	12.5	11.8	11.6
trade	1.0	1.5	2.6	4.0	5.4	3.4	6.0	4.3	3.1	17.6	27.6	28.6	29.0	29.1
Agriculture	1.2	0.3	0.3	0.3	0.3	-11.7	-1.3	0.8	0.7	19.6	6.3	3.2	2.3	1.8
Energy sector	0.4	0.2	0.3	0.4	0.5	-6.8	4.9	2.1	1.3	7.0	3.9	3.6	3.0	2.5

Source: PRIMES

BASELINE SCENARIO
FINLAND: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	5.0	5.2	5.3	5.4	5.4	0.4	0.2	0.2	0.1					
Average household size (persons)	2.5	2.3	2.1	2.0	1.9	-0.8	-0.8	-0.7	-0.6					
Number of households (Million)	2.0	2.3	2.5	2.7	2.9	1.2	1.0	0.9	0.7					
Gross Domestic product (in 000 MEuro'00)	**108.1**	**130.1**	**163.9**	**197.4**	**227.6**	**1.9**	**2.3**	**1.9**	**1.4**					
Households expenditure (in 000 MEuro'00)	**55.9**	**63.1**	**79.3**	**93.8**	**107.1**	**1.2**	**2.3**	**1.7**	**1.3**					
Gross Value Added (in 000 MEuro'00)	**96.3**	**118.0**	**149.6**	**181.2**	**209.7**	**2.1**	**2.4**	**1.9**	**1.5**					
Industry	21.0	33.1	41.4	50.0	56.9	4.7	2.3	1.9	1.3	21.8	28.0	27.7	27.6	27.2
iron and steel	0.7	1.2	1.5	1.7	1.8	5.3	2.8	0.9	0.6	0.7	1.0	1.0	0.9	0.8
non ferrous metals	0.3	0.4	0.5	0.6	0.6	3.9	1.4	1.2	1.0	0.3	0.4	0.3	0.3	0.3
chemicals	1.4	1.8	1.9	2.1	2.2	2.9	0.7	0.9	0.3	1.4	1.5	1.3	1.2	1.0
petrochemicals,fertilisers and others	1.0	1.4	1.4	1.4	1.4	2.7	0.2	0.2	0.1	1.1	1.1	0.9	0.8	0.7
pharmaceuticals and cosmetics	0.3	0.5	0.6	0.7	0.8	3.4	1.9	2.5	0.7	0.3	0.4	0.4	0.4	0.4
non metallic minerals	0.9	0.8	0.9	1.0	1.1	-0.3	1.1	1.0	0.6	0.9	0.7	0.6	0.6	0.5
paper, pulp, printing	5.5	7.3	8.4	9.8	11.0	2.9	1.4	1.5	1.2	5.7	6.2	5.6	5.4	5.3
paper and pulp production	3.3	5.6	5.9	6.7	7.6	5.6	0.5	1.3	1.2	3.4	4.8	4.0	3.7	3.6
printing and publishing	2.2	1.7	2.5	3.1	3.5	-2.8	4.1	2.1	1.3	2.3	1.4	1.7	1.7	1.7
food, drink, tobacco	2.2	2.4	3.0	3.5	3.7	0.9	2.3	1.6	0.5	2.2	2.0	2.0	1.9	1.8
textiles and leather	0.9	0.6	0.5	0.5	0.5	-4.3	-1.0	-0.4	-0.2	1.0	0.5	0.4	0.3	0.2
engineering	6.6	15.2	20.9	26.6	31.3	8.7	3.3	2.4	1.7	6.8	12.9	14.0	14.7	14.9
other industries	2.6	3.3	3.7	4.2	4.7	2.6	0.9	1.5	1.1	2.7	2.8	2.4	2.3	2.3
Construction	6.9	5.2	6.4	6.9	7.3	-2.8	2.0	0.8	0.5	7.2	4.4	4.3	3.8	3.5
Services	61.3	71.5	92.6	114.3	134.9	1.5	2.6	2.1	1.7	63.7	60.6	61.9	63.1	64.3
market services	17.7	22.7	29.4	36.6	43.8	2.5	2.6	2.2	1.8	18.4	19.2	19.7	20.2	20.9
non-market services	22.3	23.2	28.4	33.3	37.0	0.4	2.1	1.6	1.1	23.1	19.6	19.0	18.3	17.6
trade	21.4	25.6	34.7	44.4	54.2	1.8	3.1	2.5	2.0	22.2	21.7	23.2	24.5	25.8
Agriculture	4.3	4.9	5.2	5.4	5.5	1.3	0.6	0.4	0.2	4.5	4.2	3.5	3.0	2.6
Energy sector	2.7	3.3	4.0	4.6	5.0	2.1	1.9	1.4	0.9	2.8	2.8	2.7	2.5	2.4

Source: PRIMES

BASELINE SCENARIO
FRANCE: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	58.2	60.6	61.5	63.6	65.1	0.4	0.1	0.3	0.2					
Average household size (persons)	2.6	2.4	2.2	2.1	1.9	-0.8	-0.8	-0.7	-0.6					
Number of households (Million)	22.5	25.5	27.9	31.0	33.7	1.3	0.9	1.0	0.8					
Gross Domestic product (in 000 MEuro'00)	**1180.3**	**1420.1**	**1723.1**	**2113.3**	**2505.3**	**1.9**	**2.0**	**2.1**	**1.7**					
Households expenditure (in 000 MEuro'00)	**666.1**	**767.7**	**933.8**	**1115.2**	**1298.6**	**1.4**	**2.0**	**1.8**	**1.5**					
Gross Value Added (in 000 MEuro'00)	**1102.3**	**1307.6**	**1574.4**	**1916.0**	**2259.1**	**1.7**	**1.9**	**2.0**	**1.7**					
Industry	196.6	242.4	292.5	358.1	422.2	2.1	1.9	2.0	1.7	17.8	18.5	18.6	18.7	18.7
iron and steel	6.6	6.2	6.8	7.4	7.8	-0.7	1.0	0.8	0.6	0.6	0.5	0.4	0.4	0.3
non ferrous metals	2.6	3.0	3.8	4.6	5.4	1.5	2.4	2.0	1.6	0.2	0.2	0.2	0.2	0.2
chemicals	19.5	29.6	37.0	46.2	55.1	4.2	2.3	2.2	1.8	1.8	2.3	2.3	2.4	2.4
petrochemicals,fertilisers and others	10.6	13.0	15.0	17.3	19.3	2.1	1.4	1.4	1.1	1.0	1.0	1.0	0.9	0.9
pharmaceuticals and cosmetics	8.9	16.5	21.9	28.8	35.8	6.3	2.9	2.8	2.2	0.8	1.3	1.4	1.5	1.6
non metallic minerals	8.4	9.2	10.4	11.5	12.3	0.9	1.3	1.0	0.6	0.8	0.7	0.7	0.6	0.5
paper, pulp, printing	18.4	19.3	21.2	24.9	27.9	0.5	1.0	1.6	1.1	1.7	1.5	1.3	1.3	1.2
paper and pulp production	6.8	6.0	6.2	6.8	7.3	-1.3	0.3	1.0	0.7	0.6	0.5	0.4	0.4	0.3
printing and publishing	11.6	13.3	15.1	18.1	20.6	1.4	1.3	1.9	1.3	1.1	1.0	1.0	0.9	0.9
food, drink, tobacco	30.2	32.1	36.9	43.5	49.7	0.6	1.4	1.7	1.3	2.7	2.5	2.3	2.3	2.2
textiles and leather	13.7	10.7	9.6	9.2	9.0	-2.4	-1.2	-0.4	-0.1	1.2	0.8	0.6	0.5	0.4
engineering	77.1	107.7	137.5	175.8	215.7	3.4	2.5	2.5	2.1	7.0	8.2	8.7	9.2	9.5
other industries	20.2	24.6	29.4	35.0	39.3	2.0	1.8	1.8	1.2	1.8	1.9	1.9	1.8	1.7
Construction	65.3	56.3	60.7	70.3	79.3	-1.5	0.7	1.5	1.2	5.9	4.3	3.9	3.7	3.5
Services	773.9	926.5	1136.5	1393.1	1655.8	1.8	2.1	2.1	1.7	70.2	70.9	72.2	72.7	73.3
market services	312.2	364.7	453.8	560.2	671.1	1.6	2.2	2.1	1.8	28.3	27.9	28.8	29.2	29.7
non-market services	245.5	295.1	369.3	430.1	486.0	1.9	2.3	1.5	1.2	22.3	22.6	23.5	22.4	21.5
trade	216.2	266.6	313.4	402.8	498.7	2.1	1.6	2.5	2.2	19.6	20.4	19.9	21.0	22.1
Agriculture	35.8	41.2	36.4	37.5	39.0	1.4	-1.2	0.3	0.4	3.2	3.1	2.3	2.0	1.7
Energy sector	30.6	41.3	48.2	57.1	62.9	3.0	1.6	1.7	1.0	2.8	3.2	3.1	3.0	2.8

Source: PRIMES

BASELINE SCENARIO
GERMANY: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	79.4	82.2	82.8	82.7	81.1	0.3	0.1	0.0	-0.2					
Average household size (persons)	2.4	2.2	2.1	2.0	1.9	-0.5	-0.7	-0.4	-0.4					
Number of households (Million)	33.8	36.7	39.6	41.3	42.2	0.8	0.8	0.4	0.2					
Gross Domestic product (in 000 MEuro'00)	**1736.6**	**2030.0**	**2295.8**	**2714.9**	**3007.3**	**1.6**	**1.2**	**1.7**	**1.0**					
Households expenditure (in 000 MEuro'00)	**980.7**	**1155.7**	**1269.9**	**1475.4**	**1633.6**	**1.7**	**0.9**	**1.5**	**1.0**					
Gross Value Added (in 000 MEuro'00)	**1617.7**	**1944.4**	**2259.6**	**2713.4**	**3005.6**	**1.9**	**1.5**	**1.8**	**1.0**					
Industry	412.1	412.5	475.0	562.1	625.0	0.0	1.4	1.7	1.1	25.5	21.2	21.0	20.7	20.8
iron and steel	11.9	10.8	11.7	13.5	14.8	-0.9	0.8	1.4	0.9	0.7	0.6	0.5	0.5	0.5
non ferrous metals	4.5	6.0	7.7	9.2	10.1	2.9	2.6	1.8	1.0	0.3	0.3	0.3	0.3	0.3
chemicals	38.7	43.1	53.5	64.8	72.8	1.1	2.2	1.9	1.2	2.4	2.2	2.4	2.4	2.4
petrochemicals,fertilisers and others	29.2	30.1	34.3	37.4	39.0	0.3	1.3	0.9	0.4	1.8	1.5	1.5	1.4	1.3
pharmaceuticals and cosmetics	9.5	13.0	19.2	27.3	33.8	3.1	4.0	3.6	2.2	0.6	0.7	0.8	1.0	1.1
non metallic minerals	15.2	17.8	17.8	20.0	21.7	1.6	0.0	1.2	0.8	0.9	0.9	0.8	0.7	0.7
paper, pulp, printing	29.9	30.7	30.5	35.6	39.5	0.2	0.0	1.6	1.0	1.8	1.6	1.4	1.3	1.3
paper and pulp production	9.4	9.6	9.7	10.5	10.8	0.2	0.1	0.8	0.3	0.6	0.5	0.4	0.4	0.4
printing and publishing	20.5	21.0	20.8	25.1	28.7	0.3	-0.1	1.9	1.4	1.3	1.1	0.9	0.9	1.0
food, drink, tobacco	32.3	38.8	43.0	49.4	53.4	1.8	1.0	1.4	0.8	2.0	2.0	1.9	1.8	1.8
textiles and leather	16.4	9.7	8.2	7.8	7.6	-5.1	-1.7	-0.5	-0.3	1.0	0.5	0.4	0.3	0.3
engineering	224.7	215.1	256.8	308.2	345.9	-0.4	1.8	1.8	1.2	13.9	11.1	11.4	11.4	11.5
other industries	38.4	40.7	45.6	53.6	59.2	0.6	1.2	1.6	1.0	2.4	2.1	2.0	2.0	2.0
Construction	104.7	105.8	83.3	96.7	102.2	0.1	-2.4	1.5	0.6	6.5	5.4	3.7	3.6	3.4
Services	1029.7	1349.1	1618.9	1964.5	2185.2	2.7	1.8	2.0	1.1	63.7	69.4	71.6	72.4	72.7
market services	404.6	590.5	712.5	887.4	1007.0	3.9	1.9	2.2	1.3	25.0	30.4	31.5	32.7	33.5
non-market services	339.0	402.0	451.6	506.5	525.0	1.7	1.2	1.2	0.4	21.0	20.7	20.0	18.7	17.5
trade	286.1	356.5	454.7	570.7	653.2	2.2	2.5	2.3	1.4	17.7	18.3	20.1	21.0	21.7
Agriculture	20.4	25.3	27.2	30.2	30.9	2.2	0.7	1.1	0.2	1.3	1.3	1.2	1.1	1.0
Energy sector	50.8	51.7	55.3	59.9	62.3	0.2	0.7	0.8	0.4	3.1	2.7	2.4	2.2	2.1

Source: PRIMES

BASELINE SCENARIO
GREECE: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	10.2	10.9	11.3	11.4	11.3	0.7	0.3	0.1	-0.1					
Average household size (persons)	3.0	2.8	2.7	2.6	2.6	-0.7	-0.4	-0.3	-0.3					
Number of households (Million)	3.3	3.9	4.1	4.3	4.4	1.5	0.7	0.5	0.2					
Gross Domestic product (in 000 MEuro'00)	**97.7**	**123.2**	**178.7**	**241.4**	**291.8**	**2.3**	**3.8**	**3.0**	**1.9**					
Households expenditure (in 000 MEuro'00)	**69.3**	**86.4**	**118.4**	**154.6**	**186.2**	**2.2**	**3.2**	**2.7**	**1.9**					
Gross Value Added (in 000 MEuro'00)	**92.8**	**112.0**	**161.7**	**218.0**	**263.6**	**1.9**	**3.7**	**3.0**	**1.9**					
Industry	10.3	13.0	15.8	20.4	23.4	2.4	1.9	2.6	1.4	11.1	11.6	9.8	9.4	8.9
iron and steel	0.2	0.3	0.6	0.7	0.7	4.0	7.2	1.7	0.6	0.2	0.3	0.4	0.3	0.3
non ferrous metals	0.6	0.5	0.6	0.7	0.9	-0.9	1.0	2.1	1.3	0.6	0.5	0.4	0.3	0.3
chemicals	0.6	0.9	1.1	1.6	1.9	3.4	2.6	3.5	2.0	0.7	0.8	0.7	0.7	0.7
petrochemicals,fertilisers and others	0.3	0.4	0.5	0.6	0.7	2.9	2.1	2.9	1.0	0.3	0.3	0.3	0.3	0.3
pharmaceuticals and cosmetics	0.3	0.5	0.6	0.9	1.2	3.9	3.1	4.0	2.5	0.3	0.4	0.4	0.4	0.5
non metallic minerals	0.4	1.0	1.3	1.7	1.9	9.6	3.2	2.7	1.3	0.4	0.9	0.8	0.8	0.7
paper, pulp, printing	0.7	0.8	0.9	1.1	1.2	1.7	1.5	1.9	1.2	0.7	0.7	0.6	0.5	0.5
paper and pulp production	0.1	0.1	0.1	0.1	0.1	-0.1	0.9	1.2	0.5	0.1	0.1	0.0	0.0	0.0
printing and publishing	0.6	0.7	0.8	1.0	1.2	1.9	1.5	2.0	1.2	0.6	0.6	0.5	0.5	0.4
food, drink, tobacco	2.2	2.9	3.7	5.2	6.0	2.7	2.5	3.3	1.5	2.4	2.6	2.3	2.4	2.3
textiles and leather	2.6	2.8	2.9	3.0	3.0	1.0	0.3	0.4	-0.2	2.8	2.5	1.8	1.4	1.1
engineering	1.0	2.2	2.7	3.9	4.9	8.3	2.4	3.7	2.3	1.0	1.9	1.7	1.8	1.9
other industries	2.1	1.6	1.8	2.4	2.8	-2.3	1.2	2.8	1.5	2.2	1.5	1.1	1.1	1.1
Construction	6.2	7.7	12.8	16.8	19.0	2.1	5.3	2.8	1.3	6.7	6.8	7.9	7.7	7.2
Services	61.1	77.5	118.3	164.2	203.1	2.4	4.3	3.3	2.2	65.8	69.2	73.2	75.3	77.1
market services	18.6	23.3	32.3	46.6	59.8	2.3	3.3	3.8	2.5	20.0	20.8	20.0	21.4	22.7
non-market services	18.5	20.4	30.7	36.0	39.5	1.0	4.2	1.6	0.9	19.9	18.2	19.0	16.5	15.0
trade	24.0	33.8	55.4	81.6	103.8	3.5	5.0	4.0	2.4	25.9	30.2	34.3	37.4	39.4
Agriculture	11.4	9.4	9.6	10.8	11.8	-1.9	0.2	1.2	0.9	12.2	8.4	5.9	4.9	4.5
Energy sector	3.9	4.5	5.2	5.8	6.2	1.4	1.6	1.1	0.6	4.2	4.0	3.2	2.7	2.4

Source: PRIMES

BASELINE SCENARIO
HUNGARY: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	10.4	10.2	10.0	9.7	9.5	-0.2	-0.2	-0.3	-0.2					
Average household size (persons)	2.6	2.4	2.2	2.1	2.0	-1.0	-0.7	-0.5	-0.3					
Number of households (Million)	4.0	4.3	4.5	4.6	4.6	0.8	0.4	0.2	0.1					
Gross Domestic product (in 000 MEuro'00)	**46.5**	**50.7**	**72.7**	**100.0**	**127.2**	**0.9**	**3.7**	**3.2**	**2.4**					
Households expenditure (in 000 MEuro'00)	**25.3**	**25.7**	**41.7**	**58.4**	**75.1**	**0.2**	**5.0**	**3.4**	**2.5**					
Gross Value Added (in 000 MEuro'00)	**41.1**	**44.7**	**64.5**	**89.0**	**113.3**	**0.8**	**3.7**	**3.3**	**2.4**					
Industry	7.4	12.0	17.0	22.3	27.4	5.0	3.5	2.7	2.1	17.9	26.8	26.3	25.0	24.2
iron and steel	0.2	0.2	0.2	0.3	0.3	1.5	1.7	1.3	1.0	0.4	0.4	0.3	0.3	0.3
non ferrous metals	0.2	0.2	0.3	0.4	0.5	4.5	3.3	2.6	1.8	0.4	0.5	0.5	0.5	0.4
chemicals	0.6	0.5	0.6	0.8	1.0	-0.8	1.2	3.0	2.4	1.4	1.2	0.9	0.9	0.9
petrochemicals,fertilisers and others	0.4	0.2	0.2	0.2	0.2	-5.0	-1.2	0.9	0.5	1.0	0.5	0.3	0.3	0.2
pharmaceuticals and cosmetics	0.2	0.3	0.4	0.6	0.8	5.0	2.7	4.0	3.0	0.5	0.7	0.6	0.7	0.7
non metallic minerals	0.4	0.5	0.7	1.0	1.1	2.3	3.9	3.2	1.7	0.9	1.1	1.1	1.1	1.0
paper, pulp, printing	0.2	0.7	0.8	1.1	1.3	10.9	2.6	2.3	2.0	0.6	1.5	1.3	1.2	1.1
paper and pulp production	0.1	0.2	0.3	0.3	0.3	8.0	1.6	1.3	0.9	0.3	0.5	0.4	0.3	0.3
printing and publishing	0.1	0.4	0.6	0.8	1.0	13.0	3.1	2.8	2.4	0.3	0.9	0.9	0.9	0.8
food, drink, tobacco	1.3	1.2	1.3	1.7	2.1	-1.1	1.5	2.5	2.3	3.1	2.6	2.1	1.9	1.9
textiles and leather	1.1	0.7	0.6	0.7	0.7	-5.2	-0.6	0.5	0.4	2.8	1.5	1.0	0.7	0.6
engineering	2.6	7.2	11.0	14.7	18.2	10.5	4.4	2.9	2.2	6.4	16.0	17.1	16.5	16.0
other industries	0.8	0.9	1.3	1.7	2.2	1.5	3.6	2.8	2.4	1.9	2.1	2.0	1.9	1.9
Construction	2.1	2.2	4.0	6.6	8.4	0.8	6.1	5.0	2.4	5.0	5.0	6.3	7.4	7.4
Services	26.2	26.6	38.1	53.9	70.5	0.2	3.6	3.5	2.7	63.7	59.6	59.1	60.6	62.2
market services	7.4	8.6	11.9	16.7	22.4	1.4	3.4	3.4	3.0	18.1	19.2	18.5	18.7	19.8
non-market services	7.8	8.5	11.1	15.0	19.0	0.8	2.8	3.0	2.4	18.9	18.9	17.2	16.8	16.8
trade	11.0	9.6	15.1	22.2	29.1	-1.3	4.6	4.0	2.7	26.7	21.5	23.3	25.0	25.7
Agriculture	3.6	2.4	4.3	5.0	5.6	-4.2	6.2	1.6	1.0	8.8	5.3	6.7	5.7	4.9
Energy sector	1.9	1.5	1.1	1.2	1.4	-2.2	-3.2	1.2	1.6	4.5	3.3	1.7	1.4	1.3

Source: PRIMES

BASELINE SCENARIO
IRELAND: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	3.5	3.8	4.3	4.8	5.1	0.8	1.3	1.0	0.6					
Average household size (persons)	3.4	3.0	2.8	2.7	2.4	-1.3	-0.6	-0.7	-0.8					
Number of households (Million)	1.0	1.3	1.5	1.8	2.1	2.1	1.9	1.7	1.5					
Gross Domestic product (in 000 MEuro'00)	**51.5**	**103.1**	**168.5**	**238.6**	**301.9**	**7.2**	**5.0**	**3.5**	**2.4**					
Households expenditure (in 000 MEuro'00)	**30.1**	**50.8**	**73.3**	**99.0**	**122.6**	**5.4**	**3.7**	**3.1**	**2.2**					
Gross Value Added (in 000 MEuro'00)	**48.7**	**91.6**	**148.8**	**209.1**	**263.3**	**6.5**	**5.0**	**3.5**	**2.3**					
Industry	13.2	35.8	60.8	86.3	107.3	10.5	5.4	3.6	2.2	27.2	39.1	40.9	41.3	40.7
iron and steel	0.1	0.1	0.0	0.0	0.0	4.8				0.1	0.1	0.0	0.0	0.0
non ferrous metals	0.1	0.1	0.1	0.1	0.1	-1.1	2.5	1.9	1.6	0.2	0.1	0.1	0.0	0.0
chemicals	2.2	13.1	27.4	38.4	47.2	19.7	7.7	3.4	2.1	4.4	14.2	18.4	18.4	17.9
petrochemicals,fertilisers and others	1.7	10.0	19.9	27.0	32.2	19.6	7.2	3.1	1.8	3.4	10.9	13.4	12.9	12.2
pharmaceuticals and cosmetics	0.5	3.1	7.5	11.4	14.9	20.1	9.4	4.2	2.7	1.0	3.4	5.1	5.5	5.7
non metallic minerals	0.4	0.8	1.1	1.5	1.9	6.1	3.0	3.3	2.1	0.9	0.9	0.7	0.7	0.7
paper, pulp, printing	1.1	4.2	5.7	7.6	9.3	13.9	3.1	2.9	2.0	2.4	4.6	3.9	3.6	3.5
paper and pulp production	0.2	0.3	0.3	0.4	0.4	4.5	0.9	2.0	0.5	0.4	0.3	0.2	0.2	0.2
printing and publishing	0.9	3.9	5.4	7.2	8.8	15.2	3.3	2.9	2.1	1.9	4.3	3.6	3.4	3.4
food, drink, tobacco	4.2	4.9	10.1	14.5	18.2	1.5	7.5	3.7	2.3	8.6	5.4	6.8	6.9	6.9
textiles and leather	0.5	0.4	0.3	0.3	0.3	-3.5	-0.9	-0.5	-0.2	1.1	0.4	0.2	0.2	0.1
engineering	3.7	10.8	13.9	21.1	27.0	11.3	2.6	4.2	2.5	7.6	11.7	9.4	10.1	10.3
other industries	0.9	1.5	2.1	2.8	3.3	5.3	3.1	2.9	1.7	1.9	1.7	1.4	1.3	1.2
Construction	1.0	2.8	5.3	7.4	9.2	10.8	6.5	3.4	2.2	2.1	3.1	3.6	3.5	3.5
Services	28.7	46.8	75.9	107.9	138.9	5.0	5.0	3.6	2.6	58.9	51.1	51.0	51.6	52.8
market services	9.8	16.2	25.4	37.4	49.7	5.2	4.6	3.9	2.9	20.1	17.7	17.1	17.9	18.9
non-market services	10.5	17.3	27.5	36.5	44.2	5.2	4.7	2.9	1.9	21.5	18.9	18.5	17.5	16.8
trade	8.5	13.2	23.0	34.0	45.0	4.6	5.7	4.0	2.8	17.4	14.5	15.5	16.3	17.1
Agriculture	4.7	4.7	5.0	5.3	5.5	0.0	0.8	0.6	0.4	9.6	5.1	3.4	2.6	2.1
Energy sector	1.1	1.5	1.7	2.2	2.4	3.5	1.2	2.2	1.3	2.2	1.7	1.2	1.0	0.9

Source: PRIMES

BASELINE SCENARIO
ITALY: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	56.7	57.8	58.6	58.3	57.1	0.2	0.1	-0.1	-0.2					
Average household size (persons)	2.6	2.4	2.2	2.0	1.8	-1.1	-0.9	-0.9	-0.7					
Number of households (Million)	21.5	24.4	27.1	29.6	31.1	1.3	1.1	0.9	0.5					
Gross Domestic product (in 000 MEuro'00)	**995.9**	**1166.5**	**1313.2**	**1604.2**	**1846.2**	**1.6**	**1.2**	**2.0**	**1.4**					
Households expenditure (in 000 MEuro'00)	**597.1**	**708.5**	**799.1**	**983.5**	**1131.9**	**1.7**	**1.2**	**2.1**	**1.4**					
Gross Value Added (in 000 MEuro'00)	**936.3**	**1098.5**	**1243.3**	**1525.8**	**1760.8**	**1.6**	**1.2**	**2.1**	**1.4**					
Industry	200.3	231.3	239.3	302.1	363.0	1.5	0.3	2.4	1.9	21.4	21.1	19.2	19.8	20.6
iron and steel	6.3	5.5	6.0	6.6	7.1	-1.3	0.8	1.0	0.7	0.7	0.5	0.5	0.4	0.4
non ferrous metals	1.9	2.7	2.8	3.1	3.4	3.3	0.3	1.2	0.8	0.2	0.2	0.2	0.2	0.2
chemicals	17.2	19.3	20.7	30.5	40.8	1.1	0.7	4.0	3.0	1.8	1.8	1.7	2.0	2.3
petrochemicals,fertilisers and others	9.1	9.3	8.6	10.6	12.1	0.2	-0.7	2.0	1.4	1.0	0.8	0.7	0.7	0.7
pharmaceuticals and cosmetics	8.1	10.0	12.0	19.9	28.7	2.1	1.8	5.2	3.7	0.9	0.9	1.0	1.3	1.6
non metallic minerals	13.1	15.0	16.2	17.3	18.0	1.4	0.7	0.7	0.4	1.4	1.4	1.3	1.1	1.0
paper, pulp, printing	13.2	16.0	18.8	27.7	38.3	1.9	1.7	4.0	3.3	1.4	1.5	1.5	1.8	2.2
paper and pulp production	4.6	5.6	6.3	8.8	11.8	2.1	1.1	3.5	3.0	0.5	0.5	0.5	0.6	0.7
printing and publishing	8.7	10.3	12.5	18.9	26.4	1.8	1.9	4.2	3.4	0.9	0.9	1.0	1.2	1.5
food, drink, tobacco	19.7	22.4	27.5	36.8	46.0	1.3	2.1	3.0	2.3	2.1	2.0	2.2	2.4	2.6
textiles and leather	29.7	31.5	25.7	24.9	24.8	0.6	-2.0	-0.3	0.0	3.2	2.9	2.1	1.6	1.4
engineering	76.6	90.2	90.9	116.2	137.9	1.6	0.1	2.5	1.7	8.2	8.2	7.3	7.6	7.8
other industries	22.5	28.8	30.8	38.9	46.8	2.5	0.7	2.4	1.9	2.4	2.6	2.5	2.5	2.7
Construction	54.4	54.5	66.0	69.0	71.0	0.0	1.9	0.5	0.3	5.8	5.0	5.3	4.5	4.0
Services	621.7	746.6	864.5	1073.3	1238.9	1.8	1.5	2.2	1.4	66.4	68.0	69.5	70.3	70.4
market services	218.4	270.9	314.5	403.8	475.3	2.2	1.5	2.5	1.6	23.3	24.7	25.3	26.5	27.0
non-market services	181.8	199.8	234.3	262.6	278.3	0.9	1.6	1.1	0.6	19.4	18.2	18.8	17.2	15.8
trade	221.5	275.8	315.7	406.9	485.4	2.2	1.4	2.6	1.8	23.7	25.1	25.4	26.7	27.6
Agriculture	28.8	34.6	36.1	39.6	41.9	1.9	0.4	0.9	0.6	3.1	3.2	2.9	2.6	2.4
Energy sector	31.2	31.5	37.4	41.7	45.9	0.1	1.7	1.1	1.0	3.3	2.9	3.0	2.7	2.6

Source: PRIMES

BASELINE SCENARIO
LATVIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	2.7	2.4	2.2	2.1	2.0	-1.2	-0.6	-0.6	-0.4					
Average household size (persons)	2.7	2.6	2.4	2.3	2.2	-0.5	-0.6	-0.3	-0.5					
Number of households (Million)	1.0	0.9	0.9	0.9	0.9	-0.7	0.0	-0.3	0.1					
Gross Domestic product (in 000 MEuro'00)	**12.1**	**8.4**	**17.0**	**27.9**	**39.1**	**-3.6**	**7.4**	**5.1**	**3.4**					
Households expenditure (in 000 MEuro'00)	**7.5**	**5.3**	**11.0**	**18.1**	**25.4**	**-3.4**	**7.6**	**5.1**	**3.5**					
Gross Value Added (in 000 MEuro'00)	**10.7**	**7.4**	**15.1**	**24.7**	**34.7**	**-3.6**	**7.4**	**5.1**	**3.5**					
Industry	3.3	1.4	3.4	5.9	8.3	-8.0	8.8	5.7	3.6	30.9	19.4	22.3	23.7	24.0
iron and steel	0.1	0.1	0.1	0.1	0.1	-0.1	2.5	1.6	1.0	0.6	0.9	0.5	0.4	0.3
non ferrous metals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
chemicals	0.1	0.0	0.3	0.5	0.8	-7.5	17.8	7.5	4.4	1.0	0.7	1.7	2.1	2.3
petrochemicals,fertilisers and others	0.1	0.0	0.1	0.2	0.3	-15.7	16.9	6.7	4.0	1.0	0.3	0.6	0.7	0.8
pharmaceuticals and cosmetics	0.0	0.0	0.2	0.3	0.5	49.4	18.4	7.9	4.6	0.0	0.4	1.1	1.4	1.6
non metallic minerals	0.1	0.0	0.1	0.1	0.2	-7.2	8.0	5.3	3.1	0.8	0.5	0.6	0.6	0.6
paper, pulp, printing	0.6	0.1	0.4	0.7	1.0	-12.6	10.7	6.0	3.3	5.2	1.9	2.6	2.8	2.8
paper and pulp production	0.1	0.0	0.0	0.0	0.1	-15.9	3.8	3.2	2.5	1.2	0.3	0.2	0.2	0.2
printing and publishing	0.4	0.1	0.4	0.7	0.9	-11.8	11.6	6.2	3.3	4.0	1.6	2.4	2.7	2.6
food, drink, tobacco	0.9	0.4	1.2	2.1	3.0	-7.9	11.8	5.9	3.6	8.3	5.3	7.9	8.5	8.6
textiles and leather	0.5	0.2	0.2	0.3	0.4	-10.8	4.2	3.2	2.1	4.6	2.1	1.6	1.3	1.1
engineering	0.9	0.2	0.4	0.8	1.2	-12.7	7.1	6.2	4.5	8.1	3.0	2.9	3.3	3.6
other industries	0.2	0.4	0.7	1.2	1.6	4.6	6.1	5.6	3.3	2.2	5.0	4.5	4.7	4.6
Construction	1.9	0.4	1.0	1.7	2.3	-14.4	9.5	5.4	2.9	18.1	5.5	6.7	6.9	6.5
Services	4.1	4.8	9.6	15.9	22.8	1.5	7.3	5.1	3.6	38.3	64.3	64.0	64.4	65.6
market services	1.1	1.3	2.6	4.4	6.5	1.2	7.1	5.5	4.0	10.7	17.5	17.1	17.7	18.7
non-market services	1.0	1.3	1.9	2.7	3.5	2.6	3.5	3.4	2.9	9.8	18.2	12.6	10.8	10.2
trade	1.9	2.1	5.2	8.9	12.7	1.1	9.3	5.6	3.7	17.8	28.7	34.3	35.9	36.7
Agriculture	0.9	0.5	0.7	0.8	0.9	-5.1	2.7	1.3	1.0	8.4	7.2	4.6	3.2	2.5
Energy sector	0.5	0.3	0.4	0.4	0.5	-5.3	3.2	1.8	1.2	4.3	3.6	2.4	1.7	1.4

Source: PRIMES

BASELINE SCENARIO

LITHUANIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	3.7	3.5	3.3	3.2	3.1	-0.5	-0.5	-0.5	-0.3					
Average household size (persons)	2.9	2.8	2.4	2.3	2.1	-0.4	-1.2	-0.8	-0.6					
Number of households (Million)	1.3	1.3	1.4	1.4	1.5	-0.1	0.8	0.3	0.3					
Gross Domestic product (in 000 MEuro'00)	**17.3**	**12.3**	**23.1**	**37.2**	**54.3**	**-3.3**	**6.5**	**4.9**	**3.8**					
Households expenditure (in 000 MEuro'00)	**11.6**	**8.7**	**16.7**	**27.1**	**39.8**	**-2.8**	**6.7**	**5.0**	**3.9**					
Gross Value Added (in 000 MEuro'00)	**15.1**	**11.3**	**20.8**	**33.6**	**49.2**	**-2.9**	**6.3**	**4.9**	**3.9**					
Industry	3.8	2.3	5.2	8.8	13.0	-4.7	8.3	5.5	3.9	25.0	20.8	25.0	26.3	26.4
iron and steel	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
non ferrous metals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
chemicals	0.2	0.2	0.3	0.6	1.1	2.4	4.7	7.2	5.5	1.0	1.8	1.5	1.9	2.2
petrochemicals,fertilisers and others	0.1	0.1	0.2	0.3	0.5	1.7	4.3	4.4	3.8	0.8	1.2	1.0	1.0	0.9
pharmaceuticals and cosmetics	0.0	0.1	0.1	0.3	0.6	4.0	5.7	11.4	7.2	0.3	0.5	0.5	0.9	1.2
non metallic minerals	0.3	0.1	0.2	0.4	0.6	-11.2	9.5	6.0	3.2	2.2	0.9	1.2	1.3	1.2
paper, pulp, printing	0.9	0.2	0.3	0.4	0.5	-13.8	4.1	2.9	2.3	6.0	1.8	1.5	1.2	1.0
paper and pulp production	0.4	0.0	0.0	0.1	0.1	-19.0	0.4	1.7	1.5	2.4	0.4	0.2	0.2	0.1
printing and publishing	0.5	0.2	0.3	0.4	0.4	-11.5	4.9	3.1	2.4	3.6	1.4	1.2	1.0	0.9
food, drink, tobacco	0.8	0.6	0.9	1.4	2.0	-2.5	4.0	4.4	3.7	5.1	5.3	4.3	4.1	4.0
textiles and leather	0.6	0.4	0.6	0.7	0.8	-3.2	2.7	1.5	1.1	4.1	3.9	2.8	2.0	1.5
engineering	0.7	0.4	1.3	2.5	3.8	-4.9	12.5	6.7	4.4	4.4	3.6	6.3	7.4	7.8
other industries	0.3	0.4	1.6	2.8	4.2	2.0	14.6	6.2	4.0	2.2	3.5	7.5	8.5	8.6
Construction	1.5	0.6	1.5	2.6	3.7	-8.6	9.1	5.6	3.8	10.1	5.5	7.2	7.6	7.6
Services	6.1	6.6	11.6	19.1	28.7	0.8	5.8	5.1	4.2	40.1	58.7	55.9	56.8	58.5
market services	1.0	1.5	2.6	4.7	7.8	4.6	5.7	6.1	5.2	6.3	13.3	12.5	13.9	15.8
non-market services	2.4	2.0	2.5	3.7	5.0	-1.7	2.1	3.9	3.1	15.9	18.0	12.0	10.9	10.2
trade	2.7	3.1	6.5	10.7	16.0	1.3	7.8	5.1	4.0	17.9	27.4	31.4	31.9	32.5
Agriculture	1.4	1.1	1.2	1.3	1.5	-2.6	0.9	1.3	0.8	9.4	9.7	5.7	4.0	3.0
Energy sector	2.3	0.6	1.3	1.8	2.3	-12.9	8.2	3.2	2.5	15.4	5.2	6.2	5.3	4.6

Source: PRIMES

BASELINE SCENARIO

LUXEMBOURG: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	0.4	0.4	0.5	0.5	0.6	1.4	0.8	0.9	0.9					
Average household size (persons)	2.7	2.5	2.4	2.2	2.1	-0.6	-0.6	-0.7	-0.5					
Number of households (Million)	0.1	0.2	0.2	0.2	0.3	2.0	1.4	1.5	1.3					
Gross Domestic product (in 000 MEuro'00)	**12.5**	**21.3**	**31.7**	**50.7**	**64.4**	**5.5**	**4.1**	**4.8**	**2.4**					
Households expenditure (in 000 MEuro'00)	**6.4**	**9.0**	**12.9**	**19.5**	**24.8**	**3.4**	**3.7**	**4.3**	**2.4**					
Gross Value Added (in 000 MEuro'00)	**12.9**	**22.0**	**32.9**	**52.5**	**66.2**	**5.5**	**4.1**	**4.8**	**2.4**					
Industry	1.9	2.6	3.5	5.6	7.0	3.0	3.2	4.7	2.2	14.9	11.7	10.8	10.7	10.6
iron and steel	0.4	0.5	0.5	0.6	0.6	2.9	0.9	1.1	0.3	2.8	2.2	1.6	1.1	0.9
non ferrous metals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
chemicals	0.1	0.1	0.2	0.4	0.6	1.7	8.5	5.8	2.8	0.7	0.5	0.7	0.8	0.8
petrochemicals,fertilisers and others	0.1	0.1	0.2	0.4	0.6	1.7	8.5	5.8	2.8	0.7	0.5	0.7	0.8	0.8
pharmaceuticals and cosmetics	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
non metallic minerals	0.2	0.2	0.3	0.4	0.5	1.4	0.9	3.9	2.2	1.6	1.1	0.8	0.7	0.7
paper, pulp, printing	0.1	0.2	0.3	0.5	0.6	1.3	6.6	5.3	2.4	1.0	0.7	0.9	0.9	0.9
paper and pulp production	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
printing and publishing	0.1	0.2	0.3	0.5	0.6	1.3	6.6	5.3	2.4	1.0	0.7	0.9	0.9	0.9
food, drink, tobacco	0.2	0.2	0.2	0.4	0.5	-1.9	3.5	5.7	2.5	1.5	0.8	0.7	0.8	0.8
textiles and leather	0.1	0.2	0.2	0.3	0.3	4.5	2.4	1.6	0.6	0.9	0.8	0.7	0.5	0.4
engineering	0.6	0.8	1.0	1.7	2.2	3.2	2.6	5.2	2.7	4.4	3.5	3.0	3.2	3.3
other industries	0.3	0.5	0.8	1.4	1.8	6.9	4.7	6.2	2.5	2.0	2.2	2.4	2.7	2.7
Construction	0.9	1.2	2.1	3.1	3.7	3.5	5.4	3.9	1.9	6.8	5.6	6.4	5.9	5.6
Services	9.8	17.7	26.7	43.0	54.6	6.1	4.2	4.9	2.4	75.7	80.4	81.0	82.0	82.4
market services	5.0	9.1	12.6	20.4	26.3	6.2	3.3	5.0	2.6	38.6	41.4	38.2	39.0	39.8
non-market services	2.3	3.3	4.7	6.7	7.7	3.6	3.7	3.6	1.5	17.7	14.8	14.2	12.7	11.7
trade	2.5	5.3	9.4	15.9	20.6	7.8	5.9	5.4	2.6	19.4	24.2	28.6	30.3	31.0
Agriculture	0.1	0.2	0.1	0.1	0.1	2.3	-2.6	0.5	0.7	1.0	0.7	0.4	0.2	0.2
Energy sector	0.2	0.3	0.5	0.6	0.8	5.2	3.3	2.8	2.1	1.6	1.6	1.4	1.2	1.2

Source: PRIMES

BASELINE SCENARIO
MALTA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	0.4	0.4	0.4	0.5	0.5	0.8	0.8	0.7	0.5					
Average household size (persons)	3.2	2.9	2.6	2.5	2.3	-0.8	-1.0	-0.7	-0.6					
Number of households (Million)	0.1	0.1	0.2	0.2	0.2	1.7	1.9	1.4	1.2					
Gross Domestic product (in 000 MEuro'00)	**2.6**	**4.1**	**4.7**	**6.6**	**8.7**	**4.9**	**1.3**	**3.4**	**2.8**					
Households expenditure (in 000 MEuro'00)	**1.6**	**2.6**	**2.9**	**3.9**	**5.0**	**4.9**	**1.4**	**3.0**	**2.5**					
Gross Value Added (in 000 MEuro'00)	**2.3**	**3.7**	**4.2**	**5.9**	**7.7**	**4.9**	**1.3**	**3.4**	**2.8**					
Industry	0.6	0.8	1.1	1.4	1.9	3.7	2.7	2.9	2.8	25.3	22.5	25.7	24.3	24.4
iron and steel	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
non ferrous metals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
chemicals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
petrochemicals,fertilisers and others	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
pharmaceuticals and cosmetics	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
non metallic minerals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
paper, pulp, printing	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
paper and pulp production	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
printing and publishing	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
food, drink, tobacco	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
textiles and leather	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
engineering	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
other industries	0.6	0.8	1.1	1.4	1.9	3.7	2.7	2.9	2.8	25.3	22.5	25.7	24.3	24.4
Construction	0.1	0.1	0.1	0.2	0.2	1.9	2.5	3.2	2.7	3.4	2.5	2.8	2.8	2.7
Services	1.5	2.6	2.8	4.1	5.4	5.5	0.8	3.7	2.9	66.9	71.0	67.2	69.3	69.7
market services	0.3	0.7	1.1	1.6	2.2	7.9	3.9	3.8	3.5	15.2	20.1	25.8	26.7	28.4
non-market services	0.5	1.0	0.9	1.2	1.4	7.1	-1.3	2.7	2.0	23.1	28.4	21.8	20.3	18.7
trade	0.7	0.8	0.8	1.3	1.7	2.4	-0.1	4.8	2.9	28.7	22.5	19.6	22.3	22.6
Agriculture	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
Energy sector	0.1	0.1	0.2	0.2	0.2	3.7	2.1	1.7	1.6	4.5	4.0	4.3	3.6	3.2

Source: PRIMES

BASELINE SCENARIO
THE NETHERLANDS: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	14.9	15.9	16.7	17.2	17.6	0.6	0.5	0.3	0.2					
Average household size (persons)	2.5	2.4	2.2	2.0	1.9	-0.6	-0.8	-0.7	-0.5					
Number of households (Million)	6.0	6.8	7.7	8.5	9.2	1.2	1.3	1.0	0.7					
Gross Domestic product (in 000 MEuro'00)	**302.0**	**402.3**	**463.3**	**555.6**	**641.9**	**2.9**	**1.4**	**1.8**	**1.5**					
Households expenditure (in 000 MEuro'00)	**152.0**	**200.0**	**223.2**	**268.8**	**309.8**	**2.8**	**1.1**	**1.9**	**1.4**					
Gross Value Added (in 000 MEuro'00)	**283.0**	**373.8**	**429.6**	**513.8**	**592.6**	**2.8**	**1.4**	**1.8**	**1.4**					
Industry	50.3	62.5	64.7	75.0	84.3	2.2	0.4	1.5	1.2	17.8	16.7	15.1	14.6	14.2
iron and steel	1.4	1.3	1.4	1.5	1.5	-0.6	0.9	0.6	0.1	0.5	0.3	0.3	0.3	0.3
non ferrous metals	0.6	0.7	0.8	0.9	0.9	1.5	0.6	1.3	0.6	0.2	0.2	0.2	0.2	0.2
chemicals	8.4	10.5	12.2	14.2	16.0	2.3	1.5	1.5	1.2	3.0	2.8	2.8	2.8	2.7
petrochemicals,fertilisers and others	7.4	8.1	9.1	9.9	10.5	0.9	1.2	0.9	0.6	2.6	2.2	2.1	1.9	1.8
pharmaceuticals and cosmetics	1.0	2.5	3.2	4.3	5.5	9.2	2.5	3.2	2.5	0.4	0.7	0.7	0.8	0.9
non metallic minerals	2.3	2.6	2.5	2.8	3.1	1.4	-0.6	1.2	1.0	0.8	0.7	0.6	0.5	0.5
paper, pulp, printing	6.4	7.9	7.8	9.0	10.1	2.2	-0.2	1.5	1.2	2.2	2.1	1.8	1.7	1.7
paper and pulp production	1.6	1.8	1.8	2.1	2.3	0.8	0.3	1.4	1.0	0.6	0.5	0.4	0.4	0.4
printing and publishing	4.7	6.1	5.9	6.9	7.8	2.6	-0.3	1.5	1.3	1.7	1.6	1.4	1.3	1.3
food, drink, tobacco	8.3	11.0	11.9	13.9	15.7	2.9	0.8	1.5	1.2	2.9	3.0	2.8	2.7	2.7
textiles and leather	1.6	1.6	1.3	1.3	1.3	-0.4	-1.6	0.0	0.1	0.6	0.4	0.3	0.3	0.2
engineering	15.5	19.7	19.5	22.9	25.9	2.4	-0.1	1.6	1.3	5.5	5.3	4.5	4.4	4.4
other industries	5.8	7.2	7.4	8.6	9.8	2.1	0.3	1.5	1.3	2.1	1.9	1.7	1.7	1.6
Construction	18.0	19.4	20.2	22.9	25.2	0.7	0.4	1.3	1.0	6.4	5.2	4.7	4.5	4.3
Services	191.1	265.4	318.2	387.5	453.4	3.3	1.8	2.0	1.6	67.5	71.0	74.1	75.4	76.5
market services	59.0	91.5	104.9	127.8	151.0	4.5	1.4	2.0	1.7	20.9	24.5	24.4	24.9	25.5
non-market services	69.8	79.6	104.3	124.4	140.6	1.3	2.7	1.8	1.2	24.7	21.3	24.3	24.2	23.7
trade	62.3	94.3	109.1	135.3	161.8	4.2	1.5	2.2	1.8	22.0	25.2	25.4	26.3	27.3
Agriculture	9.5	12.1	11.1	11.9	12.5	2.4	-0.8	0.7	0.5	3.4	3.2	2.6	2.3	2.1
Energy sector	14.1	14.5	15.4	16.6	17.2	0.3	0.6	0.8	0.4	5.0	3.9	3.6	3.2	2.9

Source: PRIMES

BASELINE SCENARIO
POLAND: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	38.1	38.6	37.8	37.1	36.5	0.1	-0.2	-0.2	-0.1					
Average household size (persons)	3.1	2.8	2.6	2.5	2.4	-1.0	-0.9	-0.3	-0.3					
Number of households (Million)	12.3	13.8	14.7	14.9	15.1	1.2	0.7	0.1	0.2					
Gross Domestic product (in 000 MEuro'00)	**126.2**	**180.6**	**265.4**	**406.9**	**564.6**	**3.7**	**3.9**	**4.4**	**3.3**					
Households expenditure (in 000 MEuro'00)	**76.2**	**111.8**	**163.8**	**252.0**	**350.9**	**3.9**	**3.9**	**4.4**	**3.4**					
Gross Value Added (in 000 MEuro'00)	**109.8**	**154.6**	**226.6**	**349.2**	**485.9**	**3.5**	**3.9**	**4.4**	**3.4**					
Industry	25.7	38.2	64.4	101.5	133.6	4.0	5.4	4.7	2.8	23.4	24.7	28.4	29.1	27.5
iron and steel	1.8	1.4	1.5	1.7	1.9	-2.6	0.7	1.2	0.9	1.7	0.9	0.7	0.5	0.4
non ferrous metals	0.2	0.3	0.4	0.5	0.5	4.0	1.8	2.2	1.4	0.2	0.2	0.2	0.1	0.1
chemicals	2.4	3.0	5.1	9.3	12.9	2.5	5.5	6.1	3.3	2.2	2.0	2.3	2.7	2.6
petrochemicals,fertilisers and others	1.7	1.6	1.9	2.9	3.8	-0.9	2.1	4.3	2.7	1.6	1.0	0.9	0.8	0.8
pharmaceuticals and cosmetics	0.6	1.4	3.2	6.4	9.0	8.5	8.3	7.1	3.5	0.6	0.9	1.4	1.8	1.9
non metallic minerals	1.4	2.6	4.5	7.1	9.1	6.1	5.6	4.7	2.5	1.3	1.7	2.0	2.0	1.9
paper, pulp, printing	1.1	2.7	4.9	7.1	8.4	9.7	6.1	3.8	1.8	1.0	1.7	2.2	2.0	1.7
paper and pulp production	0.6	0.8	1.2	1.5	1.7	3.4	4.7	2.2	1.2	0.5	0.5	0.5	0.4	0.4
printing and publishing	0.5	1.9	3.6	5.5	6.7	14.1	6.6	4.3	1.9	0.5	1.2	1.6	1.6	1.4
food, drink, tobacco	4.7	10.0	18.7	28.3	36.7	7.7	6.5	4.2	2.6	4.3	6.5	8.3	8.1	7.6
textiles and leather	2.2	2.6	3.4	4.0	4.5	1.9	2.8	1.6	1.2	2.0	1.7	1.5	1.1	0.9
engineering	9.8	10.8	18.0	31.0	43.1	1.0	5.3	5.6	3.3	8.9	7.0	8.0	8.9	8.9
other industries	2.1	4.8	7.9	12.5	16.6	8.5	5.0	4.8	2.9	1.9	3.1	3.5	3.6	3.4
Construction	8.3	11.3	11.2	18.1	24.9	3.1	-0.1	5.0	3.2	7.6	7.3	4.9	5.2	5.1
Services	60.8	86.2	128.8	203.0	296.2	3.6	4.1	4.7	3.8	55.4	55.8	56.9	58.1	61.0
market services	10.2	15.9	24.1	41.0	63.5	4.5	4.2	5.5	4.5	9.3	10.3	10.6	11.8	13.1
non-market services	28.5	26.7	32.9	42.9	53.0	-0.6	2.1	2.7	2.1	25.9	17.2	14.5	12.3	10.9
trade	22.1	43.6	71.8	119.1	179.7	7.0	5.1	5.2	4.2	20.1	28.2	31.7	34.1	37.0
Agriculture	5.1	8.0	11.7	15.2	18.3	4.5	4.0	2.6	1.9	4.7	5.1	5.2	4.4	3.8
Energy sector	9.8	11.0	10.4	11.4	12.9	1.1	-0.5	0.9	1.3	8.9	7.1	4.6	3.3	2.7

Source: PRIMES

BASELINE SCENARIO
PORTUGAL: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	10.0	10.2	10.7	10.8	10.7	0.2	0.4	0.1	-0.1					
Average household size (persons)	3.0	2.8	2.6	2.5	2.3	-0.9	-0.6	-0.6	-0.5					
Number of households (Million)	3.3	3.7	4.1	4.4	4.6	1.1	1.0	0.7	0.4					
Gross Domestic product (in 000 MEuro'00)	**87.9**	**115.5**	**131.2**	**172.2**	**221.3**	**2.8**	**1.3**	**2.8**	**2.5**					
Households expenditure (in 000 MEuro'00)	**54.0**	**73.2**	**86.2**	**112.9**	**145.4**	**3.1**	**1.6**	**2.7**	**2.6**					
Gross Value Added (in 000 MEuro'00)	**80.7**	**107.2**	**123.7**	**164.6**	**213.7**	**2.9**	**1.4**	**2.9**	**2.6**					
Industry	17.6	21.1	21.6	27.2	33.4	1.8	0.2	2.3	2.1	21.9	19.7	17.5	16.5	15.6
iron and steel	0.1	0.2	0.2	0.2	0.2	4.1	-1.0	1.0	0.5	0.2	0.2	0.2	0.1	0.1
non ferrous metals	0.1	0.1	0.1	0.2	0.2	1.0	2.7	1.5	1.1	0.1	0.1	0.1	0.1	0.1
chemicals	1.6	1.3	1.4	1.8	2.4	-1.4	0.3	2.8	2.6	1.9	1.3	1.1	1.1	1.1
petrochemicals,fertilisers and others	1.0	0.8	0.8	0.9	1.0	-3.1	-0.1	1.8	1.3	1.3	0.7	0.6	0.5	0.5
pharmaceuticals and cosmetics	0.5	0.6	0.6	0.9	1.3	1.3	0.9	3.8	3.7	0.6	0.5	0.5	0.6	0.6
non metallic minerals	1.2	2.0	2.1	2.7	3.2	5.2	0.5	2.5	2.0	1.5	1.8	1.7	1.6	1.5
paper, pulp, printing	1.8	2.5	2.7	3.5	4.4	3.7	0.5	2.7	2.3	2.2	2.4	2.2	2.1	2.0
paper and pulp production	0.6	1.3	1.4	1.9	2.3	7.2	1.3	2.6	2.0	0.8	1.2	1.2	1.1	1.1
printing and publishing	1.1	1.3	1.2	1.6	2.1	1.2	-0.4	2.8	2.6	1.4	1.2	1.0	1.0	1.0
food, drink, tobacco	3.3	2.9	3.0	3.8	4.6	-1.3	0.2	2.3	2.1	4.2	2.7	2.4	2.3	2.2
textiles and leather	4.8	4.2	4.0	4.6	5.1	-1.3	-0.3	1.4	0.9	5.9	3.9	3.3	2.8	2.4
engineering	3.0	5.3	5.6	7.3	9.3	5.9	0.5	2.7	2.5	3.7	5.0	4.5	4.4	4.4
other industries	1.8	2.5	2.5	3.2	4.0	3.5	0.2	2.4	2.2	2.2	2.3	2.0	1.9	1.9
Construction	5.4	7.3	6.1	7.7	9.6	3.1	-1.7	2.3	2.2	6.7	6.8	5.0	4.7	4.5
Services	50.9	70.7	87.1	118.8	158.5	3.3	2.1	3.2	2.9	63.1	66.0	70.4	72.2	74.2
market services	12.2	22.5	29.7	42.0	58.2	6.3	2.8	3.5	3.3	15.1	21.0	24.0	25.5	27.2
non-market services	18.5	23.0	27.0	34.5	42.0	2.2	1.6	2.5	2.0	23.0	21.4	21.8	20.9	19.7
trade	20.1	25.2	30.4	42.4	58.3	2.3	1.9	3.4	3.2	24.9	23.5	24.6	25.7	27.3
Agriculture	4.2	4.4	4.9	6.3	7.2	0.3	1.1	2.6	1.3	5.2	4.1	3.9	3.8	3.4
Energy sector	2.5	3.6	3.9	4.6	5.1	3.7	0.8	1.4	1.1	3.1	3.4	3.2	2.8	2.4

Source: PRIMES

BASELINE SCENARIO
SLOVAKIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	5.3	5.4	5.3	5.3	5.2	0.2	-0.1	-0.1	-0.2					
Average household size (persons)	2.5	2.2	2.0	1.9	1.8	-1.3	-1.0	-0.5	-0.5					
Number of households (Million)	2.1	2.5	2.7	2.8	2.9	1.5	0.9	0.4	0.3					
Gross Domestic product (in 000 MEuro'00)	**19.1**	**21.9**	**34.4**	**52.5**	**71.9**	**1.4**	**4.6**	**4.3**	**3.2**					
Households expenditure (in 000 MEuro'00)	**11.7**	**11.8**	**17.3**	**25.5**	**34.3**	**0.1**	**3.9**	**4.0**	**3.0**					
Gross Value Added (in 000 MEuro'00)	**20.1**	**19.6**	**31.5**	**47.8**	**65.4**	**-0.2**	**4.8**	**4.3**	**3.2**					
Industry	4.9	4.8	8.4	13.2	18.3	-0.2	5.9	4.6	3.3	24.1	24.3	26.8	27.6	27.9
iron and steel	0.3	0.4	0.6	0.7	0.8	3.9	3.7	1.9	1.1	1.5	2.2	2.0	1.6	1.3
non ferrous metals	0.0	0.2	0.3	0.3	0.4	17.5	5.5	2.5	1.3	0.2	0.8	0.8	0.7	0.6
chemicals	0.6	0.4	0.4	0.6	1.0	-3.7	0.6	4.1	4.1	3.0	2.1	1.4	1.4	1.5
petrochemicals,fertilisers and others	0.4	0.3	0.3	0.4	0.5	-4.1	0.7	2.6	2.5	2.2	1.5	1.0	0.8	0.8
pharmaceuticals and cosmetics	0.2	0.1	0.1	0.2	0.5	-2.8	0.5	6.9	6.4	0.8	0.6	0.4	0.5	0.7
non metallic minerals	0.4	0.3	0.6	0.9	1.3	-3.4	8.0	4.9	2.9	1.9	1.4	1.9	2.0	1.9
paper, pulp, printing	0.4	0.4	0.7	1.1	1.5	-0.4	5.9	4.6	2.9	2.1	2.1	2.3	2.4	2.3
paper and pulp production	0.3	0.3	0.4	0.5	0.5	-1.5	3.2	2.2	1.4	1.6	1.4	1.2	1.0	0.8
printing and publishing	0.1	0.1	0.3	0.7	1.0	2.3	10.1	6.7	3.9	0.5	0.7	1.1	1.4	1.5
food, drink, tobacco	0.8	0.5	0.6	1.0	1.4	-4.4	1.7	4.8	3.5	4.1	2.7	2.0	2.1	2.2
textiles and leather	0.5	0.4	0.5	0.7	0.9	-2.3	3.7	3.1	2.3	2.4	1.9	1.7	1.5	1.4
engineering	1.2	1.6	3.4	5.6	8.0	2.8	7.6	5.0	3.7	6.2	8.3	10.8	11.6	12.2
other industries	0.6	0.6	1.2	2.1	3.0	-0.3	8.2	5.6	3.6	2.8	2.8	3.8	4.4	4.5
Construction	1.2	0.8	1.3	2.1	2.8	-3.6	4.3	5.0	2.8	6.0	4.3	4.1	4.4	4.2
Services	10.0	11.8	19.1	29.2	40.6	1.7	5.0	4.3	3.3	49.5	60.0	60.6	61.2	62.1
market services	2.5	3.3	5.8	9.2	12.8	3.1	5.7	4.7	3.4	12.2	17.0	18.5	19.2	19.5
non-market services	2.7	3.1	5.4	7.7	10.2	1.1	5.9	3.6	2.8	13.6	15.5	17.2	16.2	15.5
trade	4.8	5.4	7.9	12.3	17.6	1.3	3.8	4.6	3.7	23.6	27.5	24.9	25.8	27.0
Agriculture	1.5	1.2	1.6	2.1	2.6	-2.6	3.5	2.6	2.0	7.4	5.9	5.2	4.4	3.9
Energy sector	2.6	1.1	1.1	1.2	1.2	-8.3	-0.3	0.8	0.8	12.9	5.6	3.4	2.4	1.9

Source: PRIMES

BASELINE SCENARIO
SLOVENIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	2.0	2.0	2.0	2.0	2.0	0.0	0.1	0.0	-0.1					
Average household size (persons)	3.3	3.1	2.8	2.7	2.7	-0.8	-0.8	-0.4	-0.3					
Number of households (Million)	0.6	0.6	0.7	0.7	0.8	0.7	1.0	0.4	0.2					
Gross Domestic product (in 000 MEuro'00)	**17.2**	**20.6**	**29.2**	**37.1**	**43.8**	**1.8**	**3.6**	**2.4**	**1.7**					
Households expenditure (in 000 MEuro'00)	**9.0**	**11.5**	**15.6**	**19.7**	**23.2**	**2.5**	**3.1**	**2.4**	**1.7**					
Gross Value Added (in 000 MEuro'00)	**15.2**	**17.8**	**25.4**	**32.1**	**37.9**	**1.6**	**3.6**	**2.4**	**1.7**					
Industry	4.8	5.2	8.0	10.1	11.8	0.6	4.5	2.4	1.6	31.8	28.9	31.5	31.4	31.2
iron and steel	0.1	0.1	0.2	0.2	0.2	1.9	3.4	1.3	0.9	0.7	0.8	0.7	0.7	0.6
non ferrous metals	0.1	0.1	0.1	0.2	0.2	-1.3	4.7	2.8	2.0	0.6	0.4	0.5	0.5	0.5
chemicals	0.1	0.6	1.0	1.3	1.6	17.9	4.8	3.1	2.0	0.8	3.4	3.8	4.1	4.2
petrochemicals,fertilisers and others	0.1	0.2	0.3	0.4	0.5	11.2	4.0	2.2	1.5	0.5	1.3	1.3	1.3	1.3
pharmaceuticals and cosmetics	0.0	0.4	0.6	0.9	1.1	25.4	5.3	3.5	2.3	0.3	2.1	2.5	2.8	2.9
non metallic minerals	0.3	0.2	0.4	0.5	0.6	-1.3	4.9	2.8	1.4	1.7	1.3	1.5	1.5	1.5
paper, pulp, printing	0.4	0.4	0.6	0.8	0.9	-0.2	3.8	2.3	1.6	2.9	2.4	2.5	2.4	2.4
paper and pulp production	0.2	0.2	0.2	0.3	0.3	-1.6	3.0	1.8	0.8	1.3	1.0	0.9	0.9	0.8
printing and publishing	0.2	0.3	0.4	0.5	0.6	0.9	4.3	2.6	1.9	1.5	1.4	1.6	1.6	1.6
food, drink, tobacco	0.6	0.6	0.9	1.1	1.3	-1.2	4.4	2.6	1.7	4.2	3.2	3.4	3.5	3.5
textiles and leather	0.7	0.5	0.5	0.5	0.5	-3.6	0.6	0.1	-0.1	4.6	2.7	2.0	1.6	1.4
engineering	1.8	1.9	3.3	4.2	5.0	0.6	5.4	2.6	1.8	11.9	10.8	12.9	13.1	13.3
other industries	0.7	0.7	1.1	1.3	1.5	0.4	4.2	2.0	1.2	4.5	4.0	4.2	4.0	3.9
Construction	0.9	1.1	1.4	1.9	2.2	1.5	2.5	2.9	1.4	6.2	6.2	5.6	5.9	5.7
Services	8.2	10.4	14.8	18.9	22.6	2.5	3.6	2.4	1.8	53.5	58.3	58.4	58.7	59.5
market services	2.4	3.3	4.9	6.6	8.0	3.3	4.1	3.0	2.0	15.5	18.4	19.3	20.5	21.1
non-market services	2.5	3.5	4.9	5.7	6.3	3.6	3.2	1.6	1.0	16.4	19.9	19.2	17.7	16.6
trade	3.3	3.6	5.0	6.6	8.3	0.8	3.5	2.7	2.3	21.6	20.1	19.9	20.6	21.9
Agriculture	0.7	0.6	0.5	0.5	0.6	-0.8	-2.0	0.8	0.6	4.4	3.5	2.0	1.7	1.5
Energy sector	0.6	0.6	0.7	0.7	0.7	-1.2	1.8	0.8	0.5	4.1	3.1	2.6	2.2	2.0

Source: PRIMES

BASELINE SCENARIO
SPAIN: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	38.9	39.9	44.6	45.6	45.4	0.3	1.1	0.2	0.0					
Average household size (persons)	3.2	2.9	2.7	2.6	2.4	-1.0	-0.5	-0.6	-0.6					
Number of households (Million)	12.3	14.0	16.5	17.9	18.8	1.3	1.7	0.8	0.5					
Gross Domestic product (in 000 MEuro'00)	**468.3**	**610.5**	**801.8**	**1040.2**	**1240.4**	**2.7**	**2.8**	**2.6**	**1.8**					
Households expenditure (in 000 MEuro'00)	**284.6**	**361.5**	**484.4**	**625.4**	**743.2**	**2.4**	**3.0**	**2.6**	**1.7**					
Gross Value Added (in 000 MEuro'00)	**463.5**	**578.1**	**750.0**	**974.5**	**1170.5**	**2.2**	**2.6**	**2.7**	**1.8**					
Industry	88.5	108.0	134.3	176.5	210.3	2.0	2.2	2.8	1.8	19.1	18.7	17.9	18.1	18.0
iron and steel	3.5	3.3	3.8	4.1	4.2	-0.4	1.4	0.7	0.2	0.7	0.6	0.5	0.4	0.4
non ferrous metals	0.9	1.4	1.9	2.3	2.7	4.5	2.8	2.1	1.5	0.2	0.2	0.2	0.2	0.2
chemicals	7.6	9.6	13.7	19.7	25.0	2.4	3.7	3.7	2.4	1.6	1.7	1.8	2.0	2.1
petrochemicals,fertilisers and others	4.3	5.4	7.5	10.2	11.8	2.3	3.3	3.0	1.5	0.9	0.9	1.0	1.0	1.0
pharmaceuticals and cosmetics	3.2	4.1	6.1	9.5	13.2	2.5	4.0	4.5	3.3	0.7	0.7	0.8	1.0	1.1
non metallic minerals	7.2	8.9	11.4	14.7	17.3	2.2	2.5	2.6	1.7	1.5	1.5	1.5	1.5	1.5
paper, pulp, printing	6.7	9.6	12.4	16.3	19.1	3.7	2.6	2.8	1.6	1.4	1.7	1.7	1.7	1.6
paper and pulp production	1.9	3.2	4.2	5.5	6.5	5.3	2.8	2.7	1.7	0.4	0.6	0.6	0.6	0.6
printing and publishing	4.8	6.4	8.2	10.8	12.6	2.9	2.5	2.8	1.6	1.0	1.1	1.1	1.1	1.1
food, drink, tobacco	14.4	15.7	19.1	24.8	29.5	0.9	2.0	2.6	1.7	3.1	2.7	2.5	2.5	2.5
textiles and leather	9.0	8.2	7.5	8.1	8.3	-0.9	-1.0	0.8	0.3	1.9	1.4	1.0	0.8	0.7
engineering	29.4	37.8	47.9	64.6	77.9	2.5	2.4	3.0	1.9	6.3	6.5	6.4	6.6	6.7
other industries	9.9	13.5	16.6	21.9	26.3	3.1	2.1	2.8	1.8	2.1	2.3	2.2	2.3	2.2
Construction	38.3	45.7	69.1	89.6	106.1	1.8	4.2	2.6	1.7	8.3	7.9	9.2	9.2	9.1
Services	299.0	376.9	494.3	646.8	784.7	2.3	2.7	2.7	2.0	64.5	65.2	65.9	66.4	67.0
market services	89.5	105.5	142.2	189.7	231.8	1.7	3.0	2.9	2.0	19.3	18.2	19.0	19.5	19.8
non-market services	87.9	116.2	152.5	189.1	222.4	2.8	2.8	2.2	1.6	19.0	20.1	20.3	19.4	19.0
trade	121.6	155.2	199.7	268.0	330.5	2.5	2.6	3.0	2.1	26.2	26.8	26.6	27.5	28.2
Agriculture	22.3	25.1	25.1	28.6	31.4	1.2	0.0	1.3	0.9	4.8	4.3	3.3	2.9	2.7
Energy sector	15.4	22.4	27.3	33.0	37.9	3.8	2.0	1.9	1.4	3.3	3.9	3.6	3.4	3.2

Source: PRIMES

BASELINE SCENARIO
SWEDEN: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	8.6	8.9	9.2	9.6	9.9	0.4	0.4	0.4	0.3					
Average household size (persons)	2.2	2.1	2.0	1.9	1.8	-0.4	-0.7	-0.6	-0.4					
Number of households (Million)	3.9	4.1	4.6	5.1	5.5	0.7	1.1	1.0	0.8					
Gross Domestic product (in 000 MEuro'00)	**213.3**	**259.9**	**329.1**	**414.0**	**484.3**	**2.0**	**2.4**	**2.3**	**1.6**					
Households expenditure (in 000 MEuro'00)	**109.3**	**126.7**	**153.3**	**188.5**	**218.7**	**1.5**	**1.9**	**2.1**	**1.5**					
Gross Value Added (in 000 MEuro'00)	**188.9**	**236.1**	**302.7**	**385.1**	**453.4**	**2.3**	**2.5**	**2.4**	**1.6**					
Industry	34.3	62.4	88.3	115.5	135.5	6.2	3.5	2.7	1.6	18.2	26.4	29.2	30.0	29.9
iron and steel	1.5	2.2	2.7	2.9	2.9	3.8	1.9	0.5	0.2	0.8	0.9	0.9	0.7	0.6
non ferrous metals	0.4	0.5	0.6	0.7	0.7	0.8	2.0	1.5	0.6	0.2	0.2	0.2	0.2	0.2
chemicals	2.4	5.8	9.6	13.1	15.7	9.2	5.2	3.1	1.9	1.3	2.4	3.2	3.4	3.5
petrochemicals,fertilisers and others	1.4	2.3	2.5	2.8	3.0	5.3	0.9	1.1	0.7	0.7	1.0	0.8	0.7	0.7
pharmaceuticals and cosmetics	1.0	3.4	7.1	10.2	12.7	13.1	7.5	3.8	2.2	0.5	1.5	2.3	2.7	2.8
non metallic minerals	1.2	1.0	1.4	1.7	1.9	-1.8	3.1	2.0	1.2	0.6	0.4	0.5	0.4	0.4
paper, pulp, printing	7.4	8.3	9.4	12.0	13.9	1.1	1.2	2.5	1.5	3.9	3.5	3.1	3.1	3.1
paper and pulp production	4.1	5.4	5.9	7.3	8.5	2.7	0.9	2.1	1.5	2.2	2.3	1.9	1.9	1.9
printing and publishing	3.3	2.9	3.5	4.7	5.4	-1.3	1.8	3.2	1.4	1.7	1.2	1.1	1.2	1.2
food, drink, tobacco	2.7	3.5	4.1	5.3	6.0	2.8	1.5	2.6	1.3	1.4	1.5	1.4	1.4	1.3
textiles and leather	0.6	0.5	0.5	0.5	0.5	-1.9	-1.1	0.8	0.7	0.3	0.2	0.1	0.1	0.1
engineering	14.3	35.5	54.2	72.0	85.4	9.5	4.3	2.9	1.7	7.6	15.0	17.9	18.7	18.8
other industries	3.7	5.2	5.9	7.5	8.5	3.4	1.4	2.3	1.3	2.0	2.2	2.0	1.9	1.9
Construction	10.4	8.6	11.2	14.0	15.7	-1.8	2.6	2.2	1.2	5.5	3.7	3.7	3.6	3.5
Services	128.5	152.6	189.1	240.6	286.4	1.7	2.2	2.4	1.8	68.0	64.6	62.5	62.5	63.2
market services	40.7	53.5	64.1	84.3	103.6	2.8	1.8	2.8	2.1	21.6	22.7	21.2	21.9	22.8
non-market services	51.0	50.8	61.6	72.2	79.2	0.0	1.9	1.6	0.9	27.0	21.5	20.4	18.7	17.5
trade	36.8	48.2	63.4	84.1	103.7	2.7	2.8	2.9	2.1	19.5	20.4	20.9	21.8	22.9
Agriculture	5.8	5.3	6.6	7.2	7.6	-0.8	2.1	0.9	0.6	3.1	2.3	2.2	1.9	1.7
Energy sector	9.9	7.2	7.6	7.9	8.2	-3.2	0.6	0.5	0.4	5.2	3.0	2.5	2.1	1.8

Source: PRIMES

BASELINE SCENARIO
UNITED KINGDOM: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	57.2	58.6	60.9	62.9	64.4	0.2	0.4	0.3	0.2					
Average household size (persons)	2.6	2.4	2.1	2.0	1.9	-0.8	-1.0	-0.8	-0.6					
Number of households (Million)	22.4	24.8	28.5	31.8	34.6	1.1	1.4	1.1	0.8					
Gross Domestic product (in 000 MEuro'00)	**1227.8**	**1559.6**	**2031.5**	**2578.9**	**3061.6**	**2.4**	**2.7**	**2.4**	**1.7**					
Households expenditure (in 000 MEuro'00)	**799.6**	**1040.3**	**1372.0**	**1729.0**	**2045.1**	**2.7**	**2.8**	**2.3**	**1.7**					
Gross Value Added (in 000 MEuro'00)	**1135.5**	**1439.8**	**1876.9**	**2384.1**	**2831.2**	**2.4**	**2.7**	**2.4**	**1.7**					
Industry	257.7	268.8	272.3	321.0	358.1	0.4	0.1	1.7	1.1	22.7	18.7	14.5	13.5	12.6
iron and steel	7.8	4.3	3.8	4.0	4.0	-5.7	-1.3	0.5	0.0	0.7	0.3	0.2	0.2	0.1
non ferrous metals	4.1	3.1	3.0	3.4	3.5	-2.7	-0.2	1.2	0.1	0.4	0.2	0.2	0.1	0.1
chemicals	24.9	27.1	29.0	36.7	42.5	0.8	0.7	2.4	1.5	2.2	1.9	1.5	1.5	1.5
petrochemicals,fertilisers and others	14.8	13.6	11.0	11.7	12.3	-0.8	-2.1	0.6	0.5	1.3	0.9	0.6	0.5	0.4
pharmaceuticals and cosmetics	10.1	13.5	18.0	25.1	30.2	2.9	2.9	3.4	1.9	0.9	0.9	1.0	1.1	1.1
non metallic minerals	10.4	9.3	9.1	10.4	11.3	-1.1	-0.3	1.4	0.9	0.9	0.6	0.5	0.4	0.4
paper, pulp, printing	29.0	35.5	36.1	42.4	47.0	2.1	0.2	1.6	1.0	2.6	2.5	1.9	1.8	1.7
paper and pulp production	7.4	7.3	6.9	7.7	8.2	0.0	-0.6	1.0	0.7	0.6	0.5	0.4	0.3	0.3
printing and publishing	21.6	28.2	29.2	34.7	38.8	2.7	0.3	1.8	1.1	1.9	2.0	1.6	1.5	1.4
food, drink, tobacco	31.7	37.4	39.7	47.0	52.6	1.7	0.6	1.7	1.1	2.8	2.6	2.1	2.0	1.9
textiles and leather	15.7	10.9	6.4	5.2	4.8	-3.5	-5.2	-2.0	-0.9	1.4	0.8	0.3	0.2	0.2
engineering	109.6	111.9	114.7	133.8	147.7	0.2	0.3	1.5	1.0	9.6	7.8	6.1	5.6	5.2
other industries	24.7	29.2	30.5	38.0	44.7	1.7	0.4	2.2	1.6	2.2	2.0	1.6	1.6	1.6
Construction	67.9	66.4	93.2	115.8	132.6	-0.2	3.4	2.2	1.4	6.0	4.6	5.0	4.9	4.7
Services	743.9	1009.0	1420.3	1856.8	2249.6	3.1	3.5	2.7	1.9	65.5	70.1	75.7	77.9	79.5
market services	266.8	376.0	577.7	782.1	969.7	3.5	4.4	3.1	2.2	23.5	26.1	30.8	32.8	34.3
non-market services	236.5	294.4	363.1	436.2	496.1	2.2	2.1	1.8	1.3	20.8	20.4	19.3	18.3	17.5
trade	240.6	338.6	479.5	638.5	783.7	3.5	3.5	2.9	2.1	21.2	23.5	25.5	26.8	27.7
Agriculture	22.4	23.1	23.6	24.1	24.3	0.3	0.2	0.2	0.1	2.0	1.6	1.3	1.0	0.9
Energy sector	43.6	72.5	67.5	66.4	66.6	5.2	-0.7	-0.2	0.0	3.8	5.0	3.6	2.8	2.4

Source: PRIMES

BASELINE SCENARIO
BULGARIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	8.7	8.2	7.4	6.8	6.2	-0.6	-0.9	-0.9	-1.0					
Average household size (persons)	2.9	2.6	2.3	2.1	1.9	-0.9	-1.2	-0.9	-0.9					
Number of households (Million)	3.0	3.1	3.2	3.2	3.2	0.3	0.3	0.0	-0.1					
Gross Domestic product (in 000 MEuro'00)	**16.3**	**13.7**	**23.4**	**39.8**	**61.1**	**-1.7**	**5.5**	**5.5**	**4.4**					
Households expenditure (in 000 MEuro'00)	**11.3**	**10.2**	**17.3**	**28.4**	**42.4**	**-1.1**	**5.5**	**5.1**	**4.1**					
Gross Value Added (in 000 MEuro'00)	**18.3**	**12.5**	**21.2**	**36.3**	**55.8**	**-3.8**	**5.5**	**5.5**	**4.4**					
Industry	4.1	2.3	4.0	7.3	11.8	-5.8	5.8	6.1	4.9	22.6	18.3	18.9	20.1	21.1
iron and steel	0.4	0.2	0.3	0.4	0.5	-6.3	3.1	3.2	2.5	2.2	1.7	1.3	1.1	0.9
non ferrous metals	0.2	0.1	0.1	0.1	0.1	-11.0	-0.1	1.7	1.2	0.9	0.4	0.2	0.2	0.1
chemicals	0.5	0.3	0.6	1.2	2.1	-5.1	7.3	7.5	5.7	2.7	2.3	2.7	3.3	3.7
petrochemicals,fertilisers and others	0.4	0.1	0.2	0.3	0.6	-10.3	1.5	7.4	5.2	2.3	1.1	0.8	0.9	1.0
pharmaceuticals and cosmetics	0.1	0.1	0.4	0.9	1.5	7.3	11.0	7.5	5.8	0.4	1.2	2.0	2.4	2.7
non metallic minerals	0.1	0.1	0.2	0.3	0.5	-0.5	4.2	5.8	4.6	0.7	0.9	0.8	0.8	0.9
paper, pulp, printing	0.1	0.1	0.2	0.4	0.7	1.1	6.1	6.9	5.9	0.5	0.9	0.9	1.1	1.2
paper and pulp production	0.1	0.0	0.0	0.1	0.1	-5.8	2.7	3.9	3.1	0.3	0.2	0.2	0.2	0.1
printing and publishing	0.0	0.1	0.2	0.3	0.6	6.5	7.3	7.5	6.3	0.2	0.6	0.7	0.9	1.1
food, drink, tobacco	0.3	0.5	0.9	1.6	2.5	4.2	6.2	5.7	4.6	1.8	4.0	4.2	4.3	4.4
textiles and leather	0.1	0.3	0.5	0.7	0.9	10.0	3.0	4.2	2.9	0.7	2.8	2.2	1.9	1.7
engineering	0.8	0.5	1.1	2.1	3.7	-3.7	7.4	7.2	5.6	4.2	4.2	5.0	5.9	6.6
other industries	1.6	0.1	0.3	0.5	0.9	-21.5	7.2	6.3	4.9	8.9	1.2	1.4	1.5	1.6
Construction	0.5	0.5	0.8	1.5	2.5	0.3	4.2	7.0	5.1	2.7	4.1	3.6	4.1	4.5
Services	7.1	6.8	12.3	21.0	32.1	-0.6	6.2	5.5	4.3	39.0	54.2	57.9	58.0	57.6
market services	3.7	2.4	4.2	7.0	10.5	-4.3	5.8	5.3	4.1	20.3	19.1	19.7	19.3	18.8
non-market services	1.0	1.7	3.0	4.8	7.0	5.7	5.7	4.8	3.7	5.5	14.0	14.3	13.4	12.5
trade	2.4	2.6	5.1	9.2	14.7	0.8	6.8	6.1	4.8	13.3	21.1	23.9	25.4	26.3
Agriculture	5.6	1.6	1.7	2.2	2.7	-11.9	1.1	2.3	2.1	30.3	12.5	8.2	6.0	4.8
Energy sector	1.0	1.4	2.4	4.2	6.7	3.1	6.0	5.8	4.7	5.5	10.9	11.4	11.7	12.1

Source: PRIMES

BASELINE SCENARIO
ROMANIA: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	23.2	22.4	21.3	20.3	19.2	-0.3	-0.5	-0.5	-0.6					
Average household size (persons)	3.3	2.9	2.6	2.5	2.5	-1.3	-0.9	-0.3	-0.3					
Number of households (Million)	7.1	7.8	8.2	8.0	7.8	0.9	0.4	-0.2	-0.3					
Gross Domestic product (in 000 MEuro'00)	**47.9**	**40.3**	**74.0**	**129.3**	**203.1**	**-1.7**	**6.3**	**5.7**	**4.6**					
Households expenditure (in 000 MEuro'00)	**32.2**	**29.8**	**55.5**	**87.0**	**124.8**	**-0.8**	**6.4**	**4.6**	**3.7**					
Gross Value Added (in 000 MEuro'00)	**44.7**	**38.0**	**67.0**	**114.2**	**177.2**	**-1.6**	**5.8**	**5.5**	**4.5**					
Industry	15.6	12.0	20.9	36.1	56.9	-2.6	5.7	5.6	4.6	34.9	31.5	31.2	31.6	32.1
iron and steel	0.5	0.5	0.7	0.8	1.0	0.1	2.3	2.0	1.8	1.2	1.4	1.0	0.7	0.6
non ferrous metals	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0
chemicals	1.0	0.7	1.7	3.5	5.8	-4.5	9.9	7.5	5.2	2.3	1.7	2.5	3.0	3.3
petrochemicals,fertilisers and others	1.0	0.4	0.8	1.5	2.3	-7.6	6.7	5.6	4.8	2.2	1.2	1.3	1.3	1.3
pharmaceuticals and cosmetics	0.1	0.2	0.8	2.0	3.4	15.0	14.9	9.1	5.6	0.1	0.6	1.2	1.7	1.9
non metallic minerals	1.1	0.5	0.8	1.3	1.9	-6.9	3.8	5.4	3.9	2.4	1.4	1.1	1.1	1.1
paper, pulp, printing	0.4	0.4	0.7	1.2	1.9	0.0	6.1	5.6	4.6	0.9	1.0	1.0	1.0	1.1
paper and pulp production	0.3	0.1	0.2	0.3	0.4	-6.6	3.2	3.9	3.2	0.6	0.4	0.3	0.3	0.2
printing and publishing	0.1	0.2	0.5	0.9	1.5	9.4	7.5	6.3	5.0	0.2	0.6	0.7	0.8	0.8
food, drink, tobacco	3.6	4.1	7.1	10.7	15.7	1.2	5.7	4.2	3.9	8.1	10.8	10.6	9.4	8.8
textiles and leather	1.8	1.8	2.4	3.3	4.3	0.2	2.8	3.1	2.8	4.0	4.8	3.6	2.9	2.4
engineering	5.7	2.6	4.8	9.8	17.3	-7.6	6.2	7.5	5.8	12.8	6.9	7.1	8.6	9.7
other industries	1.4	1.4	2.8	5.5	9.1	-0.5	7.7	6.9	5.2	3.2	3.6	4.2	4.8	5.2
Construction	2.2	2.3	5.0	9.4	15.8	0.5	7.9	6.6	5.3	4.9	6.1	7.4	8.2	8.9
Services	15.8	15.5	28.8	51.1	80.3	-0.1	6.4	5.9	4.6	35.3	40.9	43.0	44.7	45.3
market services	2.4	3.2	9.5	17.4	27.7	2.9	11.5	6.3	4.7	5.3	8.4	14.1	15.3	15.6
non-market services	3.6	4.6	6.4	11.0	17.3	2.4	3.3	5.6	4.6	8.1	12.1	9.5	9.6	9.7
trade	9.8	7.8	13.0	22.6	35.4	-2.3	5.3	5.7	4.6	21.9	20.5	19.4	19.8	20.0
Agriculture	9.1	6.2	9.2	12.6	16.8	-3.8	4.0	3.3	2.9	20.4	16.3	13.7	11.0	9.5
Energy sector	2.1	2.0	3.1	5.0	7.5	-0.4	4.7	4.8	4.1	4.6	5.2	4.7	4.4	4.2

Source: PRIMES

BASELINE SCENARIO
TURKEY: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	56.2	67.5	77.2	85.7	92.8	1.8	1.4	1.1	0.8					
Average household size (persons)	4.8	4.5	3.9	3.6	3.3	-0.8	-1.3	-1.0	-0.7					
Number of households (Million)	11.6	15.1	19.6	24.0	27.8	2.6	2.6	2.0	1.5					
Gross Domestic product (in 000 MEuro'00)	**152.5**	**216.7**	**326.4**	**583.3**	**1059.1**	**3.6**	**4.2**	**6.0**	**6.1**					
Households expenditure (in 000 MEuro'00)	**110.0**	**153.7**	**218.0**	**375.9**	**668.5**	**3.4**	**3.6**	**5.6**	**5.9**					
Gross Value Added (in 000 MEuro'00)	**158.5**	**224.1**	**335.6**	**599.7**	**1089.0**	**3.5**	**4.1**	**6.0**	**6.1**					
Industry	32.2	48.7	79.9	146.8	274.2	4.2	5.1	6.3	6.4	20.3	21.7	23.8	24.5	25.2
iron and steel	1.9	2.7	3.2	4.0	5.1	3.3	1.9	2.2	2.4	1.2	1.2	1.0	0.7	0.5
non ferrous metals	0.3	0.2	0.2	0.3	0.3	-2.8	-0.9	1.5	2.4	0.2	0.1	0.1	0.0	0.0
chemicals	3.2	4.9	8.1	15.1	28.4	4.2	5.3	6.4	6.5	2.0	2.2	2.4	2.5	2.6
petrochemicals,fertilisers and others	3.2	4.6	7.4	12.5	20.8	3.8	4.8	5.4	5.2	2.0	2.1	2.2	2.1	1.9
pharmaceuticals and cosmetics	0.0	0.2	0.7	2.6	7.5	27.8	11.8	13.5	11.0	0.0	0.1	0.2	0.4	0.7
non metallic minerals	2.6	3.7	4.9	8.8	15.4	3.5	2.9	6.1	5.8	1.6	1.6	1.4	1.5	1.4
paper, pulp, printing	1.0	1.6	2.7	5.2	9.7	4.9	5.8	6.6	6.5	0.6	0.7	0.8	0.9	0.9
paper and pulp production	0.6	0.6	0.8	1.2	1.8	-0.2	3.3	3.9	3.7	0.4	0.3	0.3	0.2	0.2
printing and publishing	0.3	0.9	1.9	3.9	7.9	10.8	7.1	7.6	7.3	0.2	0.4	0.6	0.7	0.7
food, drink, tobacco	3.2	6.3	10.8	19.8	36.5	7.0	5.5	6.2	6.3	2.0	2.8	3.2	3.3	3.3
textiles and leather	8.1	7.3	7.6	9.5	13.0	-1.0	0.3	2.3	3.3	5.1	3.3	2.3	1.6	1.2
engineering	3.2	9.7	23.5	50.0	103.3	11.7	9.2	7.8	7.5	2.0	4.3	7.0	8.3	9.5
other industries	8.7	12.3	18.9	34.2	62.5	3.5	4.3	6.1	6.2	5.5	5.5	5.6	5.7	5.7
Construction	9.0	10.0	11.8	21.3	41.9	1.0	1.7	6.1	7.0	5.7	4.5	3.5	3.6	3.9
Services	84.9	126.7	197.4	358.8	653.8	4.1	4.5	6.2	6.2	53.6	56.5	58.8	59.8	60.0
market services	18.0	22.5	36.7	78.9	177.7	2.3	5.0	7.9	8.5	11.3	10.0	10.9	13.2	16.3
non-market services	18.9	29.0	47.0	85.4	150.2	4.3	5.0	6.1	5.8	11.9	12.9	14.0	14.2	13.8
trade	48.0	75.3	113.7	194.4	325.9	4.6	4.2	5.5	5.3	30.3	33.6	33.9	32.4	29.9
Agriculture	27.0	30.5	36.4	57.4	93.3	1.2	1.8	4.7	5.0	17.0	13.6	10.8	9.6	8.6
Energy sector	5.3	8.2	10.1	15.5	25.7	4.4	2.1	4.4	5.2	3.4	3.7	3.0	2.6	2.4

Source: PRIMES

BASELINE SCENARIO
NORWAY: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	4.2	4.5	4.7	4.9	5.2	0.6	0.5	0.5	0.5					
Average household size (persons)	2.4	2.3	2.1	2.0	1.9	-0.5	-0.8	-0.8	-0.5					
Number of households (Million)	1.7	1.9	2.2	2.5	2.7	1.0	1.3	1.3	0.9					
Gross Domestic product (in 000 MEuro'00)	**125.6**	**181.1**	**225.8**	**285.0**	**343.5**	**3.7**	**2.2**	**2.4**	**1.9**					
Households expenditure (in 000 MEuro'00)	**65.3**	**90.6**	**115.3**	**146.4**	**177.2**	**3.3**	**2.4**	**2.4**	**1.9**					
Gross Value Added (in 000 MEuro'00)	**112.0**	**160.5**	**198.6**	**249.7**	**300.2**	**3.7**	**2.2**	**2.3**	**1.9**					
Industry	16.2	18.9	20.8	26.3	32.3	1.6	1.0	2.4	2.1	14.4	11.8	10.5	10.5	10.8
iron and steel	0.4	0.5	0.5	0.6	0.7	2.0	1.4	1.4	1.0	0.3	0.3	0.3	0.2	0.2
non ferrous metals	0.7	1.5	1.9	2.3	2.6	7.5	2.1	2.1	1.4	0.7	0.9	0.9	0.9	0.9
chemicals	2.0	1.9	1.9	2.2	2.6	-0.6	0.0	1.6	1.5	1.8	1.2	1.0	0.9	0.9
petrochemicals,fertilisers and others	1.6	1.5	1.4	1.5	1.6	-0.4	-1.1	0.6	0.8	1.4	1.0	0.7	0.6	0.5
pharmaceuticals and cosmetics	0.4	0.3	0.5	0.8	1.0	-1.4	4.2	3.8	2.6	0.4	0.2	0.3	0.3	0.3
non metallic minerals	0.6	0.6	0.6	0.7	0.8	0.4	0.5	0.8	0.9	0.5	0.4	0.3	0.3	0.3
paper, pulp, printing	2.5	2.8	3.0	3.9	4.7	1.1	0.7	2.5	2.0	2.3	1.8	1.5	1.6	1.6
paper and pulp production	1.2	1.1	1.2	1.4	1.7	-1.0	0.9	2.1	1.8	1.0	0.7	0.6	0.6	0.6
printing and publishing	1.4	1.8	1.9	2.5	3.0	2.6	0.6	2.6	2.1	1.2	1.1	1.0	1.0	1.0
food, drink, tobacco	2.3	3.1	3.1	3.6	4.3	3.3	-0.1	1.6	1.8	2.0	1.9	1.6	1.5	1.4
textiles and leather	0.3	0.3	0.3	0.3	0.3	0.1	-1.7	0.2	0.6	0.3	0.2	0.1	0.1	0.1
engineering	5.6	6.3	7.4	10.1	13.2	1.2	1.6	3.2	2.7	5.0	3.9	3.7	4.0	4.4
other industries	1.8	1.8	2.1	2.7	3.1	0.3	1.5	2.3	1.6	1.6	1.2	1.1	1.1	1.0
Construction	5.6	6.1	6.4	6.9	7.5	0.9	0.5	0.7	0.9	5.0	3.8	3.2	2.7	2.5
Services	72.8	105.8	138.8	177.0	213.9	3.8	2.8	2.5	1.9	65.0	65.9	69.9	70.9	71.3
market services	21.4	31.6	42.9	57.0	71.6	4.0	3.1	2.9	2.3	19.1	19.7	21.6	22.8	23.9
non-market services	26.9	33.6	39.8	45.9	51.5	2.2	1.7	1.4	1.2	24.1	21.0	20.0	18.4	17.2
trade	24.4	40.5	56.1	74.1	90.7	5.2	3.3	2.8	2.0	21.8	25.2	28.3	29.7	30.2
Agriculture	3.1	4.0	4.2	4.4	4.5	2.5	0.5	0.4	0.3	2.8	2.5	2.1	1.7	1.5
Energy sector	14.4	25.8	28.4	35.1	42.0	6.0	1.0	2.1	1.8	12.9	16.1	14.3	14.1	14.0

Source: PRIMES

BASELINE SCENARIO
SWITZERLAND: Key Demographic and Economic Assumptions

	1990	2000	2010	2020	2030	'90-'00	'00-'10	'10-'20	'20-'30	1990	2000	2010	2020	2030
						Annual % Change				% Structure of total value added				
Main Demographic Assumptions														
Population (Million)	6.8	7.2	7.4	7.5	7.5	0.6	0.3	0.1	0.1					
Average household size (persons)	2.2	2.1	1.9	1.7	1.7	-0.8	-1.0	-0.8	-0.3					
Number of households (Million)	3.0	3.5	4.0	4.4	4.5	1.4	1.3	0.9	0.3					
Gross Domestic product (in 000 MEuro'00)	**240.3**	**266.7**	**302.5**	**364.2**	**419.2**	**1.0**	**1.3**	**1.9**	**1.4**					
Households expenditure (in 000 MEuro'00)	**139.9**	**158.6**	**183.7**	**224.0**	**259.9**	**1.3**	**1.5**	**2.0**	**1.5**					
Gross Value Added (in 000 MEuro'00)	**210.3**	**233.4**	**271.0**	**331.5**	**385.5**	**1.0**	**1.5**	**2.0**	**1.5**					
Industry	40.3	62.5	73.0	90.7	105.1	4.5	1.6	2.2	1.5	19.2	26.8	26.9	27.4	27.3
iron and steel	1.4	1.0	1.1	1.2	1.3	-3.0	0.8	1.0	0.6	0.7	0.4	0.4	0.4	0.3
non ferrous metals	0.5	0.3	0.3	0.4	0.4	-5.2	-0.2	1.4	0.9	0.3	0.1	0.1	0.1	0.1
chemicals	5.0	9.6	11.2	14.3	17.0	6.8	1.5	2.5	1.8	2.4	4.1	4.1	4.3	4.4
petrochemicals,fertilisers and others	1.4	1.6	1.8	2.2	2.6	1.3	1.1	2.2	1.6	0.7	0.7	0.7	0.7	0.7
pharmaceuticals and cosmetics	3.6	8.0	9.4	12.0	14.4	8.4	1.5	2.5	1.8	1.7	3.4	3.5	3.6	3.7
non metallic minerals	1.0	1.7	1.9	2.2	2.6	5.8	1.0	1.9	1.3	0.5	0.7	0.7	0.7	0.7
paper, pulp, printing	6.3	6.1	7.0	8.7	10.0	-0.4	1.4	2.2	1.4	3.0	2.6	2.6	2.6	2.6
paper and pulp production	2.1	1.3	1.6	1.8	2.0	-4.6	1.5	1.6	1.0	1.0	0.6	0.6	0.5	0.5
printing and publishing	4.2	4.7	5.5	6.9	8.0	1.2	1.4	2.3	1.5	2.0	2.0	2.0	2.1	2.1
food, drink, tobacco	2.7	4.9	5.6	6.9	8.4	5.9	1.4	2.2	1.9	1.3	2.1	2.1	2.1	2.2
textiles and leather	0.9	1.5	1.5	1.6	1.6	5.9	-0.2	0.5	0.2	0.4	0.7	0.5	0.5	0.4
engineering	20.6	30.8	37.1	46.4	53.6	4.1	1.9	2.3	1.4	9.8	13.2	13.7	14.0	13.9
other industries	1.9	6.6	7.4	9.1	10.4	13.3	1.2	2.0	1.4	0.9	2.8	2.7	2.7	2.7
Construction	10.1	10.3	11.0	12.2	13.3	0.2	0.7	1.0	0.8	4.8	4.4	4.1	3.7	3.4
Services	145.8	146.1	171.1	209.9	246.1	0.0	1.6	2.1	1.6	69.3	62.6	63.1	63.3	63.8
market services	75.8	82.2	97.8	120.7	141.6	0.8	1.7	2.1	1.6	36.1	35.2	36.1	36.4	36.7
non-market services	37.9	35.0	40.8	50.2	58.8	-0.8	1.6	2.1	1.6	18.0	15.0	15.1	15.1	15.2
trade	32.1	28.9	32.4	39.0	45.7	-1.0	1.2	1.9	1.6	15.3	12.4	12.0	11.8	11.9
Agriculture	4.4	3.5	3.5	3.8	4.0	-2.4	-0.1	0.9	0.4	2.1	1.5	1.3	1.1	1.0
Energy sector	9.6	11.0	12.5	14.9	17.1	1.4	1.2	1.8	1.4	4.6	4.7	4.6	4.5	4.4

Source: PRIMES

APPENDIX 2: Baseline scenario results (summary results)

Summary results by country and groups of countries

EU25: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**877543**	**896935**	**898598**	**885034**	**836416**	**741087**	**706521**	**691710**	**685103**	**0.2**	**-0.7**	**-1.7**	**-0.3**
Solids	351650	264403	204139	189650	154528	132849	131082	128136	120197	-5.3	-2.7	-1.6	-0.9
Oil	120396	162231	163631	134107	117178	75189	52958	47721	43449	3.1	-3.3	-7.6	-2.0
Natural gas	139723	174169	196665	197203	172179	124785	98349	88938	79806	3.5	-1.3	-5.4	-2.1
Nuclear	196920	215258	237664	251349	248776	241224	228638	204708	210808	1.9	0.5	-0.8	-0.8
Renewable energy sources	68855	80874	96499	112725	143756	167040	195493	222207	230842	3.4	4.1	3.1	1.7
Hydro	23391	26285	28982	28900	29878	31273	32203	33306	33881	2.2	0.3	0.8	0.5
Biomass & Waste	42151	50608	61865	72595	92408	108094	129192	145563	148880	3.9	4.1	3.4	1.4
Wind	67	351	1913	6492	15786	21012	26241	34291	37942	39.8	23.5	5.2	3.8
Solar and others	145	273	417	1047	1490	2036	2747	3560	4394	11.2	13.6	6.3	4.8
Geothermal	3101	3357	3322	3691	4194	4625	5110	5487	5746	0.7	2.4	2.0	1.2
Net Imports	**711300**	**701364**	**801061**	**903660**	**1024275**	**1166612**	**1231691**	**1243442**	**1265567**	**1.2**	**2.5**	**1.9**	**0.3**
Solids	75449	73961	94307	115387	132287	131963	128394	152744	172919	2.3	3.4	-0.3	3.0
Oil	510017	490616	518147	560230	599698	647166	669865	655403	652450	0.2	1.5	1.1	-0.3
- Crude oil and Feedstocks	479112	471342	496826	520227	561357	611062	636675	626020	626251	0.4	1.2	1.3	-0.2
- Oil products	30905	19274	21321	40003	38341	36104	33190	29382	26199	-3.6	6.0	-1.4	-2.3
Natural gas	123653	135413	186463	225528	290053	385355	431310	433152	437996	4.2	4.5	4.0	0.2
Electricity	2181	1373	2144	2515	2237	2128	2122	2143	2202	-0.2	0.4	-0.5	0.4
Gross Inland Consumption	**1556194**	**1571949**	**1653841**	**1743574**	**1812532**	**1856993**	**1885336**	**1881055**	**1895237**	**0.6**	**0.9**	**0.4**	**0.1**
Solids	431944	345411	306538	305037	286815	264812	259476	280880	293117	-3.4	-0.7	-1.0	1.2
Oil	595746	621073	634711	649216	668718	671648	669949	649026	640466	0.6	0.5	0.0	-0.4
Natural gas	260548	307959	376284	422731	462231	510141	529659	522090	517802	3.7	2.1	1.4	-0.2
Nuclear	196920	215258	237664	251349	248776	241224	228638	204708	210808	1.9	0.5	-0.8	-0.8
Electricity	2181	1373	2144	2515	2237	2128	2122	2143	2202	-0.2	0.4	-0.5	0.4
Renewable energy forms	68855	80874	96499	112725	143756	167040	195493	222207	230842	3.4	4.1	3.1	1.7
as % in Gross Inland Consumption													
Solids	27.8	22.0	18.5	17.5	15.8	14.3	13.8	14.9	15.5				
Oil	38.3	39.5	38.4	37.2	36.9	36.2	35.5	34.5	33.8				
Natural gas	16.7	19.6	22.8	24.2	25.5	27.5	28.1	27.8	27.3				
Nuclear	12.7	13.7	14.4	14.4	13.7	13.0	12.1	10.9	11.1				
Renewable energy forms	4.4	5.1	5.8	6.5	7.9	9.0	10.4	11.8	12.2				
Electricity Generation in GWh_e	**2455674**	**2608843**	**2900835**	**3177346**	**3483186**	**3764508**	**4005775**	**4212062**	**4366599**	**1.7**	**1.8**	**1.4**	**0.9**
Nuclear	780056	864404	921193	974239	964265	934990	886207	793447	817092	1.7	0.5	-0.8	-0.8
Hydro & wind	272788	309719	359249	412484	532544	610454	683851	792163	843723	2.8	4.0	2.5	2.1
Thermal (incl. biomass)	1402830	1434720	1620392	1790623	1986376	2219064	2435718	2626452	2705784	1.5	2.1	2.1	1.1
Fuel Inputs for Thermal Power Generation [1]	**355362**	**352353**	**385987**	**410276**	**432241**	**449791**	**462771**	**484113**	**490038**	**0.8**	**1.1**	**0.7**	**0.6**
Solids	246377	220956	214488	224313	214950	197852	198501	223929	240311	-1.4	0.0	-0.8	1.9
Oil (including refinery gas)	48954	48762	41870	34457	31633	28252	23312	21168	19795	-1.6	-2.8	-3.0	-1.6
Gas	47057	65292	105480	122896	152826	182201	182731	167191	155248	8.4	3.8	1.8	-1.6
Biomass & Waste	10201	14351	21211	25403	29147	37365	53619	66833	69424	7.6	3.2	6.3	2.6
Geothermal heat	2774	2992	2939	3206	3685	4122	4608	4992	5260	0.6	2.3	2.3	1.3
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**797634**	**778572**	**796450**	**784166**	**812897**	**820511**	**824095**	**805339**	**797065**	**0.0**	**0.2**	**0.1**	**-0.3**
Refineries	642275	675873	710448	705361	728922	733608	734025	715011	708103	1.0	0.3	0.1	-0.4
Biofuels and hydrogen production	2	198	637	5802	16792	23650	31004	34715	36375	81.7	38.7	6.3	1.6
District heating	31035	22310	17261	14917	15250	14746	13818	13936	14734	-5.7	-1.2	-1.0	0.6
Others	124322	80191	68104	58086	51932	48508	45249	41677	37853	-5.8	-2.7	-1.4	-1.8
Energy Branch Consumption	**73032**	**79401**	**80377**	**80698**	**81498**	**81525**	**81166**	**79313**	**78134**	**1.0**	**0.1**	**0.0**	**-0.4**
Non-Energy Uses	**94476**	**103521**	**105950**	**105233**	**107847**	**109684**	**111200**	**111744**	**112165**	**1.2**	**0.2**	**0.3**	**0.1**
Final Energy Demand	**1021913**	**1035507**	**1095359**	**1168130**	**1238006**	**1291672**	**1338504**	**1359581**	**1370453**	**0.7**	**1.2**	**0.8**	**0.2**
by sector													
Industry[1]	341087	316738	330062	339213	356420	372190	382402	388453	391565	-0.3	0.8	0.7	0.2
- energy intensive industries	216809	203107	211616	214509	220760	226326	228392	227150	224932	-0.2	0.4	0.3	-0.2
- other industrial sectors	124278	113631	118446	124704	135661	145864	154010	161303	166633	-0.5	1.4	1.3	0.8
Residential	261006	274620	273302	294612	311966	327949	338741	346027	351285	0.5	1.3	0.8	0.4
Tertiary	146622	149313	158975	173698	188487	201207	211856	219031	225316	0.8	1.7	1.2	0.6
Transport	273198	294836	333020	360607	381133	390326	405505	406070	402286	2.0	1.4	0.6	-0.1
by fuel [1]													
Solids	123937	79722	56633	50603	45202	42330	39420	37162	34024	-7.5	-2.2	-1.4	-1.5
Oil	428121	446290	468312	497167	517342	523868	529896	521729	511837	0.9	1.0	0.2	-0.3
Gas	200242	227244	251885	269385	279174	295721	309726	315457	321398	2.3	1.0	1.0	0.4
Electricity	176468	187817	211352	233767	259310	282344	302918	321035	334043	1.8	2.1	1.6	1.0
Heat (from CHP and District Heating)	63092	59882	68712	74217	80177	83571	87691	91659	95325	0.9	1.6	0.9	0.8
Other	30053	34552	38465	42992	56802	63837	68854	72539	73826	2.5	4.0	1.9	0.7
CO2 Emissions (Mt of CO2)	**3776.1**	**3637.2**	**3674.1**	**3803.2**	**3881.9**	**3911.9**	**3928.6**	**3955.2**	**3955.0**	**-0.3**	**0.6**	**0.1**	**0.1**
Power generation/District heating	1362.6	1268.0	1294.9	1341.9	1361.9	1348.2	1333.2	1390.3	1424.0	-0.5	0.5	-0.2	0.7
Energy Branch	141.5	161.5	144.9	126.5	123.9	120.5	113.9	104.7	99.7	0.2	-1.6	-0.8	-1.3
Industry	698.9	611.0	567.7	576.4	577.0	592.7	595.2	584.0	569.8	-2.1	0.2	0.3	-0.4
Residential	506.1	485.6	452.1	467.7	482.7	493.9	494.9	489.6	486.7	-1.1	0.7	0.3	-0.2
Tertiary	274.2	254.7	244.6	251.8	261.8	269.6	275.8	278.4	281.9	-1.1	0.7	0.5	0.2
Transport	792.7	856.5	969.9	1038.8	1074.6	1087.0	1115.5	1108.1	1092.9	2.0	1.0	0.4	-0.2
CO2 Emissions Index (1990=100)	**100.0**	**96.3**	**97.3**	**100.7**	**102.8**	**103.6**	**104.0**	**104.7**	**104.7**				

Source: PRIMES

EU25: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	440.788	448.121	452.915	458.842	464.054	467.306	469.270	470.057	469.365	0.3	0.2	0.1	0.0
GDP (in 000 MEUR'00)	7294.7	7794.0	8947.0	9715.5	10946.8	12304.8	13656.3	14963.7	16051.4	2.1	2.0	2.2	1.6
Gross Inl. Cons./GDP (toe/MEUR'00)	213.3	201.7	184.8	179.5	165.6	150.9	138.1	125.7	118.1	-1.4	-1.1	-1.8	-1.6
Gross Inl. Cons./Capita (toe/inhabitant)	3.53	3.51	3.65	3.80	3.91	3.97	4.02	4.00	4.04	0.3	0.7	0.3	0.1
Electricity Generated/Capita (kWh/inhabitant)	5571	5822	6405	6925	7506	8056	8536	8961	9303	1.4	1.6	1.3	0.9
Carbon intensity (t of CO_2/toe of GIC)	2.43	2.31	2.22	2.18	2.14	2.11	2.08	2.10	2.09	-0.9	-0.4	-0.3	0.0
CO_2 Emissions/Capita (t of CO_2/inhabitant)	8.57	8.12	8.11	8.29	8.37	8.37	8.37	8.41	8.43	-0.5	0.3	0.0	0.1
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	517.7	466.7	410.7	391.5	354.6	317.9	287.7	264.3	246.4	-2.3	-1.5	-2.1	-1.5
Import Dependency %	44.7	43.6	47.2	50.5	55.0	61.2	63.5	64.3	64.9	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	90.8	83.8	82.2	77.3	71.9	66.7	61.9	58.5	-1.7	-0.8	-1.5	-1.3
Residential (Energy on Private Income)	100.0	99.4	85.8	84.9	80.4	75.6	70.6	66.0	62.5	-1.5	-0.7	-1.3	-1.2
Tertiary (Energy on Value added)	100.0	93.3	84.9	83.7	79.6	74.8	70.6	66.4	63.4	-1.6	-0.7	-1.2	-1.1
Transport (Energy on GDP)	100.0	101.0	99.4	99.1	93.0	84.7	79.3	72.5	66.9	-0.1	-0.7	-1.6	-1.7
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.41	0.32	0.30	0.28	0.27	0.25	0.23	0.23	0.23	-3.2	-1.1	-1.4	-0.1
Final energy demand (t of CO_2/toe)	2.22	2.13	2.04	2.00	1.94	1.89	1.85	1.81	1.77	-0.9	-0.5	-0.4	-0.4
Industry	2.05	1.93	1.72	1.70	1.62	1.59	1.56	1.50	1.46	-1.7	-0.6	-0.4	-0.7
Residential	1.94	1.77	1.65	1.59	1.55	1.51	1.46	1.41	1.39	-1.6	-0.7	-0.6	-0.5
Tertiary	1.87	1.71	1.54	1.45	1.39	1.34	1.30	1.27	1.25	-1.9	-1.0	-0.6	-0.4
Transport	2.90	2.90	2.91	2.88	2.82	2.78	2.75	2.73	2.72	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**661750**	**725717**	**810507**	**866290**	**942581**	**1029203**	**1096292**		**2.0**	**1.5**	**1.5**
Nuclear			141082	137466	136430	125468	116936	96762	101216		-0.3	-1.5	-1.4
Hydro (pumping excluded)			97168	99690	103934	106792	108617	110905	112201		0.7	0.4	0.3
Wind			12785	37711	78392	103006	127624	164342	182931		19.9	5.0	3.7
Solar			176	773	1658	2918	4850	7277	10364		25.1	11.3	7.9
Thermal			410539	450077	490094	528106	584554	649917	689580		1.8	1.8	1.7
of which cogeneration units			112958	135302	150870	174826	208961	234795	247999		2.9	3.3	1.7
Solids fired			188879	186736	156536	143186	156806	187936	211236		-1.9	0.0	3.0
Gas fired			131875	170919	245438	287293	321208	344356	360134		6.4	2.7	1.2
Oil fired			74302	74986	66049	59647	47930	41086	34966		-1.2	-3.2	-3.1
Biomass-waste fired			14462	16090	20714	36581	57094	74936	81601		3.7	10.7	3.6
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			1022	1346	1356	1398	1517	1602	1643		2.9	1.1	0.8
Indicators													
Efficiency for thermal electricity production (%)			36.1	37.5	39.5	42.4	45.3	46.7	47.5	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			50.0	50.0	49.1	49.6	48.5	46.7	45.5	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			14.5	16.4	17.9	19.9	21.8	23.6	24.3	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			46.5	46.1	45.8	45.2	45.6	45.7	46.3	0.0	0.0	0.0	0.0
- nuclear			31.8	30.7	27.7	24.8	22.1	18.8	18.7	0.0	0.0	0.0	0.0
- renewable energy forms			14.7	15.4	18.1	20.3	23.4	26.9	27.6	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**4640.8**	**4934.2**	**5466.3**	**5893.0**	**6449.4**	**6935.8**	**7402.0**	**7792.2**	**8130.2**	**1.7**	**1.7**	**1.4**	**0.9**
Public road transport	504.1	463.0	480.1	484.4	495.0	487.5	480.6	474.4	466.7	-0.5	0.3	-0.3	-0.3
Private cars and motorcycles	3529.3	3857.5	4253.1	4580.5	5016.6	5408.2	5780.7	6090.1	6358.6	1.9	1.7	1.4	1.0
Rail	411.9	369.4	402.7	422.0	446.4	462.3	478.5	493.7	505.6	-0.2	1.0	0.7	0.6
Aviation	166.3	212.5	296.9	369.7	451.6	535.2	616.7	686.1	749.7	6.0	4.3	3.2	2.0
Inland navigation	29.2	31.9	33.6	36.4	39.7	42.6	45.5	47.8	49.5	1.4	1.7	1.4	0.9
Travel per person (km per capita)	10528	11011	12069	12843	13898	14842	15773	16577	17322	1.4	1.4	1.3	0.9
Freight transport activity (Gtkm)	**1753.9**	**1854.3**	**2131.5**	**2321.3**	**2582.2**	**2815.7**	**3048.7**	**3257.9**	**3431.9**	**2.0**	**1.9**	**1.7**	**1.2**
Trucks	1034.1	1230.4	1486.3	1655.9	1891.2	2098.8	2311.7	2499.5	2657.4	3.7	2.4	2.0	1.4
Rail	461.7	358.5	374.2	386.8	402.0	413.8	421.4	431.4	438.9	-2.1	0.7	0.5	0.4
Inland navigation	258.1	265.4	271.0	278.5	289.0	303.2	315.6	327.0	335.6	0.5	0.6	0.9	0.6
Freight activity per unit of GDP (tkm/000 Euro'00)	240	238	238	239	236	229	223	218	214	-0.1	-0.1	-0.5	-0.4
Energy demand in transport (ktoe)	**273198**	**294836**	**333020**	**360607**	**381133**	**390326**	**405505**	**406070**	**402286**	**2.0**	**1.4**	**0.6**	**-0.1**
Public road transport	7841	6960	7018	7015	7020	6707	6274	5794	5320	-1.1	0.0	-1.1	-1.6
Private cars and motorcycles	138202	146118	158349	169295	170177	164449	168901	166483	159851	1.4	0.7	-0.1	-0.5
Trucks	82444	92357	108068	119824	135648	148374	156830	162445	164385	2.7	2.3	1.5	0.5
Rail	9066	8814	8897	8872	8307	7236	6518	6164	6019	-0.2	-0.7	-2.4	-0.8
Aviation	28932	33702	45320	50029	54174	57511	60777	58885	60358	4.6	1.8	1.2	-0.1
Inland navigation	6714	6884	5368	5571	5808	6048	6205	6300	6352	-2.2	0.8	0.7	0.2
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	39.3	39.4	39.9	39.7	37.0	33.9	32.7	30.4	28.4	0.1	-0.8	-1.2	-1.4
Freight transport (toe/Mtkm)	51.7	54.2	53.9	54.6	55.3	55.2	53.7	52.0	49.9	0.4	0.3	-0.3	-0.7

EU15: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**707946**	**738402**	**761643**	**746715**	**709637**	**620740**	**580499**	**561271**	**551733**	**0.7**	**-0.7**	**-2.0**	**-0.5**
Solids	210737	137538	100172	88896	68259	57393	59996	60559	58617	-7.2	-3.8	-1.3	-0.2
Oil	117782	159250	160552	131496	114818	73056	50828	45731	41597	3.1	-3.3	-7.8	-2.0
Natural gas	132975	166758	190581	191258	166420	119298	93035	83920	75016	3.7	-1.3	-5.6	-2.1
Nuclear	181439	201239	222846	233543	231522	223792	207161	178554	177586	2.1	0.4	-1.1	-1.5
Renewable energy sources	65014	73616	87491	101522	128619	147201	169479	192506	198916	3.0	3.9	2.8	1.6
Hydro	22275	24947	27627	27512	28416	29740	30543	31503	32014	2.2	0.3	0.7	0.5
Biomass & Waste	39426	44719	54257	62925	79319	90783	106223	120089	122407	3.2	3.9	3.0	1.4
Wind	67	351	1912	6476	15381	20253	25178	32294	34907	39.8	23.2	5.1	3.3
Solar and others	145	242	381	931	1325	1817	2445	3156	3866	10.2	13.3	6.3	4.7
Geothermal	3101	3357	3315	3678	4178	4607	5089	5464	5721	0.7	2.3	2.0	1.2
Net Imports	**643284**	**652030**	**741591**	**833105**	**924425**	**1042924**	**1094900**	**1099138**	**1110843**	**1.4**	**2.2**	**1.7**	**0.1**
Solids	89663	94574	110142	130569	135081	128111	123477	145244	159953	2.1	2.1	-0.9	2.6
Oil	458793	446731	472543	511043	542759	585275	603563	585908	579418	0.3	1.4	1.1	-0.4
- Crude oil and Feedstocks	435365	434779	455606	479408	513832	559321	581132	567662	564901	0.5	1.2	1.2	-0.3
- Oil products	23428	11952	16937	31635	28927	25954	22432	18247	14517	-3.2	5.5	-2.5	-4.3
Natural gas	92495	109229	155262	187185	242762	325886	364086	363427	366511	5.3	4.6	4.1	0.1
Electricity	2333	1496	3644	4308	3823	3651	3774	4559	4962	4.6	0.5	-0.1	2.8
Gross Inland Consumption	**1319965**	**1363265**	**1456936**	**1535728**	**1587045**	**1614168**	**1623798**	**1607624**	**1608500**	**1.0**	**0.9**	**0.2**	**-0.1**
Solids	303612	237108	215739	219464	203339	185504	183473	205803	218570	-3.4	-0.6	-1.0	1.8
Oil	544159	575619	587926	598447	610560	608835	602789	578855	566939	0.8	0.4	-0.1	-0.6
Natural gas	223408	274186	339289	378443	409181	445184	457121	447347	441527	4.3	1.9	1.1	-0.3
Nuclear	181439	201239	222846	233543	231522	223792	207161	178554	177586	2.1	0.4	-1.1	-1.5
Electricity	2333	1496	3644	4308	3823	3651	3774	4559	4962	4.6	0.5	-0.1	2.8
Renewable energy forms	65014	73616	87491	101522	128619	147201	169479	192506	198916	3.0	3.9	2.8	1.6
as % in Gross Inland Consumption													
Solids	23.0	17.4	14.8	14.3	12.8	11.5	11.3	12.8	13.6				
Oil	41.2	42.2	40.4	39.0	38.5	37.7	37.1	36.0	35.2				
Natural gas	16.9	20.1	23.3	24.6	25.8	27.6	28.2	27.8	27.4				
Nuclear	13.7	14.8	15.3	15.2	14.6	13.9	12.8	11.1	11.0				
Renewable energy forms	4.9	5.4	6.0	6.6	8.1	9.1	10.4	12.0	12.4				
Electricity Generation in GWh_e	**2138940**	**2308271**	**2576502**	**2825710**	**3082750**	**3301261**	**3484742**	**3629778**	**3735445**	**1.9**	**1.8**	**1.2**	**0.7**
Nuclear	720059	810120	863760	905222	897389	867425	802961	692072	688319	1.8	0.4	-1.1	-1.5
Hydro & wind	259810	294155	343478	396161	510816	583729	652024	747645	786067	2.8	4.0	2.5	1.9
Thermal (incl. biomass)	1159070	1203996	1369264	1524327	1674545	1850107	2029758	2190062	2261060	1.7	2.0	1.9	1.1
Fuel Inputs for Thermal Power Generation [1]	**282186**	**285979**	**319336**	**340741**	**355980**	**368554**	**377224**	**398250**	**405562**	**1.2**	**1.1**	**0.6**	**0.7**
Solids	184170	163250	158097	166679	156355	141828	142805	167841	184186	-1.5	-0.1	-0.9	2.6
Oil (including refinery gas)	43718	44438	38588	31332	28700	25769	20959	18846	17473	-1.2	-2.9	-3.1	-1.8
Gas	41697	61211	99188	115542	140935	164422	163852	149667	139835	9.1	3.6	1.5	-1.6
Biomass & Waste	9827	14088	20524	23982	26306	32413	45001	56904	58807	7.6	2.5	5.5	2.7
Geothermal heat	2774	2992	2939	3206	3685	4122	4608	4992	5260	0.6	2.3	2.3	1.3
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**704402**	**704382**	**725664**	**717503**	**739949**	**743332**	**742852**	**721245**	**709821**	**0.3**	**0.2**	**0.0**	**-0.5**
Refineries	595036	635942	665476	661082	678086	678682	675187	653422	643612	1.1	0.2	0.0	-0.5
Biofuels and hydrogen production	2	188	604	5490	15525	21781	28194	31307	32520	80.7	38.4	6.1	1.4
District heating	13085	10060	8717	6565	6736	6098	5461	5253	5647	-4.0	-2.5	-2.1	0.3
Others	96279	58191	50868	44366	39601	36772	34010	31263	28042	-6.2	-2.5	-1.5	-1.9
Energy Branch Consumption	**63555**	**68817**	**67696**	**68777**	**68845**	**68229**	**67521**	**65623**	**64208**	**0.6**	**0.2**	**-0.2**	**-0.5**
Non-Energy Uses	**84387**	**94132**	**95815**	**95440**	**97063**	**97587**	**97796**	**97304**	**96782**	**1.3**	**0.1**	**0.1**	**-0.1**
Final Energy Demand	**866453**	**904512**	**970663**	**1032641**	**1086735**	**1123971**	**1155105**	**1163842**	**1163926**	**1.1**	**1.1**	**0.6**	**0.1**
by sector													
Industry[1]	272481	267360	284781	293505	306769	317309	323058	325606	326133	0.4	0.7	0.5	0.1
- energy intensive industries	182306	173386	182967	186470	191515	194860	195291	193082	190253	0.0	0.5	0.2	-0.3
- other industrial sectors	90175	93974	101814	107035	115254	122449	127767	132524	135879	1.2	1.2	1.0	0.6
Residential	220020	233619	238404	255742	269121	280589	286998	290825	293114	0.8	1.2	0.6	0.2
Tertiary	121346	128708	137376	150502	161622	170311	177217	181059	184489	1.2	1.6	0.9	0.4
Transport	252606	274825	310102	332892	349224	355763	367832	366353	360190	2.1	1.2	0.5	-0.2
by fuel [1]													
Solids	79761	46664	35330	32210	28625	26791	25315	23786	21612	-7.8	-2.1	-1.2	-1.6
Oil	393325	416360	434547	458763	473137	475387	477256	466563	453854	1.0	0.9	0.1	-0.5
Gas	173014	202214	226415	238642	244666	256067	265493	268446	271100	2.7	0.8	0.8	0.2
Electricity	155929	169309	191711	211987	233163	251061	266607	279904	289096	2.1	2.0	1.3	0.8
Heat (from CHP and District Heating)	36558	40840	50708	55669	59891	62167	64756	66740	68990	3.3	1.7	0.8	0.6
Other	27865	29124	31953	35370	47253	52498	55679	58403	59272	1.4	4.0	1.7	0.6
CO2 Emissions (Mt of CO2)	**3068.4**	**3034.7**	**3127.0**	**3244.9**	**3290.9**	**3298.7**	**3301.0**	**3320.1**	**3311.0**	**0.2**	**0.5**	**0.0**	**0.0**
Power generation/District heating	1021.1	969.7	1014.7	1057.0	1063.7	1049.1	1036.6	1095.9	1132.6	-0.1	0.5	-0.3	0.9
Energy Branch	127.2	142.3	127.0	116.1	112.7	108.6	102.7	94.4	89.5	0.0	-1.2	-0.9	-1.4
Industry	545.2	495.1	471.6	479.2	475.8	482.7	480.6	467.2	451.2	-1.4	0.1	0.1	-0.6
Residential	419.7	413.6	401.5	414.6	427.3	436.0	434.8	429.1	425.2	-0.4	0.6	0.2	-0.2
Tertiary	220.7	214.0	207.4	217.8	225.7	230.5	233.3	232.4	232.6	-0.6	0.8	0.3	0.0
Transport	734.5	800.0	904.8	960.3	985.8	991.7	1013.0	1001.0	979.8	2.1	0.9	0.3	-0.3
CO2 Emissions Index (1990=100)	**100.0**	**98.9**	**101.9**	**105.8**	**107.2**	**107.5**	**107.6**	**108.2**	**107.9**				

Source: PRIMES

EU15: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	365.749	372.917	378.062	384.825	390.652	394.726	397.458	398.780	398.737	0.3	0.3	0.2	0.0
GDP (in 000 MEUR'00)	6981.9	7488.1	8572.2	9268.2	10391.5	11623.9	12835.7	13997.7	14948.8	2.1	1.9	2.1	1.5
Gross Inl. Cons./GDP (toe/MEUR'00)	189.1	182.1	170.0	165.7	152.7	138.9	126.5	114.8	107.6	-1.1	-1.1	-1.9	-1.6
Gross Inl. Cons./Capita (toe/inhabitant)	3.61	3.66	3.85	3.99	4.06	4.09	4.09	4.03	4.03	0.7	0.5	0.1	-0.1
Electricity Generated/Capita (kWh/inhabitant)	5848	6190	6815	7343	7891	8363	8768	9102	9368	1.5	1.5	1.1	0.7
Carbon intensity (t of CO_2/toe of GIC)	2.32	2.23	2.15	2.11	2.07	2.04	2.03	2.07	2.06	-0.8	-0.3	-0.2	0.1
CO_2 Emissions/Capita (t of CO_2/inhabitant)	8.39	8.14	8.27	8.43	8.42	8.36	8.31	8.33	8.30	-0.1	0.2	-0.1	0.0
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	439.5	405.3	364.8	350.1	316.7	283.8	257.2	237.2	221.5	-1.8	-1.4	-2.1	-1.5
Import Dependency %	47.5	46.6	49.5	52.7	56.6	62.7	65.4	66.2	66.8	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	95.3	90.9	90.5	85.3	79.2	73.3	68.0	64.1	-1.0	-0.6	-1.5	-1.3
Residential (Energy on Private Income)	100.0	100.0	88.8	87.9	83.1	77.9	72.5	67.6	63.9	-1.2	-0.7	-1.4	-1.3
Tertiary (Energy on Value added)	100.0	97.1	88.7	87.9	83.0	77.3	72.4	67.5	64.1	-1.2	-0.7	-1.3	-1.2
Transport (Energy on GDP)	100.0	101.4	100.0	99.3	92.9	84.6	79.2	72.3	66.6	0.0	-0.7	-1.6	-1.7
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.39	0.28	0.27	0.26	0.24	0.23	0.21	0.22	0.22	-3.5	-1.1	-1.3	0.3
Final energy demand (t of CO_2/toe)	2.22	2.13	2.05	2.01	1.95	1.90	1.87	1.83	1.79	-0.8	-0.5	-0.4	-0.4
Industry	2.00	1.85	1.66	1.63	1.55	1.52	1.49	1.43	1.38	-1.9	-0.7	-0.4	-0.7
Residential	1.91	1.77	1.68	1.62	1.59	1.55	1.52	1.48	1.45	-1.2	-0.6	-0.5	-0.4
Tertiary	1.82	1.66	1.51	1.45	1.40	1.35	1.32	1.28	1.26	-1.8	-0.8	-0.6	-0.4
Transport	2.91	2.91	2.92	2.88	2.82	2.79	2.75	2.73	2.72	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**588083**	**648770**	**724169**	**766570**	**828090**	**885326**	**929554**		**2.1**	**1.4**	**1.2**
Nuclear			131758	127430	127644	116682	106198	83716	84668		-0.3	-1.8	-2.2
Hydro (pumping excluded)			90794	93107	97113	99718	101267	103256	104396		0.7	0.4	0.3
Wind			12769	37585	76132	98538	121331	153508	166810		19.5	4.8	3.2
Solar			176	773	1645	2857	4712	6999	9827		25.0	11.1	7.6
Thermal			352586	389875	421635	448774	494581	537846	563853		1.8	1.6	1.3
of which cogeneration units			88543	110680	124698	142437	175549	188724	194014		3.5	3.5	1.0
Solids fired			144882	143186	116521	104284	117149	139702	154185		-2.2	0.1	2.8
Gas fired			125804	162839	227952	261796	289622	302593	315380		6.1	2.4	0.9
Oil fired			67470	67773	58980	52785	41729	35176	29416		-1.3	-3.4	-3.4
Biomass-waste fired			13407	14731	16825	28511	44564	58774	63229		2.3	10.2	3.6
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			1022	1346	1356	1398	1517	1602	1643		2.9	1.1	0.8
Indicators													
Efficiency for thermal electricity production (%)			36.9	38.5	40.5	43.2	46.3	47.3	47.9	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			50.0	49.7	48.6	49.2	48.0	46.8	45.9	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			13.4	15.3	16.7	18.4	20.4	21.3	21.6	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			49.4	48.6	48.5	48.0	47.8	47.7	47.7	0.0	0.0	0.0	0.0
- nuclear			33.5	32.0	29.1	26.3	23.0	19.1	18.4	0.0	0.0	0.0	0.0
- renewable energy forms			15.9	16.6	19.4	21.7	24.8	28.6	29.3	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**4130.1**	**4515.4**	**4997.7**	**5351.6**	**5832.0**	**6249.0**	**6645.9**	**6965.8**	**7228.8**	**1.9**	**1.6**	**1.3**	**0.8**
Public road transport	369.0	377.4	401.8	409.0	422.4	418.2	414.0	409.9	404.5	0.9	0.5	-0.2	-0.2
Private cars and motorcycles	3265.7	3590.1	3928.0	4184.0	4545.9	4869.1	5174.4	5416.0	5611.7	1.9	1.5	1.3	0.8
Rail	309.8	315.0	351.3	371.1	396.3	413.1	429.6	444.8	457.1	1.3	1.2	0.8	0.6
Aviation	157.3	201.5	283.6	351.6	428.4	506.6	583.1	648.0	706.8	6.1	4.2	3.1	1.9
Inland navigation	28.4	31.5	33.0	35.8	39.1	41.9	44.8	47.1	48.7	1.5	1.7	1.4	0.8
Travel per person (km per capita)	11292	12108	13219	13906	14929	15831	16721	17468	18129	1.6	1.2	1.1	0.8
Freight transport activity (Gtkm)	**1419.2**	**1583.7**	**1825.6**	**1959.7**	**2143.1**	**2318.2**	**2491.4**	**2646.0**	**2776.2**	**2.5**	**1.6**	**1.5**	**1.1**
Trucks	914.2	1102.0	1309.3	1428.3	1590.3	1743.8	1899.7	2038.6	2156.5	3.7	2.0	1.8	1.3
Rail	254.9	221.6	249.5	257.1	268.1	275.7	280.7	285.0	288.7	-0.2	0.7	0.5	0.3
Inland navigation	250.1	260.1	266.8	274.3	284.7	298.7	311.1	322.4	331.0	0.6	0.7	0.9	0.6
Freight activity per unit of GDP (tkm/000 Euro'00)	203	211	213	211	206	199	194	189	186	0.5	-0.3	-0.6	-0.4
Energy demand in transport (ktoe)	**252606**	**274825**	**310102**	**332892**	**349224**	**355763**	**367832**	**366353**	**360190**	**2.1**	**1.2**	**0.5**	**-0.2**
Public road transport	6250	5907	5860	5902	5956	5713	5357	4948	4554	-0.6	0.2	-1.1	-1.6
Private cars and motorcycles	129911	136622	146708	155299	155182	149077	152169	148625	140735	1.2	0.6	-0.2	-0.8
Trucks	75351	85778	100615	110316	123185	133741	140491	144888	145713	2.9	2.0	1.3	0.4
Rail	6970	7385	7579	7588	7113	6173	5545	5248	5133	0.8	-0.6	-2.5	-0.8
Aviation	27742	32468	44025	48270	52036	55070	58127	56407	57766	4.7	1.7	1.1	-0.1
Inland navigation	6383	6665	5314	5516	5751	5989	6144	6238	6289	-1.8	0.8	0.7	0.2
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	41.2	40.3	40.7	40.4	37.7	34.5	33.3	30.9	28.8	-0.1	-0.8	-1.2	-1.4
Freight transport (toe/Mtkm)	58.0	58.7	58.5	59.5	60.5	60.4	58.9	57.1	54.7	0.1	0.3	-0.3	-0.7

NMS: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**169598**	**158533**	**136955**	**138320**	**126779**	**120347**	**126022**	**130439**	**133369**	**-2.1**	**-0.8**	**-0.1**	**0.6**
Solids	140913	126866	103966	100754	86269	75455	71086	67577	61580	-3.0	-1.8	-1.9	-1.4
Oil	2614	2981	3079	2611	2361	2134	2130	1990	1852	1.6	-2.6	-1.0	-1.4
Natural gas	6749	7411	6084	5945	5759	5488	5314	5018	4789	-1.0	-0.5	-0.8	-1.0
Nuclear	15481	14018	14818	17806	17254	17432	21477	26154	33222	-0.4	1.5	2.2	4.5
Renewable energy sources	3841	7258	9008	11203	15137	19839	26014	29701	31927	8.9	5.3	5.6	2.1
Hydro	1116	1338	1355	1388	1462	1533	1660	1802	1867	2.0	0.8	1.3	1.2
Biomass & Waste	2725	5889	7609	9670	13089	17311	22968	25474	26473	10.8	5.6	5.8	1.4
Wind	0	0	1	16	405	759	1063	1997	3034		87.0	10.1	11.1
Solar and others	0	31	35	116	165	219	302	405	528		16.6	6.2	5.8
Geothermal	0	0	8	13	15	18	21	23	25		7.4	3.1	1.7
Net Imports	**68016**	**49333**	**59470**	**70555**	**99850**	**123689**	**136790**	**144304**	**154724**	**-1.3**	**5.3**	**3.2**	**1.2**
Solids	-14214	-20614	-15836	-15182	-2793	3852	4917	7500	12966				10.2
Oil	51224	43885	45604	49187	56939	61891	66302	69494	73032	-1.2	2.2	1.5	1.0
- Crude oil and Feedstocks	43747	36564	41220	40819	47525	51741	55543	58359	61349	-0.6	1.4	1.6	1.0
- Oil products	7477	7322	4384	8368	9414	10150	10759	11136	11682	-5.2	7.9	1.3	0.8
Natural gas	31158	26185	31202	38343	47291	59469	67224	69726	71486	0.0	4.2	3.6	0.6
Electricity	-152	-123	-1500	-1793	-1587	-1523	-1652	-2416	-2760				
Gross Inland Consumption	**236229**	**208683**	**196904**	**207846**	**225488**	**242825**	**261539**	**273431**	**286737**	**-1.8**	**1.4**	**1.5**	**0.9**
Solids	128332	108303	90799	85573	83476	79307	76003	75077	74546	-3.4	-0.8	-0.9	-0.2
Oil	51587	45454	46785	50769	58158	62813	67159	70171	73527	-1.0	2.2	1.4	0.9
Natural gas	37140	33773	36994	44288	53050	64957	72538	74744	76275	0.0	3.7	3.2	0.5
Nuclear	15481	14018	14818	17806	17254	17432	21477	26154	33222	-0.4	1.5	2.2	4.5
Electricity	-152	-123	-1500	-1793	-1587	-1523	-1652	-2416	-2760				
Renewable energy forms	3841	7258	9008	11203	15137	19839	26014	29701	31927	8.9	5.3	5.6	2.1
as % in Gross Inland Consumption													
Solids	54.3	51.9	46.1	41.2	37.0	32.7	29.1	27.5	26.0				
Oil	21.8	21.8	23.8	24.4	25.8	25.9	25.7	25.7	25.6				
Natural gas	15.7	16.2	18.8	21.3	23.5	26.8	27.7	27.3	26.6				
Nuclear	6.6	6.7	7.5	8.6	7.7	7.2	8.2	9.6	11.6				
Renewable energy forms	1.6	3.5	4.6	5.4	6.7	8.2	9.9	10.9	11.1				
Electricity Generation in GWh_e	**316734**	**300572**	**324333**	**351636**	**400436**	**463246**	**521033**	**582284**	**631154**	**0.2**	**2.1**	**2.7**	**1.9**
Nuclear	59996	54284	57434	69016	66876	67565	83246	101375	128773	-0.4	1.5	2.2	4.5
Hydro & wind	12978	15564	15771	16323	21728	26725	31827	44519	57657	2.0	3.3	3.9	6.1
Thermal (incl. biomass)	243760	230723	251128	266296	311831	368956	405960	436390	444725	0.3	2.2	2.7	0.9
Fuel Inputs for Thermal Power Generation [1]	**73176**	**66374**	**66652**	**69535**	**76261**	**81237**	**85547**	**85863**	**84476**	**-0.9**	**1.4**	**1.2**	**-0.1**
Solids	62206	57706	56391	57634	58595	56023	55696	56088	56125	-1.0	0.4	-0.5	0.1
Oil (including refinery gas)	5236	4324	3281	3125	2934	2483	2353	2322	2322	-4.6	-1.1	-2.2	-0.1
Gas	5360	4081	6292	7354	11892	17779	18879	17523	15413	1.6	6.6	4.7	-2.0
Biomass & Waste	374	263	687	1421	2841	4952	8619	9929	10616	6.3	15.2	11.7	2.1
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**93232**	**74190**	**70786**	**66663**	**72948**	**77179**	**81243**	**84094**	**87244**	**-2.7**	**0.3**	**1.1**	**0.7**
Refineries	47239	39931	44972	44278	50836	54926	58838	61589	64491	-0.5	1.2	1.5	0.9
Biofuels and hydrogen production	0	10	33	312	1267	1870	2811	3408	3855		43.9	8.3	3.2
District heating	17949	12249	8544	8352	8514	8647	8356	8682	9087	-7.2	0.0	-0.2	0.8
Others	28043	22000	17236	13720	12331	11736	11238	10415	9811	-4.8	-3.3	-0.9	-1.3
Energy Branch Consumption	**9477**	**10584**	**12681**	**11920**	**12653**	**13296**	**13645**	**13690**	**13926**	**3.0**	**0.0**	**0.8**	**0.2**
Non-Energy Uses	**10089**	**9388**	**10135**	**9793**	**10785**	**12096**	**13403**	**14440**	**15382**	**0.0**	**0.6**	**2.2**	**1.4**
Final Energy Demand	**155460**	**130995**	**124696**	**135489**	**151271**	**167701**	**183399**	**195739**	**206528**	**-2.2**	**2.0**	**1.9**	**1.2**
by sector													
Industry[1]	68606	49378	45281	45708	49652	54881	59345	62847	65433	-4.1	0.9	1.8	1.0
- energy intensive industries	34503	29721	28649	28039	29245	31466	33102	34069	34679	-1.8	0.2	1.2	0.5
- other industrial sectors	34103	19657	16632	17669	20407	23415	26243	28779	30754	-6.9	2.1	2.5	1.6
Residential	40986	41001	34898	38870	42845	47361	51743	55202	58172	-1.6	2.1	1.9	1.2
Tertiary	25276	20605	21599	23196	26865	30895	34638	37972	40827	-1.6	2.2	2.6	1.7
Transport	20592	20011	22917	27714	31910	34563	37673	39717	42096	1.1	3.4	1.7	1.1
by fuel [1]													
Solids	44176	33058	21303	18392	16577	15539	14105	13376	12412	-7.0	-2.5	-1.6	-1.3
Oil	34795	29930	33764	38404	44205	48481	52640	55166	57982	-0.3	2.7	1.8	1.0
Gas	27229	25029	25471	30743	34509	39654	44233	47010	50297	-0.7	3.1	2.5	1.3
Electricity	20539	18508	19641	21780	26147	31283	36311	41131	44947	-0.4	2.9	3.3	2.2
Heat (from CHP and District Heating)	26534	19042	18005	18548	20286	21405	22935	24919	26334	-3.8	1.2	1.2	1.4
Other	2188	5427	6512	7621	9548	11339	13175	14136	14554	11.5	3.9	3.3	1.0
CO2 Emissions (Mt of CO2)	**707.7**	**602.5**	**547.1**	**558.3**	**591.0**	**613.2**	**627.5**	**635.1**	**644.0**	**-2.5**	**0.8**	**0.6**	**0.3**
Power generation/District heating	341.5	298.2	280.2	285.0	298.2	299.1	296.7	294.4	291.4	-2.0	0.6	-0.1	-0.2
Energy Branch	14.3	19.1	17.9	10.4	11.2	11.9	11.2	10.3	10.2	2.2	-4.6	0.0	-1.0
Industry	153.7	115.9	96.1	97.3	101.2	110.0	114.6	116.8	118.6	-4.6	0.5	1.2	0.3
Residential	86.4	72.1	50.6	53.1	55.4	57.9	60.0	60.5	61.5	-5.2	0.9	0.8	0.2
Tertiary	53.5	40.7	37.2	34.0	36.2	39.0	42.5	46.0	49.2	-3.6	-0.3	1.6	1.5
Transport	58.2	56.5	65.1	78.6	88.9	95.4	102.5	107.1	113.1	1.1	3.2	1.4	1.0
CO2 Emissions Index (1990=100)	**100.0**	**85.1**	**77.3**	**78.9**	**83.5**	**86.7**	**88.7**	**89.8**	**91.0**				

Source: PRIMES

NMS: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	75.039	75.204	74.853	74.017	73.401	72.580	71.813	71.278	70.628	0.0	-0.2	-0.2	-0.2
GDP (in 000 MEUR'00)	312.8	306.0	374.8	447.4	555.3	681.0	820.6	966.1	1102.7	1.8	4.0	4.0	3.0
Gross Inl. Cons./GDP (toe/MEUR'00)	755.2	682.0	525.3	464.6	406.1	356.6	318.7	283.0	260.0	-3.6	-2.5	-2.4	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	3.15	2.77	2.63	2.81	3.07	3.35	3.64	3.84	4.06	-1.8	1.6	1.7	1.1
Electricity Generated/Capita (kWh/inhabitant)	4221	3997	4333	4751	5455	6383	7255	8169	8936	0.3	2.3	2.9	2.1
Carbon intensity (t of CO_2/toe of GIC)	3.00	2.89	2.78	2.69	2.62	2.53	2.40	2.32	2.25	-0.8	-0.6	-0.9	-0.7
CO_2 Emissions/Capita (t of CO_2/inhabitant)	9.43	8.01	7.31	7.54	8.05	8.45	8.74	8.91	9.12	-2.5	1.0	0.8	0.4
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	2262.2	1969.1	1459.6	1248.0	1064.3	900.5	764.7	657.5	584.0	-4.3	-3.1	-3.3	-2.7
Import Dependency %	28.7	23.6	30.1	33.8	44.1	50.7	52.0	52.5	53.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	81.2	52.9	41.2	35.2	31.5	28.3	25.7	24.0	-6.2	-4.0	-2.2	-1.6
Residential (Energy on Private Income)	100.0	102.6	70.0	64.7	57.1	51.1	46.1	41.7	38.4	-3.5	-2.0	-2.1	-1.8
Tertiary (Energy on Value added)	100.0	75.8	65.9	59.4	55.1	51.3	47.2	43.3	40.1	-4.1	-1.8	-1.5	-1.6
Transport (Energy on GDP)	100.0	99.4	92.9	94.1	87.3	77.1	69.7	62.5	58.0	-0.7	-0.6	-2.2	-1.8
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.50	0.49	0.46	0.43	0.41	0.37	0.33	0.30	0.28	-0.8	-1.2	-2.1	-1.8
Final energy demand (t of CO_2/toe)	2.26	2.18	2.00	1.94	1.86	1.80	1.74	1.69	1.66	-1.2	-0.7	-0.7	-0.5
Industry	2.24	2.35	2.12	2.13	2.04	2.00	1.93	1.86	1.81	-0.5	-0.4	-0.5	-0.6
Residential	2.11	1.76	1.45	1.37	1.29	1.22	1.16	1.10	1.06	-3.7	-1.1	-1.1	-0.9
Tertiary	2.12	1.98	1.72	1.47	1.35	1.26	1.23	1.21	1.21	-2.0	-2.4	-0.9	-0.2
Transport	2.83	2.82	2.84	2.84	2.78	2.76	2.72	2.70	2.69	0.1	-0.2	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**73667**	**76947**	**86338**	**99720**	**114490**	**143877**	**166738**		**1.6**	**2.9**	**3.8**
Nuclear			9324	10036	8786	8786	10738	13046	16548		-0.6	2.0	4.4
Hydro (pumping excluded)			6374	6583	6820	7074	7350	7649	7805		0.7	0.8	0.6
Wind			16	126	2259	4468	6292	10833	16121		64.0	10.8	9.9
Solar			0	0	13	61	138	279	537			26.6	14.6
Thermal			57953	60201	68459	79332	89973	112070	125726		1.7	2.8	3.4
of which cogeneration units			24415	24622	26172	32389	33412	46071	53985		0.7	2.5	4.9
Solids fired			43996	43551	40016	38902	39657	48234	57050		-0.9	-0.1	3.7
Gas fired			6071	8079	17486	25497	31585	41763	44754		11.2	6.1	3.5
Oil fired			6832	7212	7069	6863	6201	5910	5550		0.3	-1.3	-1.1
Biomass-waste fired			1055	1360	3888	8070	12530	16163	18372		13.9	12.4	3.9
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			32.4	32.9	35.2	39.1	40.8	43.7	45.3	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			50.3	52.2	52.9	53.0	52.0	46.2	43.2	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			23.5	25.4	26.7	30.6	31.0	37.8	39.9	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			23.3	25.6	24.8	25.3	30.3	33.4	37.8	0.0	0.0	0.0	0.0
- nuclear			17.7	19.6	16.7	14.6	16.0	17.4	20.4	0.0	0.0	0.0	0.0
- renewable energy forms			5.6	6.0	8.1	10.7	14.4	16.0	17.4	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**510.7**	**418.8**	**468.6**	**541.4**	**617.3**	**686.8**	**756.2**	**826.4**	**901.4**	**-0.9**	**2.8**	**2.0**	**1.8**
Public road transport	135.1	85.6	78.3	75.3	72.6	69.3	66.6	64.5	62.3	-5.3	-0.8	-0.9	-0.7
Private cars and motorcycles	263.6	267.4	325.1	396.5	470.7	539.1	606.4	674.1	746.9	2.1	3.8	2.6	2.1
Rail	102.1	54.4	51.4	50.8	50.2	49.2	49.0	48.9	48.5	-6.6	-0.2	-0.2	-0.1
Aviation	9.0	11.0	13.3	18.1	23.2	28.5	33.5	38.2	42.9	3.9	5.8	3.8	2.5
Inland navigation	0.8	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	-3.7	1.4	1.1	1.2
Travel per person (km per capita)	6805	5569	6261	7314	8411	9463	10530	11594	12763	-0.8	3.0	2.3	1.9
Freight transport activity (Gtkm)	**334.6**	**270.6**	**305.9**	**361.6**	**439.1**	**497.5**	**557.3**	**611.9**	**655.7**	**-0.9**	**3.7**	**2.4**	**1.6**
Trucks	119.9	128.4	177.1	227.6	300.9	355.0	412.0	460.8	500.9	4.0	5.4	3.2	2.0
Rail	206.8	136.9	124.7	129.8	133.9	138.1	140.8	146.4	150.2	-4.9	0.7	0.5	0.6
Inland navigation	7.9	5.3	4.2	4.2	4.3	4.5	4.5	4.6	4.6	-6.1	0.1	0.6	0.2
Freight activity per unit of GDP (tkm/000 Euro'00)	1070	884	816	808	791	731	679	633	595	-2.7	-0.3	-1.5	-1.3
Energy demand in transport (ktoe)	**20592**	**20011**	**22917**	**27714**	**31910**	**34563**	**37673**	**39717**	**42096**	**1.1**	**3.4**	**1.7**	**1.1**
Public road transport	1591	1052	1159	1113	1064	994	917	846	767	-3.1	-0.8	-1.5	-1.8
Private cars and motorcycles	8290	9496	11641	13996	14994	15372	16732	17858	19116	3.5	2.6	1.1	1.3
Trucks	7093	6579	7453	9508	12463	14633	16340	17557	18672	0.5	5.3	2.7	1.3
Rail	2096	1429	1317	1284	1194	1063	973	916	885	-4.5	-1.0	-2.0	-0.9
Aviation	1190	1235	1294	1758	2138	2442	2650	2478	2592	0.8	5.1	2.2	-0.2
Inland navigation	331	219	54	55	57	59	61	62	63	-16.7	0.6	0.8	0.4
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	23.9	29.9	31.4	32.2	30.3	28.0	27.3	26.0	25.2	2.8	-0.4	-1.0	-0.8
Freight transport (toe/Mtkm)	25.0	27.7	26.7	28.4	30.1	30.8	30.5	29.8	29.5	0.7	1.2	0.1	-0.3

EU27: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**928078**	**938020**	**937145**	**925384**	**878188**	**785404**	**751069**	**737502**	**732646**	**0.1**	**-0.6**	**-1.6**	**-0.2**
Solids	364706	277576	214324	200799	165876	144497	142989	139456	131524	-5.2	-2.5	-1.5	-0.8
Oil	128402	169240	170011	140397	123425	81413	59172	53929	49654	2.8	-3.2	-7.1	-1.7
Natural gas	162645	187207	207644	208663	184905	136691	109526	99464	89750	2.5	-1.2	-5.1	-2.0
Nuclear	200702	219710	243761	257171	253537	248277	235692	213563	221308	2.0	0.4	-0.7	-0.6
Renewable energy sources	71623	84286	101405	118354	150446	174526	203690	231091	240410	3.5	4.0	3.1	1.7
Hydro	25013	27871	30483	30606	31717	33232	34376	35716	36411	2.0	0.4	0.8	0.6
Biomass & Waste	43297	52434	65264	76497	97153	113341	134822	151551	155366	4.2	4.1	3.3	1.4
Wind	67	351	1913	6493	15835	21151	26401	34464	38131	39.8	23.5	5.2	3.7
Solar and others	145	273	417	1053	1514	2104	2873	3740	4621	11.2	13.8	6.6	4.9
Geothermal	3101	3357	3329	3705	4226	4697	5218	5619	5882	0.7	2.4	2.1	1.2
Net Imports	**749474**	**728932**	**817569**	**923968**	**1048544**	**1198619**	**1271815**	**1286584**	**1315329**	**0.9**	**2.5**	**1.9**	**0.3**
Solids	81418	79254	98469	120564	137978	137352	137539	163716	184673	1.9	3.4	0.0	3.0
Oil	529724	503926	525771	570291	612229	662278	686443	672958	672377	-0.1	1.5	1.2	-0.2
- Crude oil and Feedstocks	503451	488021	507009	533354	577424	630196	657589	648121	651171	0.1	1.3	1.3	-0.1
- Oil products	26273	15905	18762	36938	34805	32082	28854	24837	21206	-3.3	6.4	-1.9	-3.0
Natural gas	135011	144366	191643	231213	296722	397437	446247	448264	456537	3.6	4.5	4.2	0.2
Electricity	3321	1385	1687	1899	1616	1551	1586	1646	1742	-6.6	-0.4	-0.2	0.9
Gross Inland Consumption	**1645474**	**1640204**	**1709133**	**1804134**	**1878451**	**1933173**	**1969846**	**1969808**	**1992343**	**0.4**	**0.9**	**0.5**	**0.1**
Solids	450795	363877	320708	321363	303853	281849	280529	303172	316196	-3.3	-0.5	-0.8	1.2
Oil	624250	641012	648970	665471	687373	692841	692576	672608	666400	0.4	0.6	0.1	-0.4
Natural gas	294782	329932	392603	439876	481627	534129	555773	547728	546287	2.9	2.1	1.4	-0.2
Nuclear	200702	219710	243761	257171	253537	248277	235692	213563	221308	2.0	0.4	-0.7	-0.6
Electricity	3321	1385	1687	1899	1616	1551	1586	1646	1742	-6.6	-0.4	-0.2	0.9
Renewable energy forms	71623	84286	101405	118354	150446	174526	203690	231091	240410	3.5	4.0	3.1	1.7
as % in Gross Inland Consumption													
Solids	27.4	22.2	18.8	17.8	16.2	14.6	14.2	15.4	15.9				
Oil	37.9	39.1	38.0	36.9	36.6	35.8	35.2	34.1	33.4				
Natural gas	17.9	20.1	23.0	24.4	25.6	27.6	28.2	27.8	27.4				
Nuclear	12.2	13.4	14.3	14.3	13.5	12.8	12.0	10.8	11.1				
Renewable energy forms	4.4	5.1	5.9	6.6	8.0	9.0	10.3	11.7	12.1				
Electricity Generation in GWh_e	**2561205**	**2709317**	**2993398**	**3280581**	**3602166**	**3903268**	**4163709**	**4389940**	**4564417**	**1.6**	**1.9**	**1.5**	**0.9**
Nuclear	794718	881662	944823	996803	982718	962326	913546	827766	857788	1.7	0.4	-0.7	-0.6
Hydro & wind	291642	328160	376697	432335	554502	634865	711003	822247	875429	2.6	3.9	2.5	2.1
Thermal (incl. biomass)	1474844	1499495	1671878	1851444	2064947	2306078	2539160	2739927	2831200	1.3	2.1	2.1	1.1
Fuel Inputs for Thermal Power Generation [1]	**384763**	**377379**	**402753**	**428605**	**452428**	**471477**	**488013**	**508167**	**515199**	**0.5**	**1.2**	**0.8**	**0.5**
Solids	261342	235033	225135	236712	228093	211023	215547	241799	259237	-1.5	0.1	-0.6	1.9
Oil (including refinery gas)	56108	52372	43691	36270	33779	30136	24239	21559	20135	-2.5	-2.5	-3.3	-1.8
Gas	54301	72596	109769	126883	157296	188267	189224	172147	160303	7.3	3.7	1.9	-1.6
Biomass & Waste	10237	14387	21219	25534	29576	37929	54395	67669	70263	7.6	3.4	6.3	2.6
Geothermal heat	2774	2992	2939	3206	3685	4122	4608	4992	5260	0.6	2.3	2.3	1.3
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**840016**	**811517**	**818581**	**807443**	**838990**	**849610**	**854959**	**837536**	**832138**	**-0.3**	**0.2**	**0.2**	**-0.3**
Refineries	673728	699435	727122	724778	751235	758967	761152	743319	739228	0.8	0.3	0.1	-0.3
Biofuels and hydrogen production	2	198	637	5812	16903	23874	31324	35295	37370	81.7	38.8	6.4	1.8
District heating	38458	25592	19291	15145	15436	14900	13916	14151	14845	-6.7	-2.2	-1.0	0.6
Others	127829	86293	71530	61708	55417	51869	48567	44771	40694	-5.6	-2.5	-1.3	-1.8
Energy Branch Consumption	**78427**	**84509**	**85834**	**87372**	**88586**	**89251**	**89354**	**87688**	**87066**	**0.9**	**0.3**	**0.1**	**-0.3**
Non-Energy Uses	**98844**	**106387**	**109187**	**107771**	**110386**	**112431**	**114164**	**114935**	**115589**	**1.0**	**0.1**	**0.3**	**0.1**
Final Energy Demand	**1071205**	**1072096**	**1126314**	**1204719**	**1281160**	**1342836**	**1397188**	**1425013**	**1443264**	**0.5**	**1.3**	**0.9**	**0.3**
by sector													
Industry[1]	372041	336565	342654	354129	374071	393186	406521	415655	421936	-0.8	0.9	0.8	0.4
- energy intensive industries	239834	217811	220752	225331	233202	240776	244771	245446	245331	-0.8	0.6	0.5	0.0
- other industrial sectors	132206	118754	121902	128797	140869	152411	161750	170210	176605	-0.8	1.5	1.4	0.9
Residential	267394	283004	283857	305306	323880	341435	353450	361619	367659	0.6	1.3	0.9	0.4
Tertiary	151680	152508	161545	176509	191901	205352	216745	224636	231702	0.6	1.7	1.2	0.7
Transport	280091	300019	338258	368776	391309	402862	420473	423103	421967	1.9	1.5	0.7	0.0
by fuel [1]													
Solids	128087	82530	58191	52735	47320	44410	41610	39700	36490	-7.6	-2.0	-1.3	-1.3
Oil	441141	454562	476894	509032	531469	540751	549283	542745	535126	0.8	1.1	0.3	-0.3
Gas	219636	238060	259889	278872	290722	310018	326400	334376	342879	1.7	1.1	1.2	0.5
Electricity	183815	193410	216343	239627	266586	291321	313482	333253	347894	1.6	2.1	1.6	1.0
Heat (from CHP and District Heating)	67635	67360	73194	77688	83923	87726	92529	97050	101232	0.8	1.4	1.0	0.9
Other	30892	36175	41802	46766	61141	68610	73884	77890	79643	3.1	3.9	1.9	0.8
CO2 Emissions (Mt of CO2)	**4009.9**	**3804.8**	**3800.2**	**3948.5**	**4042.8**	**4090.5**	**4131.6**	**4164.4**	**4180.4**	**-0.5**	**0.6**	**0.2**	**0.1**
Power generation/District heating	1483.5	1363.5	1359.8	1409.1	1434.1	1423.4	1421.7	1477.0	1514.5	-0.9	0.5	-0.1	0.6
Energy Branch	151.1	170.3	154.0	137.2	133.7	130.5	121.8	108.9	103.9	0.2	-1.4	-0.9	-1.6
Industry	761.0	649.0	594.1	607.6	611.6	632.3	638.9	631.6	621.5	-2.4	0.3	0.4	-0.3
Residential	516.6	492.6	459.7	477.0	493.8	507.1	509.7	505.7	503.5	-1.2	0.7	0.3	-0.1
Tertiary	285.7	258.5	247.7	255.0	265.6	274.1	281.2	284.6	288.8	-1.4	0.7	0.6	0.3
Transport	812.0	871.0	984.9	1062.6	1103.9	1123.0	1158.4	1156.6	1148.2	1.9	1.1	0.5	-0.1
CO2 Emissions Index (1990=100)	**100.0**	**94.9**	**94.8**	**98.5**	**100.8**	**102.0**	**103.0**	**103.9**	**104.3**				

Source: PRIMES

EU27: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (B)			
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	472.712	479.208	483.520	488.141	492.838	495.353	496.408	496.268	494.784	0.2	0.2	0.1	0.0
GDP (in 000 MEUR'00)	7358.9	7851.3	9001.0	9786.7	11044.1	12435.4	13825.4	15176.9	16315.6	2.0	2.1	2.3	1.7
Gross Inl. Cons./GDP (toe/MEUR'00)	223.6	208.9	189.9	184.3	170.1	155.5	142.5	129.8	122.1	-1.6	-1.1	-1.8	-1.5
Gross Inl. Cons./Capita (toe/inhabitant)	3.48	3.42	3.53	3.70	3.81	3.90	3.97	3.97	4.03	0.2	0.8	0.4	0.1
Electricity Generated/Capita (kWh/inhabitant)	5418	5654	6191	6721	7309	7880	8388	8846	9225	1.3	1.7	1.4	1.0
Carbon intensity (t of CO_2/toe of GIC)	2.44	2.32	2.22	2.19	2.15	2.12	2.10	2.11	2.10	-0.9	-0.3	-0.3	0.0
CO_2 Emissions/Capita (t of CO_2/inhabitant)	8.48	7.94	7.86	8.09	8.20	8.26	8.32	8.39	8.45	-0.8	0.4	0.1	0.2
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	544.9	484.6	422.2	403.5	366.1	328.9	298.8	274.4	256.2	-2.5	-1.4	-2.0	-1.5
Import Dependency %	44.6	43.5	46.7	50.0	54.4	60.4	62.9	63.6	64.2	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	88.8	80.2	78.9	74.4	69.5	64.7	60.4	57.2	-2.2	-0.7	-1.4	-1.2
Residential (Energy on Private Income)	100.0	100.2	87.2	85.9	81.3	76.6	71.6	66.9	63.3	-1.4	-0.7	-1.3	-1.2
Tertiary (Energy on Value added)	100.0	92.2	83.5	82.3	78.2	73.7	69.7	65.6	62.7	-1.8	-0.7	-1.2	-1.1
Transport (Energy on GDP)	100.0	100.4	98.7	99.0	93.1	85.1	79.9	73.2	68.0	-0.1	-0.6	-1.5	-1.6
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.42	0.32	0.30	0.29	0.27	0.25	0.23	0.23	0.23	-3.4	-1.1	-1.3	-0.2
Final energy demand (t of CO_2/toe)	2.22	2.12	2.03	1.99	1.93	1.89	1.85	1.81	1.78	-0.9	-0.5	-0.4	-0.4
Industry	2.05	1.93	1.73	1.72	1.64	1.61	1.57	1.52	1.47	-1.6	-0.6	-0.4	-0.6
Residential	1.93	1.74	1.62	1.56	1.52	1.49	1.44	1.40	1.37	-1.7	-0.6	-0.6	-0.5
Tertiary	1.88	1.69	1.53	1.44	1.38	1.33	1.30	1.27	1.25	-2.0	-1.0	-0.6	-0.4
Transport	2.90	2.90	2.91	2.88	2.82	2.79	2.76	2.73	2.72	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**697174**	**761276**	**849322**	**904756**	**983474**	**1082627**	**1156317**		**2.0**	**1.5**	**1.6**
Nuclear			145542	141046	139130	129300	120769	101344	106437		-0.4	-1.4	-1.3
Hydro (pumping excluded)			105185	107708	112376	115565	117881	120580	122169		0.7	0.5	0.4
Wind			12786	37721	78806	104167	128956	165782	184504		19.9	5.0	3.6
Solar			176	773	1661	2926	4865	7316	10435		25.2	11.3	7.9
Thermal			433485	474028	517349	552798	611004	687606	732772		1.8	1.7	1.8
of which cogeneration units			120284	143533	163641	188134	225717	258271	274175		3.1	3.3	2.0
Solids fired			203503	201269	170442	155435	172035	207004	231359		-1.8	0.1	3.0
Gas fired			135927	176020	254369	296755	329697	359089	379298		6.5	2.6	1.4
Oil fired			78309	78993	69886	61947	49151	41779	35330		-1.1	-3.5	-3.2
Biomass-waste fired			14723	16400	21295	37264	58603	78132	85141		3.8	10.7	3.8
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			1022	1346	1356	1398	1517	1602	1643		2.9	1.1	0.8
Indicators													
Efficiency for thermal electricity production (%)			35.7	37.1	39.3	42.1	44.7	46.4	47.3	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			49.0	49.2	48.4	49.2	48.3	46.3	45.1	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			14.9	16.8	18.6	20.6	22.8	24.9	25.8	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			46.4	45.9	45.4	44.9	45.2	45.4	45.9	0.0	0.0	0.0	0.0
- nuclear			31.6	30.4	27.3	24.7	21.9	18.9	18.8	0.0	0.0	0.0	0.0
- renewable energy forms			14.9	15.6	18.1	20.3	23.3	26.5	27.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**4769.3**	**5018.9**	**5568.5**	**6012.0**	**6596.0**	**7118.7**	**7622.4**	**8050.7**	**8424.9**	**1.6**	**1.7**	**1.5**	**1.0**
Public road transport	554.1	486.9	502.3	506.7	517.0	510.1	504.3	499.9	494.1	-1.0	0.3	-0.2	-0.2
Private cars and motorcycles	3567.1	3892.5	4316.4	4663.7	5126.4	5550.0	5953.8	6292.8	6587.8	1.9	1.7	1.5	1.0
Rail	450.2	393.0	417.8	433.2	457.8	475.3	493.8	511.4	525.9	-0.7	0.9	0.8	0.6
Aviation	168.5	214.4	298.4	372.0	455.1	540.7	625.0	698.7	767.6	5.9	4.3	3.2	2.1
Inland navigation	29.4	32.1	33.6	36.4	39.8	42.6	45.5	47.9	49.6	1.4	1.7	1.4	0.9
Travel per person (km per capita)	10089	10473	11517	12316	13384	14371	15355	16222	17027	1.3	1.5	1.4	1.0
Freight transport activity (Gtkm)	**1861.5**	**1920.2**	**2177.1**	**2401.3**	**2684.8**	**2942.2**	**3201.9**	**3439.8**	**3645.7**	**1.6**	**2.1**	**1.8**	**1.3**
Trucks	1075.1	1259.8	1507.0	1705.7	1959.0	2188.7	2425.3	2638.3	2824.3	3.4	2.7	2.2	1.5
Rail	524.7	391.3	396.1	409.3	426.2	437.8	446.4	457.5	466.3	-2.8	0.7	0.5	0.4
Inland navigation	261.8	269.0	274.0	286.4	299.6	315.6	330.2	343.9	355.2	0.5	0.9	1.0	0.7
Freight activity per unit of GDP (tkm/000 Euro'00)	253	245	242	245	243	237	232	227	223	-0.4	0.1	-0.5	-0.4
Energy demand in transport (ktoe)	**280091**	**300019**	**338258**	**368776**	**391309**	**402862**	**420473**	**423103**	**421967**	**1.9**	**1.5**	**0.7**	**0.0**
Public road transport	8685	7391	7514	7490	7472	7149	6705	6217	5744	-1.4	-0.1	-1.1	-1.5
Private cars and motorcycles	139578	147445	160719	172431	173934	168809	174088	172337	166303	1.4	0.8	0.0	-0.5
Trucks	85770	94640	109568	123331	140448	154712	164460	171191	174680	2.5	2.5	1.6	0.6
Rail	9564	9428	9423	9296	8613	7518	6791	6437	6303	-0.1	-0.9	-2.3	-0.7
Aviation	29449	34172	45553	50354	54627	58162	61692	60014	61893	4.5	1.8	1.2	0.0
Inland navigation	7044	6942	5481	5873	6214	6514	6737	6907	7044	-2.5	1.3	0.8	0.4
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	38.9	39.3	39.8	39.6	36.9	33.8	32.6	30.3	28.4	0.2	-0.8	-1.2	-1.4
Freight transport (toe/Mtkm)	50.8	53.6	53.6	54.5	55.2	55.2	53.7	52.0	50.0	0.5	0.3	-0.3	-0.7

EU28: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**961237**	**971332**	**963855**	**949867**	**904300**	**814520**	**785743**	**779660**	**778720**	**0.0**	**-0.6**	**-1.4**	**-0.1**
Solids	377116	289659	227617	211133	176410	155640	156642	153922	146412	-4.9	-2.5	-1.2	-0.7
Oil	132112	172754	172757	143400	126669	84749	62553	57470	53393	2.7	-3.1	-6.8	-1.6
Natural gas	162820	187357	208170	209446	185979	137963	110881	100863	91171	2.5	-1.1	-5.0	-1.9
Nuclear	200702	219710	243761	257171	253537	248277	235692	216634	224776	2.0	0.4	-0.7	-0.5
Renewable energy sources	88487	101851	111549	128717	161705	187890	219974	250772	262969	2.3	3.8	3.1	1.8
Hydro	27003	30927	33138	33683	34865	36422	37905	39674	40561	2.1	0.5	0.8	0.7
Biomass & Waste	57710	66289	71804	82393	103167	119972	142260	159411	164211	2.2	3.7	3.3	1.4
Wind	67	351	1916	6496	15990	21836	27141	35711	39431	39.9	23.6	5.4	3.8
Solar and others	173	416	679	1490	2308	3702	6049	8780	11240	14.7	13.0	10.1	6.4
Geothermal	3534	3868	4012	4656	5374	5957	6618	7197	7526	1.3	3.0	2.1	1.3
Net Imports	**776740**	**765690**	**868442**	**982559**	**1119134**	**1286206**	**1379216**	**1413836**	**1468801**	**1.1**	**2.6**	**2.1**	**0.6**
Solids	85626	83731	107717	132925	150658	151829	153372	181432	205792	2.3	3.4	0.2	3.0
Oil	550163	530603	555056	598547	645214	704083	738261	734929	744299	0.1	1.5	1.4	0.1
- Crude oil and Feedstocks	523502	512705	528467	559600	608081	669100	705860	705882	718230	0.1	1.4	1.5	0.2
- Oil products	26661	17897	26589	38947	37133	34983	32402	29047	26069	0.0	3.4	-1.4	-2.2
Natural gas	137693	150031	203694	249608	321962	428934	486228	496107	517279	4.0	4.7	4.2	0.6
Electricity	3259	1326	1975	1480	1300	1360	1354	1369	1431	-4.9	-4.1	0.4	0.6
Gross Inland Consumption	**1704962**	**1709019**	**1786487**	**1886769**	**1974654**	**2049308**	**2111280**	**2138512**	**2191112**	**0.5**	**1.0**	**0.7**	**0.4**
Solids	467717	380493	343986	344058	327069	307469	310014	335353	352204	-3.0	-0.5	-0.5	1.3
Oil	647159	669920	679975	696290	723103	737414	747137	737414	741283	0.5	0.6	0.3	-0.1
Natural gas	297637	335719	405241	459054	507941	566897	597110	596969	608450	3.1	2.3	1.6	0.2
Nuclear	200702	219710	243761	257171	253537	248277	235692	216634	224776	2.0	0.4	-0.7	-0.5
Electricity	3259	1326	1975	1480	1300	1360	1354	1369	1431	-4.9	-4.1	0.4	0.6
Renewable energy forms	88487	101851	111549	128717	161705	187890	219974	250772	262969	2.3	3.8	3.1	1.8
as % in Gross Inland Consumption													
Solids	27.4	22.3	19.3	18.2	16.6	15.0	14.7	15.7	16.1				
Oil	38.0	39.2	38.1	36.9	36.6	36.0	35.4	34.5	33.8				
Natural gas	17.5	19.6	22.7	24.3	25.7	27.7	28.3	27.9	27.8				
Nuclear	11.8	12.9	13.6	13.6	12.8	12.1	11.2	10.1	10.3				
Renewable energy forms	5.2	6.0	6.2	6.8	8.2	9.2	10.4	11.7	12.0				
Electricity Generation in GWh_e	**2618738**	**2795549**	**3118298**	**3430887**	**3775103**	**4113380**	**4422523**	**4714412**	**4963897**	**1.8**	**1.9**	**1.6**	**1.2**
Nuclear	794718	881662	944823	996803	982718	962326	913546	839673	871232	1.7	0.4	-0.7	-0.5
Hydro & wind	314786	363695	407604	468147	592902	679932	760682	882864	938982	2.6	3.8	2.5	2.1
Thermal (incl. biomass)	1509233	1550192	1765871	1965937	2199483	2471123	2748295	2991874	3153683	1.6	2.2	2.3	1.4
Fuel Inputs for Thermal Power Generation [1]	**393649**	**390037**	**424378**	**452340**	**480159**	**504125**	**527532**	**552846**	**568901**	**0.8**	**1.2**	**0.9**	**0.8**
Solids	266482	242206	235098	245797	238223	224893	234625	265184	287006	-1.2	0.1	-0.2	2.0
Oil (including refinery gas)	57294	54164	46624	38410	35722	31670	25335	22539	21045	-2.0	-2.6	-3.4	-1.8
Gas	56793	75937	118348	139224	172262	204504	207199	190673	183397	7.6	3.8	1.9	-1.2
Biomass & Waste	10237	14665	21304	25638	30073	38743	55571	69171	71905	7.6	3.5	6.3	2.6
Geothermal heat	2842	3066	3004	3271	3878	4315	4801	5279	5547	0.6	2.6	2.2	1.5
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**867592**	**842853**	**846345**	**840284**	**876250**	**895026**	**909900**	**902234**	**906641**	**-0.2**	**0.3**	**0.4**	**0.0**
Refineries	696742	726784	750941	754026	785135	801205	812804	804621	810026	0.8	0.4	0.3	0.0
Biofuels and hydrogen production	2	198	637	5825	16993	24058	31598	35832	38296	81.7	38.9	6.4	1.9
District heating	38458	25592	19291	15154	15473	14980	14042	14337	15063	-6.7	-2.2	-1.0	0.7
Others	132391	90279	75474	65279	58650	54783	51455	47445	43256	-5.5	-2.5	-1.3	-1.7
Energy Branch Consumption	**80396**	**86970**	**88538**	**90136**	**91565**	**92661**	**93313**	**92184**	**92090**	**1.0**	**0.3**	**0.2**	**-0.1**
Non-Energy Uses	**101612**	**110138**	**112692**	**111057**	**113777**	**116161**	**118150**	**119173**	**120128**	**1.0**	**0.1**	**0.4**	**0.2**
Final Energy Demand	**1109885**	**1116883**	**1180941**	**1266305**	**1355060**	**1434365**	**1511283**	**1563708**	**1608521**	**0.6**	**1.4**	**1.1**	**0.6**
by sector													
Industry[1]	384219	349928	363322	377662	401247	426239	447312	466118	483829	-0.6	1.0	1.1	0.8
- energy intensive industries	245670	223935	228215	233078	241512	249999	255205	257207	258730	-0.7	0.6	0.6	0.1
- other industrial sectors	138549	125993	135107	144584	159735	176240	192107	208911	225100	-0.3	1.7	1.9	1.6
Residential	281949	298788	300854	322409	343318	364475	381810	395505	407701	0.7	1.3	1.1	0.7
Tertiary	154275	156259	166339	182765	200607	216471	230572	240798	249511	0.8	1.9	1.4	0.8
Transport	289441	311908	350426	383468	409888	427181	451588	461287	467480	1.9	1.6	1.0	0.3
by fuel [1]													
Solids	136126	89200	68674	64555	58766	54660	50566	47178	43484	-6.6	-1.5	-1.5	-1.5
Oil	458929	476865	499706	533770	561617	579954	598847	602480	604853	0.9	1.2	0.6	0.1
Gas	220792	240696	264489	286517	302714	327127	350309	365416	382020	1.8	1.4	1.5	0.9
Electricity	187680	199010	224587	249383	278868	306749	333047	357802	378239	1.8	2.2	1.8	1.3
Heat (from CHP and District Heating)	67875	67607	74443	78201	84707	88817	94030	100337	105248	0.9	1.3	1.0	1.1
Other	38483	43506	49041	53879	68388	77059	84484	90496	94677	2.5	3.4	2.1	1.1
CO2 Emissions (Mt of CO2)	**4136.3**	**3955.5**	**3998.9**	**4164.4**	**4291.9**	**4389.6**	**4494.7**	**4585.8**	**4675.9**	**-0.3**	**0.7**	**0.5**	**0.4**
Power generation/District heating	1515.0	1407.2	1431.1	1482.5	1517.4	1523.5	1545.7	1619.4	1684.8	-0.6	0.6	0.2	0.9
Energy Branch	155.8	176.0	159.9	140.1	135.6	131.8	122.3	109.4	104.4	0.3	-1.6	-1.0	-1.6
Industry	796.2	684.6	650.1	673.6	684.3	715.7	735.5	741.6	752.0	-2.0	0.5	0.7	0.2
Residential	538.0	515.1	481.6	497.9	519.3	537.9	548.1	552.0	557.1	-1.1	0.8	0.5	0.2
Tertiary	291.5	266.2	255.8	264.7	277.5	287.4	295.2	297.8	300.4	-1.3	0.8	0.6	0.2
Transport	839.9	906.4	1020.5	1105.5	1157.9	1193.2	1247.9	1265.6	1277.2	2.0	1.3	0.8	0.2
CO2 Emissions Index (1990=100)	**100.0**	**95.6**	**96.7**	**100.7**	**103.8**	**106.1**	**108.7**	**110.9**	**113.0**				

Source: PRIMES

EU28: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	528.913	540.852	550.981	561.107	569.992	577.012	582.152	585.758	587.546	0.4	0.3	0.2	0.1
GDP (in 000 MEUR'00)	7511.4	8029.9	9217.8	10045.5	11370.5	12870.0	14408.7	15963.1	17374.7	2.1	2.1	2.4	1.9
Gross Inl. Cons./GDP (toe/MEUR'00)	227.0	212.8	193.8	187.8	173.7	159.2	146.5	134.0	126.1	-1.6	-1.1	-1.7	-1.5
Gross Inl. Cons./Capita (toe/inhabitant)	3.22	3.16	3.24	3.36	3.46	3.55	3.63	3.65	3.73	0.1	0.7	0.5	0.3
Electricity Generated/Capita (kWh/inhabitant)	4951	5169	5660	6114	6623	7129	7597	8048	8449	1.3	1.6	1.4	1.1
Carbon intensity (t of CO_2/toe of GIC)	2.43	2.31	2.24	2.21	2.17	2.14	2.13	2.14	2.13	-0.8	-0.3	-0.2	0.0
CO_2 Emissions/Capita (t of CO_2/inhabitant)	7.82	7.31	7.26	7.42	7.53	7.61	7.72	7.83	7.96	-0.7	0.4	0.3	0.3
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	550.7	492.6	433.8	414.5	377.5	341.1	311.9	287.3	269.1	-2.4	-1.4	-1.9	-1.5
Import Dependency %	44.6	43.9	47.5	50.8	55.3	61.2	63.7	64.5	65.4	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	89.0	81.8	80.5	75.9	71.1	66.5	62.4	59.4	-2.0	-0.7	-1.3	-1.1
Residential (Energy on Private Income)	100.0	100.1	87.3	85.6	81.1	76.5	71.8	67.3	63.7	-1.3	-0.7	-1.2	-1.2
Tertiary (Energy on Value added)	100.0	92.7	84.3	83.3	79.8	75.4	71.5	67.2	63.8	-1.7	-0.6	-1.1	-1.1
Transport (Energy on GDP)	100.0	100.8	98.7	99.1	93.6	86.1	81.3	75.0	69.8	-0.1	-0.5	-1.4	-1.5
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.42	0.32	0.30	0.29	0.27	0.25	0.24	0.24	0.24	-3.3	-1.1	-1.2	-0.2
Final energy demand (t of CO_2/toe)	2.22	2.12	2.04	2.01	1.95	1.91	1.87	1.83	1.79	-0.9	-0.5	-0.4	-0.4
Industry	2.07	1.96	1.79	1.78	1.71	1.68	1.64	1.59	1.55	-1.5	-0.5	-0.4	-0.6
Residential	1.91	1.72	1.60	1.54	1.51	1.48	1.44	1.40	1.37	-1.7	-0.6	-0.5	-0.5
Tertiary	1.89	1.70	1.54	1.45	1.38	1.33	1.28	1.24	1.20	-2.0	-1.0	-0.8	-0.6
Transport	2.90	2.91	2.91	2.88	2.82	2.79	2.76	2.74	2.73	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**725459**	**798968**	**888823**	**952097**	**1038085**	**1153379**	**1245126**		**2.1**	**1.6**	**1.8**
Nuclear			145542	141046	139130	129300	120769	102863	108151		-0.4	-1.4	-1.1
Hydro (pumping excluded)			116592	119140	123933	127232	130164	133679	135818		0.6	0.5	0.4
Wind			12806	37742	79419	107210	132281	173143	192255		20.0	5.2	3.8
Solar			176	773	1661	2934	4896	7392	10583		25.2	11.4	8.0
Thermal			450343	500267	544679	585421	649976	736302	798319		1.9	1.8	2.1
of which cogeneration units			122684	147283	168563	194584	235740	273710	291862		3.2	3.4	2.2
Solids fired			210547	211491	180534	166807	184691	225468	257503		-1.5	0.2	3.4
Gas fired			143140	188667	267609	314808	352798	385681	414417		6.5	2.8	1.6
Oil fired			80801	82201	73455	64378	51245	43909	37297		-0.9	-3.5	-3.1
Biomass-waste fired			14814	16544	21657	37962	59658	79549	87367		3.9	10.7	3.9
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			1040	1364	1424	1466	1585	1695	1736		3.2	1.1	0.9
Indicators													
Efficiency for thermal electricity production (%)			35.8	37.4	39.4	42.2	44.8	46.5	47.7	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			49.1	49.0	48.5	49.3	48.6	46.7	45.5	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			14.8	16.4	18.2	20.3	22.4	24.8	25.2	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			45.6	45.0	44.4	43.8	43.8	43.9	44.0	0.0	0.0	0.0	0.0
- nuclear			30.3	29.1	26.0	23.4	20.7	17.8	17.6	0.0	0.0	0.0	0.0
- renewable energy forms			15.3	15.9	18.4	20.4	23.1	26.1	26.4	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**4881.2**	**5172.8**	**5752.9**	**6236.3**	**6897.2**	**7572.3**	**8264.9**	**8920.2**	**9494.4**	**1.7**	**1.8**	**1.8**	**1.4**
Public road transport	618.4	572.6	589.7	600.8	618.6	625.8	625.6	621.6	606.3	-0.5	0.5	0.1	-0.3
Private cars and motorcycles	3601.6	3945.4	4397.4	4775.2	5300.7	5847.2	6413.0	6950.9	7427.6	2.0	1.9	1.9	1.5
Rail	456.6	398.8	423.6	439.6	466.3	488.7	514.3	541.6	565.3	-0.7	1.0	1.0	0.9
Aviation	170.7	219.9	304.7	379.9	466.6	560.6	656.6	745.8	832.2	6.0	4.4	3.5	2.4
Inland navigation	33.9	36.2	37.4	40.8	45.0	50.1	55.4	60.2	63.2	1.0	1.9	2.1	1.3
Travel per person (km per capita)	9229	9564	10441	11114	12101	13123	14197	15228	16159	1.2	1.5	1.6	1.3
Freight transport activity (Gtkm)	**1958.3**	**2045.6**	**2352.3**	**2610.7**	**2947.4**	**3272.5**	**3612.0**	**3933.3**	**4231.4**	**1.8**	**2.3**	**2.1**	**1.6**
Trucks	1159.5	1372.3	1668.6	1900.5	2204.3	2497.6	2809.2	3100.6	3373.6	3.7	2.8	2.5	1.8
Rail	532.6	399.8	405.9	419.6	438.0	452.7	464.8	479.8	492.6	-2.7	0.8	0.6	0.6
Inland navigation	266.3	273.4	277.8	290.7	305.0	322.2	338.0	352.9	365.2	0.4	0.9	1.0	0.8
Freight activity per unit of GDP (tkm/000 Euro'00)	261	255	255	260	259	254	251	246	244	-0.2	0.2	-0.3	-0.3
Energy demand in transport (ktoe)	**289441**	**311908**	**350426**	**383468**	**409888**	**427181**	**451588**	**461287**	**467480**	**1.9**	**1.6**	**1.0**	**0.3**
Public road transport	9634	8675	8758	8829	8910	8754	8328	7774	7119	-0.9	0.2	-0.7	-1.6
Private cars and motorcycles	140266	148596	162549	174947	177484	174201	182335	183985	180977	1.5	0.9	0.3	-0.1
Trucks	92511	102453	116941	132219	151618	168592	181004	190256	196719	2.4	2.6	1.8	0.8
Rail	9807	9704	9691	9562	8882	7786	7084	6794	6741	-0.1	-0.9	-2.2	-0.5
Aviation	29928	35322	46814	51820	56512	60982	65656	65041	68301	4.6	1.9	1.5	0.4
Inland navigation	7295	7157	5673	6091	6483	6866	7181	7437	7623	-2.5	1.3	1.0	0.6
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	38.5	38.9	39.3	39.1	36.3	33.1	31.8	29.5	27.7	0.2	-0.8	-1.3	-1.4
Freight transport (toe/Mtkm)	51.8	54.2	52.8	53.6	54.1	53.9	52.3	50.4	48.4	0.2	0.2	-0.3	-0.8

Europe-30: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**1091087**	**1164015**	**1200143**	**1183940**	**1158330**	**1085238**	**1059892**	**1026116**	**1009418**	**1.0**	**-0.4**	**-0.9**	**-0.5**
Solids	377317	289853	228042	211606	176944	156047	156969	154248	146715	-4.9	-2.5	-1.2	-0.7
Oil	216359	314363	337714	273647	258206	216942	186873	154818	135229	4.6	-2.6	-3.2	-3.2
Natural gas	186970	215615	253987	287246	280974	247951	231034	219711	209096	3.1	1.0	-1.9	-1.0
Nuclear	206883	226217	250675	264138	260539	255349	242834	223374	231763	1.9	0.4	-0.7	-0.5
Renewable energy sources	103557	117967	129725	147302	181667	208948	242182	273965	286615	2.3	3.4	2.9	1.7
Hydro	40003	44385	48250	48313	49943	52296	54288	56399	57471	1.9	0.3	0.8	0.6
Biomass & Waste	59720	68852	74749	86197	107578	124626	147366	164977	169910	2.3	3.7	3.2	1.4
Wind	67	352	1919	6535	16346	22243	27729	36475	40320	39.9	23.9	5.4	3.8
Solar and others	173	432	703	1516	2336	3733	6086	8825	11298	15.1	12.8	10.0	6.4
Geothermal	3595	3946	4103	4741	5464	6050	6713	7289	7616	1.3	2.9	2.1	1.3
Net Imports	**695727**	**622832**	**684878**	**804277**	**923734**	**1075701**	**1166628**	**1228965**	**1299398**	**-0.2**	**3.0**	**2.4**	**1.1**
Solids	86632	84743	108508	133681	151473	152464	153910	181927	206214	2.3	3.4	0.2	3.0
Oil	490237	410532	412700	491243	536664	594687	636676	659917	684257	-1.7	2.7	1.7	0.7
- Crude oil and Feedstocks	458354	390385	384418	450179	497382	557575	602160	629018	656662	-1.7	2.6	1.9	0.9
- Oil products	31883	20147	28282	41064	39281	37112	34516	30899	27595	-1.2	3.3	-1.3	-2.2
Natural gas	117149	127430	163941	179521	235702	328543	376014	387105	408878	3.4	3.7	4.8	0.8
Electricity	1710	127	-272	-168	-105	8	28	15	48				5.4
Gross Inland Consumption	**1751588**	**1757969**	**1839144**	**1941639**	**2032224**	**2108343**	**2171548**	**2198687**	**2250894**	**0.5**	**1.0**	**0.7**	**0.4**
Solids	468937	381701	345317	345287	328416	308511	310879	336174	352930	-3.0	-0.5	-0.5	1.3
Oil	669257	690581	702393	718313	745030	759033	768577	758342	761564	0.5	0.6	0.3	-0.1
Natural gas	301245	341376	411306	466767	516677	576494	607048	606816	617975	3.2	2.3	1.6	0.2
Nuclear	206883	226217	250675	264138	260539	255349	242834	223374	231763	1.9	0.4	-0.7	-0.5
Electricity	1710	127	-272	-168	-105	8	28	15	48				5.4
Renewable energy forms	103557	117967	129725	147302	181667	208948	242182	273965	286615	2.3	3.4	2.9	1.7
as % in Gross Inland Consumption													
Solids	26.8	21.7	18.8	17.8	16.2	14.6	14.3	15.3	15.7				
Oil	38.2	39.3	38.2	37.0	36.7	36.0	35.4	34.5	33.8				
Natural gas	17.2	19.4	22.4	24.0	25.4	27.3	28.0	27.6	27.5				
Nuclear	11.8	12.9	13.6	13.6	12.8	12.1	11.2	10.2	10.3				
Renewable energy forms	5.9	6.7	7.1	7.6	8.9	9.9	11.2	12.5	12.7				
Electricity Generation in GWh_e	**2794856**	**2979877**	**3323905**	**3636468**	**3991589**	**4341674**	**4662340**	**4963030**	**5217637**	**1.7**	**1.8**	**1.6**	**1.1**
Nuclear	818651	906859	971593	1023780	1009830	989709	941202	865773	898286	1.7	0.4	-0.7	-0.5
Hydro & wind	465941	520201	583374	638733	772394	869281	958073	1086328	1146106	2.3	2.8	2.2	1.8
Thermal (incl. biomass)	1510263	1552818	1768938	1973955	2209365	2482684	2763064	3010929	3173245	1.6	2.2	2.3	1.4
Fuel Inputs for Thermal Power Generation [1]	**394358**	**391081**	**425676**	**454297**	**482586**	**506877**	**530879**	**557057**	**573236**	**0.8**	**1.3**	**1.0**	**0.8**
Solids	266510	242228	235114	245903	238418	224959	234647	265184	287006	-1.2	0.1	-0.2	2.0
Oil (including refinery gas)	57394	54220	46636	38621	35882	31756	25404	22596	21111	-2.1	-2.6	-3.4	-1.8
Gas	56913	76106	118562	140000	173131	205532	208133	191517	184051	7.6	3.9	1.9	-1.2
Biomass & Waste	10698	15462	22359	26502	31277	40316	57894	72481	75521	7.6	3.4	6.4	2.7
Geothermal heat	2842	3066	3004	3271	3878	4315	4801	5279	5547	0.6	2.6	2.2	1.5
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**884427**	**860979**	**866713**	**860613**	**896952**	**915934**	**931107**	**923545**	**927831**	**-0.2**	**0.3**	**0.4**	**0.0**
Refineries	713481	744800	771184	773948	805193	821199	832810	824553	829768	0.8	0.4	0.3	0.0
Biofuels and hydrogen production	2	198	637	5962	17329	24634	32400	36765	39313	81.7	39.1	6.5	2.0
District heating	38512	25661	19379	15398	15754	15301	14419	14763	15480	-6.6	-2.0	-0.9	0.7
Others	132432	90320	75512	65305	58676	54800	51478	47464	43270	-5.5	-2.5	-1.3	-1.7
Energy Branch Consumption	**83789**	**91906**	**92950**	**94524**	**96214**	**97333**	**97800**	**96317**	**95823**	**1.0**	**0.3**	**0.2**	**-0.2**
Non-Energy Uses	**103762**	**112250**	**115166**	**113369**	**115987**	**118316**	**120291**	**121326**	**122312**	**1.0**	**0.1**	**0.4**	**0.2**
Final Energy Demand	**1145388**	**1153836**	**1220510**	**1307900**	**1399021**	**1479908**	**1558168**	**1610958**	**1655772**	**0.6**	**1.4**	**1.1**	**0.6**
by sector													
Industry[1]	394004	360088	375356	389651	413805	439445	461033	480200	498029	-0.5	1.0	1.1	0.8
- energy intensive industries	252212	230473	236839	241657	250436	259307	264794	266953	268427	-0.6	0.6	0.6	0.1
- other industrial sectors	141792	129615	138517	147994	163369	180138	196239	213247	229602	-0.2	1.7	1.9	1.6
Residential	290806	308574	310280	332130	353576	375124	392647	406351	418558	0.7	1.3	1.1	0.6
Tertiary	160718	162622	172911	190145	208786	225066	239495	249913	258746	0.7	1.9	1.4	0.8
Transport	299860	322552	361964	395974	422853	440272	464993	474494	480440	1.9	1.6	1.0	0.3
by fuel [1]													
Solids	137278	90353	69933	65601	59810	55545	51330	47919	44140	-6.5	-1.6	-1.5	-1.5
Oil	477192	494929	518412	552750	580929	599401	618308	621307	623129	0.8	1.1	0.6	0.1
Gas	222317	242764	266915	290057	306694	331510	355178	370469	387257	1.8	1.4	1.5	0.9
Electricity	200044	212120	238509	263761	294426	323389	350762	376319	397182	1.8	2.1	1.8	1.3
Heat (from CHP and District Heating)	68198	68004	75229	78975	85683	90063	95496	102328	107405	1.0	1.3	1.1	1.2
Other	40359	45665	51512	56756	71480	80000	87094	92616	96658	2.5	3.3	2.0	1.0
CO2 Emissions (Mt of CO2)	**4207.7**	**4031.0**	**4076.8**	**4246.1**	**4376.4**	**4474.5**	**4579.5**	**4668.1**	**4755.4**	**-0.3**	**0.7**	**0.5**	**0.4**
Power generation/District heating	1515.7	1407.9	1431.7	1485.8	1521.2	1527.0	1548.9	1622.4	1687.5	-0.6	0.6	0.2	0.9
Energy Branch	163.4	187.1	170.4	149.4	145.2	141.4	131.4	117.7	111.8	0.4	-1.6	-1.0	-1.6
Industry	807.4	695.7	663.2	685.4	696.1	728.2	749.1	755.7	766.1	-1.9	0.5	0.7	0.2
Residential	551.3	528.2	493.5	509.9	531.6	550.1	559.7	562.6	567.2	-1.1	0.7	0.5	0.1
Tertiary	300.2	275.4	264.5	274.6	288.1	298.3	305.7	308.1	310.5	-1.3	0.9	0.6	0.2
Transport	869.6	936.7	1053.4	1140.9	1194.2	1229.5	1284.7	1301.5	1312.3	1.9	1.3	0.7	0.2
CO2 Emissions Index (1990=100)	**100.0**	**95.8**	**96.9**	**100.9**	**104.0**	**106.3**	**108.8**	**110.9**	**113.0**				

Source: PRIMES

Europe-30: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	539.950	552.291	562.681	572.964	582.130	589.294	594.587	598.343	600.252	0.4	0.3	0.2	0.1
GDP (in 000 MEUR'00)	7877.3	8422.9	9665.6	10523.8	11898.8	13457.4	15057.8	16673.3	18137.4	2.1	2.1	2.4	1.9
Gross Inl. Cons./GDP (toe/MEUR'00)	222.4	208.7	190.3	184.5	170.8	156.7	144.2	131.9	124.1	-1.5	-1.1	-1.7	-1.5
Gross Inl. Cons./Capita (toe/inhabitant)	3.24	3.18	3.27	3.39	3.49	3.58	3.65	3.67	3.75	0.1	0.7	0.5	0.3
Electricity Generated/Capita (kWh/inhabitant)	5176	5395	5907	6347	6857	7368	7841	8295	8692	1.3	1.5	1.4	1.0
Carbon intensity (t of CO_2/toe of GIC)	2.40	2.29	2.22	2.19	2.15	2.12	2.11	2.12	2.11	-0.8	-0.3	-0.2	0.0
CO_2 Emissions/Capita (t of CO_2/inhabitant)	7.79	7.30	7.25	7.41	7.52	7.59	7.70	7.80	7.92	-0.7	0.4	0.2	0.3
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	534.2	478.6	421.8	403.5	367.8	332.5	304.1	280.0	262.2	-2.3	-1.4	-1.9	-1.5
Import Dependency %	38.9	34.7	36.4	40.5	44.4	49.8	52.4	54.5	56.3	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	88.4	81.7	80.3	75.8	71.0	66.4	62.3	59.3	-2.0	-0.7	-1.3	-1.1
Residential (Energy on Private Income)	100.0	100.2	87.4	85.5	81.1	76.4	71.7	67.2	63.6	-1.3	-0.7	-1.2	-1.2
Tertiary (Energy on Value added)	100.0	93.0	84.5	83.6	80.2	75.7	71.8	67.4	64.0	-1.7	-0.5	-1.1	-1.1
Transport (Energy on GDP)	100.0	100.6	98.4	98.8	93.4	85.9	81.1	74.8	69.6	-0.2	-0.5	-1.4	-1.5
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.40	0.31	0.29	0.28	0.26	0.24	0.23	0.23	0.23	-3.3	-1.0	-1.2	-0.1
Final energy demand (t of CO_2/toe)	2.21	2.11	2.03	2.00	1.94	1.90	1.86	1.82	1.79	-0.8	-0.5	-0.4	-0.4
Industry	2.05	1.93	1.77	1.76	1.68	1.66	1.62	1.57	1.54	-1.5	-0.5	-0.3	-0.5
Residential	1.90	1.71	1.59	1.54	1.50	1.47	1.43	1.38	1.36	-1.7	-0.6	-0.5	-0.5
Tertiary	1.87	1.69	1.53	1.44	1.38	1.33	1.28	1.23	1.20	-2.0	-1.0	-0.8	-0.6
Transport	2.90	2.90	2.91	2.88	2.82	2.79	2.76	2.74	2.73	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**769539**	**844017**	**937809**	**1003202**	**1091239**	**1208543**	**1301559**		**2.0**	**1.5**	**1.8**
Nuclear			148992	144496	142580	132750	124219	106143	111575		-0.4	-1.4	-1.1
Hydro (pumping excluded)			155831	158980	165216	169931	173314	177080	179339		0.6	0.5	0.3
Wind			12886	37984	80961	109120	135018	176604	196224		20.2	5.2	3.8
Solar			195	799	1705	3017	5007	7559	10814		24.2	11.4	8.0
Thermal			451636	501758	547347	588385	653682	741156	803606		1.9	1.8	2.1
of which cogeneration units			123656	148284	169790	195892	237539	276663	295249		3.2	3.4	2.2
Solids fired			210703	211646	180628	166854	184706	225468	257503		-1.5	0.2	3.4
Gas fired			143723	189418	269437	316867	354906	387693	416334		6.5	2.8	1.6
Oil fired			80968	82346	73598	64491	51312	43963	37357		-0.9	-3.5	-3.1
Biomass-waste fired			15202	16984	22261	38707	61173	82337	90677		3.9	10.6	4.0
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			1040	1364	1424	1466	1585	1695	1736		3.2	1.1	0.9
Indicators													
Efficiency for thermal electricity production (%)			35.7	37.4	39.4	42.1	44.8	46.5	47.6	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			49.3	49.2	48.6	49.4	48.8	46.9	45.8	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			14.0	15.6	17.4	19.3	21.4	23.8	24.3	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			48.9	47.9	47.2	46.6	46.5	46.6	46.6	0.0	0.0	0.0	0.0
- nuclear			29.2	28.2	25.3	22.8	20.2	17.4	17.2	0.0	0.0	0.0	0.0
- renewable energy forms			19.6	19.8	21.9	23.8	26.4	29.2	29.4	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**5032.5**	**5329.6**	**5925.5**	**6421.5**	**7098.3**	**7785.4**	**8488.0**	**9150.3**	**9729.7**	**1.6**	**1.8**	**1.8**	**1.4**
Public road transport	625.6	579.5	596.9	608.5	626.8	634.3	634.4	630.6	615.4	-0.5	0.5	0.1	-0.3
Private cars and motorcycles	3720.2	4067.3	4530.1	4916.8	5454.1	6009.5	6582.6	7125.7	7606.2	2.0	1.9	1.9	1.5
Rail	473.5	416.8	443.8	461.1	489.2	512.4	538.9	566.7	590.6	-0.6	1.0	1.0	0.9
Aviation	178.7	229.1	316.3	393.3	482.0	577.8	675.5	765.7	853.0	5.9	4.3	3.4	2.4
Inland navigation	34.5	36.9	38.4	41.8	46.2	51.3	56.7	61.6	64.6	1.1	1.9	2.1	1.3
Travel per person (km per capita)	9320	9650	10531	11208	12194	13211	14276	15293	16209	1.2	1.5	1.6	1.3
Freight transport activity (Gtkm)	**2026.8**	**2116.8**	**2447.9**	**2713.7**	**3059.9**	**3395.7**	**3743.6**	**4072.2**	**4376.9**	**1.9**	**2.3**	**2.0**	**1.6**
Trucks	1179.2	1397.0	1705.6	1943.8	2255.8	2558.3	2878.9	3179.2	3460.1	3.8	2.8	2.5	1.9
Rail	544.1	411.2	419.3	434.1	453.8	469.0	481.3	496.3	509.2	-2.6	0.8	0.6	0.6
Inland navigation	303.5	308.6	323.0	335.8	350.4	368.3	383.4	396.8	407.6	0.6	0.8	0.9	0.6
Freight activity per unit of GDP (tkm/000 Euro'00)	257	251	253	258	257	252	249	244	241	-0.2	0.2	-0.3	-0.3
Energy demand in transport (ktoe)	**299860**	**322552**	**361964**	**395974**	**422853**	**440272**	**464993**	**474494**	**480440**	**1.9**	**1.6**	**1.0**	**0.3**
Public road transport	9802	8827	8917	8998	9088	8931	8499	7936	7271	-0.9	0.2	-0.7	-1.5
Private cars and motorcycles	145794	154006	168062	180815	183280	179652	187769	189222	185910	1.4	0.9	0.2	-0.1
Trucks	94266	104571	119351	135052	154986	172502	185322	194837	201455	2.4	2.6	1.8	0.8
Rail	10142	10100	10079	9972	9280	8144	7408	7094	7030	-0.1	-0.8	-2.2	-0.5
Aviation	31627	37244	49160	54320	59002	63432	68086	67270	70480	4.5	1.8	1.4	0.3
Inland navigation	8229	7803	6394	6817	7217	7612	7909	8134	8294	-2.5	1.2	0.9	0.5
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	38.9	39.2	39.6	39.3	36.5	33.3	31.9	29.6	27.8	0.2	-0.8	-1.3	-1.4
Freight transport (toe/Mtkm)	51.4	53.7	52.0	52.8	53.5	53.4	51.8	50.0	48.0	0.1	0.3	-0.3	-0.8

AUSTRIA: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**8170**	**8666**	**9501**	**10765**	**11217**	**10887**	**10667**	**10801**	**10775**	**1.5**	**1.7**	**-0.5**	**0.1**
Solids	643	305	293	338	260	195	58	0	0	-7.6	-1.2	-14.0	
Oil	1247	1073	1072	1000	850	400	200	0	0	-1.5	-2.3	-13.5	
Natural gas	1097	1261	1533	1650	1600	1200	1000	800	600	3.4	0.4	-4.6	-5.0
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	5183	6027	6603	7777	8507	9092	9409	10001	10175	2.5	2.6	1.0	0.8
Hydro	2709	3187	3598	3968	4184	4512	4715	4825	4910	2.9	1.5	1.2	0.4
Biomass & Waste	2458	2801	2923	3573	3966	4180	4247	4608	4642	1.7	3.1	0.7	0.9
Wind	0	0	6	131	228	245	268	358	370		44.4	1.6	3.3
Solar and others	15	36	64	100	124	149	173	203	246	15.7	6.9	3.4	3.5
Geothermal	1	3	14	5	5	6	6	6	6	25.2	-8.9	1.2	0.5
Net Imports	**16929**	**17746**	**18871**	**21224**	**23488**	**25069**	**25763**	**25569**	**25357**	**1.1**	**2.2**	**0.9**	**-0.2**
Solids	3112	2543	3048	3426	3508	3481	3654	3764	3925	-0.2	1.4	0.4	0.7
Oil	9413	10012	10688	11226	12141	12710	12727	12275	11458	1.3	1.3	0.5	-1.0
- Crude oil and Feedstocks	7802	8079	7712	8922	9695	10243	10298	9972	9279	-0.1	2.3	0.6	-1.0
- Oil products	1611	1932	2976	2304	2446	2467	2429	2303	2179	6.3	-1.9	-0.1	-1.1
Natural gas	4443	5404	5253	6209	7529	8674	9247	9440	9913	1.7	3.7	2.1	0.7
Electricity	-40	-212	-118	363	310	204	135	90	61			-8.0	-7.7
Gross Inland Consumption	**24859**	**26722**	**28460**	**31989**	**34706**	**35956**	**36430**	**36370**	**36131**	**1.4**	**2.0**	**0.5**	**-0.1**
Solids	4042	3336	3588	3764	3768	3676	3712	3764	3925	-1.2	0.5	-0.1	0.6
Oil	10489	11197	11868	12226	12991	13110	12927	12275	11458	1.2	0.9	0.0	-1.2
Natural gas	5184	6374	6519	7859	9129	9874	10247	10240	10513	2.3	3.4	1.2	0.3
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	-40	-212	-118	363	310	204	135	90	61			-8.0	-7.7
Renewable energy forms	5183	6027	6603	7777	8507	9092	9409	10001	10175	2.5	2.6	1.0	0.8
as % in Gross Inland Consumption													
Solids	16.3	12.5	12.6	11.8	10.9	10.2	10.2	10.3	10.9				
Oil	42.2	41.9	41.7	38.2	37.4	36.5	35.5	33.7	31.7				
Natural gas	20.9	23.9	22.9	24.6	26.3	27.5	28.1	28.2	29.1				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	20.9	22.6	23.2	24.3	24.5	25.3	25.8	27.5	28.2				
Electricity Generation in GWh_e	**49287**	**55169**	**60152**	**68526**	**79780**	**87106**	**92708**	**96658**	**99274**	**2.0**	**2.9**	**1.5**	**0.7**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	31503	37061	41899	47673	51324	55379	58057	60450	61651	2.9	2.0	1.2	0.6
Thermal (incl. biomass)	17784	18108	18253	20853	28456	31727	34652	36208	37623	0.3	4.5	2.0	0.8
Fuel Inputs for Thermal Power Generation [1]	**4313**	**4583**	**4572**	**5061**	**5935**	**6331**	**6358**	**6376**	**6572**	**0.6**	**2.6**	**0.7**	**0.3**
Solids	1532	1074	1260	1318	1288	1277	1226	1222	1329	-1.9	0.2	-0.5	0.8
Oil (including refinery gas)	488	489	386	375	270	265	183	155	151	-2.3	-3.5	-3.8	-1.9
Gas	1761	2319	2191	2340	3177	3396	3462	3109	3115	2.2	3.8	0.9	-1.1
Biomass & Waste	532	702	735	1027	1200	1393	1486	1889	1977	3.3	5.0	2.2	2.9
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**11434**	**11416**	**11126**	**12413**	**13226**	**13278**	**13303**	**12778**	**12087**	**-0.3**	**1.7**	**0.1**	**-1.0**
Refineries	9134	9183	8775	9939	10562	10659	10512	9982	9287	-0.4	1.9	0.0	-1.2
Biofuels and hydrogen production	2	5	8	102	297	401	546	657	732	17.5	43.3	6.3	3.0
District heating	348	484	573	440	412	404	360	311	290	5.1	-3.2	-1.3	-2.1
Others	1950	1744	1770	1931	1955	1813	1885	1828	1778	-1.0	1.0	-0.4	-0.6
Energy Branch Consumption	**1462**	**1487**	**1364**	**1518**	**1580**	**1570**	**1541**	**1477**	**1413**	**-0.7**	**1.5**	**-0.3**	**-0.9**
Non-Energy Uses	**1934**	**1815**	**2106**	**2359**	**2613**	**2781**	**2895**	**2944**	**2976**	**0.9**	**2.2**	**1.0**	**0.3**
Final Energy Demand	**18651**	**20538**	**22470**	**26002**	**28343**	**29487**	**30237**	**30434**	**30335**	**1.9**	**2.3**	**0.6**	**0.0**
by sector													
Industry[1]	5691	6043	7084	8422	9282	9682	9911	10036	10081	2.2	2.7	0.7	0.2
- energy intensive industries	3556	3554	4506	5039	5328	5439	5470	5437	5390	2.4	1.7	0.3	-0.1
- other industrial sectors	2135	2489	2578	3383	3954	4243	4441	4599	4691	1.9	4.4	1.2	0.5
Residential	5832	6256	6472	7505	8156	8446	8440	8364	8279	1.0	2.3	0.3	-0.2
Tertiary	2524	3056	2881	3460	3912	4197	4492	4695	4844	1.3	3.1	1.4	0.8
Transport	4603	5184	6033	6615	6993	7162	7394	7339	7131	2.7	1.5	0.6	-0.4
by fuel [1]													
Solids	1143	873	726	717	682	625	560	515	486	-4.4	-0.6	-2.0	-1.4
Oil	7897	8728	9414	10399	11111	11297	11366	11068	10670	1.8	1.7	0.2	-0.6
Gas	2962	3580	4086	4833	5259	5593	5824	5992	6162	3.3	2.6	1.0	0.6
Electricity	3669	3953	4454	5527	6360	6838	7226	7511	7701	2.0	3.6	1.3	0.6
Heat (from CHP and District Heating)	1088	1404	1782	2049	2222	2370	2482	2564	2547	5.1	2.2	1.1	0.3
Other	1893	2000	2007	2479	2708	2763	2778	2785	2770	0.6	3.0	0.3	0.0
CO2 Emissions (Mt of CO2)	**52.0**	**54.5**	**56.7**	**62.1**	**66.6**	**68.0**	**68.0**	**66.0**	**65.3**	**0.9**	**1.6**	**0.2**	**-0.4**
Power generation/District heating	12.8	12.4	12.4	13.0	14.5	14.9	14.6	13.6	14.0	-0.3	1.5	0.1	-0.4
Energy Branch	3.2	3.3	2.6	2.6	2.6	2.5	2.3	2.1	2.0	-2.0	0.0	-1.2	-1.7
Industry	9.8	10.4	11.7	14.4	15.7	16.1	16.3	16.2	16.1	1.8	3.0	0.3	-0.1
Residential	10.1	9.8	9.6	9.9	10.7	10.9	10.5	10.1	9.9	-0.6	1.2	-0.2	-0.7
Tertiary	3.4	4.0	3.3	3.6	3.8	4.0	4.3	4.4	4.5	-0.5	1.7	1.1	0.6
Transport	12.7	14.6	17.2	18.6	19.3	19.6	20.0	19.6	18.8	3.1	1.1	0.4	-0.6
CO2 Emissions Index (1990=100)	**100.0**	**104.7**	**109.0**	**119.3**	**128.1**	**130.6**	**130.7**	**126.9**	**125.4**				

Source: PRIMES

AUSTRIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	7.678	7.948	8.012	8.174	8.256	8.358	8.441	8.501	8.520	0.4	0.3	0.2	0.1
GDP (in 000 MEUR'00)	163.5	182.0	210.4	225.0	254.6	282.3	309.0	334.6	353.9	2.6	1.9	2.0	1.4
Gross Inl. Cons./GDP (toe/MEUR'00)	152.0	146.8	135.3	142.2	136.3	127.4	117.9	108.7	102.1	-1.2	0.1	-1.4	-1.4
Gross Inl. Cons./Capita (toe/inhabitant)	3.24	3.36	3.55	3.91	4.20	4.30	4.32	4.28	4.24	0.9	1.7	0.3	-0.2
Electricity Generated/Capita (kWh/inhabitant)	6419	6941	7508	8383	9664	10422	10983	11371	11652	1.6	2.6	1.3	0.6
Carbon intensity (t of CO_2/toe of GIC)	2.09	2.04	1.99	1.94	1.92	1.89	1.87	1.82	1.81	-0.5	-0.4	-0.3	-0.3
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.78	6.86	7.08	7.59	8.07	8.13	8.06	7.77	7.66	0.4	1.3	0.0	-0.5
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	318.1	299.3	269.5	275.8	261.7	240.7	220.1	197.3	184.4	-1.6	-0.3	-1.7	-1.8
Import Dependency %	68.1	66.4	66.3	66.3	67.7	69.7	70.7	70.3	70.2	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	101.1	95.2	101.3	96.8	90.5	84.3	78.6	74.5	-0.5	0.2	-1.4	-1.2
Residential (Energy on Private Income)	100.0	96.7	89.8	99.4	95.7	89.6	82.0	75.2	70.5	-1.1	0.6	-1.5	-1.5
Tertiary (Energy on Value added)	100.0	107.4	89.2	101.5	101.3	97.6	95.2	91.7	89.3	-1.1	1.3	-0.6	-0.6
Transport (Energy on GDP)	100.0	101.2	101.9	104.5	97.6	90.1	85.0	77.9	71.6	0.2	-0.4	-1.4	-1.7
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.20	0.17	0.15	0.14	0.13	0.13	0.12	0.11	0.11	-3.1	-1.1	-1.3	-1.0
Final energy demand (t of CO_2/toe)	1.93	1.89	1.85	1.79	1.75	1.72	1.69	1.65	1.63	-0.4	-0.6	-0.3	-0.4
Industry	1.71	1.72	1.65	1.71	1.69	1.67	1.64	1.61	1.60	-0.4	0.3	-0.3	-0.3
Residential	1.74	1.56	1.48	1.32	1.32	1.29	1.25	1.21	1.19	-1.6	-1.1	-0.5	-0.5
Tertiary	1.35	1.32	1.13	1.03	0.98	0.96	0.95	0.94	0.94	-1.8	-1.4	-0.3	-0.1
Transport	2.75	2.82	2.85	2.81	2.75	2.73	2.70	2.67	2.63	0.3	-0.3	-0.2	-0.3
Electricity and steam generation													
Generation Capacity in MW_e			**18995**	**21359**	**24393**	**24006**	**25470**	**28265**	**29250**		**2.5**	**0.4**	**1.4**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			10867	11737	12344	13114	13574	13759	13894		1.3	1.0	0.2
Wind			77	745	1372	1465	1622	2323	2385		33.4	1.7	3.9
Solar			7	14	51	128	250	396	560		22.4	17.3	8.4
Thermal			8044	8864	10627	9299	10024	11787	12411		2.8	-0.6	2.2
of which cogeneration units			4157	4658	6010	5814	6600	6883	6675		3.8	0.9	0.1
Solids fired			4170	4170	4170	2919	1076	1312	1425		0.0	-12.7	2.9
Gas fired			2800	3566	5329	5138	6853	7625	7932		6.6	2.5	1.5
Oil fired			684	684	648	419	194	168	168		-0.5	-11.4	-1.4
Biomass-waste fired			390	443	480	823	1901	2682	2887		2.1	14.7	4.3
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			34.3	35.4	41.2	43.1	46.9	48.8	49.2	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			36.1	36.6	37.3	41.4	41.6	39.0	38.7	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			24.1	26.8	26.7	26.7	30.6	31.9	31.0	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			72.6	72.4	67.8	68.8	69.8	73.2	73.1	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			72.6	72.4	67.8	68.8	69.8	73.2	73.1	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**86.1**	**95.7**	**99.5**	**108.4**	**117.0**	**125.3**	**133.2**	**140.1**	**145.5**	**1.5**	**1.6**	**1.3**	**0.9**
Public road transport	8.7	10.5	13.1	13.4	13.5	13.6	13.8	14.0	14.0	4.2	0.3	0.3	0.2
Private cars and motorcycles	63.9	69.3	70.9	76.9	83.0	89.1	94.9	99.9	103.7	1.0	1.6	1.4	0.9
Rail	10.8	12.2	11.0	12.2	13.3	13.8	14.2	14.6	14.8	0.1	2.0	0.7	0.4
Aviation	2.6	3.7	4.6	5.9	7.3	8.8	10.2	11.7	12.9	5.9	4.7	3.5	2.4
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.6	0.5
Travel per person (km per capita)	11213	12041	12425	13267	14172	14996	15780	16480	17080	1.0	1.3	1.1	0.8
Freight transport activity (Gtkm)	**34.1**	**41.7**	**54.2**	**58.1**	**65.3**	**70.6**	**75.5**	**79.8**	**83.1**	**4.7**	**1.9**	**1.5**	**1.0**
Trucks	20.3	26.5	35.1	37.8	42.6	46.9	51.0	54.7	57.6	5.6	2.0	1.8	1.2
Rail	12.2	13.2	16.6	17.8	19.9	20.6	20.9	21.1	21.2	3.2	1.8	0.5	0.1
Inland navigation	1.7	2.0	2.4	2.6	2.8	3.2	3.6	4.0	4.3	3.9	1.4	2.4	1.8
Freight activity per unit of GDP (tkm/000 Euro'00)	209	229	257	258	257	250	244	238	235	2.1	0.0	-0.5	-0.4
Energy demand in transport (ktoe)	**4603**	**5184**	**6033**	**6615**	**6993**	**7162**	**7394**	**7339**	**7131**	**2.7**	**1.5**	**0.6**	**-0.4**
Public road transport	45	47	48	49	49	48	46	43	39	0.7	0.2	-0.5	-1.6
Private cars and motorcycles	2536	2705	2901	3155	3125	3013	3086	3082	2933	1.4	0.7	-0.1	-0.5
Trucks	1349	1672	2163	2323	2617	2843	2974	3052	3016	4.8	1.9	1.3	0.1
Rail	357	292	328	354	359	327	298	280	271	-0.8	0.9	-1.9	-0.9
Aviation	310	461	586	727	835	924	982	872	862	6.6	3.6	1.6	-1.3
Inland navigation	7	6	6	6	7	8	9	9	10	-1.5	1.4	2.2	1.6
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	36.8	36.0	38.0	38.8	36.6	33.8	32.6	30.1	27.8	0.3	-0.4	-1.2	-1.6
Freight transport (toe/Mtkm)	42.2	41.6	41.5	41.5	41.5	41.5	40.4	39.2	37.1	-0.2	0.0	-0.3	-0.8

BELGIUM: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**12528**	**11421**	**13471**	**13716**	**14461**	**13495**	**11267**	**5408**	**2895**	**0.7**	**0.7**	**-2.5**	**-12.7**
Solids	1085	269	191	0	0	0	0	0	0	-16.0			
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	10	0	2	0	0	0	0	0	0	-14.3			
Nuclear	10707	10340	12422	12673	12926	11582	8914	2621	0	1.5	0.4	-3.6	
Renewable energy sources	727	812	856	1042	1534	1914	2353	2788	2895	1.6	6.0	4.4	2.1
Hydro	23	29	39	39	39	39	39	39	39	5.6	0.0	0.0	0.0
Biomass & Waste	701	780	810	975	1252	1576	1945	2250	2279	1.4	4.4	4.5	1.6
Wind	1	1	1	16	221	259	312	423	483	7.9	67.3	3.5	4.5
Solar and others	1	1	1	7	16	31	47	65	83	2.1	31.5	11.5	5.9
Geothermal	1	1	4	5	6	9	10	10	10	14.0	5.3	4.4	0.2
Net Imports	**38857**	**43690**	**48547**	**51075**	**51785**	**52364**	**53288**	**57040**	**58971**	**2.3**	**0.6**	**0.3**	**1.0**
Solids	9492	9343	7566	7018	6390	5119	5267	9228	11227	-2.2	-1.7	-1.9	7.9
Oil	21468	23579	27331	28658	29230	29171	28733	28214	27822	2.4	0.7	-0.2	-0.3
- Crude oil and Feedstocks	26116	25674	32658	31208	32082	32234	31991	31641	31317	2.3	-0.2	0.0	-0.2
- Oil products	-4648	-2096	-5328	-2550	-2853	-3063	-3258	-3427	-3495				
Natural gas	8217	10418	13278	14752	15547	17549	18840	19216	19598	4.9	1.6	1.9	0.4
Electricity	-320	350	372	647	618	526	448	381	325		5.2	-3.2	-3.2
Gross Inland Consumption	**47257**	**50459**	**57168**	**59213**	**60367**	**59740**	**58253**	**56056**	**55336**	**1.9**	**0.5**	**-0.4**	**-0.5**
Solids	10244	8551	8200	7018	6390	5119	5267	9228	11227	-2.2	-2.5	-1.9	7.9
Oil	17730	19794	21949	23080	23351	23052	22430	21822	21291	2.2	0.6	-0.4	-0.5
Natural gas	8169	10611	13369	14752	15547	17549	18840	19216	19598	5.0	1.5	1.9	0.4
Nuclear	10707	10340	12422	12673	12926	11582	8914	2621	0	1.5	0.4	-3.6	
Electricity	-320	350	372	647	618	526	448	381	325		5.2	-3.2	-3.2
Renewable energy forms	727	812	856	1042	1534	1914	2353	2788	2895	1.6	6.0	4.4	2.1
as % in Gross Inland Consumption													
Solids	21.7	16.9	14.3	11.9	10.6	8.6	9.0	16.5	20.3				
Oil	37.5	39.2	38.4	39.0	38.7	38.6	38.5	38.9	38.5				
Natural gas	17.3	21.0	23.4	24.9	25.8	29.4	32.3	34.3	35.4				
Nuclear	22.7	20.5	21.7	21.4	21.4	19.4	15.3	4.7	0.0				
Renewable energy forms	1.5	1.6	1.5	1.8	2.5	3.2	4.0	5.0	5.2				
Electricity Generation in GWh_e	**70202**	**73524**	**82639**	**85931**	**93963**	**99557**	**104617**	**108396**	**111713**	**1.6**	**1.3**	**1.1**	**0.7**
Nuclear	42714	41349	48148	49120	50103	44891	34551	10158	0	1.2	0.4	-3.6	
Hydro & wind	274	347	474	649	3035	3489	4114	5416	6128	5.6	20.4	3.1	4.1
Thermal (incl. biomass)	27214	31828	34017	36161	40825	51177	65952	92822	105585	2.3	1.8	4.9	4.8
Fuel Inputs for Thermal Power Generation [1]	**6839**	**7438**	**7876**	**8186**	**8371**	**8972**	**10301**	**14897**	**17205**	**1.4**	**0.6**	**2.1**	**5.3**
Solids	3879	3767	3030	2826	2781	1820	2219	6421	8639	-2.4	-0.9	-2.2	14.6
Oil (including refinery gas)	318	222	172	272	144	144	136	129	123	-6.0	-1.7	-0.6	-1.0
Gas	2239	2967	4186	4495	4753	6210	6983	7140	7215	6.5	1.3	3.9	0.3
Biomass & Waste	403	482	488	592	693	798	964	1206	1228	1.9	3.6	3.4	2.4
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**35153**	**32956**	**40739**	**36868**	**37284**	**37213**	**36721**	**35990**	**35365**	**1.5**	**-0.9**	**-0.2**	**-0.4**
Refineries	29036	28632	37085	33627	34298	34230	33717	33110	32650	2.5	-0.8	-0.2	-0.3
Biofuels and hydrogen production	0	0	0	44	255	515	778	904	953			11.8	2.1
District heating	8	5	41	0	0	2	3	2	3	17.9	-50.6	58.1	-2.1
Others	6109	4320	3612	3197	2731	2466	2222	1975	1760	-5.1	-2.8	-2.0	-2.3
Energy Branch Consumption	**2310**	**2273**	**2370**	**2349**	**2337**	**2277**	**2219**	**2188**	**2158**	**0.3**	**-0.1**	**-0.5**	**-0.3**
Non-Energy Uses	**2739**	**3289**	**5814**	**5326**	**5337**	**5203**	**5097**	**5044**	**5044**	**7.8**	**-0.9**	**-0.5**	**-0.1**
Final Energy Demand	**31355**	**34576**	**37055**	**38640**	**39971**	**40757**	**41208**	**41079**	**40942**	**1.7**	**0.8**	**0.3**	**-0.1**
by sector													
Industry[1]	11944	12197	13769	13765	13991	14150	14093	13939	13833	1.4	0.2	0.1	-0.2
- energy intensive industries	9288	9255	10195	9767	9627	9563	9365	9071	8811	0.9	-0.6	-0.3	-0.6
- other industrial sectors	2656	2942	3573	3998	4364	4587	4728	4868	5021	3.0	2.0	0.8	0.6
Residential	8337	9295	9465	9963	10314	10456	10324	10151	10018	1.3	0.9	0.0	-0.3
Tertiary	3370	4604	4158	4468	4850	5150	5455	5607	5782	2.1	1.5	1.2	0.6
Transport	7704	8480	9662	10444	10817	11001	11336	11382	11309	2.3	1.1	0.5	0.0
by fuel [1]													
Solids	3783	3303	3373	2839	2454	2267	2145	2029	1913	-1.1	-3.1	-1.3	-1.1
Oil	14734	16248	16038	17202	17517	17343	17012	16549	16102	0.9	0.9	-0.3	-0.5
Gas	6993	8272	9615	9798	10266	10747	11013	11080	11266	3.2	0.7	0.7	0.2
Electricity	4986	5885	6667	7187	7825	8231	8606	8845	9052	2.9	1.6	1.0	0.5
Heat (from CHP and District Heating)	566	573	1046	1230	1387	1466	1556	1623	1634	6.3	2.9	1.2	0.5
Other	293	295	316	385	521	702	876	952	975	0.8	5.1	5.3	1.1
CO2 Emissions (Mt of CO2)	**105.9**	**112.0**	**114.7**	**115.6**	**115.9**	**115.2**	**117.3**	**132.2**	**139.4**	**0.8**	**0.1**	**0.1**	**1.7**
Power generation/District heating	22.4	23.6	23.5	23.5	23.4	22.9	26.2	43.0	51.8	0.5	0.0	1.1	7.1
Energy Branch	5.3	5.1	5.3	4.7	4.7	4.7	4.5	4.4	4.2	0.0	-1.1	-0.5	-0.7
Industry	29.3	27.9	29.1	27.1	26.0	25.6	24.9	24.0	23.5	-0.1	-1.1	-0.4	-0.6
Residential	18.7	20.1	20.0	20.4	20.8	20.7	19.8	18.9	18.3	0.7	0.4	-0.5	-0.8
Tertiary	7.5	10.4	8.2	9.0	9.4	9.8	10.1	10.1	10.3	0.9	1.5	0.7	0.2
Transport	22.6	24.9	28.6	30.8	31.5	31.5	31.9	31.7	31.3	2.4	1.0	0.1	-0.2
CO2 Emissions Index (1990=100)	**100.0**	**105.8**	**108.3**	**109.2**	**109.5**	**108.8**	**110.8**	**124.8**	**131.6**				

Source: PRIMES

BELGIUM: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	9.968	10.137	10.246	10.416	10.554	10.674	10.790	10.898	10.984	0.3	0.3	0.2	0.2
GDP (in 000 MEUR'00)	200.1	216.6	247.9	267.7	302.9	337.1	370.1	402.8	431.7	2.2	2.0	2.0	1.5
Gross Inl. Cons./GDP (toe/MEUR'00)	236.2	233.0	230.6	221.2	199.3	177.2	157.4	139.2	128.2	-0.2	-1.4	-2.3	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	4.74	4.98	5.58	5.68	5.72	5.60	5.40	5.14	5.04	1.6	0.2	-0.6	-0.7
Electricity Generated/Capita (kWh/inhabitant)	7043	7253	8066	8250	8903	9327	9696	9946	10170	1.4	1.0	0.9	0.5
Carbon intensity (t of CO_2/toe of GIC)	2.24	2.22	2.01	1.95	1.92	1.93	2.01	2.36	2.52	-1.1	-0.4	0.5	2.3
CO_2 Emissions/Capita (t of CO_2/inhabitant)	10.62	11.05	11.19	11.10	10.98	10.79	10.87	12.13	12.69	0.5	-0.2	-0.1	1.6
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	529.0	517.2	462.6	431.8	382.8	341.7	316.9	328.1	322.8	-1.3	-1.9	-1.9	0.2
Import Dependency %	75.7	80.4	77.7	78.8	78.2	79.5	82.5	91.3	95.3	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	99.6	97.5	92.6	86.0	79.8	73.9	68.1	63.3	-0.2	-1.3	-1.5	-1.5
Residential (Energy on Private Income)	100.0	102.6	92.8	90.7	85.0	78.9	72.0	65.8	60.9	-0.7	-0.9	-1.7	-1.7
Tertiary (Energy on Value added)	100.0	122.6	99.5	97.1	92.7	88.2	84.8	79.9	76.9	0.0	-0.7	-0.9	-1.0
Transport (Energy on GDP)	100.0	101.7	101.2	101.3	92.8	84.8	79.5	73.4	68.0	0.1	-0.9	-1.5	-1.5
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.29	0.29	0.25	0.23	0.21	0.20	0.21	0.34	0.40	-1.7	-1.5	0.0	6.4
Final energy demand (t of CO_2/toe)	2.49	2.41	2.32	2.26	2.20	2.15	2.10	2.06	2.03	-0.7	-0.5	-0.4	-0.3
Industry	2.46	2.29	2.12	1.97	1.86	1.81	1.76	1.72	1.70	-1.5	-1.3	-0.5	-0.4
Residential	2.24	2.16	2.11	2.05	2.02	1.98	1.92	1.87	1.82	-0.6	-0.5	-0.5	-0.5
Tertiary	2.22	2.26	1.96	2.01	1.94	1.90	1.85	1.81	1.77	-1.2	-0.1	-0.5	-0.4
Transport	2.94	2.94	2.96	2.95	2.91	2.86	2.81	2.78	2.77	0.1	-0.2	-0.4	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**14964**	**14995**	**16830**	**18138**	**19572**	**21920**	**23004**		**1.2**	**1.5**	**1.6**
Nuclear			6033	6075	6075	5414	4173	1229	0		0.1	-3.7	
Hydro (pumping excluded)			307	307	307	307	307	307	307		0.0	0.0	0.0
Wind			13	113	1031	1239	1478	1991	2407		54.9	3.7	5.0
Solar			2	4	26	54	95	144	209		29.3	13.8	8.2
Thermal			8609	8496	9391	11124	13520	18249	20081		0.9	3.7	4.0
of which cogeneration units			1503	1684	2586	2832	4256	5043	5110		5.6	5.1	1.8
Solids fired			1955	1955	1564	1110	1979	5260	6876		-2.2	2.4	13.3
Gas fired			4374	4980	7067	8726	10072	11244	11435		4.9	3.6	1.3
Oil fired			1847	1123	384	481	471	471	471		-14.5	2.1	0.0
Biomass-waste fired			432	437	375	806	998	1274	1299		-1.4	10.3	2.7
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			37.1	38.0	41.9	49.1	55.1	53.6	52.8	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			63.0	65.4	63.7	62.7	61.0	56.5	55.4	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			8.1	9.0	14.4	15.7	18.8	19.0	18.5	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			60.3	59.7	58.5	52.0	42.0	20.7	11.7	0.0	0.0	0.0	0.0
- nuclear			58.3	57.2	53.3	45.1	33.0	9.4	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			2.0	2.5	5.1	6.9	8.9	11.3	11.7	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**112.0**	**123.3**	**135.8**	**145.4**	**155.6**	**164.5**	**173.1**	**181.2**	**189.1**	**2.0**	**1.4**	**1.1**	**0.9**
Public road transport	10.9	13.1	13.2	13.1	13.0	12.6	12.1	11.7	11.3	2.0	-0.1	-0.7	-0.6
Private cars and motorcycles	90.4	98.4	107.3	114.7	122.9	130.0	136.9	143.2	149.2	1.7	1.4	1.1	0.9
Rail	7.3	7.6	8.6	9.0	9.4	9.7	9.9	10.1	10.3	1.7	0.9	0.5	0.4
Aviation	3.0	3.9	6.5	8.2	10.0	11.9	13.8	15.8	17.9	8.2	4.4	3.3	2.6
Inland navigation	0.4	0.4	0.2	0.3	0.3	0.3	0.3	0.4	0.4	-5.2	1.6	1.5	1.4
Travel per person (km per capita)	11232	12164	13258	13958	14742	15410	16039	16627	17218	1.7	1.1	0.8	0.7
Freight transport activity (Gtkm)	**48.0**	**58.6**	**65.9**	**72.0**	**78.9**	**85.6**	**92.1**	**98.0**	**103.5**	**3.2**	**1.8**	**1.6**	**1.2**
Trucks	34.2	45.6	51.0	56.1	62.1	68.0	74.0	79.3	84.2	4.1	2.0	1.8	1.3
Rail	8.4	7.3	7.7	7.8	7.8	7.9	8.0	8.0	8.1	-0.9	0.2	0.2	0.2
Inland navigation	5.4	5.7	7.2	8.1	9.1	9.6	10.2	10.7	11.2	2.8	2.3	1.1	1.0
Freight activity per unit of GDP (tkm/000 Euro'00)	240	271	266	269	261	254	249	243	240	1.0	-0.2	-0.5	-0.4
Energy demand in transport (ktoe)	**7704**	**8480**	**9662**	**10444**	**10817**	**11001**	**11336**	**11382**	**11309**	**2.3**	**1.1**	**0.5**	**0.0**
Public road transport	77	63	63	62	61	57	53	48	42	-2.1	-0.2	-1.4	-2.2
Private cars and motorcycles	3984	4399	4291	4581	4494	4267	4322	4181	3969	0.7	0.5	-0.4	-0.8
Trucks	2381	2622	3465	3811	4207	4553	4763	4882	4865	3.8	2.0	1.2	0.2
Rail	177	202	183	184	178	165	122	112	107	0.4	-0.3	-3.7	-1.3
Aviation	955	947	1524	1653	1706	1780	1889	1970	2131	4.8	1.1	1.0	1.2
Inland navigation	129	247	136	152	170	179	187	191	194	0.5	2.3	0.9	0.4
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	45.9	45.1	44.3	44.3	41.1	37.9	36.8	34.7	33.0	-0.4	-0.7	-1.1	-1.1
Freight transport (toe/Mtkm)	53.4	49.8	55.3	55.6	56.0	55.8	54.0	51.9	49.0	0.4	0.1	-0.4	-1.0

CYPRUS: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**6**	**42**	**45**	**90**	**112**	**142**	**177**	**198**	**213**	**23.1**	**9.6**	**4.6**	**1.9**
Solids	0	0	0	0	0	0	0	0	0				
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	6	42	45	90	112	142	177	198	213	23.1	9.6	4.6	1.9
Hydro	0	0	0	0	0	0	0	0	0				
Biomass & Waste	6	11	9	35	46	63	85	89	98	5.3	17.1	6.4	1.5
Wind	0	0	0	1	6	15	25	39	46			15.6	6.4
Solar and others	0	31	35	54	61	65	67	70	69		5.6	1.0	0.3
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**1927**	**2017**	**2537**	**2693**	**3009**	**3198**	**3269**	**3177**	**3149**	**2.8**	**1.7**	**0.8**	**-0.4**
Solids	68	17	36	34	22	20	16	16	15	-6.3	-4.6	-3.1	-0.9
Oil	1859	2000	2502	2658	2986	3178	3253	3160	3134	3.0	1.8	0.9	-0.4
- Crude oil and Feedstocks	756	794	1149	1107	1243	1323	1354	1316	1305	4.3	0.8	0.9	-0.4
- Oil products	1103	1207	1353	1552	1743	1855	1899	1845	1830	2.1	2.6	0.9	-0.4
Natural gas	0	0	0	0	0	0	0	0	0				5.7
Electricity	0	0	0	0	0	0	0	0	0				
Gross Inland Consumption	**1816**	**1970**	**2382**	**2596**	**2932**	**3151**	**3256**	**3185**	**3172**	**2.7**	**2.1**	**1.1**	**-0.3**
Solids	60	13	35	34	22	20	16	16	15	-5.3	-4.4	-3.1	-0.9
Oil	1750	1914	2302	2471	2798	2989	3063	2971	2944	2.8	2.0	0.9	-0.4
Natural gas	0	0	0	0	0	0	0	0	0				5.7
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	0	0	0	0	0	0	0	0	0				
Renewable energy forms	6	42	45	90	112	142	177	198	213	23.1	9.6	4.6	1.9
as % in Gross Inland Consumption													
Solids	3.3	0.7	1.5	1.3	0.8	0.6	0.5	0.5	0.5				
Oil	96.4	97.2	96.6	95.2	95.4	94.9	94.1	93.3	92.8				
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	0.3	2.2	1.9	3.5	3.8	4.5	5.4	6.2	6.7				
Electricity Generation in GWh_e	**1974**	**2473**	**3369**	**4456**	**5519**	**6246**	**6724**	**7095**	**7371**	**5.5**	**5.1**	**2.0**	**0.9**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	0	0	0	12	67	171	286	449	531			15.6	6.4
Thermal (incl. biomass)	1974	2473	3369	4443	5452	6075	6438	6646	6840	5.5	4.9	1.7	0.6
Fuel Inputs for Thermal Power Generation [1]	**606**	**641**	**862**	**960**	**1152**	**1264**	**1325**	**1355**	**1376**	**3.6**	**2.9**	**1.4**	**0.4**
Solids	0	0	0	0	0	0	0	0	0				
Oil (including refinery gas)	606	641	862	938	1119	1217	1260	1288	1305	3.6	2.6	1.2	0.3
Gas	0	0	0	0	0	0	0	0	0				
Biomass & Waste	0	0	0	22	33	47	66	67	71			7.2	0.8
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**756**	**824**	**1167**	**1107**	**1245**	**1330**	**1366**	**1332**	**1327**	**4.4**	**0.7**	**0.9**	**-0.3**
Refineries	756	824	1167	1107	1243	1323	1354	1316	1305	4.4	0.6	0.9	-0.4
Biofuels and hydrogen production	0	0	0	0	2	7	12	17	22			17.9	6.4
District heating	0	0	0	0	0	0	0	0	0				
Others	0	0	0	0	0	0	0	0	0				
Energy Branch Consumption	**37**	**43**	**54**	**78**	**88**	**93**	**96**	**98**	**99**	**3.8**	**5.0**	**1.0**	**0.3**
Non-Energy Uses	**59**	**61**	**82**	**105**	**139**	**164**	**178**	**185**	**190**	**3.3**	**5.4**	**2.5**	**0.7**
Final Energy Demand	**1264**	**1409**	**1634**	**1814**	**1994**	**2118**	**2168**	**2071**	**2041**	**2.6**	**2.0**	**0.8**	**-0.6**
by sector													
Industry[1]	417	388	437	438	480	508	514	518	521	0.5	0.9	0.7	0.1
- energy intensive industries	220	218	220	209	216	218	205	192	185	0.0	-0.2	-0.5	-1.0
- other industrial sectors	197	170	217	229	264	290	309	326	336	1.0	2.0	1.6	0.9
Residential	120	181	219	254	290	322	340	348	357	6.2	2.9	1.6	0.5
Tertiary	82	89	127	175	219	239	250	258	258	4.5	5.6	1.3	0.3
Transport	645	750	852	946	1005	1049	1065	947	904	2.8	1.7	0.6	-1.6
by fuel [1]													
Solids	76	13	35	34	22	20	16	16	15	-7.5	-4.4	-3.1	-0.9
Oil	1032	1162	1296	1370	1475	1541	1557	1430	1381	2.3	1.3	0.5	-1.2
Gas	0	0	0	0	0	0	0	0	0				
Electricity	151	191	258	340	419	472	505	529	546	5.5	5.0	1.9	0.8
Heat (from CHP and District Heating)	0	0	0	3	4	6	6	6	6			3.8	0.2
Other	6	42	45	67	73	79	84	89	92	23.1	5.0	1.3	1.0
CO2 Emissions (Mt of CO2)	**5.4**	**5.7**	**6.9**	**7.4**	**8.3**	**8.8**	**9.0**	**8.7**	**8.6**	**2.4**	**1.8**	**0.8**	**-0.4**
Power generation/District heating	1.9	2.1	2.8	3.0	3.6	3.9	4.0	4.1	4.2	3.6	2.6	1.2	0.3
Energy Branch	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	3.1	5.0	0.5	0.0
Industry	1.3	1.1	1.3	1.2	1.3	1.4	1.4	1.4	1.4	-0.1	0.6	0.6	0.0
Residential	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.0	-1.6	-0.1	-1.6
Tertiary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Transport	1.9	2.2	2.5	2.8	3.0	3.1	3.1	2.8	2.6	2.8	1.6	0.5	-1.7
CO2 Emissions Index (1990=100)	**100.0**	**104.9**	**127.3**	**136.9**	**152.9**	**162.4**	**165.6**	**160.4**	**158.6**				

Source: PRIMES

CYPRUS: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	0.580	0.656	0.698	0.743	0.784	0.828	0.866	0.897	0.921	1.9	1.2	1.0	0.6
GDP (in 000 MEUR'00)	6.3	8.2	9.9	11.5	14.2	17.1	19.9	22.6	24.9	4.5	3.7	3.5	2.3
Gross Inl. Cons./GDP (toe/MEUR'00)	286.1	239.5	240.7	224.8	206.9	184.3	163.7	141.2	127.1	-1.7	-1.5	-2.3	-2.5
Gross Inl. Cons./Capita (toe/inhabitant)	3.13	3.00	3.41	3.49	3.74	3.81	3.76	3.55	3.44	0.9	0.9	0.1	-0.9
Electricity Generated/Capita (kWh/inhabitant)	3403	3769	4827	5997	7042	7546	7769	7911	7999	3.6	3.8	1.0	0.3
Carbon intensity (t of CO_2/toe of GIC)	2.98	2.89	2.89	2.86	2.82	2.79	2.75	2.73	2.71	-0.3	-0.2	-0.2	-0.2
CO_2 Emissions/Capita (t of CO_2/inhabitant)	9.34	8.66	9.88	9.98	10.57	10.62	10.36	9.69	9.32	0.6	0.7	-0.2	-1.1
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	853.1	691.1	696.8	641.8	584.4	514.4	450.8	385.2	344.3	-2.0	-1.7	-2.6	-2.7
Import Dependency %	103.1	99.1	98.7	96.8	96.4	95.7	94.9	94.1	93.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	68.2	73.7	69.7	64.1	57.3	50.0	44.5	40.8	-3.0	-1.4	-2.4	-2.0
Residential (Energy on Private Income)	100.0	103.3	101.4	100.7	91.9	83.2	75.2	68.2	63.8	0.1	-1.0	-2.0	-1.6
Tertiary (Energy on Value added)	100.0	76.9	87.3	103.4	105.0	94.4	84.5	76.6	69.0	-1.4	1.9	-2.2	-2.0
Transport (Energy on GDP)	100.0	89.8	84.7	80.6	69.8	60.4	52.7	41.3	35.7	-1.6	-1.9	-2.8	-3.8
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.98	0.83	0.82	0.67	0.64	0.62	0.59	0.58	0.56	-1.8	-2.4	-0.8	-0.6
Final energy demand (t of CO_2/toe)	2.68	2.51	2.46	2.34	2.26	2.22	2.19	2.11	2.07	-0.9	-0.8	-0.3	-0.6
Industry	3.05	2.85	2.88	2.84	2.78	2.76	2.75	2.73	2.72	-0.6	-0.4	-0.1	-0.1
Residential	1.69	1.09	1.03	0.71	0.66	0.60	0.56	0.49	0.45	-4.8	-4.4	-1.7	-2.1
Tertiary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Transport	2.97	2.97	2.98	2.98	2.97	2.96	2.95	2.93	2.92	0.0	0.0	-0.1	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**1005**	**1190**	**1446**	**1692**	**2018**	**2264**	**2451**		**3.7**	**3.4**	**2.0**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			0	0	0	0	0	0	0				
Wind			0	5	24	62	104	163	192			15.6	6.4
Solar			0	0	0	0	0	0	0				
Thermal			1005	1185	1421	1630	1914	2101	2258		3.5	3.0	1.7
of which cogeneration units			0	4	6	9	9	89	90			3.8	25.4
Solids fired			0	0	0	0	0	0	0				
Gas fired			0	0	0	0	0	0	0				
Oil fired			1005	1173	1403	1603	1874	2060	2214		3.4	2.9	1.7
Biomass-waste fired			0	12	19	27	39	41	45			7.8	1.3
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			33.6	39.8	40.7	41.3	41.8	42.2	42.8	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			38.3	42.8	43.6	42.1	38.0	35.8	34.3	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			0.0	0.6	0.8	1.0	1.0	0.9	0.9	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			0.0	2.2	3.6	5.8	8.4	10.4	11.5	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			0.0	2.2	3.6	5.8	8.4	10.4	11.5	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**6.6**	**7.7**	**9.7**	**11.4**	**13.1**	**14.9**	**16.2**	**17.1**	**17.7**	**3.9**	**3.1**	**2.1**	**0.9**
Public road transport	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	3.2	0.5	0.4	0.4
Private cars and motorcycles	2.3	2.5	3.5	3.8	4.1	4.5	4.7	4.9	5.0	4.4	1.6	1.4	0.6
Rail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Aviation	3.9	4.8	5.6	7.0	8.4	9.8	10.9	11.5	12.0	3.7	4.1	2.6	1.0
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Travel per person (km per capita)	11416	11808	13918	15385	16762	17957	18741	19012	19192	2.0	1.9	1.1	0.2
Freight transport activity (Gtkm)	**1.0**	**1.1**	**1.2**	**1.2**	**1.2**	**1.2**	**1.3**	**1.3**	**1.3**	**1.8**	**0.1**	**0.5**	**0.6**
Trucks	1.0	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.8	0.1	0.5	0.6
Rail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Freight activity per unit of GDP (tkm/000 Euro'00)	159	134	121	105	85	72	64	58	54	-2.7	-3.5	-2.9	-1.7
Energy demand in transport (ktoe)	**645**	**750**	**852**	**946**	**1005**	**1049**	**1065**	**947**	**904**	**2.8**	**1.7**	**0.6**	**-1.6**
Public road transport	6	7	10	10	10	10	10	9	9	5.2	0.5	-0.2	-0.6
Private cars and motorcycles	134	147	242	267	265	261	265	263	260	6.1	0.9	0.0	-0.2
Trucks	274	326	308	312	311	318	315	311	313	1.2	0.1	0.1	-0.1
Rail	2	3	2	0	0	0	0	0	0	0.5			
Aviation	229	267	290	357	419	460	475	364	322	2.4	3.8	1.3	-3.8
Inland navigation	0	0	0	0	0	0	0	0	0				
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	55.7	54.4	55.7	55.4	52.8	49.2	46.2	37.3	33.5	0.0	-0.5	-1.3	-3.2
Freight transport (toe/Mtkm)	272.1	296.4	257.0	257.6	257.7	256.6	247.9	237.9	231.9	-0.6	0.0	-0.4	-0.7

CZECH REPUBLIC: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**38321**	**31610**	**29636**	**32061**	**31132**	**28441**	**26794**	**26933**	**25706**	**-2.5**	**0.5**	**-1.5**	**-0.4**
Solids	34700	27491	25001	23371	21319	18254	16088	14704	12397	-3.2	-1.6	-2.8	-2.6
Oil	50	140	179	217	200	200	200	200	200	13.6	1.1	0.0	0.0
Natural gas	201	198	169	193	200	228	244	250	200	-1.7	1.7	2.0	-2.0
Nuclear	3246	3155	3506	7013	7481	7594	7722	8947	9966	0.8	7.9	0.3	2.6
Renewable energy sources	124	626	781	1266	1933	2166	2540	2832	2943	20.2	9.5	2.8	1.5
Hydro	124	172	151	146	153	155	158	161	163	2.0	0.1	0.3	0.3
Biomass & Waste	0	454	630	1110	1751	1942	2279	2532	2597		10.8	2.7	1.3
Wind	0	0	0	2	12	44	63	76	94			17.7	4.1
Solar and others	0	0	0	9	16	25	39	63	89			9.1	8.6
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**7674**	**8432**	**9297**	**10703**	**15558**	**19107**	**20876**	**22422**	**26042**	**1.9**	**5.3**	**3.0**	**2.2**
Solids	-5641	-5774	-4751	-4111	-1615	-216	-202	950	2969				
Oil	8589	7746	7428	7879	8939	9621	10399	10919	11570	-1.4	1.9	1.5	1.1
- Crude oil and Feedstocks	7382	6798	5492	7039	7990	8598	9296	9763	10348	-2.9	3.8	1.5	1.1
- Oil products	1207	948	1936	840	949	1022	1103	1156	1221	4.8	-6.9	1.5	1.0
Natural gas	4786	6424	7482	8368	9638	10967	11779	12029	13201	4.6	2.6	2.0	1.1
Electricity	-60	36	-861	-1433	-1404	-1264	-1100	-1476	-1698				
Gross Inland Consumption	**47247**	**40693**	**40155**	**42764**	**46690**	**47548**	**47670**	**49355**	**51749**	**-1.6**	**1.5**	**0.2**	**0.8**
Solids	29897	22577	21644	19260	19704	18037	15886	15655	15367	-3.2	-0.9	-2.1	-0.3
Oil	8791	7748	7585	8096	9139	9821	10599	11119	11770	-1.5	1.9	1.5	1.1
Natural gas	5248	6552	7500	8561	9838	11195	12023	12279	13401	3.6	2.8	2.0	1.1
Nuclear	3246	3155	3506	7013	7481	7594	7722	8947	9966	0.8	7.9	0.3	2.6
Electricity	-60	36	-861	-1433	-1404	-1264	-1100	-1476	-1698				
Renewable energy forms	124	626	781	1266	1933	2166	2540	2832	2943	20.2	9.5	2.8	1.5
as % in Gross Inland Consumption													
Solids	63.3	55.5	53.9	45.0	42.2	37.9	33.3	31.7	29.7				
Oil	18.6	19.0	18.9	18.9	19.6	20.7	22.2	22.5	22.7				
Natural gas	11.1	16.1	18.7	20.0	21.1	23.5	25.2	24.9	25.9				
Nuclear	6.9	7.8	8.7	16.4	16.0	16.0	16.2	18.1	19.3				
Renewable energy forms	0.3	1.5	1.9	3.0	4.1	4.6	5.3	5.7	5.7				
Electricity Generation in GWh_e	**62548**	**60564**	**72898**	**83281**	**92338**	**97101**	**100100**	**110873**	**119123**	**1.5**	**2.4**	**0.8**	**1.8**
Nuclear	12583	12228	13588	27182	28995	29433	29930	34676	38628	0.8	7.9	0.3	2.6
Hydro & wind	1445	2002	1758	1720	1923	2317	2588	2797	3047	2.0	0.9	3.0	1.6
Thermal (incl. biomass)	48520	46335	57553	54379	61420	65351	67582	73401	77448	1.7	0.7	1.0	1.4
Fuel Inputs for Thermal Power Generation [1]	**10989**	**14643**	**15890**	**15020**	**16650**	**15309**	**13981**	**14065**	**14766**	**3.8**	**0.5**	**-1.7**	**0.5**
Solids	9947	13576	14029	13569	14448	12587	10970	11274	12044	3.5	0.3	-2.7	0.9
Oil (including refinery gas)	741	311	203	10	162	8	5	4	4	-12.2	-2.2	-29.3	-2.6
Gas	300	637	1262	1089	1319	1959	2037	1616	1538	15.4	0.4	4.4	-2.8
Biomass & Waste	0	119	397	352	721	756	969	1170	1180		6.2	3.0	2.0
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**18660**	**14703**	**11363**	**12180**	**13077**	**13643**	**14158**	**14432**	**14927**	**-4.8**	**1.4**	**0.8**	**0.5**
Refineries	7946	7026	6047	7286	8225	8838	9538	10006	10592	-2.7	3.1	1.5	1.1
Biofuels and hydrogen production	0	10	33	81	330	429	575	661	734		25.8	5.7	2.5
District heating	2138	1404	963	1096	1170	1288	1167	1148	1216	-7.7	2.0	0.0	0.4
Others	8576	6263	4319	3716	3352	3088	2877	2617	2386	-6.6	-2.5	-1.5	-1.9
Energy Branch Consumption	**1652**	**1294**	**1943**	**1809**	**1883**	**1843**	**1802**	**1827**	**1889**	**1.6**	**-0.3**	**-0.4**	**0.5**
Non-Energy Uses	**2033**	**2132**	**1941**	**1917**	**2152**	**2387**	**2585**	**2725**	**2848**	**-0.5**	**1.0**	**1.9**	**1.0**
Final Energy Demand	**36678**	**25405**	**25375**	**26642**	**29243**	**31549**	**33214**	**34565**	**35791**	**-3.6**	**1.4**	**1.3**	**0.8**
by sector													
Industry[1]	20058	12906	11848	11446	12215	13152	13603	14058	14329	-5.1	0.3	1.1	0.5
- energy intensive industries	8719	7233	6999	7083	7338	7650	7754	7859	7861	-2.2	0.5	0.6	0.1
- other industrial sectors	11339	5673	4849	4364	4877	5502	5849	6199	6468	-8.1	0.1	1.8	1.0
Residential	8254	5608	5260	6022	6637	7022	7271	7470	7716	-4.4	2.4	0.9	0.6
Tertiary	5561	4052	4134	4209	4667	5114	5505	5859	6243	-2.9	1.2	1.7	1.3
Transport	2804	2839	4133	4964	5723	6261	6835	7178	7503	4.0	3.3	1.8	0.9
by fuel [1]													
Solids	17841	6443	5238	4128	3905	3746	3341	2981	2024	-11.5	-2.9	-1.5	-4.9
Oil	5876	5018	5345	5885	6659	7294	7914	8328	8858	-0.9	2.2	1.7	1.1
Gas	5146	6048	6442	7436	8129	9037	9758	10245	11285	2.3	2.4	1.8	1.5
Electricity	4142	4129	4243	4586	5337	5978	6499	7080	7545	0.2	2.3	2.0	1.5
Heat (from CHP and District Heating)	3672	3458	3885	3977	4290	4444	4510	4645	4710	0.6	1.0	0.5	0.4
Other	0	308	220	631	922	1050	1192	1286	1371		15.4	2.6	1.4
CO2 Emissions (Mt of CO2)	**154.0**	**118.4**	**117.2**	**112.9**	**120.3**	**118.2**	**113.4**	**114.3**	**117.4**	**-2.7**	**0.3**	**-0.6**	**0.3**
Power generation/District heating	48.8	60.5	62.0	59.3	64.0	58.6	52.1	52.2	55.1	2.4	0.3	-2.0	0.6
Energy Branch	2.3	1.5	2.2	1.1	0.9	0.9	0.7	0.7	0.6	-0.5	-9.0	-1.8	-2.0
Industry	57.3	29.9	27.0	25.5	26.3	27.8	28.1	28.2	27.4	-7.3	-0.3	0.7	-0.2
Residential	24.0	10.4	7.9	8.7	9.1	9.1	9.1	8.8	8.6	-10.5	1.4	0.0	-0.6
Tertiary	14.1	8.4	6.5	4.3	4.4	4.8	5.1	5.3	5.6	-7.4	-3.8	1.4	1.0
Transport	7.5	7.7	11.5	13.9	15.6	17.0	18.4	19.2	20.0	4.4	3.1	1.7	0.9
CO2 Emissions Index (1990=100)	**100.0**	**76.9**	**76.1**	**73.3**	**78.1**	**76.7**	**73.7**	**74.3**	**76.2**				

Source: PRIMES

CZECH REPUBLIC: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	10.363	10.331	10.273	10.186	10.122	10.012	9.902	9.812	9.693	-0.1	-0.1	-0.2	-0.2
GDP (in 000 MEUR'00)	59.0	56.2	60.4	70.6	84.3	100.9	117.1	133.4	147.3	0.2	3.4	3.3	2.3
Gross Inl. Cons./GDP (toe/MEUR'00)	801.1	724.1	664.9	605.9	553.7	471.3	407.0	370.0	351.2	-1.8	-1.8	-3.0	-1.5
Gross Inl. Cons./Capita (toe/inhabitant)	4.56	3.94	3.91	4.20	4.61	4.75	4.81	5.03	5.34	-1.5	1.7	0.4	1.0
Electricity Generated/Capita (kWh/inhabitant)	6036	5862	7096	8176	9122	9698	10109	11300	12290	1.6	2.5	1.0	2.0
Carbon intensity (t of CO_2/toe of GIC)	3.26	2.91	2.92	2.64	2.58	2.49	2.38	2.32	2.27	-1.1	-1.2	-0.8	-0.5
CO_2 Emissions/Capita (t of CO_2/inhabitant)	14.86	11.46	11.41	11.08	11.88	11.80	11.45	11.65	12.11	-2.6	0.4	-0.4	0.6
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	2611.0	2106.7	1939.9	1599.7	1426.2	1171.3	968.3	857.1	796.9	-2.9	-3.0	-3.8	-1.9
Import Dependency %	16.2	20.7	23.2	25.0	33.3	40.2	43.8	45.4	50.3	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	69.7	51.1	38.4	33.4	30.0	27.3	25.0	23.3	-6.5	-4.2	-2.0	-1.6
Residential (Energy on Private Income)	100.0	73.3	60.3	59.0	53.4	46.3	40.7	36.3	33.8	-4.9	-1.2	-2.7	-1.8
Tertiary (Energy on Value added)	100.0	59.8	56.0	50.1	47.3	43.6	40.5	37.9	36.6	-5.6	-1.7	-1.5	-1.0
Transport (Energy on GDP)	100.0	106.2	143.9	147.9	142.7	130.5	122.7	113.2	107.1	3.7	-0.1	-1.5	-1.4
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.45	0.59	0.49	0.43	0.42	0.36	0.32	0.29	0.29	1.0	-1.6	-2.7	-0.7
Final energy demand (t of CO_2/toe)	2.80	2.22	2.09	1.97	1.89	1.86	1.83	1.78	1.72	-2.9	-1.0	-0.4	-0.6
Industry	2.86	2.31	2.27	2.23	2.15	2.12	2.06	2.00	1.91	-2.2	-0.6	-0.4	-0.8
Residential	2.90	1.85	1.50	1.45	1.37	1.30	1.25	1.17	1.11	-6.4	-0.9	-0.9	-1.2
Tertiary	2.54	2.07	1.58	1.02	0.95	0.94	0.92	0.91	0.90	-4.6	-5.0	-0.3	-0.2
Transport	2.68	2.71	2.79	2.80	2.72	2.71	2.69	2.68	2.67	0.4	-0.2	-0.1	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**12670**	**14887**	**14880**	**17250**	**21132**	**24385**	**25812**		**1.6**	**3.6**	**2.0**
Nuclear			1760	3722	3722	3722	3722	4322	4831		7.8	0.0	2.6
Hydro (pumping excluded)			1147	1149	1154	1159	1168	1176	1182		0.1	0.1	0.1
Wind			7	20	107	382	538	648	795		31.7	17.6	4.0
Solar			0	0	2	5	17	32	49			27.1	11.4
Thermal			9757	9997	9896	11981	15687	18207	18955		0.1	4.7	1.9
of which cogeneration units			4262	4172	4613	6677	8554	9982	10289		0.8	6.4	1.9
Solids fired			8005	8245	7724	8304	9288	10728	11346		-0.4	1.9	2.0
Gas fired			803	803	1188	2534	4916	5719	5808		4.0	15.3	1.7
Oil fired			271	271	271	13	13	5	5		0.0	-26.2	-10.0
Biomass-waste fired			678	678	713	1131	1469	1756	1796		0.5	7.5	2.0
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			31.1	31.1	31.7	36.7	41.6	44.9	45.1	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			65.7	63.9	70.8	64.3	54.1	51.9	52.7	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			31.4	28.5	28.1	35.7	41.7	42.7	40.9	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			22.6	35.8	35.6	36.9	37.5	39.4	40.2	0.0	0.0	0.0	0.0
- nuclear			18.6	32.6	31.4	30.3	29.9	31.3	32.4	0.0	0.0	0.0	0.0
- renewable energy forms			4.0	3.2	4.2	6.6	7.6	8.1	7.8	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**108.0**	**83.7**	**90.7**	**104.5**	**118.9**	**133.0**	**145.3**	**155.5**	**163.2**	**-1.7**	**2.7**	**2.0**	**1.2**
Public road transport	23.6	11.8	9.4	9.0	8.7	8.5	8.2	8.0	7.8	-8.8	-0.7	-0.6	-0.5
Private cars and motorcycles	62.6	54.5	63.9	77.3	91.2	104.1	115.4	124.6	131.6	0.2	3.6	2.4	1.3
Rail	19.9	15.7	15.4	15.3	15.1	15.4	15.6	15.8	15.9	-2.6	-0.2	0.3	0.2
Aviation	1.8	1.7	2.0	2.9	3.8	5.0	6.1	7.1	7.9	1.0	6.5	4.8	2.6
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Travel per person (km per capita)	10421	8097	8826	10259	11742	13284	14676	15848	16840	-1.6	2.9	2.3	1.4
Freight transport activity (Gtkm)	**66.8**	**55.3**	**55.6**	**64.9**	**77.5**	**88.7**	**100.3**	**112.5**	**122.9**	**-1.8**	**3.4**	**2.6**	**2.1**
Trucks	26.3	31.3	37.3	47.1	60.7	72.0	84.4	96.4	106.5	3.6	5.0	3.4	2.3
Rail	38.0	22.6	17.5	17.1	16.4	16.3	15.5	15.7	16.0	-7.5	-0.7	-0.5	0.3
Inland navigation	2.6	1.3	0.8	0.6	0.4	0.4	0.4	0.4	0.4	-11.4	-5.4	-0.7	-0.6
Freight activity per unit of GDP (tkm/000 Euro'00)	1133	984	920	919	919	879	857	844	834	-2.1	0.0	-0.7	-0.3
Energy demand in transport (ktoe)	**2804**	**2839**	**4133**	**4964**	**5723**	**6261**	**6835**	**7178**	**7503**	**4.0**	**3.3**	**1.8**	**0.9**
Public road transport	227	125	103	99	95	91	85	79	73	-7.6	-0.7	-1.2	-1.5
Private cars and motorcycles	1131	1184	1970	2340	2513	2573	2757	2853	2916	5.7	2.5	0.9	0.6
Trucks	937	1132	1559	1970	2532	2977	3349	3655	3932	5.2	5.0	2.8	1.6
Rail	272	200	295	278	246	216	193	178	171	0.8	-1.8	-2.4	-1.2
Aviation	221	189	200	274	335	402	449	411	409	-1.0	5.3	3.0	-0.9
Inland navigation	16	8	5	4	3	3	3	2	2	-11.7	-5.4	-0.8	-0.6
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	15.7	19.0	26.7	27.3	25.7	23.8	23.2	22.0	21.2	5.4	-0.4	-1.0	-0.9
Freight transport (toe/Mtkm)	16.5	22.6	30.8	32.6	34.4	34.9	34.5	33.4	32.8	6.4	1.1	0.0	-0.5

DENMARK: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**10082**	**15566**	**27656**	**28943**	**30587**	**30145**	**28914**	**25824**	**22759**	**10.6**	**1.0**	**-0.6**	**-2.4**
Solids	0	0	0	0	0	0	0	0	0				
Oil	6114	9326	18142	18932	19070	18682	17751	15502	13252	11.5	0.5	-0.7	-2.9
Natural gas	2770	4702	7411	7293	8276	8000	7035	6070	5105	10.3	1.1	-1.6	-3.2
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	1198	1538	2103	2719	3241	3463	4129	4252	4402	5.8	4.4	2.4	0.6
Hydro	2	3	2	2	2	2	2	2	2	0.7	0.0	0.0	0.0
Biomass & Waste	1140	1428	1727	2044	2291	2461	2801	2837	2845	4.2	2.9	2.0	0.2
Wind	52	101	365	656	917	943	1247	1312	1438	21.4	9.7	3.1	1.4
Solar and others	2	5	7	16	31	56	79	102	116	12.5	15.4	9.9	4.0
Geothermal	1	1	1	0	0	0	0	0	0	1.9			
Net Imports	**8626**	**7529**	**-7139**	**-8094**	**-9299**	**-8522**	**-7311**	**-4547**	**-1627**				
Solids	6215	7664	3784	4175	3357	3036	2796	2443	2297	-4.8	-1.2	-1.8	-1.9
Oil	2733	1429	-8097	-9189	-9253	-9053	-8088	-5962	-3862				
- Crude oil and Feedstocks	2012	802	-9607	-10091	-10163	-9947	-8985	-6849	-4735				
- Oil products	721	627	1509	901	910	893	898	887	873	7.7	-4.9	-0.1	-0.3
Natural gas	-928	-1496	-2882	-2915	-3308	-2312	-1727	-642	418				
Electricity	606	-68	57	-165	-94	-193	-292	-386	-481	-21.0			
Gross Inland Consumption	**17933**	**20243**	**19666**	**19484**	**19848**	**20131**	**20068**	**19704**	**19516**	**0.9**	**0.1**	**0.1**	**-0.3**
Solids	6100	6498	4013	4175	3357	3036	2796	2443	2297	-4.1	-1.8	-1.8	-1.9
Oil	8212	9105	9044	8378	8376	8137	8127	7967	7774	1.0	-0.8	-0.3	-0.4
Natural gas	1818	3170	4449	4378	4968	5688	5308	5428	5523	9.4	1.1	0.7	0.4
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	606	-68	57	-165	-94	-193	-292	-386	-481	-21.0			
Renewable energy forms	1198	1538	2103	2719	3241	3463	4129	4252	4402	5.8	4.4	2.4	0.6
as % in Gross Inland Consumption													
Solids	34.0	32.1	20.4	21.4	16.9	15.1	13.9	12.4	11.8				
Oil	45.8	45.0	46.0	43.0	42.2	40.4	40.5	40.4	39.8				
Natural gas	10.1	15.7	22.6	22.5	25.0	28.3	26.4	27.5	28.3				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	6.7	7.6	10.7	14.0	16.3	17.2	20.6	21.6	22.6				
Electricity Generation in GWh_e	**25753**	**36783**	**36029**	**38740**	**39365**	**42452**	**45276**	**46542**	**48814**	**3.4**	**0.9**	**1.4**	**0.8**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	657	1207	4270	7658	10703	11011	14550	15314	16793	20.6	9.6	3.1	1.4
Thermal (incl. biomass)	25096	35577	31758	31083	28662	31441	30725	31228	32021	2.4	-1.0	0.7	0.4
Fuel Inputs for Thermal Power Generation [1]	**6016**	**8423**	**7924**	**7317**	**6752**	**6856**	**6739**	**6666**	**6572**	**2.8**	**-1.6**	**0.0**	**-0.3**
Solids	5541	6061	3667	4016	3242	2946	2725	2388	2263	-4.0	-1.2	-1.7	-1.8
Oil (including refinery gas)	237	1008	1371	650	520	342	280	279	278	19.2	-9.2	-6.0	-0.1
Gas	174	975	2112	1851	2151	2436	2136	2201	2161	28.4	0.2	-0.1	0.1
Biomass & Waste	65	378	775	801	839	1132	1599	1798	1870	28.2	0.8	6.7	1.6
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**9035**	**10721**	**8965**	**9603**	**10175**	**10247**	**10321**	**10177**	**10023**	**-0.1**	**1.3**	**0.1**	**-0.3**
Refineries	8027	9958	8452	8805	8874	8705	8737	8627	8493	0.5	0.5	-0.2	-0.3
Biofuels and hydrogen production	0	0	0	107	252	328	444	481	499			5.8	1.2
District heating	1004	760	513	690	1050	1214	1139	1070	1032	-6.5	7.4	0.8	-1.0
Others	4	2	0	0	0	0	0	0	0				
Energy Branch Consumption	**726**	**970**	**1386**	**1426**	**1383**	**1347**	**1241**	**1168**	**1107**	**6.7**	**0.0**	**-1.1**	**-1.1**
Non-Energy Uses	**289**	**291**	**280**	**296**	**318**	**333**	**341**	**345**	**351**	**-0.3**	**1.3**	**0.7**	**0.3**
Final Energy Demand	**13797**	**14736**	**14876**	**15397**	**15934**	**16284**	**16497**	**16366**	**16413**	**0.8**	**0.7**	**0.3**	**-0.1**
by sector													
Industry[1]	2714	3026	3215	3129	3109	3082	3044	3037	3061	1.7	-0.3	-0.2	0.1
- energy intensive industries	1045	1154	1266	1101	1056	1028	994	967	948	1.9	-1.8	-0.6	-0.5
- other industrial sectors	1669	1872	1949	2028	2053	2054	2050	2071	2113	1.6	0.5	0.0	0.3
Residential	4043	4472	4141	4293	4443	4604	4700	4621	4665	0.2	0.7	0.6	-0.1
Tertiary	3066	2790	2800	2967	3201	3390	3509	3580	3637	-0.9	1.3	0.9	0.4
Transport	3974	4448	4720	5008	5181	5207	5244	5127	5051	1.7	0.9	0.1	-0.4
by fuel [1]													
Solids	402	405	307	150	107	85	68	54	34	-2.7	-10.0	-4.5	-6.6
Oil	7056	7132	6950	7139	7186	7136	7029	6827	6706	-0.2	0.3	-0.2	-0.5
Gas	1159	1691	1676	1696	1766	1878	1934	1991	2084	3.8	0.5	0.9	0.8
Electricity	2517	2686	2791	2827	2980	3152	3309	3343	3447	1.0	0.7	1.1	0.4
Heat (from CHP and District Heating)	2098	2227	2590	2865	3061	3154	3197	3158	3136	2.1	1.7	0.4	-0.2
Other	566	595	563	719	834	880	960	992	1005	-0.1	4.0	1.4	0.5
CO2 Emissions (Mt of CO2)	**51.5**	**59.2**	**52.3**	**50.9**	**49.0**	**48.6**	**46.8**	**45.2**	**44.3**	**0.2**	**-0.7**	**-0.5**	**-0.5**
Power generation/District heating	24.4	30.2	24.1	22.6	20.6	20.2	18.8	17.9	17.4	-0.2	-1.6	-0.9	-0.8
Energy Branch	1.5	2.0	2.3	2.3	2.3	2.2	2.0	1.9	1.7	4.5	0.1	-1.3	-1.5
Industry	5.4	5.9	5.3	4.6	4.6	4.6	4.5	4.5	4.5	-0.2	-1.3	-0.3	-0.1
Residential	4.9	4.9	3.9	3.5	3.3	3.3	3.3	3.2	3.3	-2.3	-1.7	0.1	0.0
Tertiary	3.6	3.1	2.9	3.3	3.5	3.6	3.7	3.7	3.7	-2.0	1.9	0.5	0.1
Transport	11.8	13.1	13.9	14.5	14.7	14.7	14.5	14.0	13.7	1.7	0.6	-0.2	-0.5
CO2 Emissions Index (1990=100)	**100.0**	**114.9**	**101.6**	**98.9**	**95.2**	**94.5**	**90.9**	**87.8**	**86.0**				

Source: PRIMES

DENMARK: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (B)			
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	5.140	5.230	5.338	5.412	5.465	5.498	5.526	5.557	5.577	0.4	0.2	0.1	0.1
GDP (in 000 MEUR'00)	136.3	150.3	171.6	184.6	202.2	218.7	235.2	252.5	269.2	2.3	1.7	1.5	1.4
Gross Inl. Cons./GDP (toe/MEUR'00)	131.5	134.7	114.6	105.6	98.1	92.0	85.3	78.0	72.5	-1.4	-1.5	-1.4	-1.6
Gross Inl. Cons./Capita (toe/inhabitant)	3.49	3.87	3.68	3.60	3.63	3.66	3.63	3.55	3.50	0.5	-0.1	0.0	-0.4
Electricity Generated/Capita (kWh/inhabitant)	5010	7033	6749	7158	7203	7721	8193	8376	8752	3.0	0.7	1.3	0.7
Carbon intensity (t of CO_2/toe of GIC)	2.87	2.92	2.66	2.61	2.47	2.42	2.33	2.29	2.27	-0.8	-0.7	-0.6	-0.3
CO_2 Emissions/Capita (t of CO_2/inhabitant)	10.01	11.31	9.80	9.41	8.96	8.85	8.46	8.13	7.94	-0.2	-0.9	-0.6	-0.6
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	377.6	393.6	304.9	275.8	242.3	222.3	198.8	178.9	164.4	-2.1	-2.3	-2.0	-1.9
Import Dependency %	45.7	34.5	-34.0	-38.8	-43.7	-39.4	-33.8	-21.4	-7.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	102.5	100.5	99.2	91.9	85.0	78.7	73.8	70.2	0.0	-0.9	-1.5	-1.1
Residential (Energy on Private Income)	100.0	98.6	84.8	80.1	76.2	73.3	69.8	64.2	60.9	-1.6	-1.1	-0.9	-1.4
Tertiary (Energy on Value added)	100.0	84.6	73.6	71.0	69.5	67.9	65.2	61.8	58.7	-3.0	-0.6	-0.6	-1.0
Transport (Energy on GDP)	100.0	101.5	94.4	93.1	87.9	81.7	76.5	69.6	64.3	-0.6	-0.7	-1.4	-1.7
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.44	0.44	0.32	0.28	0.24	0.23	0.20	0.19	0.18	-3.2	-2.7	-1.7	-1.1
Final energy demand (t of CO_2/toe)	1.85	1.83	1.75	1.69	1.64	1.61	1.57	1.55	1.53	-0.6	-0.6	-0.4	-0.2
Industry	1.98	1.95	1.64	1.48	1.49	1.50	1.48	1.47	1.46	-1.9	-1.0	-0.1	-0.2
Residential	1.21	1.09	0.94	0.82	0.73	0.71	0.70	0.70	0.70	-2.5	-2.4	-0.5	0.0
Tertiary	1.16	1.11	1.04	1.11	1.09	1.06	1.04	1.03	1.02	-1.1	0.5	-0.5	-0.2
Transport	2.96	2.95	2.95	2.90	2.84	2.81	2.76	2.73	2.72	0.0	-0.4	-0.3	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**11417**	**12145**	**12408**	**12167**	**13768**	**14693**	**15871**		**0.8**	**1.0**	**1.4**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			10	10	10	10	10	10	10		0.0	0.0	0.0
Wind			2300	3594	4657	4758	5943	6196	6457		7.3	2.5	0.8
Solar			2	3	17	38	69	97	121		25.6	15.3	5.7
Thermal			9106	8538	7725	7362	7747	8390	9284		-1.6	0.0	1.8
of which cogeneration units			6968	6961	6450	6524	6773	6563	6408		-0.8	0.5	-0.6
Solids fired			5452	4527	3954	3649	3398	2967	2795		-3.2	-1.5	-1.9
Gas fired			1857	1844	1870	2239	2239	3086	4061		0.1	1.8	6.1
Oil fired			1227	1464	1149	406	365	320	283		-0.7	-10.8	-2.5
Biomass-waste fired			570	703	751	1069	1744	2017	2145		2.8	8.8	2.1
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			34.5	36.5	36.5	39.4	39.2	40.3	41.9	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			36.0	36.4	36.2	39.8	37.5	36.2	35.1	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			76.5	74.7	71.5	69.3	66.9	66.0	63.8	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			21.9	29.4	37.0	38.1	48.1	50.2	51.5	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			21.9	29.4	37.0	38.1	48.1	50.2	51.5	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**68.6**	**77.3**	**83.2**	**86.3**	**90.6**	**94.2**	**97.6**	**100.6**	**103.6**	**2.0**	**0.9**	**0.7**	**0.6**
Public road transport	9.3	10.6	9.1	9.1	9.2	9.1	9.0	9.0	8.9	-0.2	0.1	-0.2	-0.1
Private cars and motorcycles	48.2	54.7	59.8	61.4	64.0	65.8	67.5	68.8	70.0	2.2	0.7	0.5	0.4
Rail	4.9	4.8	5.3	5.5	5.6	5.7	5.9	6.0	6.1	0.9	0.5	0.4	0.4
Aviation	3.5	4.5	6.3	7.5	8.9	10.6	12.2	13.8	15.5	5.9	3.5	3.2	2.4
Inland navigation	2.7	2.7	2.6	2.8	2.9	2.9	3.0	3.0	3.1	-0.2	0.9	0.3	0.3
Travel per person (km per capita)	13346	14778	15591	15942	16581	17137	17654	18100	18570	1.6	0.6	0.6	0.5
Freight transport activity (Gtkm)	**21.7**	**26.7**	**27.5**	**29.8**	**33.1**	**35.8**	**38.5**	**41.1**	**43.8**	**2.4**	**1.9**	**1.5**	**1.3**
Trucks	18.1	22.4	24.0	25.9	28.8	31.2	33.5	35.8	38.0	2.9	1.9	1.5	1.3
Rail	1.7	2.0	2.0	2.1	2.2	2.4	2.5	2.6	2.8	1.6	1.0	1.0	1.1
Inland navigation	1.9	2.3	1.5	1.7	2.0	2.3	2.5	2.8	3.0	-2.4	3.2	2.1	1.9
Freight activity per unit of GDP (tkm/000 Euro'00)	159	177	160	161	164	164	164	163	163	0.1	0.2	0.0	-0.1
Energy demand in transport (ktoe)	**3974**	**4448**	**4720**	**5008**	**5181**	**5207**	**5244**	**5127**	**5051**	**1.7**	**0.9**	**0.1**	**-0.4**
Public road transport	131	140	134	134	132	126	118	108	100	0.2	-0.1	-1.2	-1.7
Private cars and motorcycles	1589	1820	1972	2017	1921	1761	1724	1646	1547	2.2	-0.3	-1.1	-1.1
Trucks	1343	1511	1574	1700	1886	2016	2083	2128	2122	1.6	1.8	1.0	0.2
Rail	113	118	103	101	98	90	62	58	58	-1.0	-0.5	-4.5	-0.6
Aviation	648	678	822	931	1004	1067	1103	1026	1058	2.4	2.0	0.9	-0.4
Inland navigation	150	181	115	126	140	147	155	161	166	-2.6	1.9	1.0	0.7
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	36.6	36.7	37.0	37.5	35.4	32.9	31.4	28.8	27.3	0.1	-0.4	-1.2	-1.4
Freight transport (toe/Mtkm)	67.5	60.4	59.5	59.5	59.4	58.8	56.6	54.2	50.9	-1.3	0.0	-0.5	-1.1

ESTONIA: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**5480**	**3344**	**3170**	**3192**	**2685**	**2878**	**2710**	**2799**	**2917**	**-5.3**	**-1.6**	**0.1**	**0.7**
Solids	5020	2863	2667	2691	2096	2236	2005	2015	1897	-6.1	-2.4	-0.4	-0.6
Oil	0	0	2	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	460	481	501	502	589	641	705	784	1019	0.9	1.6	1.8	3.8
Hydro	0	0	0	1	2	4	5	8	8		17.6	9.5	4.4
Biomass & Waste	460	481	501	497	543	582	626	696	833	0.8	0.8	1.4	2.9
Wind	0	0	0	1	40	47	62	66	160			4.6	9.9
Solar and others	0	0	0	2	4	8	12	14	18			10.1	4.2
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**4463**	**1934**	**1490**	**1944**	**2434**	**2638**	**3098**	**3391**	**3498**	**-10.4**	**5.0**	**2.4**	**1.2**
Solids	697	293	282	110	132	146	148	168	103	-8.6	-7.3	1.2	-3.6
Oil	3146	1182	626	1233	1365	1506	1649	1752	1957	-14.9	8.1	1.9	1.7
- Crude oil and Feedstocks	0	0	0	1	1	1	1	2	2			1.9	1.7
- Oil products	3146	1182	626	1231	1364	1504	1647	1751	1955	-14.9	8.1	1.9	1.7
Natural gas	1222	524	662	701	1026	1067	1332	1474	1440	-5.9	4.5	2.6	0.8
Electricity	-602	-65	-80	-100	-90	-80	-31	-4	-3				
Gross Inland Consumption	**9883**	**5280**	**4572**	**5017**	**4986**	**5363**	**5635**	**5997**	**6203**	**-7.4**	**0.9**	**1.2**	**1.0**
Solids	5938	3305	2979	2801	2228	2383	2153	2183	2000	-6.7	-2.9	-0.3	-0.7
Oil	2865	1035	510	1113	1233	1353	1476	1560	1746	-15.9	9.2	1.8	1.7
Natural gas	1222	524	662	701	1026	1067	1332	1474	1440	-5.9	4.5	2.6	0.8
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	-602	-65	-80	-100	-90	-80	-31	-4	-3				
Renewable energy forms	460	481	501	502	589	641	705	784	1019	0.9	1.6	1.8	3.8
as % in Gross Inland Consumption													
Solids	60.1	62.6	65.2	55.8	44.7	44.4	38.2	36.4	32.2				
Oil	29.0	19.6	11.2	22.2	24.7	25.2	26.2	26.0	28.1				
Natural gas	12.4	9.9	14.5	14.0	20.6	19.9	23.6	24.6	23.2				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	4.7	9.1	11.0	10.0	11.8	12.0	12.5	13.1	16.4				
Electricity Generation in GWh_e	**17178**	**8691**	**8511**	**10144**	**10870**	**11943**	**12495**	**13407**	**14376**	**-6.8**	**2.5**	**1.4**	**1.4**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	0	2	6	26	492	596	799	868	1978		55.4	5.0	9.5
Thermal (incl. biomass)	17178	8689	8505	10118	10378	11347	11697	12539	12397	-6.8	2.0	1.2	0.6
Fuel Inputs for Thermal Power Generation [1]	**5654**	**2666**	**2445**	**2699**	**2353**	**2438**	**2391**	**2543**	**2533**	**-8.0**	**-0.4**	**0.2**	**0.6**
Solids	5085	2491	2199	2641	2054	2206	1985	2002	1887	-8.0	-0.7	-0.3	-0.5
Oil (including refinery gas)	210	80	12	17	9	8	7	6	6	-25.2	-2.0	-3.1	-1.5
Gas	357	93	226	21	276	209	331	381	360	-4.5	2.0	1.8	0.8
Biomass & Waste	2	2	9	21	13	15	68	153	280	15.9	3.7	17.6	15.2
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**1899**	**767**	**662**	**534**	**584**	**602**	**626**	**629**	**585**	**-10.0**	**-1.2**	**0.7**	**-0.7**
Refineries	1	1	1	1	1	1	1	2	2	0.0	2.1	1.9	1.7
Biofuels and hydrogen production	0	0	0	14	46	63	84	101	119			6.2	3.5
District heating	1608	479	455	490	510	518	524	513	452	-11.9	1.2	0.3	-1.5
Others	290	286	206	30	26	21	16	15	12	-3.4	-18.8	-4.5	-3.4
Energy Branch Consumption	**295**	**148**	**179**	**155**	**133**	**131**	**123**	**124**	**120**	**-4.9**	**-3.0**	**-0.7**	**-0.3**
Non-Energy Uses	**76**	**212**	**219**	**218**	**259**	**301**	**338**	**365**	**381**	**11.2**	**1.7**	**2.7**	**1.2**
Final Energy Demand	**6002**	**2648**	**2368**	**2828**	**3201**	**3552**	**3904**	**4203**	**4495**	**-8.9**	**3.1**	**2.0**	**1.4**
by sector													
Industry[1]	2733	778	535	644	733	832	921	1005	1076	-15.1	3.2	2.3	1.6
- energy intensive industries	737	430	208	225	251	280	309	333	350	-11.9	1.9	2.1	1.3
- other industrial sectors	1996	348	326	418	483	552	612	671	726	-16.6	4.0	2.4	1.7
Residential	1271	1118	928	1001	1100	1172	1240	1296	1341	-3.1	1.7	1.2	0.8
Tertiary	1159	262	328	480	580	637	709	770	825	-11.8	5.9	2.0	1.5
Transport	839	490	577	703	788	911	1033	1133	1253	-3.7	3.2	2.7	1.9
by fuel [1]													
Solids	691	193	117	97	96	92	83	80	71	-16.3	-1.9	-1.5	-1.5
Oil	1803	855	748	920	1028	1149	1269	1368	1488	-8.4	3.2	2.1	1.6
Gas	439	189	134	268	311	375	442	494	529	-11.2	8.7	3.6	1.8
Electricity	585	386	427	558	677	791	909	1018	1105	-3.1	4.7	3.0	2.0
Heat (from CHP and District Heating)	2086	593	525	584	642	657	685	715	753	-12.9	2.0	0.7	0.9
Other	397	432	417	401	448	489	515	527	549	0.5	0.7	1.4	0.6
CO2 Emissions (Mt of CO2)	**37.1**	**15.9**	**13.9**	**16.0**	**14.5**	**15.5**	**15.4**	**16.0**	**15.7**	**-9.4**	**0.5**	**0.6**	**0.2**
Power generation/District heating	27.3	12.1	10.7	12.2	10.3	10.8	10.2	10.4	9.8	-8.9	-0.4	-0.1	-0.5
Energy Branch	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	-9.8	-14.6	1.3	-5.0
Industry	4.5	1.7	0.8	1.0	1.1	1.2	1.3	1.4	1.4	-16.1	3.5	1.7	0.6
Residential	1.2	0.5	0.3	0.2	0.3	0.3	0.3	0.3	0.3	-13.3	-0.2	1.4	0.8
Tertiary	1.2	0.3	0.3	0.5	0.6	0.7	0.7	0.8	0.9	-14.0	8.6	2.0	1.4
Transport	2.4	1.4	1.7	2.0	2.2	2.5	2.8	3.1	3.4	-3.6	2.7	2.4	1.9
CO2 Emissions Index (1990=100)	**100.0**	**42.9**	**37.5**	**43.0**	**39.2**	**41.8**	**41.6**	**43.2**	**42.5**				

Source: PRIMES

ESTONIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	1.571	1.448	1.372	1.345	1.314	1.279	1.248	1.224	1.202	-1.3	-0.4	-0.5	-0.4
GDP (in 000 MEUR'00)	6.6	4.5	5.9	8.0	10.3	12.8	15.4	18.3	20.9	-1.1	5.6	4.2	3.1
Gross Inl. Cons./GDP (toe/MEUR'00)	1492.8	1166.4	771.5	627.3	485.9	419.1	365.3	328.4	297.1	-6.4	-4.5	-2.8	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	6.29	3.65	3.33	3.73	3.79	4.19	4.52	4.90	5.16	-6.2	1.3	1.8	1.3
Electricity Generated/Capita (kWh/inhabitant)	10934	6002	6204	7542	8272	9338	10014	10953	11955	-5.5	2.9	1.9	1.8
Carbon intensity (t of CO_2/toe of GIC)	3.75	3.01	3.04	3.18	2.92	2.89	2.74	2.67	2.54	-2.1	-0.4	-0.6	-0.7
CO_2 Emissions/Capita (t of CO_2/inhabitant)	23.61	10.98	10.12	11.86	11.07	12.12	12.35	13.08	13.10	-8.1	0.9	1.1	0.6
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	5601.3	3513.2	2344.1	1995.3	1417.8	1211.3	999.1	876.9	754.5	-8.3	-4.9	-3.4	-2.8
Import Dependency %	44.4	36.0	31.9	37.8	47.5	47.8	53.3	54.8	54.5	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	56.6	28.0	20.5	17.5	15.6	14.2	13.0	12.1	-11.9	-4.6	-2.1	-1.6
Residential (Energy on Private Income)	100.0	125.3	76.7	60.2	51.2	43.5	38.0	33.4	30.2	-2.6	-4.0	-2.9	-2.3
Tertiary (Energy on Value added)	100.0	28.8	27.8	32.8	31.7	28.2	26.1	24.0	22.3	-12.0	1.3	-1.9	-1.6
Transport (Energy on GDP)	100.0	85.5	76.9	69.4	60.6	56.2	52.8	49.0	47.4	-2.6	-2.4	-1.4	-1.1
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.64	0.70	0.67	0.66	0.52	0.50	0.46	0.44	0.39	0.4	-2.6	-1.2	-1.7
Final energy demand (t of CO_2/toe)	1.56	1.44	1.28	1.33	1.31	1.32	1.32	1.33	1.33	-2.0	0.2	0.1	0.0
Industry	1.66	2.18	1.48	1.59	1.52	1.48	1.43	1.39	1.31	-1.2	0.3	-0.6	-0.9
Residential	0.92	0.41	0.30	0.25	0.25	0.26	0.26	0.25	0.26	-10.5	-1.9	0.2	0.0
Tertiary	1.04	0.96	0.81	0.99	1.05	1.06	1.04	1.03	1.03	-2.4	2.6	-0.1	-0.1
Transport	2.89	2.90	2.92	2.87	2.78	2.73	2.70	2.70	2.70	0.1	-0.5	-0.3	0.0
Electricity and steam generation													
Generation Capacity in MW_e			**2707**	**2597**	**3312**	**2724**	**2840**	**3152**	**3780**		**2.0**	**-1.5**	**2.9**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			1	2	3	5	7	10	11		10.1	9.5	4.4
Wind			0	7	159	187	269	285	704		95.0	5.4	10.1
Solar			0	0	2	5	8	11	13			18.2	5.2
Thermal			2706	2588	3148	2527	2555	2846	3052		1.5	-2.1	1.8
of which cogeneration units			358	758	882	1013	883	967	1128		9.4	0.0	2.5
Solids fired			2498	2380	2730	2090	1690	1690	1690		0.9	-4.7	0.0
Gas fired			190	190	400	423	430	519	519		7.7	0.7	1.9
Oil fired			10	10	10	5	5	7	9		0.0	-7.7	7.0
Biomass-waste fired			8	8	8	9	431	630	834		0.0	49.0	6.8
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			29.9	32.2	37.9	40.0	42.1	42.4	42.1	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			35.9	44.6	37.5	50.1	50.2	48.6	43.4	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			19.5	20.7	34.6	31.5	34.7	34.8	36.8	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			0.4	0.8	4.9	5.6	9.3	12.1	22.9	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			0.4	0.8	4.9	5.6	9.3	12.1	22.9	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**11.6**	**7.5**	**7.7**	**8.6**	**9.3**	**10.2**	**11.2**	**12.1**	**13.2**	**-3.9**	**1.9**	**1.8**	**1.7**
Public road transport	4.5	2.1	2.6	2.5	2.4	2.3	2.2	2.2	2.1	-5.1	-0.7	-0.9	-0.6
Private cars and motorcycles	5.1	4.7	4.3	5.1	5.9	6.8	7.7	8.6	9.6	-1.7	3.2	2.7	2.2
Rail	1.5	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	-16.0	-0.7	0.1	0.3
Aviation	0.2	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	2.8	5.3	4.1	3.3
Inland navigation	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.7	1.7	1.1	1.1
Travel per person (km per capita)	7353	5179	5648	6371	7105	7996	8941	9906	10983	-2.6	2.3	2.3	2.1
Freight transport activity (Gtkm)	**11.5**	**5.4**	**11.8**	**15.0**	**17.9**	**20.7**	**23.3**	**25.6**	**27.7**	**0.3**	**4.3**	**2.7**	**1.7**
Trucks	4.5	1.5	3.7	4.7	5.6	7.3	9.2	11.3	13.4	-2.0	4.3	5.1	3.8
Rail	7.0	3.8	8.1	10.3	12.3	13.5	14.1	14.3	14.3	1.5	4.3	1.4	0.2
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Freight activity per unit of GDP (tkm/000 Euro'00)	1735	1192	1990	1876	1745	1620	1511	1401	1327	1.4	-1.3	-1.4	-1.3
Energy demand in transport (ktoe)	**839**	**490**	**577**	**703**	**788**	**911**	**1033**	**1133**	**1253**	**-3.7**	**3.2**	**2.7**	**1.9**
Public road transport	82	41	42	40	39	36	34	31	28	-6.5	-0.7	-1.4	-1.8
Private cars and motorcycles	234	243	228	271	284	295	323	345	373	-0.3	2.2	1.3	1.5
Trucks	414	139	227	291	346	446	539	627	725	-5.8	4.3	4.5	3.0
Rail	65	44	51	65	76	83	84	78	76	-2.4	4.1	0.9	-0.9
Aviation	36	18	22	28	35	41	45	41	40	-5.0	4.9	2.7	-1.2
Inland navigation	7	4	7	8	8	9	9	10	10	0.0	1.7	1.1	0.9
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	35.4	41.9	39.0	41.0	39.5	37.5	37.0	35.4	34.3	1.0	0.1	-0.6	-0.8
Freight transport (toe/Mtkm)	37.4	32.6	23.3	23.5	23.4	25.4	26.6	27.5	28.9	-4.6	0.0	1.3	0.8

FINLAND: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**11970**	**13162**	**15016**	**16556**	**19409**	**19734**	**20457**	**22607**	**22896**	**2.3**	**2.6**	**0.5**	**1.1**
Solids	1459	2061	1207	1935	1560	1500	1073	1000	1000	-1.9	2.6	-3.7	-0.7
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	5006	4957	5799	5916	8873	8882	8927	10593	10649	1.5	4.3	0.1	1.8
Renewable energy sources	5505	6144	8010	8705	8976	9351	10458	11014	11248	3.8	1.1	1.5	0.7
Hydro	934	1110	1261	1169	1188	1194	1202	1220	1234	3.0	-0.6	0.1	0.3
Biomass & Waste	4571	5033	6743	7507	7700	8002	8999	9321	9287	4.0	1.3	1.6	0.3
Wind	0	1	7	24	75	129	203	401	637		27.4	10.4	12.1
Solar and others	0	0	0	5	13	27	54	72	90		50.3	15.6	5.3
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**18031**	**15418**	**18542**	**20788**	**20974**	**21283**	**20813**	**18637**	**17621**	**0.3**	**1.2**	**-0.1**	**-1.7**
Solids	4378	3773	3533	5112	4787	4181	3281	2155	1312	-2.1	3.1	-3.7	-8.8
Oil	10477	8205	10566	11104	11467	11493	11532	10883	10485	0.1	0.8	0.1	-0.9
- Crude oil and Feedstocks	8890	8548	12146	11735	12065	12079	12169	11519	11137	3.2	-0.1	0.1	-0.9
- Oil products	1587	-343	-1580	-630	-598	-586	-637	-636	-652				
Natural gas	2261	2839	3422	4042	4297	5086	5656	5317	5552	4.2	2.3	2.8	-0.2
Electricity	915	600	1021	530	422	523	343	283	272	1.1	-8.5	-2.0	-2.3
Gross Inland Consumption	**28699**	**28834**	**32508**	**36676**	**39699**	**40336**	**40596**	**40582**	**39862**	**1.3**	**2.0**	**0.2**	**-0.2**
Solids	5073	5949	5047	7047	6347	5681	4354	3155	2312	-0.1	2.3	-3.7	-6.1
Oil	9939	8344	9209	10436	10783	10812	10858	10221	9830	-0.8	1.6	0.1	-1.0
Natural gas	2261	2839	3422	4042	4297	5086	5656	5317	5552	4.2	2.3	2.8	-0.2
Nuclear	5006	4957	5799	5916	8873	8882	8927	10593	10649	1.5	4.3	0.1	1.8
Electricity	915	600	1021	530	422	523	343	283	272	1.1	-8.5	-2.0	-2.3
Renewable energy forms	5505	6144	8010	8705	8976	9351	10458	11014	11248	3.8	1.1	1.5	0.7
as % in Gross Inland Consumption													
Solids	17.7	20.6	15.5	19.2	16.0	14.1	10.7	7.8	5.8				
Oil	34.6	28.9	28.3	28.5	27.2	26.8	26.7	25.2	24.7				
Natural gas	7.9	9.8	10.5	11.0	10.8	12.6	13.9	13.1	13.9				
Nuclear	17.4	17.2	17.8	16.1	22.4	22.0	22.0	26.1	26.7				
Renewable energy forms	19.2	21.3	24.6	23.7	22.6	23.2	25.8	27.1	28.2				
Electricity Generation in GWh_e	**54367**	**63874**	**69976**	**85267**	**93913**	**98070**	**104318**	**108037**	**109530**	**2.6**	**3.0**	**1.1**	**0.5**
Nuclear	19213	19213	22475	22929	34393	34427	34599	41059	41274	1.6	4.3	0.1	1.8
Hydro & wind	10857	12923	14735	13878	14693	15386	16345	18852	21758	3.1	0.0	1.1	2.9
Thermal (incl. biomass)	24298	31738	32766	48460	44827	48256	53373	48126	46498	3.0	3.2	1.8	-1.4
Fuel Inputs for Thermal Power Generation [1]	**7734**	**9476**	**10914**	**13992**	**13376**	**13460**	**13603**	**12116**	**11527**	**3.5**	**2.1**	**0.2**	**-1.6**
Solids	3149	4003	3222	5489	4995	4471	3242	2159	1421	0.2	4.5	-4.2	-7.9
Oil (including refinery gas)	294	257	315	355	788	725	516	679	723	0.7	9.6	-4.1	3.4
Gas	1214	1697	2415	2775	2695	3563	4279	4152	4416	7.1	1.1	4.7	0.3
Biomass & Waste	3077	3519	4962	5373	4898	4700	5566	5125	4966	4.9	-0.1	1.3	-1.1
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**12061**	**14005**	**15350**	**15866**	**16363**	**16495**	**16553**	**15897**	**15385**	**2.4**	**0.6**	**0.1**	**-0.7**
Refineries	10689	12029	13231	13487	13928	13959	14007	13218	12734	2.2	0.5	0.1	-0.9
Biofuels and hydrogen production	0	0	0	15	69	149	200	229	245			11.2	2.0
District heating	573	548	792	1162	1277	1386	1391	1585	1626	3.3	4.9	0.9	1.6
Others	799	1428	1327	1203	1088	1001	956	865	781	5.2	-2.0	-1.3	-2.0
Energy Branch Consumption	**781**	**946**	**1119**	**1249**	**1324**	**1349**	**1348**	**1176**	**1101**	**3.7**	**1.7**	**0.2**	**-2.0**
Non-Energy Uses	**1408**	**831**	**843**	**989**	**1070**	**1076**	**1066**	**1049**	**1034**	**-5.0**	**2.4**	**0.0**	**-0.3**
Final Energy Demand	**21464**	**22068**	**24473**	**26235**	**27367**	**27964**	**28242**	**27953**	**27527**	**1.3**	**1.1**	**0.3**	**-0.3**
by sector													
Industry[1]	9401	10017	12073	12509	12625	12478	12265	12099	11879	2.5	0.4	-0.3	-0.3
- energy intensive industries	7726	8123	10380	10596	10575	10355	10086	9866	9622	3.0	0.2	-0.5	-0.5
- other industrial sectors	1675	1893	1694	1913	2050	2122	2179	2233	2257	0.1	1.9	0.6	0.4
Residential	5319	5460	4922	5260	5635	5901	6009	6054	6078	-0.8	1.4	0.6	0.1
Tertiary	2479	2486	3086	3846	4445	4966	5329	5483	5571	2.2	3.7	1.8	0.4
Transport	4265	4106	4391	4621	4662	4620	4639	4317	3999	0.3	0.6	0.0	-1.5
by fuel [1]													
Solids	1428	1178	1022	873	732	648	595	536	483	-3.3	-3.3	-2.1	-2.1
Oil	8056	7732	7834	8564	8927	9026	8973	8513	8098	-0.3	1.3	0.1	-1.0
Gas	1307	1393	1073	1079	1107	1164	1342	1380	1423	-2.0	0.3	1.9	0.6
Electricity	5068	5615	6487	7243	7847	8293	8654	8912	9042	2.5	1.9	1.0	0.4
Heat (from CHP and District Heating)	4236	4728	6494	7011	7059	6900	6610	5962	5736	4.4	0.8	-0.7	-1.4
Other	1369	1420	1563	1466	1695	1932	2068	2651	2745	1.3	0.8	2.0	2.9
CO2 Emissions (Mt of CO2)	**53.1**	**56.1**	**54.4**	**65.8**	**64.5**	**63.9**	**60.0**	**52.7**	**48.8**	**0.2**	**1.7**	**-0.7**	**-2.0**
Power generation/District heating	18.0	22.5	21.6	31.3	29.6	28.9	24.9	20.8	18.6	1.9	3.2	-1.7	-2.9
Energy Branch	1.4	1.7	1.8	2.0	1.9	1.8	1.9	0.3	0.0	2.8	0.6	0.1	-32.6
Industry	12.8	12.0	11.7	11.9	11.6	11.2	10.8	10.4	9.9	-0.9	-0.1	-0.7	-0.9
Residential	6.4	6.1	3.5	3.1	3.4	3.6	3.7	3.6	3.6	-5.8	-0.3	0.8	-0.4
Tertiary	2.1	1.8	2.9	3.9	4.5	5.1	5.4	5.4	5.5	3.3	4.5	1.8	0.1
Transport	12.5	12.0	12.9	13.5	13.5	13.2	13.1	12.1	11.1	0.3	0.5	-0.3	-1.6
CO2 Emissions Index (1990=100)	**100.0**	**105.6**	**102.4**	**123.8**	**121.5**	**120.2**	**112.9**	**99.1**	**91.8**				

Source: PRIMES

FINLAND: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	4.986	5.108	5.176	5.236	5.294	5.353	5.405	5.439	5.443	0.4	0.2	0.2	0.1
GDP (in 000 MEUR'00)	108.1	103.3	130.1	147.4	163.9	180.3	197.4	214.1	227.6	1.9	2.3	1.9	1.4
Gross Inl. Cons./GDP (toe/MEUR'00)	265.6	279.0	249.8	248.9	242.1	223.7	205.6	189.5	175.2	-0.6	-0.3	-1.6	-1.6
Gross Inl. Cons./Capita (toe/inhabitant)	5.76	5.64	6.28	7.00	7.50	7.53	7.51	7.46	7.32	0.9	1.8	0.0	-0.3
Electricity Generated/Capita (kWh/inhabitant)	10904	12505	13519	16285	17738	18319	19301	19864	20122	2.2	2.8	0.8	0.4
Carbon intensity (t of CO_2/toe of GIC)	1.85	1.95	1.67	1.79	1.63	1.58	1.48	1.30	1.22	-1.0	-0.3	-1.0	-1.9
CO_2 Emissions/Capita (t of CO_2/inhabitant)	10.65	10.98	10.51	12.56	12.19	11.93	11.10	9.68	8.96	-0.1	1.5	-0.9	-2.1
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	491.5	543.0	418.1	446.3	393.6	354.1	303.8	246.0	214.4	-1.6	-0.6	-2.6	-3.4
Import Dependency %	61.6	52.9	55.9	55.7	51.9	51.9	50.4	45.2	43.5	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	101.1	85.6	78.2	70.8	63.5	56.9	52.0	48.4	-1.5	-1.9	-2.2	-1.6
Residential (Energy on Private Income)	100.0	108.4	81.9	76.6	74.7	71.7	67.3	62.9	59.6	-2.0	-0.9	-1.0	-1.2
Tertiary (Energy on Value added)	100.0	105.4	107.0	116.9	120.4	121.2	117.9	110.9	105.1	0.7	1.2	-0.2	-1.1
Transport (Energy on GDP)	100.0	100.7	85.5	79.5	72.0	64.9	59.5	51.1	44.5	-1.6	-1.7	-1.9	-2.9
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.17	0.19	0.14	0.18	0.16	0.16	0.13	0.11	0.10	-1.6	1.3	-2.0	-2.9
Final energy demand (t of CO_2/toe)	1.57	1.45	1.27	1.24	1.21	1.18	1.17	1.13	1.09	-2.1	-0.5	-0.3	-0.7
Industry	1.36	1.20	0.97	0.95	0.92	0.90	0.88	0.86	0.84	-3.3	-0.5	-0.4	-0.6
Residential	1.20	1.11	0.72	0.59	0.61	0.62	0.62	0.60	0.59	-5.0	-1.6	0.2	-0.5
Tertiary	0.84	0.71	0.93	1.02	1.01	1.02	1.01	0.98	0.98	1.1	0.8	0.0	-0.3
Transport	2.94	2.93	2.94	2.93	2.90	2.86	2.83	2.81	2.79	0.0	-0.1	-0.2	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**15403**	**16950**	**19654**	**22229**	**24058**	**25679**	**27058**		**2.5**	**2.0**	**1.2**
Nuclear			2760	2760	4360	4360	4360	5116	4996		4.7	0.0	1.4
Hydro (pumping excluded)			3059	3068	3103	3120	3148	3176	3194		0.1	0.1	0.1
Wind			38	108	307	515	805	1786	3070		23.2	10.1	14.3
Solar			3	5	9	15	24	35	45		14.0	10.1	6.5
Thermal			9543	11009	11875	14219	15720	15566	15753		2.2	2.8	0.0
of which cogeneration units			5596	5810	6158	7093	7986	7391	7816		1.0	2.6	-0.2
Solids fired			5286	4965	4873	3924	3105	2375	1771		-0.8	-4.4	-5.5
Gas fired			1869	3177	3726	5561	6514	6293	6705		7.1	5.7	0.3
Oil fired			605	673	586	976	976	976	1211		-0.3	5.2	2.2
Biomass-waste fired			1783	2194	2690	3759	5125	5922	6067		4.2	6.7	1.7
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			25.8	29.8	28.8	30.8	33.7	34.2	34.7	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			51.9	57.4	54.5	50.4	49.5	48.0	46.2	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			38.5	32.1	32.3	32.2	31.3	29.0	28.6	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			66.8	55.2	64.1	62.6	65.0	70.7	71.8	0.0	0.0	0.0	0.0
- nuclear			32.1	26.9	36.6	35.1	33.2	38.0	37.7	0.0	0.0	0.0	0.0
- renewable energy forms			34.7	28.3	27.5	27.5	31.9	32.7	34.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**70.7**	**69.6**	**77.3**	**81.6**	**87.2**	**94.3**	**101.2**	**103.8**	**104.5**	**0.9**	**1.2**	**1.5**	**0.3**
Public road transport	8.5	8.0	7.7	7.6	7.5	7.3	7.2	7.2	7.1	-1.0	-0.3	-0.4	0.0
Private cars and motorcycles	52.0	50.9	56.6	59.4	63.2	68.6	73.9	75.8	76.3	0.9	1.1	1.6	0.3
Rail	3.7	3.6	3.9	4.1	4.3	4.5	4.6	4.7	4.7	0.6	1.0	0.6	0.2
Aviation	3.7	3.9	5.7	7.0	8.5	10.0	11.6	12.1	12.3	4.3	4.1	3.1	0.6
Inland navigation	2.8	3.3	3.4	3.5	3.7	3.9	4.0	4.1	4.1	1.9	1.0	0.8	0.3
Travel per person (km per capita)	14176	13626	14929	15581	16474	17622	18727	19081	19199	0.5	1.0	1.3	0.2
Freight transport activity (Gtkm)	**35.8**	**34.5**	**42.4**	**44.0**	**45.6**	**46.0**	**46.2**	**46.3**	**46.4**	**1.7**	**0.7**	**0.1**	**0.0**
Trucks	26.3	24.5	32.0	33.3	34.8	35.1	35.2	35.2	35.2	2.0	0.9	0.1	0.0
Rail	8.4	9.6	10.1	10.4	10.7	10.8	11.0	11.1	11.2	1.9	0.5	0.3	0.2
Inland navigation	1.1	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	-12.2	-8.2	-10.0	-3.8
Freight activity per unit of GDP (tkm/000 Euro'00)	331	334	326	298	278	255	234	216	204	-0.2	-1.6	-1.7	-1.4
Energy demand in transport (ktoe)	**4265**	**4106**	**4391**	**4621**	**4662**	**4620**	**4639**	**4317**	**3999**	**0.3**	**0.6**	**0.0**	**-1.5**
Public road transport	175	153	119	116	113	107	99	91	84	-3.8	-0.4	-1.3	-1.7
Private cars and motorcycles	2303	2204	2295	2403	2337	2262	2330	2224	2054	0.0	0.2	0.0	-1.3
Trucks	1153	1148	1257	1308	1365	1362	1321	1266	1195	0.9	0.8	-0.3	-1.0
Rail	99	105	94	91	86	77	52	47	44	-0.6	-0.8	-4.8	-1.7
Aviation	463	411	508	607	692	754	793	648	583	0.9	3.1	1.4	-3.0
Inland navigation	71	85	118	96	68	57	44	41	39	5.2	-5.5	-4.2	-1.1
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	42.7	40.9	38.8	39.3	36.9	33.9	32.5	29.1	26.6	-1.0	-0.5	-1.3	-2.0
Freight transport (toe/Mtkm)	34.8	36.5	32.9	32.3	31.7	31.0	29.3	27.9	26.3	-0.6	-0.4	-0.8	-1.1

FRANCE: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**108419**	**123325**	**131318**	**136453**	**137199**	**148050**	**150830**	**144615**	**138097**	**1.9**	**0.4**	**1.0**	**-0.9**
Solids	7625	5359	2704	500	400	200	0	0	0	-9.8	-17.4		
Oil	3491	3287	2472	1700	0	0	0	0	0	-3.4			
Natural gas	2516	2793	1505	1400	0	0	0	0	0	-5.0			
Nuclear	79131	93990	107093	113753	113764	122470	122593	111867	103709	3.1	0.6	0.8	-1.7
Renewable energy sources	15656	17896	17545	19101	23034	25380	28238	32748	34388	1.1	2.8	2.1	2.0
Hydro	4636	6315	5805	5935	6119	6604	6778	7201	7415	2.3	0.5	1.0	0.9
Biomass & Waste	10897	11434	11584	12886	15417	16235	18337	20874	21367	0.6	2.9	1.8	1.5
Wind	0	1	7	62	1232	2206	2684	4094	4874		68.6	8.1	6.1
Solar and others	12	15	25	84	127	194	299	442	598	7.7	17.5	8.9	7.2
Geothermal	110	132	124	133	139	140	138	137	134	1.2	1.1	0.0	-0.3
Net Imports	**120027**	**115917**	**133458**	**144766**	**148658**	**143522**	**143532**	**143155**	**148012**	**1.1**	**1.1**	**-0.4**	**0.3**
Solids	13004	9010	13201	16396	16633	10035	9454	9577	11506	0.2	2.3	-5.5	2.0
Oil	86558	85419	90452	97225	98076	97155	96022	93460	94225	0.4	0.8	-0.2	-0.2
- Crude oil and Feedstocks	76007	78819	84375	86990	88079	87524	86776	84540	85568	1.0	0.4	-0.1	-0.1
- Oil products	10551	6600	6077	10235	9997	9631	9246	8920	8657	-5.4	5.1	-0.8	-0.7
Natural gas	24371	27493	35778	36571	39206	41423	42308	42662	43541	3.9	0.9	0.8	0.3
Electricity	-3907	-6005	-5974	-5426	-5257	-5090	-4252	-2543	-1260				
Gross Inland Consumption	**224541**	**236245**	**258493**	**278126**	**282539**	**288090**	**290735**	**284034**	**282245**	**1.4**	**0.9**	**0.3**	**-0.3**
Solids	19955	15287	15677	16896	17033	10235	9454	9577	11506	-2.4	0.8	-5.7	2.0
Oil	87673	85500	88385	95832	94759	93673	92394	89724	90361	0.1	0.7	-0.3	-0.2
Natural gas	26032	29577	35766	37971	39206	41423	42308	42662	43541	3.2	0.9	0.8	0.3
Nuclear	79131	93990	107093	113753	113764	122470	122593	111867	103709	3.1	0.6	0.8	-1.7
Electricity	-3907	-6005	-5974	-5426	-5257	-5090	-4252	-2543	-1260				
Renewable energy forms	15656	17896	17545	19101	23034	25380	28238	32748	34388	1.1	2.8	2.1	2.0
as % in Gross Inland Consumption													
Solids	8.9	6.5	6.1	6.1	6.0	3.6	3.3	3.4	4.1				
Oil	39.0	36.2	34.2	34.5	33.5	32.5	31.8	31.6	32.0				
Natural gas	11.6	12.5	13.8	13.7	13.9	14.4	14.6	15.0	15.4				
Nuclear	35.2	39.8	41.4	40.9	40.3	42.5	42.2	39.4	36.7				
Renewable energy forms	7.0	7.6	6.8	6.9	8.2	8.8	9.7	11.5	12.2				
Electricity Generation in GWh_e	**416078**	**490051**	**535680**	**575120**	**604177**	**628459**	**643312**	**643232**	**641932**	**2.6**	**1.2**	**0.6**	**0.0**
Nuclear	314024	377163	415087	440902	440946	474691	475165	433593	401972	2.8	0.6	0.8	-1.7
Hydro & wind	53909	73439	67576	70193	85970	102962	110620	132011	143731	2.3	2.4	2.6	2.7
Thermal (incl. biomass)	48144	39449	53016	64025	77261	50806	57528	77627	96228	1.0	3.8	-2.9	5.3
Fuel Inputs for Thermal Power Generation [1]	**11444**	**9080**	**14981**	**17891**	**18938**	**11763**	**12385**	**15899**	**19371**	**2.7**	**2.4**	**-4.2**	**4.6**
Solids	7482	5577	6968	8981	9622	3231	3126	3378	5790	-0.7	3.3	-10.6	6.4
Oil (including refinery gas)	1845	605	2254	2235	2033	1256	749	600	536	2.0	-1.0	-9.5	-3.3
Gas	1592	1361	3893	3396	5768	5673	4165	5217	5649	9.4	4.0	-3.2	3.1
Biomass & Waste	525	1537	1866	3279	1515	1603	4345	6704	7395	13.5	-2.1	11.1	5.5
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**89596**	**91010**	**97423**	**100798**	**101355**	**101110**	**99800**	**98184**	**98799**	**0.8**	**0.4**	**-0.2**	**-0.1**
Refineries	79634	83171	90084	93765	92892	92021	90953	88460	89263	1.2	0.3	-0.2	-0.2
Biofuels and hydrogen production	0	155	328	855	2695	3670	4544	5205	5465		23.4	5.4	1.9
District heating	1066	605	342	0	0	0	0	0	0	-10.7	-55.5	-2.6	0.7
Others	8896	7079	6668	6178	5768	5418	4303	4520	4072	-2.8	-1.4	-2.9	-0.5
Energy Branch Consumption	**9227**	**10334**	**10360**	**10584**	**10717**	**10719**	**10642**	**10355**	**10148**	**1.2**	**0.3**	**-0.1**	**-0.5**
Non-Energy Uses	**13077**	**16593**	**15672**	**14441**	**14117**	**14028**	**13919**	**13800**	**13699**	**1.8**	**-1.0**	**-0.1**	**-0.2**
Final Energy Demand	**137033**	**142563**	**154320**	**164960**	**171619**	**175861**	**179349**	**181137**	**181979**	**1.2**	**1.1**	**0.4**	**0.1**
by sector													
Industry[1]	37914	38369	38763	40215	41453	42208	42691	42953	43155	0.2	0.7	0.3	0.1
- energy intensive industries	24208	21473	23158	25583	26802	27224	27223	26964	26693	-0.4	1.5	0.2	-0.2
- other industrial sectors	13706	16896	15605	14632	14651	14984	15468	15989	16462	1.3	-0.6	0.5	0.6
Residential	35753	36086	38425	41352	43461	44585	44927	45198	45231	0.7	1.2	0.3	0.1
Tertiary	21458	23983	25533	27783	28731	29661	30187	30756	31320	1.8	1.2	0.5	0.4
Transport	41908	44125	51599	55609	57973	59408	61544	62231	62273	2.1	1.2	0.6	0.1
by fuel [1]													
Solids	8935	6761	5476	5197	4955	4710	4673	4403	4132	-4.8	-1.0	-0.6	-1.2
Oil	67571	68032	71428	76257	76961	77059	77150	76539	75675	0.6	0.7	0.0	-0.2
Gas	23232	26953	31083	32422	31708	33625	34900	34468	34740	3.0	0.2	1.0	0.0
Electricity	25960	29457	33114	36623	39298	41553	43751	45823	47178	2.5	1.7	1.1	0.8
Heat (from CHP and District Heating)	1907	1920	3695	4880	5206	4805	5427	6158	6563	6.8	3.5	0.4	1.9
Other	9428	9439	9525	9581	13491	14110	13447	13747	13690	0.1	3.5	0.0	0.2
CO2 Emissions (Mt of CO2)	**352.1**	**343.1**	**371.6**	**392.7**	**399.9**	**375.7**	**370.9**	**370.2**	**376.9**	**0.5**	**0.7**	**-0.8**	**0.2**
Power generation/District heating	40.9	28.4	44.9	51.9	59.3	31.3	24.7	28.4	38.6	0.9	2.8	-8.4	4.6
Energy Branch	16.3	18.2	15.8	13.4	13.6	13.5	12.3	12.1	11.7	-0.3	-1.5	-0.9	-0.5
Industry	78.3	74.4	64.9	67.9	62.0	63.7	64.2	61.1	59.0	-1.9	-0.5	0.4	-0.9
Residential	55.2	52.2	54.0	55.0	57.6	57.5	56.0	54.6	53.6	-0.2	0.7	-0.3	-0.4
Tertiary	39.2	40.9	41.5	43.3	43.6	43.6	43.0	42.8	43.3	0.6	0.5	-0.2	0.1
Transport	122.1	129.0	150.6	161.1	163.8	166.1	170.6	171.2	170.7	2.1	0.8	0.4	0.0
CO2 Emissions Index (1990=100)	**100.0**	**97.5**	**105.6**	**111.5**	**113.6**	**106.7**	**105.4**	**105.2**	**107.1**				

Source: PRIMES

FRANCE: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	58.171	59.419	60.594	61.909	61.486	62.616	63.571	64.392	65.118	0.4	0.1	0.3	0.2
GDP (in 000 MEUR'00)	1180.3	1244.4	1420.1	1541.0	1723.1	1920.4	2113.3	2316.9	2505.3	1.9	2.0	2.1	1.7
Gross Inl. Cons./GDP (toe/MEUR'00)	190.2	189.9	182.0	180.5	164.0	150.0	137.6	122.6	112.7	-0.4	-1.0	-1.7	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	3.86	3.98	4.27	4.49	4.60	4.60	4.57	4.41	4.33	1.0	0.7	0.0	-0.5
Electricity Generated/Capita (kWh/inhabitant)	7153	8247	8840	9290	9826	10037	10120	9989	9858	2.1	1.1	0.3	-0.3
Carbon intensity (t of CO_2/toe of GIC)	1.57	1.45	1.44	1.41	1.42	1.30	1.28	1.30	1.34	-0.9	-0.2	-1.0	0.5
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.05	5.77	6.13	6.34	6.50	6.00	5.83	5.75	5.79	0.1	0.6	-1.1	-0.1
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	298.3	275.8	261.7	254.8	232.1	195.6	175.5	159.8	150.5	-1.3	-1.2	-2.8	-1.5
Import Dependency %	52.9	48.6	51.0	51.5	52.0	49.2	48.8	49.7	51.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	95.8	83.3	80.3	74.0	67.8	62.3	57.3	53.5	-1.8	-1.2	-1.7	-1.5
Residential (Energy on Private Income)	100.0	97.3	93.3	90.8	86.7	81.0	75.1	69.6	64.9	-0.7	-0.7	-1.4	-1.4
Tertiary (Energy on Value added)	100.0	106.5	99.6	99.7	92.4	85.9	79.6	74.1	69.7	0.0	-0.7	-1.5	-1.3
Transport (Energy on GDP)	100.0	99.9	102.3	101.6	94.8	87.1	82.0	75.6	70.0	0.2	-0.8	-1.4	-1.6
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.09	0.06	0.08	0.08	0.09	0.05	0.03	0.04	0.05	-2.0	1.4	-8.9	4.3
Final energy demand (t of CO_2/toe)	2.15	2.08	2.01	1.98	1.91	1.88	1.86	1.82	1.79	-0.7	-0.6	-0.2	-0.4
Industry	2.07	1.94	1.67	1.69	1.50	1.51	1.50	1.42	1.37	-2.1	-1.1	0.1	-1.0
Residential	1.55	1.45	1.40	1.33	1.33	1.29	1.25	1.21	1.19	-0.9	-0.6	-0.6	-0.5
Tertiary	1.83	1.70	1.62	1.56	1.52	1.47	1.42	1.39	1.38	-1.2	-0.7	-0.6	-0.3
Transport	2.91	2.92	2.92	2.90	2.82	2.80	2.77	2.75	2.74	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**114308**	**117545**	**122962**	**123359**	**129617**	**137956**	**143628**		**0.7**	**0.5**	**1.0**
Nuclear			66919	65677	65677	67277	63563	51362	49126		-0.2	-0.3	-2.5
Hydro (pumping excluded)			21273	21846	22253	22798	23026	23984	24421		0.5	0.3	0.6
Wind			66	615	5606	9846	11713	17205	20465		55.9	7.6	5.7
Solar			11	22	57	106	196	318	531		18.3	13.2	10.5
Thermal			26039	29384	29369	23333	31120	45087	49084		1.2	0.6	4.7
of which cogeneration units			3379	7190	10232	9932	13610	17498	19920		11.7	2.9	3.9
Solids fired			11399	13769	11055	7918	6133	6133	7290		-0.3	-5.7	1.7
Gas fired			4510	5593	9094	9067	18745	30251	32028		7.3	7.5	5.5
Oil fired			8570	8522	7811	4850	1165	1075	1079		-0.9	-17.3	-0.8
Biomass-waste fired			1561	1500	1409	1498	5077	7627	8688		-1.0	13.7	5.5
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			30.4	30.8	35.1	37.1	39.9	42.0	42.7	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			53.5	55.9	56.1	58.2	56.7	53.2	51.0	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			4.7	6.1	8.0	7.5	8.7	9.4	10.5	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			91.4	90.8	88.2	92.9	93.9	92.5	90.1	0.0	0.0	0.0	0.0
- nuclear			77.5	76.7	73.0	75.5	73.9	67.4	62.6	0.0	0.0	0.0	0.0
- renewable energy forms			13.9	14.2	15.2	17.4	20.0	25.0	27.5	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**735.1**	**781.9**	**864.9**	**935.5**	**1004.8**	**1067.1**	**1125.8**	**1181.6**	**1240.7**	**1.6**	**1.5**	**1.1**	**1.0**
Public road transport	41.3	41.6	43.0	43.5	43.7	42.1	40.3	38.7	37.1	0.4	0.2	-0.8	-0.8
Private cars and motorcycles	599.8	652.5	711.9	766.1	820.6	871.9	919.7	964.2	1011.3	1.7	1.4	1.1	1.0
Rail	73.5	63.6	80.0	89.6	97.7	102.3	107.1	111.8	115.8	0.9	2.0	0.9	0.8
Aviation	18.0	21.2	27.2	33.5	39.9	47.6	55.1	63.1	72.3	4.2	3.9	3.3	2.7
Inland navigation	2.5	3.0	2.8	2.9	2.9	3.2	3.5	3.8	4.2	1.0	0.5	1.8	1.6
Travel per person (km per capita)	12637	13159	14273	15111	16341	17042	17709	18351	19053	1.2	1.4	0.8	0.7
Freight transport activity (Gtkm)	**211.8**	**233.0**	**268.5**	**284.2**	**311.3**	**338.5**	**366.4**	**394.6**	**421.6**	**2.4**	**1.5**	**1.6**	**1.4**
Trucks	153.5	178.2	204.0	222.7	252.6	280.5	310.1	339.4	367.7	2.9	2.2	2.1	1.7
Rail	50.7	48.1	55.4	52.6	49.9	48.9	47.1	45.9	44.6	0.9	-1.0	-0.6	-0.5
Inland navigation	7.6	6.6	9.1	8.9	8.9	9.1	9.2	9.3	9.3	1.8	-0.2	0.3	0.2
Freight activity per unit of GDP (tkm/000 Euro'00)	179	187	189	184	181	176	173	170	168	0.5	-0.5	-0.4	-0.3
Energy demand in transport (ktoe)	**41908**	**44125**	**51599**	**55609**	**57973**	**59408**	**61544**	**62231**	**62273**	**2.1**	**1.2**	**0.6**	**0.1**
Public road transport	780	776	803	809	803	748	679	603	530	0.3	0.0	-1.7	-2.4
Private cars and motorcycles	19969	20358	22699	24124	23637	22531	22848	22102	21100	1.3	0.4	-0.3	-0.8
Trucks	15422	16322	19236	20977	23742	26029	27633	28962	29386	2.2	2.1	1.5	0.6
Rail	1150	1220	1373	1420	1319	1232	1081	1009	979	1.8	-0.4	-2.0	-1.0
Aviation	3870	4716	6712	7519	7717	8098	8532	8787	9509	5.7	1.4	1.0	1.1
Inland navigation	718	733	775	759	756	769	769	769	768	0.8	-0.2	0.2	0.0
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	34.7	34.3	36.2	35.9	33.1	30.4	29.3	27.4	25.8	0.4	-0.9	-1.2	-1.3
Freight transport (toe/Mtkm)	77.3	74.1	75.6	77.4	79.4	79.8	77.9	75.6	71.7	-0.2	0.5	-0.2	-0.8

GERMANY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**186405**	**141392**	**133298**	**129838**	**115127**	**100209**	**91564**	**87495**	**85061**	**-3.3**	**-1.5**	**-2.3**	**-0.7**
Solids	125040	78800	59535	54477	38633	30110	38616	41297	39907	-7.2	-4.2	0.0	0.3
Oil	3754	3214	3449	2913	2943	2500	2000	1500	1000	-0.8	-1.6	-3.8	-6.7
Natural gas	13731	14813	15800	15500	13500	12000	11000	10000	8500	1.4	-1.6	-2.0	-2.5
Nuclear	37674	37322	43750	42664	37570	27869	8098	0	0	1.5	-1.5	-14.2	
Renewable energy sources	6206	7243	10763	14283	22481	27730	31851	34698	35654	5.7	7.6	3.5	1.1
Hydro	1385	1698	1995	2007	2242	2323	2372	2410	2442	3.7	1.2	0.6	0.3
Biomass & Waste	4797	5348	7858	9166	14940	18375	21728	23524	24063	5.1	6.6	3.8	1.0
Wind	6	147	804	2768	4869	6486	7082	7948	8218	62.9	19.7	3.8	1.5
Solar and others	11	41	96	332	409	515	621	751	859	24.3	15.6	4.3	3.3
Geothermal	7	9	10	10	20	31	47	66	73	3.4	7.6	8.8	4.6
Net Imports	**166637**	**195152**	**204703**	**214828**	**230358**	**237421**	**239251**	**241619**	**239062**	**2.1**	**1.2**	**0.4**	**0.0**
Solids	4626	10995	21600	24096	29362	29135	28992	41931	43609	16.7	3.1	-0.1	4.2
Oil	120126	130810	125975	124278	125731	124544	123336	118501	112104	0.5	0.0	-0.2	-1.0
- Crude oil and Feedstocks	88505	101168	101801	96666	98397	98124	97746	94280	89128	1.4	-0.3	-0.1	-0.9
- Oil products	31621	29643	24174	27612	27335	26420	25590	24221	22976	-2.6	1.2	-0.7	-1.1
Natural gas	41817	52932	56865	65979	74721	82922	85987	80303	82462	3.1	2.8	1.4	-0.4
Electricity	68	415	263	476	544	820	936	884	887	14.5	7.5	5.6	-0.5
Gross Inland Consumption	**356072**	**337142**	**340160**	**342426**	**343117**	**335175**	**328287**	**326547**	**321531**	**-0.5**	**0.1**	**-0.4**	**-0.2**
Solids	133085	92173	83658	78574	67994	59245	67607	83228	83515	-4.5	-2.1	-0.1	2.1
Oil	124040	133569	129873	124950	126306	124589	122809	117433	110511	0.5	-0.3	-0.3	-1.0
Natural gas	55000	66421	71853	81479	88221	94922	96987	90303	90962	2.7	2.1	1.0	-0.6
Nuclear	37674	37322	43750	42664	37570	27869	8098	0	0	1.5	-1.5	-14.2	
Electricity	68	415	263	476	544	820	936	884	887	14.5	7.5	5.6	-0.5
Renewable energy forms	6206	7243	10763	14283	22481	27730	31851	34698	35654	5.7	7.6	3.5	1.1
as % in Gross Inland Consumption													
Solids	37.4	27.3	24.6	22.9	19.8	17.7	20.6	25.5	26.0				
Oil	34.8	39.6	38.2	36.5	36.8	37.2	37.4	36.0	34.4				
Natural gas	15.4	19.7	21.1	23.8	25.7	28.3	29.5	27.7	28.3				
Nuclear	10.6	11.1	12.9	12.5	10.9	8.3	2.5	0.0	0.0				
Renewable energy forms	1.7	2.1	3.2	4.2	6.6	8.3	9.7	10.6	11.1				
Electricity Generation in GWh_e	**546226**	**531678**	**568688**	**589976**	**619058**	**642161**	**669426**	**698810**	**711482**	**0.4**	**0.9**	**0.8**	**0.6**
Nuclear	152441	154063	169575	165366	145620	108020	31387	0	0	1.1	-1.5	-14.2	
Hydro & wind	16170	21455	32547	55928	83393	103377	111183	122009	125880	7.2	9.9	2.9	1.2
Thermal (incl. biomass)	377615	356160	366565	368682	390045	430764	526857	576801	585602	-0.3	0.6	3.1	1.1
Fuel Inputs for Thermal Power Generation [1]	**96952**	**91092**	**88864**	**86445**	**85556**	**84420**	**95498**	**105132**	**106155**	**-0.9**	**-0.4**	**1.1**	**1.1**
Solids	77508	70546	69039	65257	56319	48313	57176	73581	74842	-1.2	-2.0	0.2	2.7
Oil (including refinery gas)	4400	3005	2132	973	333	244	179	171	170	-7.0	-16.9	-6.0	-0.5
Gas	12427	14410	14066	18049	24676	30057	30331	22146	21352	1.2	5.8	2.1	-3.4
Biomass & Waste	2617	3131	3628	2166	4219	5785	7775	9179	9727	3.3	1.5	6.3	2.3
Geothermal heat	0	0	0	0	10	21	36	56	63			14.0	5.6
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**167166**	**143096**	**136867**	**122462**	**124979**	**124297**	**123814**	**118860**	**112154**	**-2.0**	**-0.9**	**-0.1**	**-1.0**
Refineries	106658	116715	119856	108848	110122	108729	107271	102708	96540	1.2	-0.8	-0.3	-1.0
Biofuels and hydrogen production	0	28	203	1782	4562	6040	7513	8023	8186		36.5	5.1	0.9
District heating	8969	6368	1435	0	0	28	0	0	206	-16.7	-64.2	-1.6	133.6
Others	51539	19985	15373	11832	10295	9499	9030	8129	7222	-11.4	-3.9	-1.3	-2.2
Energy Branch Consumption	**15145**	**15191**	**13961**	**13259**	**12928**	**12551**	**12729**	**12781**	**12511**	**-0.8**	**-0.8**	**-0.2**	**-0.2**
Non-Energy Uses	**23116**	**22821**	**25188**	**23340**	**22053**	**21302**	**20741**	**20147**	**19608**	**0.9**	**-1.3**	**-0.6**	**-0.6**
Final Energy Demand	**226641**	**220982**	**220044**	**229749**	**238989**	**243083**	**246820**	**246082**	**242812**	**-0.3**	**0.8**	**0.3**	**-0.2**
by sector													
Industry[1]	70063	60591	58901	58885	60005	60850	60893	60217	59159	-1.7	0.2	0.1	-0.3
- energy intensive industries	49105	42130	40089	39279	39091	39038	38632	37641	36531	-2.0	-0.3	-0.1	-0.6
- other industrial sectors	20959	18461	18812	19606	20915	21812	22261	22576	22628	-1.1	1.1	0.6	0.2
Residential	58223	62995	63063	67715	70501	72081	72615	73305	73831	0.8	1.1	0.3	0.2
Tertiary	39538	34488	32102	34442	36280	37585	38634	38731	38791	-2.1	1.2	0.6	0.0
Transport	58817	62907	65978	68708	72202	72567	74679	73830	71031	1.2	0.9	0.3	-0.5
by fuel [1]													
Solids	37024	13565	9893	8442	7321	6857	6481	6061	5451	-12.4	-3.0	-1.2	-1.7
Oil	95216	103552	97540	99777	102502	101433	100703	96888	92720	0.2	0.5	-0.2	-0.8
Gas	40387	50378	56846	60173	61204	62911	64632	65489	66313	3.5	0.7	0.5	0.3
Electricity	38391	38912	41496	43711	46605	48996	51000	53018	54067	0.8	1.2	0.9	0.6
Heat (from CHP and District Heating)	13426	12310	9938	10770	11352	11199	11017	11128	10645	-3.0	1.3	-0.3	-0.3
Other	2198	2266	4331	6876	10004	11687	12987	13498	13617	7.0	8.7	2.6	0.5
CO2 Emissions (Mt of CO2)	**949.8**	**865.3**	**820.6**	**810.2**	**790.2**	**767.3**	**803.4**	**836.7**	**826.3**	**-1.5**	**-0.4**	**0.2**	**0.3**
Power generation/District heating	391.3	349.0	325.6	312.8	288.7	267.9	305.4	351.6	354.9	-1.8	-1.2	0.6	1.5
Energy Branch	25.1	28.2	24.7	19.4	17.8	16.8	15.5	13.8	13.3	-0.1	-3.2	-1.4	-1.5
Industry	151.3	116.2	109.0	105.8	104.1	104.1	102.2	97.8	94.8	-3.2	-0.5	-0.2	-0.8
Residential	129.8	126.4	117.3	121.6	123.7	124.2	123.0	121.7	121.7	-1.0	0.5	-0.1	-0.1
Tertiary	82.4	63.6	53.0	55.2	56.8	57.4	57.4	55.6	54.2	-4.3	0.7	0.1	-0.6
Transport	169.9	181.9	190.9	195.4	199.1	197.0	200.0	196.1	187.4	1.2	0.4	0.0	-0.6
CO2 Emissions Index (1990=100)	**100.0**	**91.1**	**86.4**	**85.3**	**83.2**	**80.8**	**84.6**	**88.1**	**87.0**				

Source: PRIMES

GERMANY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	79.433	81.661	82.188	82.541	82.824	82.864	82.676	82.108	81.146	0.3	0.1	0.0	-0.2
GDP (in 000 MEUR'00)	1736.6	1856.6	2030.0	2094.4	2295.8	2511.7	2714.9	2893.3	3007.3	1.6	1.2	1.7	1.0
Gross Inl. Cons./GDP (toe/MEUR'00)	205.0	181.6	167.6	163.5	149.5	133.4	120.9	112.9	106.9	-2.0	-1.1	-2.1	-1.2
Gross Inl. Cons./Capita (toe/inhabitant)	4.48	4.13	4.14	4.15	4.14	4.04	3.97	3.98	3.96	-0.8	0.0	-0.4	0.0
Electricity Generated/Capita (kWh/inhabitant)	6877	6511	6919	7148	7474	7750	8097	8511	8768	0.1	0.8	0.8	0.8
Carbon intensity (t of CO_2/toe of GIC)	2.67	2.57	2.41	2.37	2.30	2.29	2.45	2.56	2.57	-1.0	-0.5	0.6	0.5
CO_2 Emissions/Capita (t of CO_2/inhabitant)	11.96	10.60	9.98	9.82	9.54	9.26	9.72	10.19	10.18	-1.8	-0.5	0.2	0.5
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	546.9	466.0	404.2	386.8	344.2	305.5	295.9	289.2	274.8	-3.0	-1.6	-1.5	-0.7
Import Dependency %	46.5	57.5	59.8	62.3	66.7	70.3	72.3	73.4	73.8	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	90.5	83.9	81.3	74.7	69.3	64.0	59.3	55.9	-1.7	-1.1	-1.5	-1.4
Residential (Energy on Private Income)	100.0	100.5	91.9	97.4	93.5	88.3	82.9	78.8	76.1	-0.8	0.2	-1.2	-0.8
Tertiary (Energy on Value added)	100.0	77.4	62.0	62.6	58.5	54.1	51.4	48.3	46.5	-4.7	-0.6	-1.3	-1.0
Transport (Energy on GDP)	100.0	100.0	96.0	96.9	92.9	85.3	81.2	75.3	69.7	-0.4	-0.3	-1.3	-1.5
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.54	0.51	0.47	0.43	0.38	0.34	0.37	0.41	0.41	-1.5	-2.2	-0.1	1.0
Final energy demand (t of CO_2/toe)	2.35	2.21	2.14	2.08	2.02	1.99	1.96	1.92	1.89	-1.0	-0.5	-0.3	-0.4
Industry	2.16	1.92	1.85	1.80	1.74	1.71	1.68	1.62	1.60	-1.5	-0.6	-0.3	-0.5
Residential	2.23	2.01	1.86	1.80	1.75	1.72	1.69	1.66	1.65	-1.8	-0.6	-0.4	-0.3
Tertiary	2.08	1.84	1.65	1.60	1.57	1.53	1.49	1.44	1.40	-2.3	-0.5	-0.5	-0.6
Transport	2.89	2.89	2.89	2.84	2.76	2.71	2.68	2.66	2.64	0.0	-0.5	-0.3	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**122463**	**126647**	**133891**	**149166**	**160881**	**170372**	**175132**		**0.9**	**1.9**	**0.9**
Nuclear			23667	20959	19733	13668	5523	0	0		-1.8	-12.0	
Hydro (pumping excluded)			3455	3647	3885	4023	4107	4172	4226		1.2	0.6	0.3
Wind			6113	17047	24604	32933	35666	39643	40988		14.9	3.8	1.4
Solar			90	606	1052	1422	1875	2353	2899		27.9	6.0	4.5
Thermal			89137	84388	84617	97120	113709	124203	127019		-0.5	3.0	1.1
of which cogeneration units			25905	28727	27954	33766	42781	41610	38702		0.8	4.3	-1.0
Solids fired			52348	47507	34590	32732	47333	58513	58557		-4.1	3.2	2.2
Gas fired			25363	27749	44041	55173	55343	53737	55980		5.7	2.3	0.1
Oil fired			8921	6575	2708	2509	1986	1986	1871		-11.2	-3.1	-0.6
Biomass-waste fired			2506	2557	3276	6702	9040	9956	10598		2.7	10.7	1.6
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	2	5	8	12	14			14.0	5.6
Indicators													
Efficiency for thermal electricity production (%)			35.5	36.7	39.2	43.9	47.4	47.2	47.4	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			53.0	53.2	52.8	49.1	47.5	46.8	46.4	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			8.3	11.7	13.7	16.3	21.5	23.0	22.3	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			37.4	38.6	39.2	37.3	27.7	24.7	25.4	0.0	0.0	0.0	0.0
- nuclear			29.8	28.0	23.5	16.8	4.7	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			7.6	10.5	15.7	20.4	23.0	24.7	25.4	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**863.9**	**925.4**	**922.6**	**954.8**	**1072.1**	**1158.7**	**1239.2**	**1305.6**	**1347.4**	**0.7**	**1.5**	**1.5**	**0.8**
Public road transport	73.1	68.5	69.0	72.3	81.8	83.9	85.8	87.3	87.7	-0.6	1.7	0.5	0.2
Private cars and motorcycles	698.4	742.8	731.2	755.7	848.1	917.7	982.4	1034.7	1067.4	0.5	1.5	1.5	0.8
Rail	69.6	83.5	82.3	80.7	86.0	91.0	95.6	99.8	102.1	1.7	0.4	1.1	0.7
Aviation	20.9	28.7	38.3	44.3	54.2	63.7	72.8	81.1	87.2	6.2	3.5	3.0	1.8
Inland navigation	2.0	2.0	1.8	1.9	2.1	2.3	2.6	2.8	3.0	-0.9	1.4	2.2	1.4
Travel per person (km per capita)	10876	11333	11226	11568	12945	13983	14989	15902	16604	0.3	1.4	1.5	1.0
Freight transport activity (Gtkm)	**333.4**	**371.3**	**424.0**	**452.6**	**496.4**	**539.1**	**580.7**	**616.1**	**638.9**	**2.4**	**1.6**	**1.6**	**1.0**
Trucks	176.9	237.8	280.7	301.7	333.7	366.4	398.7	426.6	444.3	4.7	1.7	1.8	1.1
Rail	101.7	69.5	76.8	82.6	90.9	95.2	98.8	101.2	103.1	-2.8	1.7	0.8	0.4
Inland navigation	54.8	64.0	66.5	68.4	71.7	77.5	83.3	88.3	91.5	1.9	0.8	1.5	0.9
Freight activity per unit of GDP (tkm/000 Euro'00)	192	200	209	216	216	215	214	213	212	0.8	0.3	-0.1	-0.1
Energy demand in transport (ktoe)	**58817**	**62907**	**65978**	**68708**	**72202**	**72567**	**74679**	**73830**	**71031**	**1.2**	**0.9**	**0.3**	**-0.5**
Public road transport	798	875	802	828	924	917	881	817	742	0.1	1.4	-0.5	-1.7
Private cars and motorcycles	36324	36324	37601	38599	39768	38430	39380	38175	35763	0.3	0.6	-0.1	-1.0
Trucks	13296	17041	17987	19313	21309	23017	24033	24645	24171	3.1	1.7	1.2	0.1
Rail	2116	2126	1946	1866	1743	1550	1444	1377	1342	-0.8	-1.1	-1.9	-0.7
Aviation	5627	5988	7362	7814	8158	8331	8599	8455	8643	2.7	1.0	0.5	0.1
Inland navigation	656	554	279	287	301	322	343	361	372	-8.2	0.8	1.3	0.8
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	51.6	48.6	51.3	51.1	46.8	42.2	40.4	37.2	34.3	0.0	-0.9	-1.5	-1.6
Freight transport (toe/Mtkm)	42.8	48.3	43.9	44.1	44.3	43.9	42.5	41.0	38.8	0.3	0.1	-0.4	-0.9

GREECE: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**9152**	**9702**	**9946**	**10677**	**10660**	**11162**	**10784**	**10162**	**11121**	**0.8**	**0.7**	**0.1**	**0.3**
Solids	7077	7911	8222	9023	8679	8971	8010	7237	8101	1.5	0.5	-0.8	0.1
Oil	832	459	280	200	150	100	100	0	0	-10.3	-6.0	-4.0	
Natural gas	138	44	42	50	40	0	0	0	0	-11.1	-0.6		
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	1105	1289	1403	1404	1791	2091	2673	2925	3020	2.4	2.5	4.1	1.2
Hydro	152	303	318	336	363	384	390	394	397	7.6	1.3	0.7	0.2
Biomass & Waste	893	898	946	817	783	893	1094	1251	1287	0.6	-1.9	3.4	1.6
Wind	0	3	39	121	478	631	938	994	1004	74.7	28.6	7.0	0.7
Solar and others	56	82	99	128	148	164	188	223	271	5.8	4.1	2.5	3.7
Geothermal	3	3	2	2	19	19	62	62	62	-4.7	28.4	12.4	0.0
Net Imports	**15374**	**18207**	**21982**	**26106**	**29019**	**31252**	**32874**	**32915**	**32216**	**3.6**	**2.8**	**1.3**	**-0.2**
Solids	988	925	768	634	452	375	792	1158	1257	-2.5	-5.2	5.8	4.7
Oil	14325	17214	19527	22832	24242	25249	25896	25212	24548	3.1	2.2	0.7	-0.5
- Crude oil and Feedstocks	14711	16955	20439	21276	22506	23524	24269	23759	23267	3.3	1.0	0.8	-0.4
- Oil products	-387	259	-912	1556	1735	1725	1628	1453	1281			-0.6	-2.4
Natural gas	0	0	1689	2336	4051	5379	5961	6342	6228		9.1	3.9	0.4
Electricity	61	69	-1	304	274	249	225	203	183			-2.0	-2.0
Gross Inland Consumption	**22245**	**24137**	**28076**	**32893**	**35434**	**37866**	**38870**	**38122**	**38232**	**2.4**	**2.4**	**0.9**	**-0.2**
Solids	8091	8783	9040	9657	9131	9345	8802	8395	9358	1.1	0.1	-0.4	0.6
Oil	12851	13952	15929	19142	20147	20802	21208	20257	19443	2.2	2.4	0.5	-0.9
Natural gas	138	44	1705	2386	4091	5379	5961	6342	6228	28.6	9.1	3.8	0.4
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	61	69	-1	304	274	249	225	203	183			-2.0	-2.0
Renewable energy forms	1105	1289	1403	1404	1791	2091	2673	2925	3020	2.4	2.5	4.1	1.2
as % in Gross Inland Consumption													
Solids	36.4	36.4	32.2	29.4	25.8	24.7	22.6	22.0	24.5				
Oil	57.8	57.8	56.7	58.2	56.9	54.9	54.6	53.1	50.9				
Natural gas	0.6	0.2	6.1	7.3	11.5	14.2	15.3	16.6	16.3				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	5.0	5.3	5.0	4.3	5.1	5.5	6.9	7.7	7.9				
Electricity Generation in GWh_e	**34767**	**41291**	**53415**	**61503**	**70442**	**78579**	**83671**	**87050**	**90867**	**4.4**	**2.8**	**1.7**	**0.8**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	1769	3562	4143	5314	9788	11820	15502	16232	16435	8.9	9.0	4.7	0.6
Thermal (incl. biomass)	32998	37728	49272	56189	60654	66758	68169	70817	74433	4.1	2.1	1.2	0.9
Fuel Inputs for Thermal Power Generation [1]	**8822**	**9985**	**11726**	**13087**	**13264**	**14258**	**14134**	**13777**	**14167**	**2.9**	**1.2**	**0.6**	**0.0**
Solids	6889	7790	8226	8958	8629	8934	8493	8142	9169	1.8	0.5	-0.2	0.8
Oil (including refinery gas)	1798	2075	2036	2375	2190	1638	1587	1507	1379	1.2	0.7	-3.2	-1.4
Gas	31	14	1334	1540	2369	3470	3753	3606	3037	45.6	5.9	4.7	-2.1
Biomass & Waste	103	106	130	213	59	199	240	462	522	2.3	-7.6	15.1	8.1
Geothermal heat	0	0	0	0	17	17	60	60	60			13.3	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**16694**	**17913**	**22435**	**23566**	**25143**	**26246**	**27026**	**26302**	**25665**	**3.0**	**1.1**	**0.7**	**-0.5**
Refineries	16617	17860	22404	23492	24879	25856	26517	25718	25041	3.0	1.1	0.6	-0.6
Biofuels and hydrogen production	0	0	0	51	248	378	501	579	622			7.3	2.2
District heating	0	0	0	0	0	0	0	0	0			0.7	-1.5
Others	77	52	30	23	16	12	8	5	2	-8.8	-6.3	-7.1	-14.7
Energy Branch Consumption	**1042**	**1174**	**1637**	**1785**	**1923**	**2026**	**2048**	**1946**	**1891**	**4.6**	**1.6**	**0.6**	**-0.8**
Non-Energy Uses	**636**	**441**	**652**	**922**	**1127**	**1259**	**1355**	**1397**	**1415**	**0.2**	**5.6**	**1.9**	**0.4**
Final Energy Demand	**14563**	**15846**	**18626**	**21899**	**24406**	**26153**	**27350**	**27315**	**27409**	**2.5**	**2.7**	**1.1**	**0.0**
by sector													
Industry[1]	3982	4148	4550	4926	5282	5572	5781	5844	5897	1.3	1.5	0.9	0.2
- energy intensive industries	2585	2538	2835	2838	2839	2852	2851	2811	2767	0.9	0.0	0.0	-0.3
- other industrial sectors	1397	1610	1715	2088	2443	2721	2931	3033	3130	2.1	3.6	1.8	0.7
Residential	3054	3327	4470	5647	6509	7010	7281	7340	7447	3.9	3.8	1.1	0.2
Tertiary	1711	1940	2410	3119	3750	4112	4306	4448	4600	3.5	4.5	1.4	0.7
Transport	5816	6431	7196	8206	8865	9459	9982	9683	9466	2.2	2.1	1.2	-0.5
by fuel [1]													
Solids	1070	1085	888	698	502	411	309	253	189	-1.8	-5.6	-4.7	-4.8
Oil	10049	10799	12584	14924	16338	17340	17810	17237	16799	2.3	2.6	0.9	-0.6
Gas	15	14	252	513	868	1076	1239	1501	1746	32.7	13.2	3.6	3.5
Electricity	2448	2931	3710	4601	5356	5895	6331	6654	6962	4.2	3.7	1.7	1.0
Heat (from CHP and District Heating)	132	140	276	440	528	655	720	771	798	7.6	6.7	3.2	1.0
Other	849	877	916	722	815	776	941	900	915	0.8	-1.2	1.5	-0.3
CO2 Emissions (Mt of CO2)	**70.9**	**77.9**	**88.9**	**100.4**	**104.8**	**110.2**	**110.1**	**106.3**	**107.5**	**2.3**	**1.7**	**0.5**	**-0.2**
Power generation/District heating	34.3	38.9	43.8	48.3	48.4	50.4	49.0	46.8	49.3	2.5	1.0	0.1	0.1
Energy Branch	2.0	2.2	3.3	3.5	3.4	3.6	3.6	3.2	3.0	5.0	0.3	0.6	-1.8
Industry	9.4	9.8	9.8	10.2	10.2	10.4	10.1	10.1	10.0	0.5	0.3	-0.1	-0.1
Residential	4.6	4.8	7.4	10.3	12.4	13.4	13.7	13.4	13.2	4.8	5.3	1.0	-0.4
Tertiary	3.3	3.2	3.4	4.2	4.9	5.3	5.5	5.5	5.6	0.1	3.8	1.1	0.2
Transport	17.2	19.0	21.2	24.1	25.6	27.1	28.3	27.2	26.5	2.1	1.9	1.0	-0.7
CO2 Emissions Index (1990=100)	**100.0**	**109.8**	**125.4**	**141.7**	**147.8**	**155.4**	**155.3**	**149.9**	**151.7**				

Source: PRIMES

GREECE: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	10.161	10.634	10.917	11.063	11.269	11.390	11.427	11.394	11.316	0.7	0.3	0.1	-0.1
GDP (in 000 MEUR'00)	97.7	104.0	123.2	149.5	178.7	210.8	241.4	269.5	291.8	2.3	3.8	3.0	1.9
Gross Inl. Cons./GDP (toe/MEUR'00)	227.6	232.2	227.9	220.0	198.3	179.7	161.0	141.5	131.0	0.0	-1.4	-2.1	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	2.19	2.27	2.57	2.97	3.14	3.32	3.40	3.35	3.38	1.6	2.0	0.8	-0.1
Electricity Generated/Capita (kWh/inhabitant)	3422	3883	4893	5559	6251	6899	7322	7640	8030	3.6	2.5	1.6	0.9
Carbon intensity (t of CO_2/toe of GIC)	3.19	3.23	3.17	3.05	2.96	2.91	2.83	2.79	2.81	-0.1	-0.7	-0.4	-0.1
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.98	7.32	8.14	9.08	9.30	9.67	9.64	9.33	9.50	1.6	1.3	0.4	-0.1
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	725.5	749.1	721.6	671.7	586.2	522.8	456.3	394.4	368.5	-0.1	-2.1	-2.5	-2.1
Import Dependency %	62.1	65.8	69.5	71.0	73.1	73.7	75.3	76.4	74.3	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	89.7	90.7	92.2	87.0	79.8	73.8	69.1	65.6	-1.0	-0.4	-1.6	-1.2
Residential (Energy on Private Income)	100.0	99.4	117.4	126.2	124.8	116.4	106.9	97.1	90.8	1.6	0.6	-1.5	-1.6
Tertiary (Energy on Value added)	100.0	110.2	117.4	124.4	124.1	114.6	104.2	95.5	90.6	1.6	0.6	-1.7	-1.4
Transport (Energy on GDP)	100.0	103.9	98.2	92.2	83.3	75.4	69.5	60.4	54.5	-0.2	-1.6	-1.8	-2.4
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.95	0.91	0.77	0.72	0.63	0.58	0.53	0.49	0.49	-2.0	-2.0	-1.7	-0.8
Final energy demand (t of CO_2/toe)	2.37	2.32	2.25	2.22	2.17	2.15	2.10	2.06	2.02	-0.5	-0.3	-0.3	-0.4
Industry	2.35	2.35	2.16	2.07	1.92	1.87	1.74	1.73	1.69	-0.8	-1.2	-1.0	-0.3
Residential	1.51	1.43	1.66	1.82	1.91	1.91	1.88	1.82	1.77	0.9	1.4	-0.1	-0.6
Tertiary	1.96	1.65	1.40	1.33	1.31	1.30	1.27	1.24	1.21	-3.3	-0.7	-0.3	-0.4
Transport	2.96	2.96	2.95	2.94	2.89	2.86	2.84	2.81	2.80	0.0	-0.2	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**11485**	**13734**	**18019**	**20536**	**21867**	**23640**	**24641**		**4.6**	**2.0**	**1.2**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			3061	3111	3615	3847	3922	3977	4012		1.7	0.8	0.2
Wind			189	588	2180	2822	4102	4337	4390		27.7	6.5	0.7
Solar			1	2	6	21	41	75	123		17.5	20.3	11.7
Thermal			8234	10032	12218	13847	13802	15251	16116		4.0	1.2	1.6
of which cogeneration units			511	666	1467	1557	1842	2172	2140		11.1	2.3	1.5
Solids fired			4908	5286	5286	5318	5042	5211	6211		0.7	-0.5	2.1
Gas fired			1150	1896	3444	5044	5710	7165	7165		11.6	5.2	2.3
Oil fired			2114	2738	3318	3304	2828	2372	2211		4.6	-1.6	-2.4
Biomass-waste fired			63	113	163	173	194	475	501		10.0	1.8	10.0
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	8	8	28	28	28			13.3	0.0
Indicators													
Efficiency for thermal electricity production (%)			36.1	36.9	39.3	40.3	41.5	44.2	45.2	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			53.1	51.1	44.6	43.7	43.7	42.0	42.1	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			5.8	5.4	8.4	8.4	9.8	11.3	10.3	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			8.6	9.4	14.2	15.7	19.6	21.9	21.6	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			8.6	9.4	14.2	15.7	19.6	21.9	21.6	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**91.5**	**115.1**	**148.3**	**161.6**	**175.3**	**189.8**	**204.5**	**210.1**	**212.1**	**5.0**	**1.7**	**1.6**	**0.4**
Public road transport	17.7	20.2	21.7	21.4	21.0	20.5	20.1	19.9	19.7	2.0	-0.3	-0.4	-0.2
Private cars and motorcycles	55.4	72.0	96.3	103.9	112.0	120.8	129.7	132.9	133.9	5.7	1.5	1.5	0.3
Rail	2.8	2.3	3.1	3.3	3.6	3.8	4.0	4.1	4.2	0.9	1.5	1.3	0.3
Aviation	11.9	16.1	21.4	26.6	31.5	36.9	42.3	44.5	45.6	6.0	3.9	3.0	0.8
Inland navigation	3.6	4.6	5.9	6.5	7.3	7.8	8.3	8.6	8.7	5.0	2.1	1.4	0.4
Travel per person (km per capita)	9002	10828	13588	14611	15556	16666	17897	18440	18744	4.2	1.4	1.4	0.5
Freight transport activity (Gtkm)	**19.8**	**20.6**	**30.6**	**36.1**	**41.2**	**46.9**	**52.4**	**57.3**	**61.2**	**4.5**	**3.0**	**2.4**	**1.6**
Trucks	12.5	13.2	21.5	25.5	29.1	33.4	37.4	41.0	44.0	5.5	3.1	2.5	1.7
Rail	0.6	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.7	-3.5	3.3	0.9	1.0
Inland navigation	6.6	7.1	8.7	10.1	11.5	13.0	14.3	15.6	16.5	2.8	2.8	2.2	1.4
Freight activity per unit of GDP (tkm/000 Euro'00)	202	198	249	241	230	223	217	213	210	2.1	-0.8	-0.6	-0.3
Energy demand in transport (ktoe)	**5816**	**6431**	**7196**	**8206**	**8865**	**9459**	**9982**	**9683**	**9466**	**2.2**	**2.1**	**1.2**	**-0.5**
Public road transport	120	141	99	97	95	91	85	79	71	-1.9	-0.4	-1.1	-1.8
Private cars and motorcycles	1894	2264	2793	3013	2993	2925	3013	2928	2697	4.0	0.7	0.1	-1.1
Trucks	1889	2179	2428	2870	3276	3721	4001	4196	4389	2.5	3.0	2.0	0.9
Rail	75	57	60	57	39	31	28	26	25	-2.2	-4.1	-3.5	-0.9
Aviation	1273	1246	1325	1613	1837	2010	2122	1685	1495	0.4	3.3	1.5	-3.4
Inland navigation	566	544	491	555	625	682	734	769	789	-1.4	2.4	1.6	0.7
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	39.1	34.4	30.4	31.2	30.0	28.3	27.3	24.1	21.8	-2.5	-0.1	-0.9	-2.2
Freight transport (toe/Mtkm)	113.2	119.8	87.5	87.7	87.7	87.1	84.0	80.7	79.1	-2.5	0.0	-0.4	-0.6

HUNGARY: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**13638**	**12844**	**11127**	**10686**	**10189**	**9260**	**10075**	**11767**	**12492**	**-2.0**	**-0.9**	**-0.1**	**2.2**
Solids	3948	3095	2893	2646	1956	901	1208	1106	1005	-3.1	-3.8	-4.7	-1.8
Oil	2320	2329	1665	1500	1200	1000	1000	900	800	-3.3	-3.2	-1.8	-2.2
Natural gas	3812	3788	2475	2220	2200	2000	1900	1789	1700	-4.2	-1.2	-1.5	-1.1
Nuclear	3544	3618	3658	3615	3606	3597	3587	5282	6229	0.3	-0.1	-0.1	5.7
Renewable energy sources	15	14	436	704	1227	1762	2380	2690	2759	39.8	10.9	6.8	1.5
Hydro	15	14	15	20	31	47	68	91	102	0.0	7.2	8.3	4.1
Biomass & Waste	0	0	416	663	1166	1677	2251	2508	2529		10.9	6.8	1.2
Wind	0	0	0	0	1	3	13	27	46			26.3	13.8
Solar and others	0	0	0	16	25	30	44	59	77			5.9	5.8
Geothermal	0	0	5	5	5	5	5	5	5		0.2	0.9	-0.1
Net Imports	**14436**	**12629**	**14011**	**15895**	**18490**	**21155**	**22131**	**21798**	**22074**	**-0.3**	**2.8**	**1.8**	**0.0**
Solids	1686	1395	1081	1127	1177	1296	1749	2044	2104	-4.3	0.9	4.0	1.9
Oil	6621	5496	5352	5172	6204	6772	7060	7281	7608	-2.1	1.5	1.3	0.8
- Crude oil and Feedstocks	6475	5937	5866	5684	6781	7384	7708	7944	8308	-1.0	1.5	1.3	0.8
- Oil products	146	-441	-514	-512	-577	-612	-648	-663	-701				
Natural gas	5170	5532	7283	8949	10556	12722	13081	12316	12259	3.5	3.8	2.2	-0.6
Electricity	958	207	296	647	554	365	240	156	104	-11.1	6.5	-8.0	-8.0
Gross Inland Consumption	**28134**	**25252**	**24941**	**26581**	**28680**	**30416**	**32205**	**33565**	**34566**	**-1.2**	**1.4**	**1.2**	**0.7**
Solids	5969	4549	3967	3773	3133	2197	2957	3150	3109	-4.0	-2.3	-0.6	0.5
Oil	8734	7689	6927	6672	7404	7772	8060	8181	8408	-2.3	0.7	0.9	0.4
Natural gas	8913	9175	9657	11169	12756	14722	14981	14105	13959	0.8	2.8	1.6	-0.7
Nuclear	3544	3618	3658	3615	3606	3597	3587	5282	6229	0.3	-0.1	-0.1	5.7
Electricity	958	207	296	647	554	365	240	156	104	-11.1	6.5	-8.0	-8.0
Renewable energy forms	15	14	436	704	1227	1762	2380	2690	2759	39.8	10.9	6.8	1.5
as % in Gross Inland Consumption													
Solids	21.2	18.0	15.9	14.2	10.9	7.2	9.2	9.4	9.0				
Oil	31.0	30.4	27.8	25.1	25.8	25.6	25.0	24.4	24.3				
Natural gas	31.7	36.3	38.7	42.0	44.5	48.4	46.5	42.0	40.4				
Nuclear	12.6	14.3	14.7	13.6	12.6	11.8	11.1	15.7	18.0				
Renewable energy forms	0.1	0.1	1.7	2.6	4.3	5.8	7.4	8.0	8.0				
Electricity Generation in GWh_e	**28431**	**34011**	**35185**	**35624**	**47772**	**60584**	**69402**	**73582**	**77380**	**2.2**	**3.1**	**3.8**	**1.1**
Nuclear	13729	14023	14177	14012	13977	13940	13903	20473	24142	0.3	-0.1	-0.1	5.7
Hydro & wind	178	163	178	234	374	595	973	1440	1842	0.0	7.7	10.0	6.6
Thermal (incl. biomass)	14524	19824	20829	21378	33421	46049	54526	51669	51396	3.7	4.8	5.0	-0.6
Fuel Inputs for Thermal Power Generation [1]	**4943**	**6058**	**6011**	**5893**	**6951**	**7953**	**9191**	**8689**	**8507**	**2.0**	**1.5**	**2.8**	**-0.8**
Solids	2869	2977	2731	2738	2143	1326	2185	2443	2460	-0.5	-2.4	0.2	1.2
Oil (including refinery gas)	439	1447	1052	685	663	430	360	298	253	9.1	-4.5	-5.9	-3.4
Gas	1636	1634	2168	2403	3935	5622	5660	4707	4522	2.9	6.1	3.7	-2.2
Biomass & Waste	0	0	60	67	210	575	986	1241	1271		13.3	16.7	2.6
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**11672**	**10668**	**9196**	**8742**	**9664**	**10090**	**10423**	**10562**	**10757**	**-2.4**	**0.5**	**0.8**	**0.3**
Refineries	8831	8500	7588	7303	8104	8507	8823	8957	9205	-1.5	0.7	0.9	0.4
Biofuels and hydrogen production	0	0	0	17	186	234	330	390	437			5.9	2.9
District heating	1138	776	441	482	534	581	536	532	480	-9.0	1.9	0.0	-1.1
Others	1704	1392	1167	940	840	767	735	682	635	-3.7	-3.2	-1.3	-1.5
Energy Branch Consumption	**1229**	**1140**	**1162**	**1390**	**1594**	**1709**	**1828**	**1782**	**1832**	**-0.6**	**3.2**	**1.4**	**0.0**
Non-Energy Uses	**1711**	**1602**	**1577**	**1290**	**1359**	**1480**	**1560**	**1594**	**1622**	**-0.8**	**-1.5**	**1.4**	**0.4**
Final Energy Demand	**18751**	**15155**	**15846**	**17889**	**19728**	**21314**	**22518**	**23232**	**23801**	**-1.7**	**2.2**	**1.3**	**0.6**
by sector													
Industry[1]	6520	3805	3538	3635	3952	4210	4379	4517	4587	-5.9	1.1	1.0	0.5
- energy intensive industries	4160	2691	2536	2372	2421	2513	2552	2553	2505	-4.8	-0.5	0.5	-0.2
- other industrial sectors	2361	1114	1002	1263	1531	1697	1827	1964	2082	-8.2	4.3	1.8	1.3
Residential	5992	5449	5281	6563	7333	8044	8463	8715	8813	-1.3	3.3	1.4	0.4
Tertiary	3223	3246	3776	3895	4223	4553	4799	4868	4945	1.6	1.1	1.3	0.3
Transport	3015	2653	3251	3796	4220	4506	4876	5131	5457	0.8	2.6	1.5	1.1
by fuel [1]													
Solids	2502	965	792	716	672	584	512	473	429	-10.9	-1.6	-2.7	-1.7
Oil	6000	4147	4174	4803	5345	5703	6042	6234	6492	-3.6	2.5	1.2	0.7
Gas	5941	6370	6503	7405	7464	7722	7874	7914	7966	0.9	1.4	0.5	0.1
Electricity	2717	2385	2531	2815	3598	4381	4992	5422	5701	-0.7	3.6	3.3	1.3
Heat (from CHP and District Heating)	1591	1287	1488	1537	1709	1841	1857	1940	1962	-0.7	1.4	0.8	0.6
Other	0	0	358	613	939	1083	1240	1250	1250		10.1	2.8	0.1
CO2 Emissions (Mt of CO2)	**65.5**	**56.8**	**53.5**	**56.7**	**59.6**	**61.0**	**65.3**	**64.3**	**64.5**	**-2.0**	**1.1**	**0.9**	**-0.1**
Power generation/District heating	20.5	23.0	21.0	20.5	21.7	21.6	24.8	23.3	22.7	0.2	0.3	1.3	-0.9
Energy Branch	2.5	2.2	1.4	1.5	1.7	1.9	1.9	2.0	2.0	-5.2	1.9	1.1	0.3
Industry	14.7	8.7	6.4	6.4	6.6	6.9	7.0	7.0	6.9	-7.9	0.3	0.5	-0.2
Residential	13.6	9.9	8.8	10.7	11.0	11.3	11.4	11.4	11.3	-4.3	2.3	0.3	0.0
Tertiary	5.7	5.5	6.4	6.6	6.6	6.7	6.7	6.6	6.6	1.2	0.3	0.1	-0.2
Transport	8.6	7.6	9.4	11.0	11.8	12.6	13.5	14.1	15.0	0.9	2.3	1.3	1.1
CO2 Emissions Index (1990=100)	**100.0**	**86.8**	**81.7**	**86.5**	**91.1**	**93.1**	**99.7**	**98.3**	**98.4**				

Source: PRIMES

HUNGARY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	10.374	10.329	10.211	10.079	9.982	9.834	9.693	9.588	9.484	-0.2	-0.2	-0.3	-0.2
GDP (in 000 MEUR'00)	46.5	41.6	50.7	60.6	72.7	86.2	100.0	113.9	127.2	0.9	3.7	3.2	2.4
Gross Inl. Cons./GDP (toe/MEUR'00)	605.5	606.8	492.4	438.4	394.4	352.8	321.9	294.6	271.9	-2.0	-2.2	-2.0	-1.7
Gross Inl. Cons./Capita (toe/inhabitant)	2.71	2.44	2.44	2.64	2.87	3.09	3.32	3.50	3.64	-1.0	1.6	1.5	0.9
Electricity Generated/Capita (kWh/inhabitant)	2741	3293	3446	3534	4786	6161	7160	7674	8159	2.3	3.3	4.1	1.3
Carbon intensity (t of CO_2/toe of GIC)	2.33	2.25	2.15	2.13	2.08	2.00	2.03	1.92	1.86	-0.8	-0.3	-0.3	-0.8
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.31	5.50	5.24	5.62	5.97	6.20	6.74	6.71	6.80	-1.8	1.3	1.2	0.1
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	1409.3	1365.7	1056.8	934.7	820.0	707.0	652.8	564.7	506.9	-2.8	-2.5	-2.3	-2.5
Import Dependency %	51.3	50.0	56.2	59.8	64.5	69.6	68.7	64.9	63.9	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	56.0	32.7	27.8	25.8	23.8	21.8	20.0	18.6	-10.6	-2.3	-1.7	-1.6
Residential (Energy on Private Income)	100.0	102.5	86.6	80.4	74.1	67.9	61.1	54.9	49.5	-1.4	-1.5	-1.9	-2.1
Tertiary (Energy on Value added)	100.0	118.9	120.6	103.0	92.2	83.7	75.4	66.7	60.2	1.9	-2.6	-2.0	-2.2
Transport (Energy on GDP)	100.0	98.3	98.9	96.5	89.4	80.6	75.1	69.4	66.1	-0.1	-1.0	-1.7	-1.3
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.44	0.47	0.38	0.37	0.31	0.25	0.26	0.23	0.22	-1.3	-2.2	-1.6	-1.9
Final energy demand (t of CO_2/toe)	2.27	2.09	1.96	1.93	1.83	1.76	1.71	1.68	1.67	-1.4	-0.7	-0.7	-0.2
Industry	2.25	2.28	1.82	1.75	1.68	1.63	1.60	1.55	1.51	-2.1	-0.8	-0.5	-0.6
Residential	2.26	1.82	1.66	1.63	1.50	1.40	1.34	1.30	1.28	-3.1	-1.0	-1.1	-0.5
Tertiary	1.77	1.69	1.70	1.69	1.57	1.47	1.39	1.35	1.33	-0.4	-0.8	-1.2	-0.5
Transport	2.84	2.85	2.89	2.89	2.81	2.79	2.77	2.75	2.75	0.2	-0.3	-0.1	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**8320**	**8642**	**10559**	**11227**	**12860**	**14586**	**15594**		**2.4**	**2.0**	**1.9**
Nuclear			1760	1760	1760	1760	1760	2593	3051		0.0	0.0	5.7
Hydro (pumping excluded)			48	62	96	146	213	285	335		7.2	8.3	4.6
Wind			1	6	16	41	166	361	606		33.3	26.4	13.8
Solar			0	0	3	14	30	55	102			28.0	13.2
Thermal			6511	6814	8684	9266	10692	11293	11501		2.9	2.1	0.7
of which cogeneration units			2821	2857	3574	3828	3754	4201	4663		2.4	0.5	2.2
Solids fired			1872	1790	1699	1115	1442	1911	2311		-1.0	-1.6	4.8
Gas fired			2340	2720	5105	6847	7525	7477	7224		8.1	4.0	-0.4
Oil fired			2246	2249	1727	805	805	789	775		-2.6	-7.4	-0.4
Biomass-waste fired			53	56	152	500	920	1117	1191		11.1	19.7	2.6
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			29.8	31.2	41.3	49.8	51.0	51.1	52.0	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			48.3	47.1	51.6	61.6	61.6	57.6	56.6	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			23.1	25.8	23.5	24.9	20.8	21.3	21.8	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			41.4	40.7	31.6	28.6	28.9	38.9	42.4	0.0	0.0	0.0	0.0
- nuclear			40.3	39.3	29.3	23.0	20.0	27.8	31.2	0.0	0.0	0.0	0.0
- renewable energy forms			1.1	1.3	2.3	5.6	8.9	11.1	11.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**79.2**	**72.5**	**77.0**	**84.3**	**92.2**	**99.3**	**106.3**	**113.3**	**121.0**	**-0.3**	**1.8**	**1.4**	**1.3**
Public road transport	19.3	16.6	18.7	18.0	17.3	16.3	15.5	14.9	14.3	-0.3	-0.8	-1.1	-0.8
Private cars and motorcycles	47.0	45.8	46.6	53.7	61.3	68.4	75.2	81.8	88.8	-0.1	2.8	2.1	1.7
Rail	12.0	9.0	10.3	10.1	9.9	9.7	9.6	9.4	9.3	-1.5	-0.4	-0.4	-0.3
Aviation	1.0	1.1	1.4	2.5	3.6	4.8	6.0	7.2	8.6	4.0	9.8	5.1	3.8
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Travel per person (km per capita)	7637	7023	7545	8360	9233	10092	10962	11819	12755	-0.1	2.0	1.7	1.5
Freight transport activity (Gtkm)	**34.0**	**23.4**	**28.8**	**32.7**	**38.2**	**43.3**	**48.7**	**54.0**	**59.0**	**-1.6**	**2.9**	**2.5**	**1.9**
Trucks	15.2	13.8	19.1	22.6	27.7	32.4	37.8	43.0	48.0	2.4	3.8	3.2	2.4
Rail	16.8	8.4	8.8	9.1	9.4	9.6	9.6	9.6	9.6	-6.3	0.7	0.2	0.0
Inland navigation	2.0	1.2	0.9	1.0	1.1	1.2	1.3	1.4	1.4	-7.9	2.3	1.5	1.1
Freight activity per unit of GDP (tkm/000 Euro'00)	732	563	569	540	526	502	487	474	464	-2.5	-0.8	-0.8	-0.5
Energy demand in transport (ktoe)	**3015**	**2653**	**3251**	**3796**	**4220**	**4506**	**4876**	**5131**	**5457**	**0.8**	**2.6**	**1.5**	**1.1**
Public road transport	119	111	177	170	162	150	137	126	114	4.0	-0.9	-1.7	-1.8
Private cars and motorcycles	1504	1295	1646	1893	1971	1972	2095	2185	2284	0.9	1.8	0.6	0.9
Trucks	934	863	1023	1210	1479	1716	1924	2093	2271	0.9	3.8	2.7	1.7
Rail	270	190	174	157	133	108	95	84	78	-4.3	-2.7	-3.3	-1.9
Aviation	164	182	223	357	464	549	613	630	696	3.1	7.6	2.8	1.3
Inland navigation	23	12	9	10	11	12	12	13	14	-9.2	2.2	1.3	1.0
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	24.9	23.9	28.3	30.2	29.2	27.7	27.4	26.4	26.0	1.3	0.3	-0.7	-0.5
Freight transport (toe/Mtkm)	30.5	39.2	37.1	38.3	39.9	40.7	40.4	39.6	39.2	2.0	0.7	0.1	-0.3

IRELAND: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**3495**	**4256**	**2111**	**1779**	**2130**	**2403**	**2620**	**2802**	**2766**	**-4.9**	**0.1**	**2.1**	**0.5**
Solids	1454	1783	894	698	538	473	290	226	310	-4.7	-5.0	-6.0	0.7
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	1873	2249	958	700	874	998	1000	800	500	-6.5	-0.9	1.4	-6.7
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	168	224	258	381	719	932	1330	1777	1956	4.4	10.8	6.3	3.9
Hydro	60	61	73	73	73	74	75	75	75	2.0	0.0	0.3	0.0
Biomass & Waste	108	161	164	182	377	581	854	998	1064	4.3	8.7	8.5	2.2
Wind	0	1	21	108	245	245	357	641	735		27.9	3.8	7.5
Solar and others	0	0	0	18	24	31	44	62	82	14.9	62.0	6.4	6.5
Geothermal	0	0	0	0	1	1	1	1	1		14.7	2.7	0.9
Net Imports	**7110**	**7608**	**12141**	**13690**	**14964**	**15988**	**16731**	**16530**	**16603**	**5.5**	**2.1**	**1.1**	**-0.1**
Solids	2100	1827	1696	1805	1765	1730	1686	1536	1395	-2.1	0.4	-0.5	-1.9
Oil	5010	5698	7959	8891	9470	10007	10474	10340	10143	4.7	1.8	1.0	-0.3
- Crude oil and Feedstocks	2018	2260	3002	3531	3714	3878	4156	4053	3930	4.1	2.2	1.1	-0.6
- Oil products	2992	3438	4957	5360	5756	6129	6318	6288	6213	5.2	1.5	0.9	-0.2
Natural gas	0	85	2478	2918	3643	4160	4471	4543	4946		3.9	2.1	1.0
Electricity	0	-1	8	76	85	90	100	110	119		26.0	1.6	1.7
Gross Inland Consumption	**10398**	**11025**	**14173**	**15297**	**16898**	**18183**	**19132**	**19102**	**19131**	**3.1**	**1.8**	**1.2**	**0.0**
Solids	3590	2897	2565	2503	2303	2203	1976	1762	1705	-3.3	-1.1	-1.5	-1.5
Oil	4768	5571	7906	8719	9274	9799	10254	10111	9905	5.2	1.6	1.0	-0.3
Natural gas	1873	2334	3436	3618	4517	5158	5471	5343	5446	6.3	2.8	1.9	0.0
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	0	-1	8	76	85	90	100	110	119		26.0	1.6	1.7
Renewable energy forms	168	224	258	381	719	932	1330	1777	1956	4.4	10.8	6.3	3.9
as % in Gross Inland Consumption													
Solids	34.5	26.3	18.1	16.4	13.6	12.1	10.3	9.2	8.9				
Oil	45.9	50.5	55.8	57.0	54.9	53.9	53.6	52.9	51.8				
Natural gas	18.0	21.2	24.2	23.7	26.7	28.4	28.6	28.0	28.5				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	1.6	2.0	1.8	2.5	4.3	5.1	7.0	9.3	10.2				
Electricity Generation in GWh_e	**14226**	**17601**	**23669**	**26706**	**30760**	**34462**	**37506**	**39427**	**40597**	**5.2**	**2.7**	**2.0**	**0.8**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	697	729	1090	2099	3700	3723	5036	8352	9451	4.6	13.0	3.1	6.5
Thermal (incl. biomass)	13530	16872	22579	24607	27060	30739	32470	31075	31145	5.3	1.8	1.8	-0.4
Fuel Inputs for Thermal Power Generation [1]	**3028**	**3849**	**4799**	**4865**	**5101**	**5637**	**5543**	**4983**	**4921**	**4.7**	**0.6**	**0.8**	**-1.2**
Solids	1842	2167	1930	2076	1925	1867	1685	1320	1134	0.5	0.0	-1.3	-3.9
Oil (including refinery gas)	337	612	1006	621	280	310	179	151	143	11.6	-12.0	-4.4	-2.2
Gas	850	1071	1839	2043	2782	3246	3315	3057	3146	8.0	4.2	1.8	-0.5
Biomass & Waste	0	0	24	125	115	214	363	455	498	113.4	17.2	12.2	3.2
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**1926**	**2422**	**3437**	**3643**	**3936**	**4208**	**4623**	**4598**	**4505**	**6.0**	**1.4**	**1.6**	**-0.3**
Refineries	1742	2263	3310	3535	3720	3885	4164	4061	3939	6.6	1.2	1.1	-0.6
Biofuels and hydrogen production	0	0	0	8	132	251	401	484	519			11.8	2.6
District heating	0	0	0	0	0	0	0	0	0			-3.7	-0.5
Others	184	160	126	100	85	71	57	53	47	-3.7	-3.9	-3.8	-2.0
Energy Branch Consumption	**167**	**186**	**246**	**258**	**274**	**289**	**286**	**266**	**261**	**3.9**	**1.1**	**0.4**	**-0.9**
Non-Energy Uses	**617**	**545**	**546**	**211**	**257**	**281**	**302**	**317**	**328**	**-1.2**	**-7.3**	**1.6**	**0.8**
Final Energy Demand	**7287**	**7936**	**10596**	**11982**	**13545**	**14643**	**15678**	**16218**	**16447**	**3.8**	**2.5**	**1.5**	**0.5**
by sector													
Industry[1]	1765	1937	2351	2164	2305	2479	2666	2831	2945	2.9	-0.2	1.5	1.0
- energy intensive industries	898	896	1120	735	740	782	837	878	901	2.2	-4.1	1.2	0.7
- other industrial sectors	867	1041	1232	1429	1565	1697	1829	1953	2044	3.6	2.4	1.6	1.1
Residential	2323	2198	2475	2821	3154	3406	3609	3813	3964	0.6	2.5	1.4	0.9
Tertiary	1214	1459	1764	2158	2490	2742	2918	3006	3056	3.8	3.5	1.6	0.5
Transport	1985	2343	4005	4839	5595	6015	6485	6567	6482	7.3	3.4	1.5	0.0
by fuel [1]													
Solids	1678	863	530	422	374	333	288	439	569	-10.9	-3.4	-2.6	7.0
Oil	3874	4796	6894	7820	8736	9272	9690	9644	9482	5.9	2.4	1.0	-0.2
Gas	560	785	1186	1488	1635	1816	2041	2159	2196	7.8	3.3	2.2	0.7
Electricity	1020	1276	1737	2053	2392	2706	2996	3213	3334	5.5	3.3	2.3	1.1
Heat (from CHP and District Heating)	46	55	108	125	152	174	211	245	307	8.8	3.4	3.3	3.8
Other	108	161	141	74	255	343	453	518	558	2.7	6.1	5.9	2.1
CO2 Emissions (Mt of CO2)	**30.4**	**33.2**	**41.2**	**44.0**	**47.0**	**49.8**	**50.4**	**49.1**	**48.7**	**3.1**	**1.3**	**0.7**	**-0.4**
Power generation/District heating	10.4	13.1	15.2	15.1	15.1	16.0	15.0	12.9	12.3	3.8	-0.1	0.0	-2.0
Energy Branch	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	4.2	0.6	1.2	1.2
Industry	3.9	3.7	4.3	3.9	3.9	4.2	4.4	4.8	5.1	0.9	-0.9	1.3	1.4
Residential	7.0	5.7	5.7	6.1	6.7	7.0	7.3	7.7	7.9	-2.1	1.7	0.8	0.8
Tertiary	3.0	3.4	3.8	4.2	4.6	4.9	5.0	4.9	4.9	2.4	2.0	0.9	-0.1
Transport	5.9	6.9	11.9	14.4	16.4	17.3	18.4	18.4	18.0	7.3	3.2	1.2	-0.2
CO2 Emissions Index (1990=100)	**100.0**	**109.1**	**135.5**	**144.9**	**154.7**	**164.1**	**166.1**	**161.5**	**160.2**				

Source: PRIMES

IRELAND: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	3.506	3.601	3.800	4.113	4.323	4.555	4.756	4.922	5.066	0.8	1.3	1.0	0.6
GDP (in 000 MEUR'00)	51.5	64.7	103.1	132.9	168.5	202.5	238.6	273.6	301.9	7.2	5.0	3.5	2.4
Gross Inl. Cons./GDP (toe/MEUR'00)	201.9	170.4	137.5	115.1	100.3	89.8	80.2	69.8	63.4	-3.8	-3.1	-2.2	-2.3
Gross Inl. Cons./Capita (toe/inhabitant)	2.97	3.06	3.73	3.72	3.91	3.99	4.02	3.88	3.78	2.3	0.5	0.3	-0.6
Electricity Generated/Capita (kWh/inhabitant)	4058	4888	6229	6493	7116	7566	7886	8010	8014	4.4	1.3	1.0	0.2
Carbon intensity (t of CO_2/toe of GIC)	2.92	3.01	2.90	2.88	2.78	2.74	2.64	2.57	2.54	-0.1	-0.4	-0.5	-0.4
CO_2 Emissions/Capita (t of CO_2/inhabitant)	8.66	9.21	10.83	10.70	10.87	10.94	10.61	9.97	9.61	2.3	0.0	-0.2	-1.0
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	589.9	512.5	399.4	331.0	278.9	246.1	211.4	179.3	161.3	-3.8	-3.5	-2.7	-2.7
Import Dependency %	68.3	68.3	84.8	88.5	87.5	86.9	86.5	85.5	85.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	75.4	47.6	33.1	28.0	25.0	22.9	21.4	20.4	-7.2	-5.2	-2.0	-1.2
Residential (Energy on Private Income)	100.0	81.3	63.1	60.7	55.7	51.4	47.2	44.1	41.8	-4.5	-1.2	-1.6	-1.2
Tertiary (Energy on Value added)	100.0	105.3	94.2	91.5	84.5	78.1	70.8	63.4	58.2	-0.6	-1.1	-1.8	-2.0
Transport (Energy on GDP)	100.0	94.0	100.8	94.5	86.2	77.1	70.5	62.3	55.7	0.1	-1.6	-2.0	-2.3
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.71	0.72	0.61	0.54	0.46	0.44	0.38	0.30	0.28	-1.5	-2.7	-2.1	-2.9
Final energy demand (t of CO_2/toe)	2.71	2.49	2.42	2.39	2.33	2.28	2.24	2.21	2.18	-1.1	-0.4	-0.4	-0.2
Industry	2.20	1.91	1.81	1.82	1.68	1.68	1.65	1.70	1.72	-1.9	-0.7	-0.2	0.4
Residential	3.00	2.61	2.29	2.18	2.13	2.07	2.02	2.01	1.99	-2.7	-0.7	-0.6	-0.2
Tertiary	2.45	2.34	2.14	1.93	1.84	1.78	1.71	1.64	1.61	-1.4	-1.5	-0.7	-0.6
Transport	2.96	2.96	2.97	2.97	2.92	2.88	2.83	2.80	2.78	0.1	-0.2	-0.3	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**5304**	**6503**	**8020**	**8110**	**8927**	**9968**	**10438**		**4.2**	**1.1**	**1.6**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			225	225	225	229	230	230	230		0.0	0.2	0.0
Wind			118	461	986	986	1422	2426	2850		23.7	3.7	7.2
Solar			2	4	15	31	50	73	102		21.9	12.6	7.5
Thermal			4958	5812	6793	6863	7225	7239	7255		3.2	0.6	0.0
of which cogeneration units			143	161	178	297	485	581	686		2.2	10.5	3.5
Solids fired			1269	1229	1172	1172	1042	858	835		-0.8	-1.2	-2.2
Gas fired			2380	3198	4133	4171	4876	5342	5411		5.7	1.7	1.0
Oil fired			1237	1237	1282	1282	903	408	408		0.4	-3.4	-7.6
Biomass-waste fired			72	148	207	238	403	631	601		11.2	6.9	4.1
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			40.5	43.5	45.6	46.9	50.4	53.6	54.4	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			50.9	46.9	43.8	48.5	48.0	45.2	44.4	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			2.4	2.8	3.0	4.3	5.2	6.4	8.2	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			5.0	9.8	13.6	13.4	17.6	27.4	29.7	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			5.0	9.8	13.6	13.4	17.6	27.4	29.7	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**25.9**	**33.4**	**47.0**	**54.0**	**62.2**	**71.1**	**80.9**	**88.9**	**94.0**	**6.1**	**2.8**	**2.7**	**1.5**
Public road transport	3.9	5.2	6.1	6.4	6.7	6.8	6.9	7.1	7.3	4.7	0.9	0.4	0.5
Private cars and motorcycles	18.4	23.5	33.7	38.4	43.9	50.1	57.0	62.5	65.9	6.3	2.7	2.6	1.5
Rail	1.2	1.3	1.4	1.5	1.7	1.8	1.9	2.1	2.1	1.3	2.0	1.4	1.0
Aviation	2.0	2.8	5.1	6.8	8.9	11.2	13.6	15.6	16.9	10.1	5.8	4.3	2.2
Inland navigation	0.6	0.7	0.7	0.9	1.1	1.3	1.5	1.7	1.8	2.9	3.8	3.3	1.9
Travel per person (km per capita)	7401	9286	12380	13137	14394	15602	17014	18068	18562	5.3	1.5	1.7	0.9
Freight transport activity (Gtkm)	**6.3**	**5.6**	**13.4**	**16.7**	**20.8**	**23.2**	**25.8**	**28.3**	**30.5**	**7.8**	**4.5**	**2.2**	**1.7**
Trucks	5.5	4.7	12.3	15.7	19.8	22.2	24.8	27.2	29.4	8.4	4.9	2.3	1.7
Rail	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	-1.9	-3.5	-1.5	-0.1
Inland navigation	0.2	0.3	0.6	0.6	0.6	0.7	0.7	0.8	0.8	9.3	0.7	1.5	1.3
Freight activity per unit of GDP (tkm/000 Euro'00)	123	87	130	126	123	115	108	103	101	0.5	-0.5	-1.3	-0.7
Energy demand in transport (ktoe)	**1985**	**2343**	**4005**	**4839**	**5595**	**6015**	**6485**	**6567**	**6482**	**7.3**	**3.4**	**1.5**	**0.0**
Public road transport	25	37	108	112	115	112	107	101	95	15.9	0.6	-0.7	-1.2
Private cars and motorcycles	928	1156	1607	1824	1891	1916	2089	2110	2035	5.6	1.6	1.0	-0.3
Trucks	593	681	1610	2052	2584	2860	3058	3203	3229	10.5	4.8	1.7	0.5
Rail	48	50	42	41	34	29	24	19	19	-1.4	-1.9	-3.7	-2.4
Aviation	365	391	614	784	944	1070	1177	1102	1071	5.4	4.4	2.2	-0.9
Inland navigation	26	28	25	27	27	29	31	32	33	-0.5	0.7	1.3	0.8
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	52.0	48.4	50.0	50.8	47.8	43.9	41.9	37.4	34.2	-0.4	-0.5	-1.3	-2.0
Freight transport (toe/Mtkm)	100.3	129.7	123.7	125.0	126.3	124.9	119.9	114.7	107.3	2.1	0.2	-0.5	-1.1

ITALY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**25566**	**29428**	**27399**	**27346**	**30652**	**29639**	**29829**	**32910**	**33188**	**0.7**	**1.1**	**-0.3**	**1.1**
Solids	218	44	4	0	0	0	0	0	0	-33.8			
Oil	4704	5290	4606	3997	3910	3824	3677	3432	3345	-0.2	-1.6	-0.6	-0.9
Natural gas	14030	16347	13622	13000	13000	10000	8000	8000	7774	-0.3	-0.5	-4.7	-0.3
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	6614	7748	9167	10349	13741	15816	18151	21478	22069	3.3	4.1	2.8	2.0
Hydro	2719	3249	3812	3962	4176	4411	4689	4991	5107	3.4	0.9	1.2	0.9
Biomass & Waste	919	1322	2191	2661	4839	6008	7537	10065	10023	9.1	8.2	4.5	2.9
Wind	0	1	48	178	651	843	892	949	1142	73.3	29.7	3.2	2.5
Solar and others	5	8	12	95	153	218	292	375	446	9.0	28.9	6.7	4.3
Geothermal	2971	3167	3103	3455	3922	4336	4741	5097	5350	0.4	2.4	1.9	1.2
Net Imports	**131949**	**134693**	**152587**	**156430**	**158797**	**168847**	**174169**	**173119**	**173415**	**1.5**	**0.4**	**0.9**	**0.0**
Solids	13792	12987	13188	14551	15702	18823	21358	24541	28843	-0.4	1.8	3.1	3.0
Oil	89881	89957	88578	88204	86682	85168	82464	77912	76293	-0.1	-0.2	-0.5	-0.8
- Crude oil and Feedstocks	84279	82831	90363	76117	75216	74192	72113	68281	67204	0.7	-1.8	-0.4	-0.7
- Oil products	5602	7126	-1786	12087	11466	10976	10352	9631	9089			-1.0	-1.3
Natural gas	25296	28530	47008	49406	52591	61323	67118	67846	65930	6.4	1.1	2.5	-0.2
Electricity	2980	3218	3813	4269	3822	3532	3228	2821	2349	2.5	0.0	-1.7	-3.1
Gross Inland Consumption	**153032**	**161323**	**172477**	**180988**	**186530**	**195464**	**200894**	**202882**	**203407**	**1.2**	**0.8**	**0.7**	**0.1**
Solids	14621	12272	12659	14551	15702	18823	21358	24541	28843	-1.4	2.2	3.1	3.0
Oil	89816	93432	88898	89413	87674	85970	83038	78197	76442	-0.1	-0.1	-0.5	-0.8
Natural gas	39001	44652	57940	62406	65591	71323	75118	75846	73704	4.0	1.2	1.4	-0.2
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	2980	3218	3813	4269	3822	3532	3228	2821	2349	2.5	0.0	-1.7	-3.1
Renewable energy forms	6614	7748	9167	10349	13741	15816	18151	21478	22069	3.3	4.1	2.8	2.0
as % in Gross Inland Consumption													
Solids	9.6	7.6	7.3	8.0	8.4	9.6	10.6	12.1	14.2				
Oil	58.7	57.9	51.5	49.4	47.0	44.0	41.3	38.5	37.6				
Natural gas	25.5	27.7	33.6	34.5	35.2	36.5	37.4	37.4	36.2				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	4.3	4.8	5.3	5.7	7.4	8.1	9.0	10.6	10.8				
Electricity Generation in GWh_e	**213400**	**237312**	**270016**	**298835**	**343721**	**391464**	**436580**	**477658**	**510692**	**2.4**	**2.4**	**2.4**	**1.6**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	31620	37784	44891	48160	56191	61248	65170	69534	73407	3.6	2.3	1.5	1.2
Thermal (incl. biomass)	181779	199528	225125	250674	287531	330216	371410	408124	437285	2.2	2.5	2.6	1.6
Fuel Inputs for Thermal Power Generation [1]	**41362**	**44974**	**48946**	**52296**	**56358**	**64513**	**68935**	**74279**	**76379**	**1.7**	**1.4**	**2.0**	**1.0**
Solids	7019	5290	5843	8444	10535	14091	16695	20278	25034	-1.8	6.1	4.7	4.1
Oil (including refinery gas)	21528	25009	18728	16249	15015	13686	11811	10383	9448	-1.4	-2.2	-2.4	-2.2
Gas	10027	11682	21077	23661	25855	30503	32971	33476	31487	7.7	2.1	2.5	-0.5
Biomass & Waste	17	38	408	785	1344	2200	3016	5334	5341	37.4	12.7	8.4	5.9
Geothermal heat	2770	2954	2890	3157	3608	4034	4443	4808	5069	0.4	2.2	2.1	1.3
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**99591**	**99282**	**103116**	**90254**	**89311**	**87763**	**85933**	**81377**	**79513**	**0.3**	**-1.4**	**-0.4**	**-0.8**
Refineries	91903	92773	96874	84056	82597	81145	78553	74081	72636	0.5	-1.6	-0.5	-0.8
Biofuels and hydrogen production	0	0	0	558	2039	2448	3316	3688	3744			5.0	1.2
District heating	0	0	0	0	0	0	0	0	0			-4.2	-3.0
Others	7688	6509	6242	5640	4675	4170	4064	3608	3133	-2.1	-2.8	-1.4	-2.6
Energy Branch Consumption	**7241**	**7550**	**7389**	**8487**	**8596**	**8713**	**8749**	**8630**	**8598**	**0.2**	**1.5**	**0.2**	**-0.2**
Non-Energy Uses	**9844**	**13882**	**11043**	**11026**	**10802**	**10580**	**10440**	**10096**	**9784**	**1.2**	**-0.2**	**-0.3**	**-0.6**
Final Energy Demand	**110195**	**117576**	**126874**	**132648**	**137666**	**142706**	**147738**	**150071**	**150820**	**1.4**	**0.8**	**0.7**	**0.2**
by sector													
Industry[1]	39256	40297	43109	43133	44649	46923	48465	49762	50862	0.9	0.4	0.8	0.5
- energy intensive industries	26838	26680	26213	25590	25584	26092	26363	26264	26196	-0.2	-0.2	0.3	-0.1
- other industrial sectors	12418	13617	16895	17543	19065	20831	22102	23499	24666	3.1	1.2	1.5	1.1
Residential	30494	31692	28766	29410	30336	32583	35141	37419	39074	-0.6	0.5	1.5	1.1
Tertiary	7041	7952	13737	16663	18580	19563	20318	20223	19941	6.9	3.1	0.9	-0.2
Transport	33403	37636	41263	43441	44101	43637	43814	42666	40942	2.1	0.7	-0.1	-0.7
by fuel [1]													
Solids	4205	3990	3470	3404	2946	2801	2863	2706	2488	-1.9	-1.6	-0.3	-1.4
Oil	53623	53099	56146	58557	58141	57779	57003	55372	53120	0.5	0.3	-0.2	-0.7
Gas	28569	33145	36667	37178	38179	39439	40697	41092	41318	2.5	0.4	0.6	0.2
Electricity	18408	20442	23435	25953	29088	32574	35922	38876	41010	2.4	2.2	2.1	1.3
Heat (from CHP and District Heating)	4282	5396	5150	5421	5836	6343	6844	7344	8191	1.9	1.3	1.6	1.8
Other	1107	1505	2007	2134	3475	3771	4408	4682	4693	6.1	5.6	2.4	0.6
CO2 Emissions (Mt of CO2)	**384.1**	**399.5**	**417.5**	**435.7**	**443.9**	**465.5**	**476.0**	**481.4**	**484.9**	**0.8**	**0.6**	**0.7**	**0.2**
Power generation/District heating	121.2	129.5	133.4	142.2	151.4	171.8	181.8	192.5	203.5	1.0	1.3	1.8	1.1
Energy Branch	16.9	17.3	16.3	17.5	17.2	17.0	16.6	16.0	15.6	-0.3	0.6	-0.4	-0.6
Industry	74.2	69.9	71.3	70.5	69.4	71.2	71.8	71.2	69.4	-0.4	-0.3	0.3	-0.3
Residential	65.4	64.5	55.7	55.3	55.7	57.9	59.7	60.8	61.5	-1.6	0.0	0.7	0.3
Tertiary	9.2	9.4	21.0	25.1	26.2	25.8	25.6	24.9	24.0	8.5	2.3	-0.2	-0.7
Transport	97.1	108.9	119.7	125.0	123.9	121.8	120.4	116.1	110.9	2.1	0.3	-0.3	-0.8
CO2 Emissions Index (1990=100)	**100.0**	**104.0**	**108.7**	**113.4**	**115.6**	**121.2**	**123.9**	**125.3**	**126.3**				

Source: PRIMES

ITALY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	56.719	57.301	57.762	58.029	58.631	58.630	58.300	57.751	57.071	0.2	0.1	-0.1	-0.2
GDP (in 000 MEUR'00)	995.9	1060.8	1166.5	1223.5	1313.2	1462.0	1604.2	1736.6	1846.2	1.6	1.2	2.0	1.4
Gross Inl. Cons./GDP (toe/MEUR'00)	153.7	152.1	147.9	147.9	142.0	133.7	125.2	116.8	110.2	-0.4	-0.4	-1.3	-1.3
Gross Inl. Cons./Capita (toe/inhabitant)	2.70	2.82	2.99	3.12	3.18	3.33	3.45	3.51	3.56	1.0	0.6	0.8	0.3
Electricity Generated/Capita (kWh/inhabitant)	3762	4142	4675	5150	5862	6677	7489	8271	8948	2.2	2.3	2.5	1.8
Carbon intensity (t of CO_2/toe of GIC)	2.51	2.48	2.42	2.41	2.38	2.38	2.37	2.37	2.38	-0.4	-0.2	0.0	0.1
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.77	6.97	7.23	7.51	7.57	7.94	8.16	8.34	8.50	0.7	0.5	0.8	0.4
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	385.7	376.6	357.9	356.1	338.0	318.4	296.7	277.2	262.6	-0.7	-0.6	-1.3	-1.2
Import Dependency %	84.8	82.3	87.1	85.1	83.8	85.1	85.4	84.0	83.9	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	95.7	94.9	98.1	94.4	87.0	80.3	74.0	69.5	-0.5	-0.1	-1.6	-1.4
Residential (Energy on Private Income)	100.0	99.6	79.5	77.3	74.3	71.4	70.0	68.7	67.6	-2.3	-0.7	-0.6	-0.3
Tertiary (Energy on Value added)	100.0	105.2	162.5	184.2	190.6	179.1	168.7	155.0	143.8	5.0	1.6	-1.2	-1.6
Transport (Energy on GDP)	100.0	105.8	105.5	105.9	100.1	89.0	81.4	73.2	66.1	0.5	-0.5	-2.0	-2.1
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.46	0.43	0.40	0.39	0.37	0.37	0.35	0.34	0.34	-1.3	-0.9	-0.4	-0.5
Final energy demand (t of CO_2/toe)	2.23	2.15	2.11	2.08	2.00	1.94	1.88	1.82	1.76	-0.6	-0.5	-0.6	-0.6
Industry	1.89	1.73	1.65	1.63	1.55	1.52	1.48	1.43	1.36	-1.3	-0.6	-0.5	-0.8
Residential	2.15	2.04	1.94	1.88	1.84	1.78	1.70	1.62	1.57	-1.0	-0.5	-0.8	-0.8
Tertiary	1.31	1.19	1.53	1.51	1.41	1.32	1.26	1.23	1.20	1.5	-0.8	-1.1	-0.5
Transport	2.91	2.89	2.90	2.88	2.81	2.79	2.75	2.72	2.71	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**73379**	**84589**	**106288**	**105177**	**108133**	**110020**	**121593**		**3.8**	**0.2**	**1.2**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			14323	14727	15430	16028	16469	16987	17335		0.7	0.7	0.5
Wind			427	1291	3908	5255	5527	5843	7309		24.8	3.5	2.8
Solar			26	46	102	252	440	741	1199		14.6	15.8	10.5
Thermal			58603	68525	86848	83641	85697	86449	95749		4.0	-0.1	1.1
of which cogeneration units			11298	17479	22030	21855	23840	24996	27730		6.9	0.8	1.5
Solids fired			7850	9596	11117	10957	12274	15615	20476		3.5	1.0	5.3
Gas fired			26549	33459	48308	45033	48795	48639	56968		6.2	0.1	1.6
Oil fired			22494	23406	25230	24537	20741	16242	12102		1.2	-1.9	-5.2
Biomass-waste fired			700	731	861	1741	2424	4408	4619		2.1	10.9	6.7
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			1009	1333	1333	1373	1463	1544	1583		2.8	0.9	0.8
Indicators													
Efficiency for thermal electricity production (%)			39.6	41.2	43.9	44.0	46.3	47.3	49.2	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			42.0	40.3	36.9	42.5	46.1	49.6	47.9	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			21.7	21.0	19.8	18.9	18.1	17.3	17.9	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			18.9	19.1	20.0	20.2	20.3	22.6	22.0	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			18.9	19.1	20.0	20.2	20.3	22.6	22.0	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**733.6**	**832.5**	**971.2**	**1002.0**	**1041.7**	**1072.8**	**1101.3**	**1120.7**	**1137.4**	**2.8**	**0.7**	**0.6**	**0.3**
Public road transport	84.0	87.1	94.0	94.6	95.4	94.1	93.1	92.0	90.5	1.1	0.1	-0.2	-0.3
Private cars and motorcycles	582.7	674.6	793.5	818.4	851.9	878.8	903.2	919.4	933.0	3.1	0.7	0.6	0.3
Rail	49.3	49.1	52.5	51.7	50.5	49.9	49.5	48.8	48.0	0.6	-0.4	-0.2	-0.3
Aviation	14.4	18.1	27.2	32.9	39.1	45.0	50.6	55.6	60.8	6.6	3.7	2.6	1.9
Inland navigation	3.3	3.5	4.0	4.3	4.7	4.8	4.9	5.0	5.0	2.0	1.7	0.4	0.2
Travel per person (km per capita)	12934	14528	16813	17267	17767	18297	18890	19406	19930	2.7	0.6	0.6	0.5
Freight transport activity (Gtkm)	**186.1**	**220.1**	**237.7**	**249.1**	**264.3**	**280.7**	**295.2**	**307.7**	**319.3**	**2.5**	**1.1**	**1.1**	**0.8**
Trucks	130.9	163.0	184.7	198.6	217.0	234.5	251.1	265.1	277.3	3.5	1.6	1.5	1.0
Rail	19.4	21.7	22.8	22.5	21.9	22.7	23.3	23.8	24.3	1.7	-0.4	0.6	0.4
Inland navigation	35.8	35.4	30.2	27.9	25.4	23.5	20.9	18.8	17.7	-1.7	-1.7	-1.9	-1.6
Freight activity per unit of GDP (tkm/000 Euro'00)	187	208	204	204	201	192	184	177	173	0.9	-0.1	-0.9	-0.6
Energy demand in transport (ktoe)	**33403**	**37636**	**41263**	**43441**	**44101**	**43637**	**43814**	**42666**	**40942**	**2.1**	**0.7**	**-0.1**	**-0.7**
Public road transport	759	671	743	745	742	709	664	606	546	-0.2	0.0	-1.1	-1.9
Private cars and motorcycles	18222	21383	22562	23245	22307	20742	20450	19705	18385	2.2	-0.1	-0.9	-1.1
Trucks	11411	11891	13425	14423	15727	16767	17293	17483	17193	1.6	1.6	1.0	-0.1
Rail	738	819	834	795	715	629	557	508	477	1.2	-1.5	-2.5	-1.6
Aviation	1884	2424	3497	4030	4405	4589	4657	4178	4160	6.4	2.3	0.6	-1.1
Inland navigation	389	448	202	204	205	200	193	186	181	-6.3	0.2	-0.6	-0.6
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	29.5	30.5	28.4	28.7	27.0	24.9	23.9	22.3	20.7	-0.4	-0.5	-1.2	-1.4
Freight transport (toe/Mtkm)	63.1	55.8	57.6	58.9	60.3	60.5	59.2	57.4	54.3	-0.9	0.5	-0.2	-0.9

LATVIA: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**437**	**318**	**1079**	**1166**	**1690**	**1970**	**2166**	**2288**	**2288**	**9.5**	**4.6**	**2.5**	**0.6**
Solids	51	65	18	19	18	17	27	29	30	-9.9	0.0	4.2	1.2
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	387	253	1061	1147	1672	1953	2139	2259	2258	10.6	4.7	2.5	0.5
Hydro	387	253	242	237	261	269	275	295	308	-4.6	0.8	0.5	1.2
Biomass & Waste	0	0	818	906	1388	1643	1800	1883	1843		5.4	2.6	0.2
Wind	0	0	0	1	14	26	44	58	83		44.9	12.2	6.4
Solar and others	0	0	0	3	9	15	19	22	25			8.5	2.4
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**5915**	**3394**	**2473**	**3242**	**3740**	**4301**	**4748**	**5092**	**5560**	**-8.4**	**4.2**	**2.4**	**1.6**
Solids	904	155	63	77	68	69	80	276	503	-23.4	0.8	1.5	20.2
Oil	2396	2046	1143	1304	1504	1617	1708	1789	1942	-7.1	2.8	1.3	1.3
- Crude oil and Feedstocks	1	1	60	1	1	1	1	1	1	49.1	-35.4	1.3	1.3
- Oil products	2395	2044	1083	1303	1503	1616	1707	1788	1941	-7.6	3.3	1.3	1.3
Natural gas	2308	999	1113	1687	1992	2430	2765	2822	2899	-7.0	6.0	3.3	0.5
Electricity	308	194	154	174	176	185	195	205	216	-6.7	1.4	1.0	1.0
Gross Inland Consumption	**6169**	**3718**	**3669**	**4408**	**5429**	**6272**	**6914**	**7380**	**7849**	**-5.1**	**4.0**	**2.4**	**1.3**
Solids	934	259	159	96	86	86	106	304	533	-16.2	-5.9	2.1	17.5
Oil	2396	2003	1203	1304	1504	1617	1708	1789	1942	-6.7	2.3	1.3	1.3
Natural gas	2145	1010	1092	1687	1992	2430	2765	2822	2899	-6.5	6.2	3.3	0.5
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	308	194	154	174	176	185	195	205	216	-6.7	1.4	1.0	1.0
Renewable energy forms	387	253	1061	1147	1672	1953	2139	2259	2258	10.6	4.7	2.5	0.5
as % in Gross Inland Consumption													
Solids	15.1	7.0	4.3	2.2	1.6	1.4	1.5	4.1	6.8				
Oil	38.8	53.9	32.8	29.6	27.7	25.8	24.7	24.2	24.7				
Natural gas	34.8	27.2	29.8	38.3	36.7	38.7	40.0	38.2	36.9				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	6.3	6.8	28.9	26.0	30.8	31.1	30.9	30.6	28.8				
Electricity Generation in GWh_e	**6646**	**3978**	**4135**	**5367**	**7618**	**10436**	**13116**	**15593**	**17527**	**-4.6**	**6.3**	**5.6**	**2.9**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	4495	2936	2822	2769	3205	3433	3720	4129	4567	-4.5	1.3	1.5	2.1
Thermal (incl. biomass)	2151	1042	1313	2597	4413	7003	9396	11465	12960	-4.8	12.9	7.8	3.3
Fuel Inputs for Thermal Power Generation [1]	**925**	**585**	**513**	**735**	**1031**	**1461**	**1824**	**2064**	**2292**	**-5.7**	**7.2**	**5.9**	**2.3**
Solids	3	54	40	15	15	15	26	216	488	28.7	-9.3	5.5	34.2
Oil (including refinery gas)	310	242	70	44	16	16	18	18	14	-13.9	-13.9	1.4	-2.5
Gas	612	289	388	568	864	1148	1412	1262	1217	-4.4	8.3	5.0	-1.5
Biomass & Waste	0	0	15	107	136	281	369	569	573		24.7	10.5	4.5
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**1214**	**836**	**617**	**596**	**670**	**611**	**583**	**551**	**521**	**-6.5**	**0.8**	**-1.4**	**-1.1**
Refineries	1	1	1	1	1	1	1	1	1	0.0	-3.6	1.3	1.3
Biofuels and hydrogen production	0	0	0	16	45	59	86	103	121			6.6	3.4
District heating	1196	827	614	578	624	551	496	446	400	-6.4	0.2	-2.3	-2.1
Others	17	8	1	1	1	0	0	0	0	-21.6	-8.4	-8.4	-8.4
Energy Branch Consumption	**46**	**145**	**141**	**136**	**158**	**179**	**198**	**217**	**234**	**11.8**	**1.2**	**2.3**	**1.7**
Non-Energy Uses	**0**	**6**	**75**	**122**	**179**	**229**	**269**	**297**	**318**		**9.1**	**4.1**	**1.7**
Final Energy Demand	**4798**	**2845**	**2898**	**3697**	**4580**	**5317**	**5871**	**6292**	**6667**	**-4.9**	**4.7**	**2.5**	**1.3**
by sector													
Industry[1]	868	545	656	739	925	1120	1269	1401	1530	-2.8	3.5	3.2	1.9
- energy intensive industries	305	185	216	237	282	320	343	361	376	-3.4	2.7	2.0	0.9
- other industrial sectors	563	359	440	502	643	800	926	1040	1154	-2.4	3.9	3.7	2.2
Residential	2240	883	965	1368	1773	2102	2341	2516	2621	-8.1	6.3	2.8	1.1
Tertiary	554	556	585	733	905	1028	1093	1117	1138	0.6	4.5	1.9	0.4
Transport	1136	860	691	858	977	1066	1168	1259	1378	-4.8	3.5	1.8	1.7
by fuel [1]													
Solids	610	114	58	53	45	38	30	24	17	-21.0	-2.5	-4.0	-5.5
Oil	2084	1176	939	1089	1253	1347	1428	1505	1615	-7.7	2.9	1.3	1.2
Gas	579	292	329	605	705	864	970	1123	1253	-5.5	7.9	3.2	2.6
Electricity	749	385	382	495	682	913	1141	1342	1498	-6.5	6.0	5.3	2.8
Heat (from CHP and District Heating)	776	878	590	695	817	922	996	1015	1013	-2.7	3.3	2.0	0.2
Other	0	0	600	761	1079	1232	1304	1283	1271		6.0	1.9	-0.3
CO2 Emissions (Mt of CO2)	**15.8**	**9.0**	**6.3**	**7.8**	**8.9**	**10.1**	**11.1**	**12.1**	**13.6**	**-8.7**	**3.4**	**2.2**	**2.1**
Power generation/District heating	5.7	4.1	2.3	2.9	3.3	3.8	4.4	4.9	5.8	-8.6	3.4	2.9	2.8
Energy Branch	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	12.4	-12.3	-0.5	-2.7
Industry	1.6	0.9	1.0	1.4	1.7	2.0	2.2	2.5	2.8	-4.6	5.5	2.7	2.5
Residential	4.4	0.5	0.3	0.4	0.5	0.6	0.7	0.7	0.7	-24.2	7.1	2.4	0.6
Tertiary	0.7	0.8	0.5	0.6	0.6	0.7	0.7	0.6	0.6	-3.1	1.6	0.4	-0.1
Transport	3.3	2.5	2.0	2.5	2.7	2.9	3.1	3.4	3.7	-4.9	3.1	1.4	1.6
CO2 Emissions Index (1990=100)	**100.0**	**57.1**	**40.1**	**49.3**	**56.2**	**63.7**	**69.9**	**76.6**	**86.1**				

Source: PRIMES

LATVIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	2.671	2.485	2.373	2.310	2.240	2.174	2.115	2.068	2.022	-1.2	-0.6	-0.6	-0.4
GDP (in 000 MEUR'00)	12.1	6.4	8.4	12.0	17.0	22.4	27.9	33.8	39.1	-3.6	7.4	5.1	3.4
Gross Inl. Cons./GDP (toe/MEUR'00)	509.5	576.6	437.9	366.0	318.7	279.6	247.9	218.4	200.5	-1.5	-3.1	-2.5	-2.1
Gross Inl. Cons./Capita (toe/inhabitant)	2.31	1.50	1.55	1.91	2.42	2.88	3.27	3.57	3.88	-3.9	4.6	3.0	1.7
Electricity Generated/Capita (kWh/inhabitant)	2488	1601	1743	2323	3401	4800	6200	7540	8666	-3.5	6.9	6.2	3.4
Carbon intensity (t of CO_2/toe of GIC)	2.56	2.43	1.73	1.77	1.64	1.61	1.60	1.64	1.73	-3.9	-0.6	-0.2	0.8
CO_2 Emissions/Capita (t of CO_2/inhabitant)	5.92	3.63	2.68	3.38	3.97	4.63	5.23	5.86	6.73	-7.6	4.0	2.8	2.6
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	1306.0	1399.8	757.7	647.4	521.5	449.0	396.4	358.5	347.8	-5.3	-3.7	-2.7	-1.3
Import Dependency %	95.9	91.3	67.4	73.5	68.9	68.6	68.7	69.0	70.8	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	195.6	180.3	131.4	106.7	93.1	83.4	75.5	71.1	6.1	-5.1	-2.4	-1.6
Residential (Energy on Private Income)	100.0	71.9	60.6	58.7	53.6	48.2	43.1	38.2	34.3	-4.9	-1.2	-2.2	-2.3
Tertiary (Energy on Value added)	100.0	126.0	99.5	88.6	78.8	68.7	58.8	49.5	43.3	0.0	-2.3	-2.9	-3.0
Transport (Energy on GDP)	100.0	142.2	88.0	75.9	61.1	50.7	44.6	39.7	37.5	-1.3	-3.6	-3.1	-1.7
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.37	0.26	0.18	0.18	0.17	0.16	0.16	0.16	0.18	-6.8	-0.9	-0.6	1.2
Final energy demand (t of CO_2/toe)	2.09	1.64	1.31	1.32	1.22	1.16	1.13	1.15	1.17	-4.5	-0.8	-0.7	0.3
Industry	1.81	1.59	1.49	1.95	1.80	1.77	1.71	1.79	1.81	-1.9	1.9	-0.5	0.6
Residential	1.95	0.58	0.28	0.30	0.31	0.30	0.29	0.28	0.28	-17.6	0.8	-0.4	-0.6
Tertiary	1.32	1.39	0.92	0.77	0.70	0.64	0.60	0.58	0.57	-3.6	-2.7	-1.5	-0.5
Transport	2.94	2.94	2.92	2.87	2.79	2.74	2.68	2.67	2.66	-0.1	-0.4	-0.4	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**2119**	**2382**	**2841**	**3400**	**3960**	**4409**	**4637**		**3.0**	**3.4**	**1.6**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			1533	1576	1684	1694	1719	1747	1766		0.9	0.2	0.3
Wind			2	5	93	157	244	310	423		46.9	10.1	5.6
Solar			0	0	1	4	7	13	16			21.5	8.6
Thermal			583	801	1063	1546	1990	2339	2432		6.2	6.5	2.0
of which cogeneration units			513	729	984	1463	1916	2280	2328		6.7	6.9	2.0
Solids fired			30	30	30	30	35	234	488		0.0	1.6	30.0
Gas fired			359	499	718	1032	1409	1376	1287		7.2	7.0	-0.9
Oil fired			185	185	202	198	151	118	43		0.9	-2.9	-11.8
Biomass-waste fired			9	86	112	286	394	611	614		28.4	13.4	4.5
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			22.0	30.4	36.8	41.2	44.3	47.8	48.6	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			22.3	25.7	30.6	35.0	37.8	40.4	43.1	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			30.3	47.0	56.5	65.5	70.4	72.1	70.9	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			69.6	60.8	50.5	47.2	42.8	44.5	42.2	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			69.6	60.8	50.5	47.2	42.8	44.5	42.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**19.9**	**11.1**	**10.5**	**11.9**	**13.2**	**14.7**	**16.3**	**18.1**	**20.3**	**-6.2**	**2.4**	**2.1**	**2.2**
Public road transport	5.9	1.8	2.3	2.2	2.1	2.0	2.0	2.0	1.9	-8.7	-1.0	-0.6	-0.3
Private cars and motorcycles	7.6	7.1	6.6	8.2	9.6	11.2	12.9	14.7	17.0	-1.4	3.8	2.9	2.8
Rail	6.0	1.9	1.3	1.3	1.2	1.2	1.2	1.2	1.2	-14.0	-0.6	-0.5	-0.2
Aviation	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-6.2	3.2	0.8	0.9
Inland navigation	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.0	-2.9	-1.7	-1.5
Travel per person (km per capita)	7435	4462	4414	5152	5912	6769	7700	8740	10052	-5.1	3.0	2.7	2.7
Freight transport activity (Gtkm)	**24.8**	**12.0**	**18.1**	**23.2**	**29.2**	**34.6**	**39.0**	**42.8**	**45.2**	**-3.1**	**4.9**	**2.9**	**1.5**
Trucks	5.9	1.8	4.8	6.6	8.7	10.9	13.0	15.1	16.9	-2.0	6.2	4.1	2.6
Rail	18.5	9.8	13.3	16.6	20.5	23.6	25.9	27.7	28.4	-3.3	4.4	2.4	0.9
Inland navigation	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Freight activity per unit of GDP (tkm/000 Euro'00)	2051	1859	2160	1928	1714	1540	1397	1267	1156	0.5	-2.3	-2.0	-1.9
Energy demand in transport (ktoe)	**1136**	**860**	**691**	**858**	**977**	**1066**	**1168**	**1259**	**1378**	**-4.8**	**3.5**	**1.8**	**1.7**
Public road transport	34	24	30	29	27	26	24	23	21	-1.2	-1.0	-1.2	-1.3
Private cars and motorcycles	537	447	388	482	515	543	604	662	743	-3.2	2.9	1.6	2.1
Trucks	175	127	162	222	296	367	420	462	503	-0.8	6.2	3.6	1.8
Rail	129	90	76	88	99	93	85	85	84	-5.2	2.8	-1.6	0.0
Aviation	102	26	27	30	33	32	31	23	22	-12.6	2.2	-0.8	-3.3
Inland navigation	158	148	8	7	6	5	5	5	4	-25.7	-2.9	-1.8	-1.6
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	40.4	51.9	44.6	47.0	44.7	41.6	41.0	39.6	39.0	1.0	0.0	-0.9	-0.5
Freight transport (toe/Mtkm)	13.4	23.8	12.4	12.8	13.2	13.1	12.8	12.7	12.9	-0.8	0.6	-0.3	0.1

LITHUANIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**4455**	**3249**	**3169**	**2051**	**961**	**1169**	**2351**	**2745**	**3334**	**-3.3**	**-11.2**	**9.4**	**3.6**
Solids	14	14	12	5	4	4	3	3	4	-1.6	-9.7	-2.7	1.0
Oil	12	153	337	158	161	184	180	190	202	39.6	-7.1	1.2	1.1
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	4394	3050	2172	1177	0	0	906	1094	1544	-6.8			5.5
Renewable energy sources	36	32	649	711	796	981	1261	1458	1584	33.7	2.1	4.7	2.3
Hydro	36	32	29	34	38	47	63	71	74	-2.0	2.7	5.1	1.7
Biomass & Waste	0	0	619	674	752	925	1139	1301	1402		2.0	4.2	2.1
Wind	0	0	0	1	1	1	46	65	77			48.1	5.4
Solar and others	0	0	0	2	5	9	14	21	30			11.5	7.9
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**11936**	**5668**	**4360**	**5720**	**6232**	**6973**	**7170**	**7632**	**7992**	**-9.6**	**3.6**	**1.4**	**1.1**
Solids	885	184	87	61	47	39	36	38	349	-20.7	-6.0	-2.6	25.4
Oil	7257	3686	2297	2332	2369	2681	2634	2770	2946	-10.9	0.3	1.1	1.1
- Crude oil and Feedstocks	9528	3609	4827	2366	2411	2744	2665	2783	2939	-6.6	-6.7	1.0	1.0
- Oil products	-2271	77	-2530	-34	-42	-63	-31	-12	7				
Natural gas	4824	2029	2090	3463	3787	4319	4835	5210	5089	-8.0	6.1	2.5	0.5
Electricity	-1030	-230	-115	-136	29	-66	-335	-386	-392				
Gross Inland Consumption	**16025**	**8276**	**7226**	**7661**	**7065**	**7996**	**9360**	**10204**	**11141**	**-7.7**	**-0.2**	**2.9**	**1.8**
Solids	927	284	99	66	51	43	39	42	352	-20.1	-6.4	-2.6	24.5
Oil	6875	3112	2331	2381	2401	2719	2653	2787	2963	-10.2	0.3	1.0	1.1
Natural gas	4824	2029	2090	3463	3787	4319	4835	5210	5089	-8.0	6.1	2.5	0.5
Nuclear	4394	3050	2172	1177	0	0	906	1094	1544	-6.8			5.5
Electricity	-1030	-230	-115	-136	29	-66	-335	-386	-392				
Renewable energy forms	36	32	649	711	796	981	1261	1458	1584	33.7	2.1	4.7	2.3
as % in Gross Inland Consumption													
Solids	5.8	3.4	1.4	0.9	0.7	0.5	0.4	0.4	3.2				
Oil	42.9	37.6	32.3	31.1	34.0	34.0	28.3	27.3	26.6				
Natural gas	30.1	24.5	28.9	45.2	53.6	54.0	51.7	51.1	45.7				
Nuclear	27.4	36.8	30.1	15.4	0.0	0.0	9.7	10.7	13.9				
Renewable energy forms	0.2	0.4	9.0	9.3	11.3	12.3	13.5	14.3	14.2				
Electricity Generation in GWh_e	**28400**	**13518**	**11118**	**13626**	**12343**	**15854**	**21433**	**24207**	**26711**	**-9.0**	**1.1**	**5.7**	**2.2**
Nuclear	17030	11820	8417	4561	0	0	3513	4240	5985	-6.8			5.5
Hydro & wind	414	373	339	400	455	557	1267	1596	1786	-2.0	3.0	10.8	3.5
Thermal (incl. biomass)	10956	1325	2362	8665	11888	15297	16653	18371	18940	-14.2	17.5	3.4	1.3
Fuel Inputs for Thermal Power Generation [1]	**2610**	**926**	**901**	**2132**	**2063**	**2538**	**2754**	**3047**	**3261**	**-10.1**	**8.6**	**2.9**	**1.7**
Solids	0	0	0	0	0	0	1	5	319				87.4
Oil (including refinery gas)	1067	493	175	642	218	63	36	34	44	-16.5	2.2	-16.6	2.1
Gas	1543	433	726	1382	1744	2348	2495	2705	2559	-7.3	9.2	3.7	0.3
Biomass & Waste	0	0	0	108	101	126	222	303	338			8.2	4.3
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**11459**	**4484**	**5747**	**3247**	**3351**	**3758**	**3795**	**3957**	**4071**	**-6.7**	**-5.3**	**1.3**	**0.7**
Refineries	9618	3391	5086	2621	2662	3015	2962	3116	3313	-6.2	-6.3	1.1	1.1
Biofuels and hydrogen production	0	0	0	10	20	53	137	168	194			21.4	3.6
District heating	1833	1088	658	614	667	689	696	672	563	-9.7	0.1	0.4	-2.1
Others	8	5	4	2	2	1	1	1	1	-7.0	-7.6	-5.0	-0.7
Energy Branch Consumption	**788**	**484**	**653**	**908**	**891**	**957**	**1017**	**1062**	**1131**	**-1.9**	**3.2**	**1.3**	**1.1**
Non-Energy Uses	**852**	**563**	**662**	**654**	**665**	**701**	**729**	**753**	**788**	**-2.5**	**0.0**	**0.9**	**0.8**
Final Energy Demand	**9423**	**4097**	**3639**	**4165**	**4809**	**5540**	**6229**	**6854**	**7516**	**-9.1**	**2.8**	**2.6**	**1.9**
by sector													
Industry[1]	3229	940	678	755	940	1156	1328	1484	1669	-14.4	3.3	3.5	2.3
- energy intensive industries	1574	410	253	255	302	365	408	440	483	-16.7	1.8	3.0	1.7
- other industrial sectors	1656	530	426	500	637	791	920	1044	1187	-12.7	4.1	3.7	2.6
Residential	1662	1248	1345	1425	1582	1796	2026	2251	2454	-2.1	1.6	2.5	1.9
Tertiary	2541	872	568	659	777	912	1023	1123	1215	-13.9	3.2	2.8	1.7
Transport	1990	1037	1048	1326	1510	1677	1852	1996	2177	-6.2	3.7	2.1	1.6
by fuel [1]													
Solids	852	236	88	58	44	37	36	35	33	-20.3	-6.7	-2.1	-0.7
Oil	4055	1666	1348	1526	1763	1955	2055	2176	2336	-10.4	2.7	1.5	1.3
Gas	1483	510	367	458	545	672	833	970	1092	-13.0	4.0	4.3	2.7
Electricity	1033	546	531	681	848	1059	1257	1435	1618	-6.4	4.8	4.0	2.6
Heat (from CHP and District Heating)	2000	1140	725	876	992	1082	1188	1263	1380	-9.7	3.2	1.8	1.5
Other	0	0	579	566	617	736	859	974	1057		0.6	3.4	2.1
CO2 Emissions (Mt of CO2)	**32.9**	**13.5**	**10.2**	**13.8**	**14.4**	**16.4**	**17.3**	**18.4**	**19.8**	**-11.0**	**3.5**	**1.8**	**1.4**
Power generation/District heating	12.1	5.6	3.9	6.7	6.3	7.3	7.5	8.0	8.7	-10.7	5.0	1.8	1.5
Energy Branch	1.6	0.8	1.1	1.3	1.4	1.6	1.5	1.5	1.5	-3.3	2.3	0.8	-0.4
Industry	6.0	1.7	1.1	1.0	1.3	1.5	1.7	1.9	1.9	-15.9	1.6	3.1	1.3
Residential	2.5	0.8	0.5	0.5	0.6	0.7	0.9	1.0	1.2	-14.0	0.8	3.7	3.0
Tertiary	4.8	1.6	0.5	0.4	0.4	0.5	0.5	0.6	0.6	-20.2	-1.6	1.8	1.3
Transport	5.8	3.0	3.1	3.9	4.4	4.8	5.1	5.5	5.9	-6.2	3.6	1.5	1.5
CO2 Emissions Index (1990=100)	**100.0**	**41.1**	**31.1**	**42.0**	**43.9**	**50.0**	**52.5**	**56.1**	**60.3**				

Source: PRIMES

LITHUANIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	3.698	3.629	3.500	3.447	3.345	3.258	3.182	3.134	3.092	-0.5	-0.5	-0.5	-0.3
GDP (in 000 MEUR'00)	17.3	10.0	12.3	17.4	23.1	29.9	37.2	45.5	54.3	-3.3	6.5	4.9	3.8
Gross Inl. Cons./GDP (toe/MEUR'00)	925.9	824.6	586.5	439.6	305.4	267.8	251.6	224.3	205.3	-4.5	-6.3	-1.9	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	4.33	2.28	2.06	2.22	2.11	2.45	2.94	3.26	3.60	-7.1	0.2	3.4	2.1
Electricity Generated/Capita (kWh/inhabitant)	7680	3725	3177	3953	3690	4867	6735	7725	8639	-8.4	1.5	6.2	2.5
Carbon intensity (t of CO_2/toe of GIC)	2.05	1.63	1.41	1.80	2.04	2.05	1.84	1.81	1.78	-3.6	3.7	-1.0	-0.4
CO_2 Emissions/Capita (t of CO_2/inhabitant)	8.88	3.72	2.92	4.00	4.31	5.04	5.42	5.88	6.40	-10.5	4.0	2.3	1.7
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	1898.4	1346.1	829.5	791.2	623.2	550.1	463.8	405.2	364.9	-7.9	-2.8	-2.9	-2.4
Import Dependency %	74.1	67.4	59.6	73.6	86.6	85.6	75.3	73.5	70.6	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	68.4	36.3	25.7	23.1	21.3	19.4	17.7	16.7	-9.6	-4.4	-1.7	-1.5
Residential (Energy on Private Income)	100.0	129.5	107.5	79.2	65.9	57.7	52.0	47.1	42.9	0.7	-4.8	-2.3	-1.9
Tertiary (Energy on Value added)	100.0	41.8	21.7	19.9	17.9	16.4	14.8	13.2	11.9	-14.2	-1.9	-1.9	-2.2
Transport (Energy on GDP)	100.0	89.9	73.9	66.2	56.8	48.8	43.3	38.1	34.9	-3.0	-2.6	-2.7	-2.1
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.23	0.19	0.17	0.25	0.23	0.23	0.19	0.18	0.18	-2.7	3.1	-2.0	-0.6
Final energy demand (t of CO_2/toe)	2.03	1.73	1.43	1.39	1.39	1.36	1.31	1.29	1.28	-3.5	-0.3	-0.5	-0.3
Industry	1.87	1.81	1.58	1.35	1.34	1.33	1.28	1.25	1.17	-1.7	-1.7	-0.4	-1.0
Residential	1.50	0.64	0.41	0.36	0.38	0.40	0.43	0.44	0.47	-12.2	-0.8	1.2	1.0
Tertiary	1.89	1.81	0.89	0.62	0.55	0.52	0.50	0.49	0.48	-7.3	-4.6	-0.9	-0.5
Transport	2.93	2.91	2.93	2.92	2.90	2.85	2.75	2.73	2.72	0.0	-0.1	-0.5	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**5206**	**4445**	**4814**	**5553**	**5707**	**5713**	**6777**		**-0.8**	**1.7**	**1.7**
Nuclear			2500	1250	0	0	452	545	768				5.4
Hydro (pumping excluded)			101	116	132	161	217	245	258		2.7	5.1	1.7
Wind			0	7	7	7	276	370	431			43.9	4.5
Solar			0	0	1	4	7	13	16			21.5	8.6
Thermal			2605	3072	4674	5381	4755	4540	5305		6.0	0.2	1.1
of which cogeneration units			1195	1585	2972	3508	3245	3445	4106		9.5	0.9	2.4
Solids fired			0	0	0	0	1	5	342				90.1
Gas fired			470	860	2147	2836	2940	3171	4181		16.4	3.2	3.6
Oil fired			2000	2075	2390	2390	1578	1037	427		1.8	-4.1	-12.2
Biomass-waste fired			135	137	137	155	237	327	354		0.1	5.6	4.1
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			22.5	34.9	49.6	51.8	52.0	51.9	50.0	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			24.4	35.0	29.3	32.6	42.9	48.4	45.0	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			22.9	58.8	80.0	76.1	61.1	61.0	69.7	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			82.0	39.4	6.8	6.7	26.9	29.8	34.9	0.0	0.0	0.0	0.0
- nuclear			75.7	33.5	0.0	0.0	16.4	17.5	22.4	0.0	0.0	0.0	0.0
- renewable energy forms			6.3	5.9	6.8	6.7	10.6	12.3	12.5	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**24.3**	**17.2**	**17.3**	**20.4**	**23.0**	**25.2**	**27.4**	**29.8**	**32.8**	**-3.4**	**2.9**	**1.8**	**1.8**
Public road transport	7.9	4.2	2.2	2.1	2.0	1.9	1.8	1.8	1.7	-12.2	-0.8	-0.9	-0.7
Private cars and motorcycles	12.3	11.7	14.3	17.4	20.1	22.4	24.6	27.0	30.1	1.5	3.5	2.1	2.0
Rail	3.6	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	-16.3	-0.3	-0.4	-0.1
Aviation	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	-5.0	3.0	1.5	1.5
Inland navigation	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-10.8	2.7	0.9	1.1
Travel per person (km per capita)	6584	4742	4942	5921	6870	7750	8600	9496	10604	-2.8	3.3	2.3	2.1
Freight transport activity (Gtkm)	**26.6**	**12.4**	**16.7**	**22.0**	**26.9**	**32.7**	**38.1**	**43.5**	**48.4**	**-4.6**	**4.9**	**3.6**	**2.4**
Trucks	7.3	5.2	7.8	10.8	13.7	17.2	20.8	24.3	27.5	0.6	5.8	4.2	2.9
Rail	19.3	7.2	8.9	11.3	13.2	15.5	17.4	19.2	20.9	-7.4	4.0	2.8	1.9
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Freight activity per unit of GDP (tkm/000 Euro'00)	1537	1236	1355	1265	1162	1094	1025	956	893	-1.3	-1.5	-1.2	-1.4
Energy demand in transport (ktoe)	**1990**	**1037**	**1048**	**1326**	**1510**	**1677**	**1852**	**1996**	**2177**	**-6.2**	**3.7**	**2.1**	**1.6**
Public road transport	157	50	38	37	35	33	30	28	26	-13.2	-0.8	-1.4	-1.6
Private cars and motorcycles	553	477	534	651	684	691	740	787	854	-0.3	2.5	0.8	1.4
Trucks	1009	382	371	514	655	817	943	1046	1157	-9.5	5.8	3.7	2.1
Rail	132	86	75	90	99	98	99	105	110	-5.5	2.9	0.0	1.0
Aviation	135	41	27	31	34	34	34	26	25	-14.9	2.3	0.0	-3.1
Inland navigation	5	1	3	4	4	4	5	5	5	-5.0	2.5	1.9	1.1
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	37.8	34.3	35.4	35.9	33.3	30.4	29.6	28.4	27.7	-0.6	-0.6	-1.2	-0.6
Freight transport (toe/Mtkm)	40.2	36.0	26.1	26.9	27.7	27.8	27.3	26.4	26.2	-4.3	0.6	-0.2	-0.4

LUXEMBURG: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**47**	**47**	**57**	**49**	**92**	**144**	**233**	**271**	**286**	**1.9**	**5.0**	**9.7**	**2.1**
Solids	0	0	0	0	0	0	0	0	0				
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	47	47	57	49	92	144	233	271	286	1.9	5.0	9.7	2.1
Hydro	6	7	10	10	10	10	10	10	10	5.8	0.0	0.0	0.0
Biomass & Waste	41	39	44	31	72	123	206	243	258	0.7	5.0	11.1	2.3
Wind	0	0	2	6	7	8	14	14	13		12.3	6.2	-0.3
Solar and others	0	0	0	2	2	2	3	4	4			2.8	3.0
Geothermal	0	0	0	0	0	0	0	0	0			0.1	1.8
Net Imports	**3516**	**3257**	**3619**	**4018**	**4328**	**4609**	**4820**	**4921**	**4948**	**0.3**	**1.8**	**1.1**	**0.3**
Solids	1130	514	125	43	37	37	36	32	25	-19.7	-11.5	-0.3	-3.7
Oil	1620	1756	2332	2529	2686	2745	2794	2758	2707	3.7	1.4	0.4	-0.3
- Crude oil and Feedstocks	0	0	0	0	0	0	0	0	0				
- Oil products	1620	1756	2332	2529	2686	2745	2794	2758	2707	3.7	1.4	0.4	-0.3
Natural gas	430	557	669	1069	1180	1306	1443	1555	1611	4.5	5.8	2.0	1.1
Electricity	336	430	492	378	424	521	548	576	605	3.9	-1.5	2.6	1.0
Gross Inland Consumption	**3551**	**3335**	**3627**	**4067**	**4420**	**4753**	**5054**	**5192**	**5234**	**0.2**	**2.0**	**1.3**	**0.4**
Solids	1130	514	125	43	37	37	36	32	25	-19.7	-11.5	-0.3	-3.7
Oil	1609	1788	2283	2529	2686	2745	2794	2758	2707	3.6	1.6	0.4	-0.3
Natural gas	430	557	669	1069	1180	1306	1443	1555	1611	4.5	5.8	2.0	1.1
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	336	430	492	378	424	521	548	576	605	3.9	-1.5	2.6	1.0
Renewable energy forms	47	47	57	49	92	144	233	271	286	1.9	5.0	9.7	2.1
as % in Gross Inland Consumption													
Solids	31.8	15.4	3.5	1.0	0.8	0.8	0.7	0.6	0.5				
Oil	45.3	53.6	63.0	62.2	60.8	57.7	55.3	53.1	51.7				
Natural gas	12.1	16.7	18.5	26.3	26.7	27.5	28.6	29.9	30.8				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	1.3	1.4	1.6	1.2	2.1	3.0	4.6	5.2	5.5				
Electricity Generation in GWh_e	**627**	**498**	**433**	**2133**	**2236**	**2050**	**2457**	**2784**	**2853**	**-3.6**	**17.8**	**1.0**	**1.5**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	68	84	147	194	207	210	279	282	275	8.0	3.5	3.0	-0.1
Thermal (incl. biomass)	559	414	286	1939	2029	1840	2179	2502	2578	-6.5	21.6	0.7	1.7
Fuel Inputs for Thermal Power Generation [1]	**195**	**130**	**85**	**341**	**359**	**325**	**380**	**428**	**441**	**-8.0**	**15.5**	**0.6**	**1.5**
Solids	0	0	0	0	0	0	0	0	0				
Oil (including refinery gas)	7	0	0	0	0	0	0	0	0	-28.9	-4.4	-2.0	-4.1
Gas	163	106	57	332	348	316	347	383	393	-10.0	19.9	0.0	1.2
Biomass & Waste	25	24	28	9	10	9	33	45	48	1.0	-9.6	12.4	3.8
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**378**	**144**	**0**	**19**	**63**	**117**	**178**	**204**	**215**			**11.0**	**1.9**
Refineries	0	0	0	0	0	0	0	0	0				
Biofuels and hydrogen production	0	0	0	9	54	110	174	202	215			12.5	2.2
District heating	0	0	0	9	9	7	4	2	0			-7.7	
Others	378	144	0	0	0	0	0	0	0				
Energy Branch Consumption	**31**	**30**	**26**	**22**	**22**	**22**	**22**	**22**	**22**	**-1.8**	**-1.4**	**0.0**	**0.0**
Non-Energy Uses	**20**	**23**	**14**	**18**	**23**	**28**	**31**	**33**	**34**	**-3.9**	**5.3**	**3.1**	**1.0**
Final Energy Demand	**3325**	**3148**	**3534**	**3877**	**4208**	**4547**	**4811**	**4929**	**4968**	**0.6**	**1.8**	**1.3**	**0.3**
by sector													
Industry[1]	1725	1180	944	983	1126	1359	1512	1620	1676	-5.9	1.8	3.0	1.0
- energy intensive industries	1521	883	484	463	491	522	530	533	524	-10.8	0.1	0.8	-0.1
- other industrial sectors	204	296	459	520	635	837	983	1087	1152	8.5	3.3	4.5	1.6
Residential	519	559	596	643	669	679	672	669	670	1.4	1.2	0.0	0.0
Tertiary	74	103	118	154	168	185	209	230	249	4.7	3.6	2.3	1.8
Transport	1007	1307	1877	2097	2245	2325	2418	2410	2373	6.4	1.8	0.7	-0.2
by fuel [1]													
Solids	752	367	121	43	37	37	36	32	25	-16.7	-11.1	-0.3	-3.7
Oil	1581	1752	2266	2511	2663	2717	2763	2725	2673	3.7	1.6	0.4	-0.3
Gas	622	585	612	726	822	980	1086	1162	1209	-0.2	3.0	2.8	1.1
Electricity	355	430	491	527	582	662	724	781	816	3.3	1.7	2.2	1.2
Heat (from CHP and District Heating)	0	0	28	49	52	56	59	62	66		6.5	1.2	1.1
Other	15	15	16	22	52	93	143	167	180	0.4	12.5	10.7	2.3
CO2 Emissions (Mt of CO2)	**10.6**	**8.7**	**8.8**	**10.2**	**10.9**	**11.4**	**11.8**	**11.9**	**11.9**	**-1.8**	**2.1**	**0.8**	**0.1**
Power generation/District heating	0.7	0.4	0.1	0.8	0.8	0.8	0.8	0.9	0.9	-15.5	20.1	-0.2	1.1
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				4.3
Industry	5.7	3.1	1.6	1.6	1.8	2.2	2.5	2.7	2.7	-11.7	1.2	3.1	0.9
Residential	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.1	0.7	-0.2	-0.3
Tertiary	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	17.3	5.9	2.7	1.7
Transport	3.0	3.9	5.6	6.2	6.6	6.7	6.8	6.7	6.6	6.5	1.6	0.4	-0.4
CO2 Emissions Index (1990=100)	**100.0**	**81.8**	**83.0**	**95.8**	**102.4**	**106.8**	**111.0**	**112.3**	**111.8**				

Source: PRIMES

LUXEMBURG: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	0.382	0.410	0.439	0.458	0.477	0.499	0.521	0.544	0.567	1.4	0.8	0.9	0.9
GDP (in 000 MEUR'00)	12.5	15.1	21.3	24.6	31.7	41.7	50.7	58.7	64.4	5.5	4.1	4.8	2.4
Gross Inl. Cons./GDP (toe/MEUR'00)	284.9	220.4	170.4	165.0	139.6	114.1	99.6	88.4	81.3	-5.0	-2.0	-3.3	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	9.30	8.13	8.26	8.88	9.26	9.53	9.70	9.54	9.23	-1.2	1.1	0.5	-0.5
Electricity Generated/Capita (kWh/inhabitant)	1641	1214	986	4657	4683	4112	4718	5118	5031	-5.0	16.9	0.1	0.6
Carbon intensity (t of CO_2/toe of GIC)	3.00	2.61	2.43	2.51	2.46	2.39	2.34	2.30	2.27	-2.1	0.1	-0.5	-0.3
CO_2 Emissions/Capita (t of CO_2/inhabitant)	27.85	21.23	20.11	22.25	22.81	22.77	22.67	21.96	20.97	-3.2	1.3	-0.1	-0.8
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	853.3	575.2	414.9	413.5	344.1	272.6	232.8	203.4	184.6	-7.0	-1.9	-3.8	-2.3
Import Dependency %	99.0	97.7	99.8	98.8	97.9	97.0	95.4	94.8	94.5	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	60.3	41.1	37.7	35.0	32.1	29.5	27.5	26.1	-8.5	-1.6	-1.7	-1.2
Residential (Energy on Private Income)	100.0	95.2	82.0	76.9	64.2	51.4	42.6	36.8	33.4	-2.0	-2.4	-4.0	-2.4
Tertiary (Energy on Value added)	100.0	106.9	87.7	98.5	83.0	69.4	64.5	61.0	60.4	-1.3	-0.5	-2.5	-0.6
Transport (Energy on GDP)	100.0	106.9	109.2	105.3	87.8	69.1	59.0	50.8	45.6	0.9	-2.2	-3.9	-2.5
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	1.15	0.77	0.18	0.30	0.29	0.28	0.26	0.26	0.25	-17.1	5.2	-1.2	-0.3
Final energy demand (t of CO_2/toe)	2.98	2.64	2.46	2.42	2.39	2.33	2.28	2.24	2.21	-1.9	-0.3	-0.5	-0.3
Industry	3.28	2.60	1.72	1.61	1.63	1.65	1.65	1.64	1.63	-6.2	-0.6	0.1	-0.2
Residential	2.45	2.39	2.37	2.27	2.27	2.25	2.22	2.19	2.16	-0.3	-0.4	-0.2	-0.3
Tertiary	0.21	0.51	0.65	0.84	0.81	0.80	0.84	0.83	0.84	12.0	2.2	0.4	0.0
Transport	2.95	2.96	2.97	2.97	2.92	2.87	2.82	2.79	2.77	0.1	-0.2	-0.4	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**304**	**695**	**709**	**711**	**773**	**821**	**815**		**8.8**	**0.9**	**0.5**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			157	157	157	157	157	157	157		0.0	0.0	0.0
Wind			10	34	44	47	74	77	70		16.0	5.3	-0.5
Solar			2	4	6	9	11	14	14		12.2	5.8	2.6
Thermal			135	500	502	499	531	574	574		14.0	0.6	0.8
of which cogeneration units			125	125	125	131	160	196	193		0.0	2.5	1.9
Solids fired			0	0	0	0	0	0	0				
Gas fired			124	489	489	490	493	525	522		14.7	0.1	0.6
Oil fired			1	1	1	0	0	0	0		0.0	-20.0	0.0
Biomass-waste fired			10	10	12	9	38	49	52		1.6	12.5	3.1
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			28.9	48.9	48.6	48.7	49.3	50.3	50.3	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			16.3	35.0	36.0	32.9	36.3	38.7	39.9	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			54.1	14.6	15.3	19.7	18.0	20.3	22.8	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			45.9	9.9	10.2	12.6	17.5	17.8	17.6	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			45.9	9.9	10.2	12.6	17.5	17.8	17.6	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**5.4**	**6.3**	**6.9**	**7.4**	**8.1**	**8.5**	**8.9**	**9.3**	**9.6**	**2.4**	**1.6**	**1.0**	**0.8**
Public road transport	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.3	-0.3	0.4
Private cars and motorcycles	4.0	4.8	5.1	5.5	6.0	6.3	6.6	6.8	7.1	2.5	1.5	0.9	0.7
Rail	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	4.8	-0.3	0.0	0.6
Aviation	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.2	1.3	5.3	5.2	2.9	1.3
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Travel per person (km per capita)	14228	15420	15654	16232	16878	17090	17084	17013	16973	1.0	0.8	0.1	-0.1
Freight transport activity (Gtkm)	**4.2**	**6.4**	**8.6**	**9.6**	**10.8**	**12.2**	**13.8**	**15.0**	**15.8**	**7.6**	**2.3**	**2.5**	**1.4**
Trucks	3.2	5.5	7.6	8.6	9.9	11.3	12.8	14.0	14.8	9.0	2.6	2.6	1.5
Rail	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.3	-0.9	0.6	0.7
Inland navigation	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.2	-0.4	0.0	0.3
Freight activity per unit of GDP (tkm/000 Euro'00)	333	421	405	389	341	293	271	255	246	2.0	-1.7	-2.3	-1.0
Energy demand in transport (ktoe)	**1007**	**1307**	**1877**	**2097**	**2245**	**2325**	**2418**	**2410**	**2373**	**6.4**	**1.8**	**0.7**	**-0.2**
Public road transport	18	18	24	24	24	23	21	19	18	3.0	0.1	-1.3	-1.3
Private cars and motorcycles	499	608	759	812	797	746	743	717	689	4.3	0.5	-0.7	-0.8
Trucks	342	479	754	853	974	1095	1188	1242	1236	8.2	2.6	2.0	0.4
Rail	13	9	15	15	13	12	9	8	8	2.0	-1.3	-4.2	-0.6
Aviation	131	189	320	388	432	445	453	420	418	9.3	3.0	0.5	-0.8
Inland navigation	4	4	4	4	4	4	4	4	4	-0.1	-0.4	-0.1	0.1
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	120.7	130.1	162.3	166.3	156.9	143.5	137.6	125.7	117.6	3.0	-0.3	-1.3	-1.6
Freight transport (toe/Mtkm)	84.5	76.1	88.5	89.7	90.9	90.2	86.7	83.3	78.5	0.5	0.3	-0.5	-1.0

MALTA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
												Annual % Change	
Primary Production	**0**	**0**	**0**	**0**	**6**	**23**	**25**	**26**	**38**			**14.8**	**4.4**
Solids	0	0	0	0	0	0	0	0	0				
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	0	0	0	0	6	23	25	26	38			14.8	4.4
Hydro	0	0	0	0	0	0	0	0	0				
Biomass & Waste	0	0	0	0	6	22	24	25	27			14.7	1.2
Wind	0	0	0	0	0	0	1	1	11			19.1	30.3
Solar and others	0	0	0	0	0	0	0	0	0				
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**611**	**877**	**1231**	**1240**	**1352**	**1419**	**1361**	**1308**	**1313**	**7.3**	**0.9**	**0.1**	**-0.4**
Solids	0	0	0	3	3	3	4	5	5			2.5	2.4
Oil	611	877	1231	1237	1349	1416	1357	1304	1308	7.3	0.9	0.1	-0.4
- Crude oil and Feedstocks	0	0	0	0	0	0	0	0	0				
- Oil products	611	877	1231	1237	1349	1416	1357	1304	1308	7.3	0.9	0.1	-0.4
Natural gas	0	0	0	0	0	0	0	0	0				
Electricity	0	0	0	0	0	0	0	0	0				
Gross Inland Consumption	**581**	**795**	**940**	**958**	**1075**	**1164**	**1115**	**1075**	**1096**	**4.9**	**1.4**	**0.4**	**-0.2**
Solids	0	0	0	3	3	3	4	5	5			2.5	2.4
Oil	581	795	940	955	1066	1138	1086	1045	1052	4.9	1.3	0.2	-0.3
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	0	0	0	0	0	0	0	0	0				
Renewable energy forms	0	0	0	0	6	23	25	26	38			14.8	4.4
as % in Gross Inland Consumption													
Solids	0.0	0.0	0.0	0.3	0.3	0.3	0.4	0.4	0.5				
Oil	100.0	100.0	100.0	99.7	99.1	97.8	97.4	97.1	96.1				
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	0.0	0.0	0.0	0.0	0.6	1.9	2.2	2.4	3.5				
Electricity Generation in GWh_e	**1100**	**1632**	**1917**	**2194**	**2508**	**2795**	**2969**	**3202**	**3456**	**5.7**	**2.7**	**1.7**	**1.5**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	0	0	0	0	2	6	9	15	128			19.1	30.3
Thermal (incl. biomass)	1100	1632	1917	2194	2506	2789	2960	3187	3328	5.7	2.7	1.7	1.2
Fuel Inputs for Thermal Power Generation [1]	**321**	**468**	**519**	**548**	**629**	**700**	**642**	**652**	**675**	**4.9**	**2.0**	**0.2**	**0.5**
Solids	0	0	0	0	0	0	0	0	0				
Oil (including refinery gas)	321	468	519	548	624	680	621	629	651	4.9	1.9	0.0	0.5
Gas	0	0	0	0	0	0	0	0	0				
Biomass & Waste	0	0	0	0	6	21	22	22	24			14.2	0.9
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**2**	**3**			**22.4**	**4.4**
Refineries	0	0	0	0	0	0	0	0	0				
Biofuels and hydrogen production	0	0	0	0	0	2	2	2	3			22.4	4.4
District heating	0	0	0	0	0	0	0	0	0				
Others	0	0	0	0	0	0	0	0	0				
Energy Branch Consumption	**8**	**19**	**10**	**11**	**12**	**14**	**14**	**14**	**15**	**2.5**	**2.3**	**0.9**	**0.9**
Non-Energy Uses	**6**	**0**	**0**	**13**	**15**	**16**	**18**	**19**	**21**			**1.7**	**1.6**
Final Energy Demand	**332**	**435**	**522**	**573**	**631**	**671**	**692**	**660**	**666**	**4.6**	**1.9**	**0.9**	**-0.4**
by sector													
Industry[1]	0	42	69	72	77	83	89	97	106		1.1	1.4	1.8
- energy intensive industries	0	0	0	0	0	0	0	0	0				
- other industrial sectors	0	42	69	72	77	83	89	97	106		1.1	1.4	1.8
Residential	55	70	82	94	109	121	130	135	141	4.0	2.8	1.8	0.8
Tertiary	56	32	52	57	65	72	72	75	80	-0.8	2.4	1.0	1.1
Transport	221	291	319	350	380	395	402	352	339	3.7	1.8	0.5	-1.7
by fuel [1]													
Solids	0	0	0	0	0	0	0	0	0				
Oil	254	327	367	398	431	446	452	401	386	3.7	1.6	0.5	-1.6
Gas	0	0	0	0	0	0	0	0	0				
Electricity	78	108	155	175	200	223	238	257	278	7.1	2.6	1.7	1.6
Heat (from CHP and District Heating)	0	0	0	0	0	0	0	0	0				
Other	0	0	0	0	0	1	2	2	3			22.7	4.6
CO2 Emissions (Mt of CO2)	**1.8**	**2.5**	**2.7**	**2.9**	**3.3**	**3.5**	**3.3**	**3.2**	**3.2**	**4.4**	**1.8**	**0.2**	**-0.3**
Power generation/District heating	1.0	1.5	1.7	1.7	2.0	2.2	2.0	2.0	2.1	4.9	1.9	0.0	0.5
Energy Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Industry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Residential	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.8	0.8	0.6	-0.6
Tertiary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.7	-0.2	0.4
Transport	0.7	0.9	1.0	1.0	1.1	1.2	1.2	1.0	1.0	3.8	1.7	0.5	-1.7
CO2 Emissions Index (1990=100)	**100.0**	**138.8**	**154.4**	**164.7**	**184.0**	**196.7**	**187.1**	**180.2**	**181.6**				

Source: PRIMES

MALTA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	0.360	0.378	0.390	0.402	0.423	0.439	0.454	0.468	0.479	0.8	0.8	0.7	0.5
GDP (in 000 MEUR'00)	2.6	3.3	4.1	4.2	4.7	5.5	6.6	7.7	8.7	4.9	1.3	3.4	2.8
Gross Inl. Cons./GDP (toe/MEUR'00)	226.3	242.5	227.6	227.9	228.4	210.1	169.1	140.0	126.0	0.1	0.0	-3.0	-2.9
Gross Inl. Cons./Capita (toe/inhabitant)	1.61	2.10	2.41	2.38	2.54	2.65	2.46	2.30	2.29	4.1	0.5	-0.4	-0.7
Electricity Generated/Capita (kWh/inhabitant)	3055	4317	4914	5459	5935	6369	6540	6845	7214	4.9	1.9	1.0	1.0
Carbon intensity (t of CO_2/toe of GIC)	3.06	3.10	2.92	3.05	3.04	3.00	2.98	2.98	2.94	-0.5	0.4	-0.2	-0.1
CO_2 Emissions/Capita (t of CO_2/inhabitant)	4.93	6.52	7.03	7.28	7.73	7.96	7.32	6.84	6.73	3.6	1.0	-0.5	-0.8
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	692.1	751.8	664.3	696.3	694.3	630.5	504.3	416.9	370.9	-0.4	0.4	-3.1	-3.0
Import Dependency %	100.0	104.5	100.5	100.0	99.5	98.4	98.2	98.0	97.2	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)													
Residential (Energy on Private Income)	100.0	96.3	91.7	101.8	105.9	102.4	94.5	86.1	80.4	-0.9	1.4	-1.1	-1.6
Tertiary (Energy on Value added)	100.0	42.0	54.2	61.7	63.7	58.7	48.5	43.5	40.8	-5.9	1.6	-2.7	-1.7
Transport (Energy on GDP)	100.0	103.0	89.7	96.6	93.8	82.8	70.8	53.3	45.2	-1.1	0.4	-2.8	-4.4
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.93	0.92	0.86	0.80	0.79	0.78	0.67	0.63	0.60	-0.8	-0.8	-1.7	-1.0
Final energy demand (t of CO_2/toe)	2.26	2.22	2.09	2.06	2.02	1.98	1.94	1.81	1.72	-0.8	-0.3	-0.4	-1.2
Industry		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Residential	1.66	1.43	1.34	1.18	1.10	1.03	0.97	0.90	0.84	-2.1	-2.0	-1.2	-1.5
Tertiary	0.00	0.00	0.51	0.48	0.43	0.40	0.38	0.37	0.36		-1.6	-1.2	-0.7
Transport	2.97	2.98	2.99	2.98	2.97	2.97	2.96	2.96	2.95	0.0	0.0	0.0	0.0
Electricity and steam generation													
Generation Capacity in MW_e			**552**	**687**	**615**	**626**	**724**	**900**	**1132**		**1.1**	**1.7**	**4.6**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			0	0	0	0	0	0	0				
Wind			0	0	1	2	4	6	53			19.1	30.0
Solar			0	0	0	0	0	0	0				
Thermal			552	687	614	624	721	894	1078		1.1	1.6	4.1
of which cogeneration units			0	0	0	0	0	0	0				
Solids fired			0	0	0	0	0	0	0				
Gas fired			0	0	0	0	0	0	0				
Oil fired			552	687	611	611	707	879	1063		1.0	1.5	4.2
Biomass-waste fired			0	0	4	13	14	15	16			14.5	1.3
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			31.8	34.5	34.3	34.3	39.6	42.1	42.4	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			39.7	36.5	46.6	51.0	46.8	40.6	34.9	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			0.0	0.0	1.1	3.5	3.6	3.7	6.9	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			0.0	0.0	1.1	3.5	3.6	3.7	6.9	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**2.8**	**3.6**	**4.1**	**4.6**	**5.3**	**5.9**	**6.5**	**7.0**	**7.4**	**4.0**	**2.8**	**1.9**	**1.4**
Public road transport	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-2.6	0.8	0.6	0.5
Private cars and motorcycles	2.0	2.0	2.2	2.2	2.4	2.5	2.6	2.7	2.8	1.1	1.1	0.8	0.5
Rail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Aviation	0.7	1.4	1.8	2.3	2.8	3.3	3.7	4.1	4.5	10.5	4.6	2.8	2.0
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Travel per person (km per capita)	7644	9432	10451	11465	12656	13469	14228	14865	15464	3.2	1.9	1.2	0.8
Freight transport activity (Gtkm)	**2.8**	**3.2**	**3.7**	**3.7**	**3.7**	**3.8**	**3.8**	**3.9**	**3.9**	**2.9**	**0.0**	**0.3**	**0.3**
Trucks	2.8	3.2	3.7	3.7	3.7	3.8	3.8	3.9	3.9	2.9	0.0	0.3	0.3
Rail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Freight activity per unit of GDP (tkm/000 Euro'00)	1078	976	896	885	787	678	581	506	452	-1.8	-1.3	-3.0	-2.5
Energy demand in transport (ktoe)	**221**	**291**	**319**	**350**	**380**	**395**	**402**	**352**	**339**	**3.7**	**1.8**	**0.5**	**-1.7**
Public road transport	1	1	1	1	1	1	1	1	1	1.8	0.7	0.0	-0.5
Private cars and motorcycles	42	46	78	80	80	76	76	75	74	6.3	0.3	-0.5	-0.3
Trucks	106	130	130	131	130	131	130	127	125	2.1	0.0	0.0	-0.4
Rail	0	0	0	0	0	0	0	0	0				
Aviation	72	114	110	137	169	186	195	149	139	4.3	4.4	1.4	-3.3
Inland navigation	0	0	0	0	0	0	0	0	0				
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	41.8	45.0	46.3	47.5	46.8	44.6	42.0	32.4	28.8	1.0	0.1	-1.1	-3.7
Freight transport (toe/Mtkm)	38.3	40.7	35.1	35.1	35.1	35.0	33.9	32.6	31.8	-0.9	0.0	-0.3	-0.7

THE NETHERLANDS: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**60288**	**65988**	**57172**	**63249**	**65844**	**64492**	**58086**	**52939**	**49419**	**-0.5**	**1.4**	**-1.2**	**-1.6**
Solids	0	0	0	0	0	0	0	0	0				
Oil	4029	3562	2423	2487	2645	2400	2000	1500	1000	-5.0	0.9	-2.8	-6.7
Natural gas	54613	60456	51904	57465	59000	57000	50000	44000	39000	-0.5	1.3	-1.6	-2.5
Nuclear	881	1036	1013	1023	1044	1064	1086	1626	3451	1.4	0.3	0.4	12.3
Renewable energy sources	766	933	1831	2274	3156	4028	5001	5813	5968	9.1	5.6	4.7	1.8
Hydro	7	8	12	12	12	12	12	12	12	5.3	0.0	0.0	0.0
Biomass & Waste	752	894	1739	1970	2450	3169	3948	4413	4455	8.7	3.5	4.9	1.2
Wind	5	27	71	268	650	778	943	1255	1335	30.9	24.7	3.8	3.5
Solar and others	2	4	9	24	44	69	98	132	165	18.3	17.1	8.4	5.4
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**17415**	**16340**	**34275**	**29024**	**30911**	**35884**	**43728**	**48421**	**52811**	**7.0**	**-1.0**	**3.5**	**1.9**
Solids	9546	8902	8166	8320	8240	8838	8730	9765	10169	-1.5	0.1	0.6	1.5
Oil	30876	32829	41673	38351	40415	40642	41422	41974	42494	3.0	-0.3	0.2	0.3
- Crude oil and Feedstocks	47956	59277	60955	63339	67806	69298	71252	72485	73888	2.4	1.1	0.5	0.4
- Oil products	-17080	-26448	-19282	-24988	-27391	-28655	-29831	-30511	-31394				
Natural gas	-23799	-26370	-17191	-19036	-19090	-14809	-7533	-4286	-653				
Electricity	792	980	1626	1389	1346	1213	1110	967	801	7.5	-1.9	-1.9	-3.2
Gross Inland Consumption	**66841**	**73355**	**75655**	**78505**	**82163**	**84865**	**85527**	**84726**	**85189**	**1.2**	**0.8**	**0.4**	**0.0**
Solids	9178	9079	7979	8320	8240	8838	8730	9765	10169	-1.4	0.3	0.6	1.5
Oil	24415	27242	28496	27070	28468	27531	27134	26841	26453	1.6	0.0	-0.5	-0.3
Natural gas	30810	34085	34711	38429	39910	42191	42467	39714	38347	1.2	1.4	0.6	-1.0
Nuclear	881	1036	1013	1023	1044	1064	1086	1626	3451	1.4	0.3	0.4	12.3
Electricity	792	980	1626	1389	1346	1213	1110	967	801	7.5	-1.9	-1.9	-3.2
Renewable energy forms	766	933	1831	2274	3156	4028	5001	5813	5968	9.1	5.6	4.7	1.8
as % in Gross Inland Consumption													
Solids	13.7	12.4	10.5	10.6	10.0	10.4	10.2	11.5	11.9				
Oil	36.5	37.1	37.7	34.5	34.6	32.4	31.7	31.7	31.1				
Natural gas	46.1	46.5	45.9	49.0	48.6	49.7	49.7	46.9	45.0				
Nuclear	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.9	4.1				
Renewable energy forms	1.1	1.3	2.4	2.9	3.8	4.7	5.8	6.9	7.0				
Electricity Generation in GWh_e	**71824**	**81054**	**89599**	**102417**	**112615**	**125787**	**136994**	**146105**	**153407**	**2.2**	**2.3**	**2.0**	**1.1**
Nuclear	3501	4017	3925	3965	4045	4125	4208	6302	13376	1.1	0.3	0.4	12.3
Hydro & wind	141	405	971	3279	7781	9365	11425	15234	16381	21.3	23.1	3.9	3.7
Thermal (incl. biomass)	68182	76632	84703	95173	100789	112296	121360	124569	123649	2.2	1.8	1.9	0.2
Fuel Inputs for Thermal Power Generation [1]	**15062**	**17369**	**20121**	**21096**	**22516**	**24456**	**24406**	**23138**	**22412**	**2.9**	**1.1**	**0.8**	**-0.8**
Solids	5698	5900	5114	5266	5390	6144	6196	7419	8033	-1.1	0.5	1.4	2.6
Oil (including refinery gas)	753	963	1283	905	904	628	367	326	325	5.5	-3.4	-8.6	-1.2
Gas	8150	9902	12289	13402	14467	15504	15228	12789	11816	4.2	1.6	0.5	-2.5
Biomass & Waste	461	605	1436	1524	1755	2180	2614	2604	2238	12.0	2.0	4.1	-1.5
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**72281**	**83698**	**85058**	**88909**	**93611**	**93772**	**94738**	**94766**	**94668**	**1.6**	**1.0**	**0.1**	**0.0**
Refineries	68767	80009	82188	85682	90349	90317	91118	91232	91279	1.8	1.0	0.1	0.0
Biofuels and hydrogen production	0	0	0	54	316	655	1020	1176	1249			12.4	2.0
District heating	0	0	0	1	0	29	14	0	0			75.7	-43.9
Others	3514	3689	2870	3173	2946	2772	2586	2357	2141	-2.0	0.3	-1.3	-1.9
Energy Branch Consumption	**5410**	**6247**	**4970**	**5439**	**5533**	**5575**	**5616**	**5539**	**5539**	**-0.8**	**1.1**	**0.1**	**-0.1**
Non-Energy Uses	**9486**	**9394**	**9579**	**10382**	**10785**	**10728**	**10585**	**10412**	**10249**	**0.1**	**1.2**	**-0.2**	**-0.3**
Final Energy Demand	**43946**	**48699**	**51198**	**54086**	**57060**	**59202**	**61131**	**62120**	**62715**	**1.5**	**1.1**	**0.7**	**0.3**
by sector													
Industry[1]	14171	13934	15207	16578	17867	18306	18402	18395	18252	0.7	1.6	0.3	-0.1
- energy intensive industries	10511	9540	10503	11718	12592	12800	12756	12603	12354	0.0	1.8	0.1	-0.3
- other industrial sectors	3659	4393	4703	4861	5275	5506	5647	5791	5899	2.5	1.2	0.7	0.4
Residential	9772	11124	10286	10615	11115	11623	12042	12163	12181	0.5	0.8	0.8	0.1
Tertiary	9647	11237	11885	12206	12622	13160	13600	13910	14201	2.1	0.6	0.7	0.4
Transport	10356	12404	13820	14687	15456	16113	17087	17652	18081	2.9	1.1	1.0	0.6
by fuel [1]													
Solids	1709	1414	1294	1441	1401	1359	1309	1248	1169	-2.7	0.8	-0.7	-1.1
Oil	12739	14598	16419	17097	17988	18000	18327	18366	18310	2.6	0.9	0.2	0.0
Gas	20745	22080	20527	21140	21755	22415	22633	22260	21773	-0.1	0.6	0.4	-0.4
Electricity	6322	7143	8421	9121	9852	10747	11568	12210	12646	2.9	1.6	1.6	0.9
Heat (from CHP and District Heating)	2138	3171	4225	4829	5405	5784	6098	6350	6711	7.0	2.5	1.2	1.0
Other	293	293	312	457	659	898	1195	1687	2106	0.6	7.8	6.1	5.8
CO2 Emissions (Mt of CO2)	**152.0**	**167.2**	**165.5**	**172.0**	**178.3**	**183.9**	**183.6**	**181.1**	**179.1**	**0.9**	**0.7**	**0.3**	**-0.2**
Power generation/District heating	44.6	50.3	53.7	56.3	59.2	63.8	62.4	61.3	61.3	1.9	1.0	0.5	-0.2
Energy Branch	13.6	15.8	9.6	9.4	9.0	8.5	8.3	7.9	7.4	-3.5	-0.6	-0.8	-1.1
Industry	25.5	23.6	23.3	24.9	26.7	26.4	25.6	23.7	21.5	-0.9	1.4	-0.4	-1.7
Residential	19.2	20.6	18.9	19.1	19.4	19.7	19.8	19.4	19.0	-0.2	0.3	0.2	-0.4
Tertiary	18.9	20.7	19.5	19.3	19.4	19.5	19.6	19.6	19.6	0.3	-0.1	0.1	0.0
Transport	30.1	36.2	40.5	42.9	44.6	45.9	48.0	49.2	50.3	3.0	1.0	0.7	0.5
CO2 Emissions Index (1990=100)	**100.0**	**110.0**	**108.9**	**113.2**	**117.3**	**121.0**	**120.8**	**119.2**	**117.9**				

Source: PRIMES

THE NETHERLANDS: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	14.947	15.460	15.922	16.338	16.672	16.957	17.209	17.429	17.589	0.6	0.5	0.3	0.2
GDP (in 000 MEUR'00)	302.0	334.9	402.3	416.6	463.3	509.7	555.6	601.4	641.9	2.9	1.4	1.8	1.5
Gross Inl. Cons./GDP (toe/MEUR'00)	221.3	219.1	188.1	188.4	177.4	166.5	153.9	140.9	132.7	-1.6	-0.6	-1.4	-1.5
Gross Inl. Cons./Capita (toe/inhabitant)	4.47	4.74	4.75	4.81	4.93	5.00	4.97	4.86	4.84	0.6	0.4	0.1	-0.3
Electricity Generated/Capita (kWh/inhabitant)	4805	5243	5627	6269	6755	7418	7960	8383	8722	1.6	1.8	1.7	0.9
Carbon intensity (t of CO_2/toe of GIC)	2.27	2.28	2.19	2.19	2.17	2.17	2.15	2.14	2.10	-0.4	-0.1	-0.1	-0.2
CO_2 Emissions/Capita (t of CO_2/inhabitant)	10.17	10.81	10.40	10.53	10.69	10.84	10.67	10.39	10.18	0.2	0.3	0.0	-0.5
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	503.1	499.2	411.5	412.8	384.9	360.8	330.4	301.1	279.0	-2.0	-0.7	-1.5	-1.7
Import Dependency %	22.4	19.3	38.5	31.5	31.9	35.7	42.9	47.8	51.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	90.5	86.1	97.2	98.2	93.1	87.3	81.7	76.9	-1.5	1.3	-1.2	-1.3
Residential (Energy on Private Income)	100.0	105.3	80.0	82.6	77.4	73.4	69.7	65.0	61.1	-2.2	-0.3	-1.1	-1.3
Tertiary (Energy on Value added)	100.0	103.9	89.1	86.6	79.7	75.1	70.8	66.6	63.4	-1.2	-1.1	-1.2	-1.1
Transport (Energy on GDP)	100.0	108.0	100.2	102.8	97.3	92.2	89.7	85.6	82.2	0.0	-0.3	-0.8	-0.9
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.46	0.42	0.35	0.33	0.31	0.30	0.27	0.25	0.24	-2.7	-1.3	-1.1	-1.3
Final energy demand (t of CO_2/toe)	2.13	2.08	2.00	1.96	1.93	1.88	1.85	1.80	1.76	-0.7	-0.3	-0.4	-0.5
Industry	1.80	1.69	1.53	1.50	1.49	1.44	1.39	1.29	1.18	-1.6	-0.3	-0.7	-1.6
Residential	1.96	1.85	1.84	1.80	1.74	1.70	1.64	1.59	1.56	-0.7	-0.5	-0.6	-0.5
Tertiary	1.96	1.84	1.64	1.58	1.54	1.48	1.44	1.41	1.38	-1.8	-0.7	-0.6	-0.4
Transport	2.91	2.92	2.93	2.92	2.89	2.85	2.81	2.79	2.78	0.1	-0.1	-0.3	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**20648**	**24314**	**26712**	**28845**	**33383**	**37834**	**39887**		**2.6**	**2.3**	**1.8**
Nuclear			535	535	535	535	535	803	1700		0.0	0.0	12.3
Hydro (pumping excluded)			37	37	37	37	37	37	37		0.0	0.0	0.0
Wind			446	1216	2798	3354	4068	5585	6060		20.2	3.8	4.1
Solar			12	25	119	275	497	762	1105		25.5	15.3	8.3
Thermal			19618	22501	23223	24644	28246	30648	30985		1.7	2.0	0.9
of which cogeneration units			9117	10005	10811	12289	17299	20317	19460		1.7	4.8	1.2
Solids fired			4140	4140	4140	4140	5348	7962	8573		0.0	2.6	4.8
Gas fired			13264	16130	16853	17985	20649	19665	18582		2.4	2.1	-1.0
Oil fired			1237	1237	1153	726	327	359	359		-0.7	-11.8	0.9
Biomass-waste fired			977	995	1076	1794	1921	2662	3472		1.0	6.0	6.1
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			36.2	38.8	38.5	39.5	42.8	46.3	47.4	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			49.5	48.1	48.1	49.8	46.8	44.1	43.9	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			52.5	52.1	53.7	54.0	62.6	63.3	64.6	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			10.4	11.4	15.1	17.0	19.0	22.7	26.9	0.0	0.0	0.0	0.0
- nuclear			4.4	3.9	3.6	3.3	3.1	4.3	8.7	0.0	0.0	0.0	0.0
- renewable energy forms			6.0	7.5	11.5	13.8	16.0	18.3	18.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**168.8**	**162.3**	**176.0**	**191.2**	**209.6**	**227.3**	**245.7**	**264.5**	**284.5**	**0.4**	**1.8**	**1.6**	**1.5**
Public road transport	13.0	8.0	7.5	7.4	7.2	6.8	6.4	6.0	5.7	-5.4	-0.3	-1.2	-1.2
Private cars and motorcycles	138.6	132.4	142.1	153.0	166.6	180.0	193.9	207.7	222.2	0.2	1.6	1.5	1.4
Rail	12.3	15.4	16.2	18.0	19.9	21.5	23.2	25.0	27.0	2.8	2.1	1.6	1.5
Aviation	4.1	5.8	9.6	12.2	15.1	18.2	21.2	24.6	28.6	8.9	4.6	3.5	3.0
Inland navigation	0.8	0.7	0.6	0.7	0.7	0.8	0.9	1.0	1.2	-2.8	2.3	2.4	2.3
Travel per person (km per capita)	11291	10497	11051	11704	12572	13404	14275	15174	16178	-0.2	1.3	1.3	1.3
Freight transport activity (Gtkm)	**94.8**	**105.7**	**125.5**	**135.7**	**149.7**	**167.3**	**184.7**	**198.9**	**211.8**	**2.8**	**1.8**	**2.1**	**1.4**
Trucks	56.1	67.1	79.6	86.4	96.1	108.7	121.2	130.4	138.9	3.6	1.9	2.4	1.4
Rail	3.1	3.1	4.6	4.9	5.2	5.4	5.5	5.7	5.8	4.1	1.2	0.6	0.5
Inland navigation	35.7	35.5	41.3	44.4	48.5	53.3	58.0	62.9	67.1	1.5	1.6	1.8	1.5
Freight activity per unit of GDP (tkm/000 Euro'00)	314	316	312	326	323	328	333	331	330	-0.1	0.4	0.3	-0.1
Energy demand in transport (ktoe)	**10356**	**12404**	**13820**	**14687**	**15456**	**16113**	**17087**	**17652**	**18081**	**2.9**	**1.1**	**1.0**	**0.6**
Public road transport	104	71	86	84	82	74	66	58	51	-1.8	-0.5	-2.1	-2.7
Private cars and motorcycles	5037	5552	5289	5682	5655	5459	5644	5662	5568	0.5	0.7	0.0	-0.1
Trucks	2899	3325	4254	4614	5120	5720	6135	6312	6300	3.9	1.9	1.8	0.3
Rail	147	162	176	188	175	152	142	143	149	1.8	0.0	-2.0	0.4
Aviation	1614	2595	3348	3402	3644	3859	4185	4514	5015	7.6	0.8	1.4	1.8
Inland navigation	556	697	667	717	780	849	914	962	998	1.8	1.6	1.6	0.9
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	40.8	51.6	50.5	48.9	45.6	42.0	40.9	39.3	37.9	2.2	-1.0	-1.1	-0.7
Freight transport (toe/Mtkm)	36.5	38.1	39.3	39.3	39.4	39.3	38.1	36.5	34.4	0.7	0.0	-0.3	-1.0

POLAND: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**99228**	**99328**	**79700**	**79406**	**70163**	**66100**	**70748**	**72356**	**74687**	**-2.2**	**-1.3**	**0.1**	**0.5**
Solids	94459	91104	71297	69961	59036	52243	50253	48292	45000	-2.8	-1.9	-1.6	-1.1
Oil	159	290	841	685	750	700	700	650	600	18.1	-1.1	-0.7	-1.5
Natural gas	2378	3169	3313	3400	3200	3100	3000	2800	2700	3.4	-0.3	-0.6	-1.0
Nuclear	0	0	0	0	0	0	2983	4654	8977				11.6
Renewable energy sources	2232	4765	4250	5360	7177	10057	13812	15960	17409	6.7	5.4	6.8	2.3
Hydro	139	162	181	182	183	192	194	201	203	2.7	0.1	0.6	0.4
Biomass & Waste	2093	4602	4065	5157	6647	9276	12834	14107	14677	6.9	5.0	6.8	1.4
Wind	0	0	0	9	330	563	742	1588	2431		94.3	8.4	12.6
Solar and others	0	0	0	2	6	14	26	46	78			16.4	11.9
Geothermal	0	0	3	9	11	13	16	18	20		13.7	4.0	2.2
Net Imports	**2238**	**-152**	**10134**	**13497**	**30782**	**44518**	**51931**	**56031**	**60263**	**16.3**	**11.8**	**5.4**	**1.5**
Solids	-18913	-21202	-16309	-16070	-6818	-1311	-1264	-965	1282				
Oil	14468	15481	20384	21549	25834	28407	31223	33355	35237	3.5	2.4	1.9	1.2
- Crude oil and Feedstocks	13085	13984	18827	19300	23134	25383	27882	29804	31512	3.7	2.1	1.9	1.2
- Oil products	1383	1498	1558	2249	2700	3024	3341	3551	3725	1.2	5.7	2.2	1.1
Natural gas	6773	5810	6607	8844	12555	17961	22459	24413	24587	-0.2	6.6	6.0	0.9
Electricity	-90	-241	-548	-826	-790	-540	-487	-771	-843				
Gross Inland Consumption	**99866**	**99947**	**90192**	**92572**	**100537**	**110172**	**122200**	**127889**	**134435**	**-1.0**	**1.1**	**2.0**	**1.0**
Solids	75405	70500	56357	53891	52219	50932	48989	47327	46282	-2.9	-0.8	-0.6	-0.6
Oil	13380	15929	20174	21904	26176	28661	31444	33506	35323	4.2	2.6	1.9	1.2
Natural gas	8938	8995	9960	12244	15755	21061	25459	27213	27287	1.1	4.7	4.9	0.7
Nuclear	0	0	0	0	0	0	2983	4654	8977				11.6
Electricity	-90	-241	-548	-826	-790	-540	-487	-771	-843				
Renewable energy forms	2232	4765	4250	5360	7177	10057	13812	15960	17409	6.7	5.4	6.8	2.3
as % in Gross Inland Consumption													
Solids	75.5	70.5	62.5	58.2	51.9	46.2	40.1	37.0	34.4				
Oil	13.4	15.9	22.4	23.7	26.0	26.0	25.7	26.2	26.3				
Natural gas	8.9	9.0	11.0	13.2	15.7	19.1	20.8	21.3	20.3				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	2.4	3.6	6.7				
Renewable energy forms	2.2	4.8	4.7	5.8	7.1	9.1	11.3	12.5	12.9				
Electricity Generation in GWh_e	**134591**	**137017**	**143147**	**148648**	**167079**	**195090**	**224104**	**257308**	**281834**	**0.6**	**1.6**	**3.0**	**2.3**
Nuclear	0	0	0	0	0	0	11566	18043	34803				11.6
Hydro & wind	1617	1888	2110	2225	5973	8796	10941	20936	30955	2.7	11.0	6.2	11.0
Thermal (incl. biomass)	132974	135130	141038	146422	161106	186294	201597	218329	216076	0.6	1.3	2.3	0.7
Fuel Inputs for Thermal Power Generation [1]	**43418**	**36907**	**36160**	**37767**	**40765**	**43853**	**46730**	**45993**	**42995**	**-1.8**	**1.2**	**1.4**	**-0.8**
Solids	41138	35842	34792	35704	36618	37257	37456	36340	34520	-1.7	0.5	0.2	-0.8
Oil (including refinery gas)	1236	405	334	227	114	56	41	39	39	-12.3	-10.2	-9.6	-0.7
Gas	673	547	877	1213	2584	3840	4443	4720	3220	2.7	11.4	5.6	-3.2
Biomass & Waste	372	114	157	624	1449	2700	4789	4894	5217	-8.3	24.9	12.7	0.9
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**37831**	**32933**	**33890**	**32243**	**35358**	**37543**	**40242**	**42432**	**44630**	**-1.1**	**0.4**	**1.3**	**1.0**
Refineries	13160	14929	19949	20589	24586	26885	29472	31395	33089	4.2	2.1	1.8	1.2
Biofuels and hydrogen production	0	0	0	145	541	856	1336	1665	1874			9.5	3.4
District heating	9949	5985	4320	4308	4134	4077	3953	4319	4858	-8.0	-0.4	-0.4	2.1
Others	14722	12019	9622	7201	6097	5725	5481	5052	4809	-4.2	-4.5	-1.1	-1.3
Energy Branch Consumption	**4583**	**6496**	**7530**	**6649**	**7090**	**7560**	**7761**	**7795**	**7837**	**5.1**	**-0.6**	**0.9**	**0.1**
Non-Energy Uses	**4193**	**3646**	**4218**	**4048**	**4355**	**4945**	**5611**	**6251**	**6812**	**0.1**	**0.3**	**2.6**	**2.0**
Final Energy Demand	**59574**	**65355**	**57984**	**60616**	**67641**	**76100**	**85323**	**92850**	**99007**	**-0.3**	**1.6**	**2.3**	**1.5**
by sector													
Industry[1]	25252	24661	21297	20178	21390	23771	26253	28067	29264	-1.7	0.0	2.1	1.1
- energy intensive industries	16249	16054	14332	13055	13230	14484	15704	16453	16958	-1.2	-0.8	1.7	0.8
- other industrial sectors	9003	8607	6965	7124	8160	9288	10549	11614	12306	-2.5	1.6	2.6	1.6
Residential	18126	23284	17516	17950	19188	21388	24090	26282	28159	-0.3	0.9	2.3	1.6
Tertiary	8858	9154	9986	10931	13174	15746	18260	20641	22498	1.2	2.8	3.3	2.1
Transport	7338	8256	9185	11556	13889	15194	16720	17860	19086	2.3	4.2	1.9	1.3
by fuel [1]													
Solids	17066	23299	13728	11642	10080	9176	8309	8060	8191	-2.2	-3.0	-1.9	-0.1
Oil	9107	11582	15436	18032	21552	24260	27013	28798	30467	5.4	3.4	2.3	1.2
Gas	7987	7547	7220	8889	10775	13495	15902	17104	18442	-1.0	4.1	4.0	1.5
Electricity	8233	7703	8317	8745	10428	12825	15486	18185	20261	0.1	2.3	4.0	2.7
Heat (from CHP and District Heating)	15563	10817	9391	9217	9924	10354	11381	12773	13511	-4.9	0.6	1.4	1.7
Other	1619	4408	3890	4090	4883	5989	7232	7930	8135	9.2	2.3	4.0	1.2
CO2 Emissions (Mt of CO2)	**332.2**	**330.8**	**290.3**	**290.3**	**305.3**	**319.5**	**329.0**	**331.0**	**330.9**	**-1.3**	**0.5**	**0.8**	**0.1**
Power generation/District heating	209.3	170.0	159.4	162.4	168.1	171.0	170.6	166.3	157.7	-2.7	0.5	0.1	-0.8
Energy Branch	5.8	13.0	11.4	5.7	6.4	6.8	6.4	5.7	5.7	6.9	-5.7	0.1	-1.2
Industry	44.0	59.8	46.1	44.9	45.3	49.5	52.1	53.1	55.2	0.5	-0.2	1.4	0.6
Residential	33.1	44.4	27.9	25.9	26.2	27.4	28.8	29.2	29.8	-1.7	-0.6	0.9	0.3
Tertiary	19.4	20.4	19.7	19.1	20.9	23.1	26.1	29.2	31.8	0.2	0.6	2.3	2.0
Transport	20.5	23.1	25.8	32.4	38.4	41.6	45.0	47.6	50.6	2.3	4.1	1.6	1.2
CO2 Emissions Index (1990=100)	**100.0**	**99.6**	**87.4**	**87.4**	**91.9**	**96.2**	**99.1**	**99.6**	**99.6**				

Source: PRIMES

POLAND: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	38.127	38.596	38.646	38.128	37.830	37.428	37.065	36.836	36.542	0.1	-0.2	-0.2	-0.1
GDP (in 000 MEUR'00)	126.2	140.7	180.6	211.1	265.4	330.2	406.9	487.8	564.6	3.7	3.9	4.4	3.3
Gross Inl. Cons./GDP (toe/MEUR'00)	791.5	710.5	499.4	438.4	378.9	333.6	300.3	262.2	238.1	-4.5	-2.7	-2.3	-2.3
Gross Inl. Cons./Capita (toe/inhabitant)	2.62	2.59	2.33	2.43	2.66	2.94	3.30	3.47	3.68	-1.1	1.3	2.2	1.1
Electricity Generated/Capita (kWh/inhabitant)	3530	3550	3704	3899	4417	5212	6046	6985	7713	0.5	1.8	3.2	2.5
Carbon intensity (t of CO_2/toe of GIC)	3.33	3.31	3.22	3.14	3.04	2.90	2.69	2.59	2.46	-0.3	-0.6	-1.2	-0.9
CO_2 Emissions/Capita (t of CO_2/inhabitant)	8.71	8.57	7.51	7.61	8.07	8.54	8.88	8.99	9.05	-1.5	0.7	1.0	0.2
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	2632.8	2351.3	1607.2	1374.9	1150.4	967.5	808.7	678.5	586.1	-4.8	-3.3	-3.5	-3.2
Import Dependency %	2.2	-0.2	11.2	14.5	30.5	40.2	42.3	43.6	44.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	98.2	55.3	40.4	32.7	28.7	25.5	23.2	21.7	-5.8	-5.1	-2.4	-1.6
Residential (Energy on Private Income)	100.0	115.2	65.9	58.0	49.2	44.0	40.2	36.5	33.7	-4.1	-2.9	-2.0	-1.7
Tertiary (Energy on Value added)	100.0	88.0	79.0	73.0	69.7	66.6	62.3	57.8	53.2	-2.3	-1.2	-1.1	-1.6
Transport (Energy on GDP)	100.0	100.9	87.4	94.1	90.0	79.1	70.7	63.0	58.1	-1.3	0.3	-2.4	-1.9
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.66	0.65	0.60	0.58	0.54	0.49	0.43	0.37	0.33	-1.1	-1.0	-2.1	-2.8
Final energy demand (t of CO_2/toe)	1.96	2.26	2.06	2.02	1.93	1.86	1.78	1.71	1.69	0.5	-0.6	-0.8	-0.5
Industry	1.74	2.42	2.16	2.22	2.12	2.08	1.98	1.89	1.88	2.2	-0.2	-0.6	-0.5
Residential	1.83	1.90	1.59	1.45	1.37	1.28	1.20	1.11	1.06	-1.4	-1.5	-1.3	-1.2
Tertiary	2.19	2.23	1.98	1.75	1.59	1.47	1.43	1.41	1.42	-1.0	-2.2	-1.0	-0.1
Transport	2.80	2.80	2.81	2.80	2.76	2.74	2.69	2.66	2.65	0.0	-0.1	-0.3	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**31055**	**31314**	**36742**	**45842**	**52473**	**74143**	**90141**		**1.7**	**3.6**	**5.6**
Nuclear			0	0	0	0	1500	2340	4500				11.6
Hydro (pumping excluded)			828	833	839	889	889	917	927		0.1	0.6	0.4
Wind			5	75	1844	3130	4122	8050	12186		79.9	8.4	11.4
Solar			0	0	3	18	44	109	266			33.1	19.8
Thermal			30222	30406	34057	41806	45919	62727	72262		1.2	3.0	4.6
of which cogeneration units			11857	11051	9438	12512	10974	20546	26113		-2.3	1.5	9.1
Solids fired			29089	28660	25188	25358	24745	30421	36708		-1.4	-0.2	4.0
Gas fired			692	1117	5930	9664	12066	21136	23434		24.0	7.4	6.9
Oil fired			293	293	313	1229	1064	1009	1009		0.7	13.0	-0.5
Biomass-waste fired			148	336	2626	5555	8044	10161	11111		33.3	11.8	3.3
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			33.5	33.3	34.0	36.5	37.1	40.8	43.2	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			52.6	54.2	51.9	48.6	48.8	39.6	35.7	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			17.6	17.8	19.0	23.1	22.7	38.0	42.1	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			1.9	3.1	7.2	10.3	20.3	23.9	31.9	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	5.2	7.0	12.3	0.0	0.0	0.0	0.0
- renewable energy forms			1.9	3.1	7.2	10.3	15.1	16.9	19.5	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**201.8**	**167.3**	**203.0**	**243.6**	**286.3**	**323.1**	**361.7**	**402.9**	**448.9**	**0.1**	**3.5**	**2.4**	**2.2**
Public road transport	46.3	34.0	31.7	30.8	29.8	28.5	27.5	26.7	25.9	-3.7	-0.6	-0.8	-0.6
Private cars and motorcycles	104.1	110.7	149.7	190.6	233.5	271.7	310.7	351.9	397.9	3.7	4.5	2.9	2.5
Rail	50.4	21.0	19.7	19.7	19.5	18.5	18.2	18.0	17.5	-9.0	-0.1	-0.7	-0.4
Aviation	0.7	1.4	1.6	2.4	3.2	4.1	5.0	6.1	7.3	9.0	6.9	4.7	3.8
Inland navigation	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	-4.2	1.2	1.5	1.5
Travel per person (km per capita)	5292	4334	5252	6389	7568	8632	9757	10938	12284	-0.1	3.7	2.6	2.3
Freight transport activity (Gtkm)	**122.9**	**120.3**	**128.0**	**149.5**	**185.6**	**209.4**	**236.9**	**260.0**	**276.6**	**0.4**	**3.8**	**2.5**	**1.6**
Trucks	40.3	51.2	72.8	97.2	136.1	161.4	187.9	210.1	226.3	6.1	6.5	3.3	1.9
Rail	81.6	68.2	54.0	51.2	48.5	47.1	48.2	49.2	49.5	-4.0	-1.1	-0.1	0.3
Inland navigation	1.0	0.9	1.2	1.1	1.0	1.0	0.9	0.8	0.7	1.3	-1.3	-1.8	-2.2
Freight activity per unit of GDP (tkm/000 Euro'00)	974	855	709	708	700	634	582	533	490	-3.1	-0.1	-1.8	-1.7
Energy demand in transport (ktoe)	**7338**	**8256**	**9185**	**11556**	**13889**	**15194**	**16720**	**17860**	**19086**	**2.3**	**4.2**	**1.9**	**1.3**
Public road transport	603	453	550	535	517	483	446	413	373	-0.9	-0.6	-1.5	-1.8
Private cars and motorcycles	3002	3883	4541	5778	6417	6689	7413	8065	8845	4.2	3.5	1.5	1.8
Trucks	2334	2846	3177	4241	5929	6986	7791	8311	8717	3.1	6.4	2.8	1.1
Rail	1095	667	539	502	441	375	343	317	299	-6.8	-2.0	-2.5	-1.4
Aviation	205	377	372	494	579	657	720	750	847	6.2	4.5	2.2	1.6
Inland navigation	99	29	6	6	6	6	5	5	5	-24.4	-0.6	-0.8	-0.9
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	21.5	30.0	28.2	29.0	27.0	24.8	24.1	23.2	22.7	2.8	-0.5	-1.1	-0.6
Freight transport (toe/Mtkm)	24.4	26.9	27.0	30.1	33.2	34.3	33.7	32.7	32.2	1.0	2.1	0.2	-0.5

PORTUGAL: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**2808**	**2602**	**3109**	**3231**	**3827**	**4043**	**4551**	**4958**	**5295**	**1.0**	**2.1**	**1.7**	**1.5**
Solids	115	0	0	0	0	0	0	0	0				
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	2692	2602	3109	3231	3827	4043	4551	4958	5295	1.4	2.1	1.7	1.5
Hydro	787	717	974	1006	1091	1175	1213	1230	1257	2.1	1.1	1.1	0.4
Biomass & Waste	1891	1831	2053	2023	2202	2254	2500	2737	2830	0.8	0.7	1.3	1.3
Wind	0	1	14	115	420	484	673	806	997	66.9	40.1	4.8	4.0
Solar and others	11	15	18	38	64	80	97	118	142	5.4	13.2	4.3	3.8
Geothermal	3	37	49	49	49	49	68	68	68	31.4	0.0	3.3	0.0
Net Imports	**15160**	**17876**	**21588**	**23244**	**24725**	**26256**	**27115**	**26990**	**27539**	**3.6**	**1.4**	**0.9**	**0.2**
Solids	2789	3797	3913	3355	3328	3352	3325	4495	4934	3.4	-1.6	0.0	4.0
Oil	12367	14001	15556	15872	16308	16654	16916	15983	16279	2.3	0.5	0.4	-0.4
- Crude oil and Feedstocks	11360	13547	12022	15321	15746	16080	16336	15430	15720	0.6	2.7	0.4	-0.4
- Oil products	1007	454	3534	551	563	573	581	552	559	13.4	-16.8	0.3	-0.4
Natural gas	0	0	2039	3792	4978	6151	6782	6429	6251		9.3	3.1	-0.8
Electricity	3	79	80	225	110	100	91	83	75	38.1	3.2	-1.8	-1.9
Gross Inland Consumption	**16890**	**19611**	**24108**	**25794**	**27833**	**29546**	**30872**	**31119**	**31967**	**3.6**	**1.4**	**1.0**	**0.3**
Solids	2580	3493	3803	3355	3328	3352	3325	4495	4934	4.0	-1.3	0.0	4.0
Oil	11614	13437	15083	15191	15589	15900	16122	15154	15412	2.6	0.3	0.3	-0.4
Natural gas	0	0	2034	3792	4978	6151	6782	6429	6251		9.4	3.1	-0.8
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	3	79	80	225	110	100	91	83	75	38.1	3.2	-1.8	-1.9
Renewable energy forms	2692	2602	3109	3231	3827	4043	4551	4958	5295	1.4	2.1	1.7	1.5
as % in Gross Inland Consumption													
Solids	15.3	17.8	15.8	13.0	12.0	11.3	10.8	14.4	15.4				
Oil	68.8	68.5	62.6	58.9	56.0	53.8	52.2	48.7	48.2				
Natural gas	0.0	0.0	8.4	14.7	17.9	20.8	22.0	20.7	19.6				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	15.9	13.3	12.9	12.5	13.7	13.7	14.7	15.9	16.6				
Electricity Generation in GWh_e	**28350**	**33148**	**43364**	**50351**	**61646**	**72397**	**81174**	**88208**	**92428**	**4.3**	**3.6**	**2.8**	**1.3**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	9156	8357	11489	13029	17589	19334	22010	23829	26483	2.3	4.4	2.3	1.9
Thermal (incl. biomass)	19194	24791	31875	37322	44057	53063	59164	64379	65946	5.2	3.3	3.0	1.1
Fuel Inputs for Thermal Power Generation [1]	**4505**	**5663**	**7467**	**8269**	**9345**	**10380**	**10943**	**11305**	**11481**	**5.2**	**2.3**	**1.6**	**0.5**
Solids	2027	2918	3198	3212	3257	3298	3285	4461	4909	4.7	0.2	0.1	4.1
Oil (including refinery gas)	2105	2371	2194	1614	1470	1386	1291	783	670	0.4	-3.9	-1.3	-6.3
Gas	19	18	1234	2427	3431	4366	4733	4197	3947	51.6	10.8	3.3	-1.8
Biomass & Waste	351	319	791	966	1139	1282	1567	1797	1887	8.5	3.7	3.2	1.9
Geothermal heat	3	37	49	49	49	49	68	68	68	31.4	0.0	3.3	0.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**11484**	**14055**	**12700**	**15424**	**16006**	**16447**	**16833**	**16041**	**16386**	**1.0**	**2.3**	**0.5**	**-0.3**
Refineries	11152	13579	12251	15375	15801	16137	16394	15489	15780	0.9	2.6	0.4	-0.4
Biofuels and hydrogen production	0	0	0	19	177	283	416	531	589			8.9	3.5
District heating	0	16	0	20	23	23	22	20	18			-0.3	-2.0
Others	332	460	449	9	6	4	2	1	0	3.1	-34.8	-9.9	-22.7
Energy Branch Consumption	**658**	**870**	**796**	**881**	**936**	**970**	**993**	**988**	**1004**	**1.9**	**1.6**	**0.6**	**0.1**
Non-Energy Uses	**2103**	**1875**	**2330**	**2130**	**2115**	**2112**	**2123**	**2128**	**2135**	**1.0**	**-1.0**	**0.0**	**0.1**
Final Energy Demand	**11650**	**13475**	**17258**	**18701**	**20168**	**21617**	**22958**	**23691**	**24281**	**4.0**	**1.6**	**1.3**	**0.6**
by sector													
Industry[1]	4580	4680	5839	5649	5593	5777	6054	6275	6468	2.5	-0.4	0.8	0.7
- energy intensive industries	2667	2837	3365	3305	3328	3411	3538	3618	3684	2.4	-0.1	0.6	0.4
- other industrial sectors	1914	1843	2474	2344	2264	2366	2516	2656	2784	2.6	-0.9	1.1	1.0
Residential	2290	2569	2804	3271	3942	4479	4905	5234	5386	2.0	3.5	2.2	0.9
Tertiary	1052	1373	2098	2727	3329	3784	4045	4173	4246	7.2	4.7	2.0	0.5
Transport	3728	4853	6517	7055	7305	7576	7955	8009	8180	5.7	1.1	0.9	0.3
by fuel [1]													
Solids	617	546	465	142	71	54	40	34	25	-2.8	-17.2	-5.7	-4.5
Oil	6683	8187	10276	10993	11535	11933	12243	12119	12167	4.4	1.2	0.6	-0.1
Gas	103	97	853	1351	1524	1756	2016	2194	2266	23.6	6.0	2.8	1.2
Electricity	2024	2477	3299	3982	4788	5650	6374	6948	7284	5.0	3.8	2.9	1.3
Heat (from CHP and District Heating)	672	640	1084	1141	1165	1237	1344	1451	1582	4.9	0.7	1.4	1.6
Other	1551	1527	1280	1092	1085	988	942	945	957	-1.9	-1.6	-1.4	0.2
CO2 Emissions (Mt of CO2)	**39.0**	**48.2**	**58.2**	**61.2**	**65.0**	**68.7**	**70.7**	**72.4**	**73.5**	**4.1**	**1.1**	**0.8**	**0.4**
Power generation/District heating	14.8	19.2	22.6	23.6	25.6	27.7	28.2	29.9	30.8	4.3	1.3	1.0	0.9
Energy Branch	1.5	2.2	1.0	1.2	1.3	1.3	1.3	1.2	1.2	-3.6	2.1	0.1	-0.4
Industry	8.2	8.3	10.0	8.7	8.3	8.3	8.3	8.3	8.2	2.0	-1.8	0.0	-0.2
Residential	1.6	1.9	2.0	2.8	3.9	4.6	5.0	5.2	5.3	2.0	6.9	2.6	0.6
Tertiary	1.9	2.2	3.2	3.9	4.5	4.9	5.2	5.2	5.1	5.4	3.7	1.3	0.0
Transport	11.0	14.4	19.4	20.9	21.3	21.9	22.7	22.5	22.9	5.8	1.0	0.6	0.1
CO2 Emissions Index (1990=100)	**100.0**	**123.5**	**149.0**	**156.7**	**166.4**	**176.0**	**181.0**	**185.4**	**188.3**				

Source: PRIMES

PORTUGAL: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	10.012	10.030	10.226	10.571	10.686	10.762	10.771	10.730	10.660	0.2	0.4	0.1	-0.1
GDP (in 000 MEUR'00)	87.9	95.6	115.5	119.1	131.2	149.0	172.2	197.2	221.3	2.8	1.3	2.8	2.5
Gross Inl. Cons./GDP (toe/MEUR'00)	192.1	205.0	208.6	216.5	212.1	198.2	179.3	157.8	144.5	0.8	0.2	-1.7	-2.1
Gross Inl. Cons./Capita (toe/inhabitant)	1.69	1.96	2.36	2.44	2.60	2.75	2.87	2.90	3.00	3.4	1.0	1.0	0.5
Electricity Generated/Capita (kWh/inhabitant)	2832	3305	4241	4763	5769	6727	7537	8221	8671	4.1	3.1	2.7	1.4
Carbon intensity (t of CO_2/toe of GIC)	2.31	2.46	2.41	2.37	2.33	2.33	2.29	2.33	2.30	0.4	-0.3	-0.2	0.0
CO_2 Emissions/Capita (t of CO_2/inhabitant)	3.90	4.81	5.69	5.79	6.08	6.38	6.56	6.75	6.90	3.8	0.7	0.8	0.5
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	444.1	504.1	503.4	513.5	495.1	461.0	410.5	367.1	332.3	1.3	-0.2	-1.9	-2.1
Import Dependency %	86.7	89.0	87.2	87.8	86.6	86.7	85.6	84.5	83.9	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	104.2	106.9	103.8	100.3	93.2	86.0	79.6	74.8	0.7	-0.6	-1.5	-1.4
Residential (Energy on Private Income)	100.0	100.0	90.3	99.3	107.9	107.8	102.5	95.5	87.4	-1.0	1.8	-0.5	-1.6
Tertiary (Energy on Value added)	100.0	117.2	146.4	176.3	189.6	186.2	169.4	150.1	134.3	3.9	2.6	-1.1	-2.3
Transport (Energy on GDP)	100.0	119.6	133.0	139.6	131.3	119.9	109.0	95.8	87.2	2.9	-0.1	-1.8	-2.2
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.41	0.47	0.38	0.35	0.33	0.31	0.28	0.28	0.27	-0.7	-1.6	-1.5	-0.4
Final energy demand (t of CO_2/toe)	1.95	1.99	2.00	1.95	1.89	1.84	1.79	1.74	1.71	0.3	-0.6	-0.5	-0.5
Industry	1.79	1.78	1.72	1.55	1.49	1.44	1.38	1.32	1.26	-0.4	-1.4	-0.8	-0.9
Residential	0.71	0.74	0.71	0.86	0.98	1.03	1.03	1.00	0.99	0.0	3.3	0.4	-0.4
Tertiary	1.77	1.61	1.50	1.44	1.36	1.30	1.28	1.24	1.21	-1.6	-1.0	-0.6	-0.5
Transport	2.95	2.96	2.97	2.96	2.92	2.89	2.85	2.81	2.80	0.1	-0.2	-0.2	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**9833**	**11912**	**14536**	**17221**	**20846**	**23958**	**26092**		**4.0**	**3.7**	**2.3**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			4005	4155	4503	4707	4809	4847	4907		1.2	0.7	0.2
Wind			100	700	2855	3205	4228	5145	6578		39.8	4.0	4.5
Solar			1	1	8	20	40	78	136		31.3	18.0	13.1
Thermal			5728	7056	7171	9288	11769	13888	14470		2.3	5.1	2.1
of which cogeneration units			969	1128	1447	1677	2211	3871	4258		4.1	4.3	6.8
Solids fired			1984	1984	1984	1984	1984	3236	3837		0.0	0.0	6.8
Gas fired			1192	2514	2808	4921	7362	7362	7362		8.9	10.1	0.0
Oil fired			2223	2223	2018	1793	1173	1358	1199		-1.0	-5.3	0.2
Biomass-waste fired			315	321	347	577	1232	1914	2054		1.0	13.5	5.2
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			13	13	13	13	18	18	18		0.0	3.3	0.0
Indicators													
Efficiency for thermal electricity production (%)			36.7	38.8	40.5	44.0	46.5	49.0	49.4	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			50.3	48.3	48.4	48.0	44.5	42.0	40.4	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			11.2	10.8	10.6	10.7	11.6	19.1	21.6	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			30.4	29.7	32.1	31.2	34.3	37.6	39.9	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			30.4	29.7	32.1	31.2	34.3	37.6	39.9	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**68.4**	**90.1**	**118.7**	**125.9**	**131.5**	**140.1**	**150.4**	**160.5**	**170.6**	**5.7**	**1.0**	**1.4**	**1.3**
Public road transport	10.3	11.3	11.8	12.4	12.7	11.9	11.4	10.8	10.3	1.4	0.7	-1.1	-1.0
Private cars and motorcycles	46.3	66.5	93.5	97.6	100.5	107.3	115.3	123.0	130.5	7.3	0.7	1.4	1.2
Rail	6.3	5.3	4.3	4.4	4.5	4.5	4.6	4.7	4.7	-3.9	0.5	0.2	0.2
Aviation	5.2	6.8	8.8	11.2	13.5	16.0	18.7	21.6	24.7	5.3	4.3	3.3	2.8
Inland navigation	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	2.5	3.8	2.1	1.9
Travel per person (km per capita)	6827	8985	11604	11905	12305	13020	13965	14960	16009	5.4	0.6	1.3	1.4
Freight transport activity (Gtkm)	**23.9**	**22.2**	**29.9**	**32.6**	**35.8**	**39.3**	**43.7**	**48.3**	**53.1**	**2.2**	**1.8**	**2.0**	**2.0**
Trucks	20.6	18.8	26.8	29.2	32.0	35.3	39.5	43.8	48.1	2.7	1.8	2.1	2.0
Rail	1.5	2.0	2.2	2.4	2.7	2.8	3.0	3.2	3.6	4.1	2.2	0.9	1.9
Inland navigation	1.9	1.4	0.8	1.0	1.1	1.2	1.2	1.3	1.4	-7.9	2.8	1.3	1.1
Freight activity per unit of GDP (tkm/000 Euro'00)	272	233	258	273	273	264	254	245	240	-0.5	0.5	-0.7	-0.6
Energy demand in transport (ktoe)	**3728**	**4853**	**6517**	**7055**	**7305**	**7576**	**7955**	**8009**	**8180**	**5.7**	**1.1**	**0.9**	**0.3**
Public road transport	67	90	100	105	107	98	89	78	67	4.2	0.6	-1.8	-2.8
Private cars and motorcycles	1572	2297	2942	3061	2902	2789	2867	2889	2789	6.5	-0.1	-0.1	-0.3
Trucks	1387	1717	2551	2770	3030	3318	3565	3781	4052	6.3	1.7	1.6	1.3
Rail	82	80	88	89	86	78	50	46	45	0.6	-0.2	-5.3	-1.0
Aviation	576	622	793	978	1121	1230	1315	1140	1149	3.2	3.5	1.6	-1.3
Inland navigation	43	46	43	51	60	64	69	74	78	0.0	3.2	1.4	1.2
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	33.6	34.3	33.1	33.6	32.1	30.0	28.9	26.0	23.9	-0.2	-0.3	-1.1	-1.9
Freight transport (toe/Mtkm)	59.7	79.1	86.9	86.6	86.3	85.9	82.7	79.3	77.3	3.8	-0.1	-0.4	-0.7

SLOVAKIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**5130**	**4778**	**5945**	**6343**	**6618**	**7192**	**7948**	**8274**	**8462**	**1.5**	**1.1**	**1.8**	**0.6**
Solids	1289	1017	1018	852	815	920	828	767	711	-2.3	-2.2	0.2	-1.5
Oil	70	66	54	50	50	50	50	50	50	-2.6	-0.7	0.0	0.0
Natural gas	338	240	121	125	150	160	170	179	189	-9.8	2.2	1.3	1.1
Nuclear	3105	2950	4255	4681	4834	4881	4891	4900	4905	3.2	1.3	0.1	0.0
Renewable energy sources	328	504	498	635	770	1181	2010	2378	2606	4.3	4.5	10.1	2.6
Hydro	162	427	406	434	449	464	518	573	598	9.7	1.0	1.4	1.4
Biomass & Waste	166	78	91	186	298	629	1385	1676	1853	-5.8	12.5	16.6	3.0
Wind	0	0	0	0	1	59	66	74	84			56.9	2.5
Solar and others	0	0	0	15	22	29	41	54	72			6.4	5.6
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**16250**	**11495**	**10620**	**11753**	**13890**	**15582**	**16896**	**17983**	**19343**	**-4.2**	**2.7**	**2.0**	**1.4**
Solids	5970	4131	3430	3335	3967	3590	3746	4239	4913	-5.4	1.5	-0.6	2.7
Oil	4481	3128	2233	3289	3714	3942	4155	4218	4354	-6.7	5.2	1.1	0.5
- Crude oil and Feedstocks	5925	4842	4843	4655	5260	5582	5883	5972	6163	-2.0	0.8	1.1	0.5
- Oil products	-1445	-1714	-2610	-1366	-1546	-1640	-1728	-1754	-1809				
Natural gas	5353	4117	5188	5312	6456	8330	9264	9781	10318	-0.3	2.2	3.7	1.1
Electricity	447	119	-232	-183	-247	-281	-269	-255	-242				
Gross Inland Consumption	**20992**	**16665**	**16462**	**18096**	**20508**	**22774**	**24845**	**26257**	**27805**	**-2.4**	**2.2**	**1.9**	**1.1**
Solids	7556	5415	4254	4187	4781	4510	4574	5005	5624	-5.6	1.2	-0.4	2.1
Oil	4468	2934	2436	3339	3764	3992	4205	4268	4404	-5.9	4.4	1.1	0.5
Natural gas	5088	4743	5251	5437	6606	8490	9434	9961	10508	0.3	2.3	3.6	1.1
Nuclear	3105	2950	4255	4681	4834	4881	4891	4900	4905	3.2	1.3	0.1	0.0
Electricity	447	119	-232	-183	-247	-281	-269	-255	-242				
Renewable energy forms	328	504	498	635	770	1181	2010	2378	2606	4.3	4.5	10.1	2.6
as % in Gross Inland Consumption													
Solids	36.0	32.5	25.8	23.1	23.3	19.8	18.4	19.1	20.2				
Oil	21.3	17.6	14.8	18.5	18.4	17.5	16.9	16.3	15.8				
Natural gas	24.2	28.5	31.9	30.0	32.2	37.3	38.0	37.9	37.8				
Nuclear	14.8	17.7	25.8	25.9	23.6	21.4	19.7	18.7	17.6				
Renewable energy forms	1.6	3.0	3.0	3.5	3.8	5.2	8.1	9.1	9.4				
Electricity Generation in GWh_e	**23428**	**26036**	**30431**	**33338**	**38651**	**45521**	**51192**	**56346**	**61587**	**2.6**	**2.4**	**2.8**	**1.9**
Nuclear	12034	11435	16491	18143	18735	18919	18956	18994	19012	3.2	1.3	0.1	0.0
Hydro & wind	1880	4960	4725	5046	5232	6089	6803	7557	7974	9.7	1.0	2.7	1.6
Thermal (incl. biomass)	9514	9641	9214	10149	14684	20513	25432	29795	34601	-0.3	4.8	5.6	3.1
Fuel Inputs for Thermal Power Generation [1]	**2176**	**1930**	**1948**	**2136**	**3018**	**3888**	**4714**	**5301**	**6134**	**-1.1**	**4.5**	**4.6**	**2.7**
Solids	1887	1452	1347	1549	2097	1561	1812	2429	3153	-3.3	4.5	-1.5	5.7
Oil (including refinery gas)	142	119	36	5	4	4	4	4	4	-12.8	-19.3	-0.7	-0.1
Gas	147	359	565	563	889	2080	1975	1693	1608	14.4	4.6	8.3	-2.0
Biomass & Waste	0	0	0	19	28	243	924	1175	1369			41.8	4.0
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**9101**	**8283**	**7890**	**7278**	**8194**	**8738**	**9118**	**9223**	**9435**	**-1.4**	**0.4**	**1.1**	**0.3**
Refineries	6341	4643	4960	4705	5310	5632	5933	6022	6213	-2.4	0.7	1.1	0.5
Biofuels and hydrogen production	0	0	0	25	64	103	150	177	204			8.8	3.1
District heating	34	1614	1013	718	805	869	907	977	1049	40.3	-2.3	1.2	1.5
Others	2726	2026	1917	1830	2014	2133	2128	2047	1969	-3.5	0.5	0.6	-0.8
Energy Branch Consumption	**737**	**715**	**911**	**666**	**686**	**686**	**676**	**641**	**644**	**2.1**	**-2.8**	**-0.1**	**-0.5**
Non-Energy Uses	**1153**	**1046**	**1234**	**1204**	**1396**	**1582**	**1817**	**1959**	**2113**	**0.7**	**1.2**	**2.7**	**1.5**
Final Energy Demand	**15263**	**9711**	**9771**	**12086**	**13826**	**15596**	**17199**	**18481**	**19798**	**-4.4**	**3.5**	**2.2**	**1.4**
by sector													
Industry[1]	8052	4137	4665	6011	6924	7908	8778	9453	10078	-5.3	4.0	2.4	1.4
- energy intensive industries	1806	1901	2990	3577	4064	4427	4590	4638	4722	5.2	3.1	1.2	0.3
- other industrial sectors	6246	2236	1676	2433	2860	3481	4188	4815	5356	-12.3	5.5	3.9	2.5
Residential	2416	1983	2186	2930	3440	3903	4280	4587	4916	-1.0	4.6	2.2	1.4
Tertiary	3119	2082	1371	1371	1517	1794	2068	2350	2656	-7.9	1.0	3.1	2.5
Transport	1676	1509	1549	1774	1944	1992	2072	2092	2148	-0.8	2.3	0.6	0.4
by fuel [1]													
Solids	4296	1680	1152	1622	1683	1823	1764	1696	1628	-12.3	3.9	0.5	-0.8
Oil	3090	1900	1872	2070	2286	2318	2333	2266	2249	-4.9	2.0	0.2	-0.4
Gas	5050	3605	3846	4865	5672	6486	7375	8028	8533	-2.7	4.0	2.7	1.5
Electricity	2013	1868	1893	2205	2589	3135	3642	4129	4578	-0.6	3.2	3.5	2.3
Heat (from CHP and District Heating)	648	654	1008	1182	1368	1518	1693	1919	2345	4.5	3.1	2.2	3.3
Other	166	4	1	142	227	315	393	443	464	-42.8	80.4	5.6	1.7
CO2 Emissions (Mt of CO2)	**50.0**	**35.9**	**31.9**	**35.2**	**41.1**	**44.6**	**46.9**	**49.6**	**53.2**	**-4.4**	**2.6**	**1.3**	**1.3**
Power generation/District heating	8.6	13.2	10.8	9.9	13.0	13.9	14.6	16.4	19.2	2.3	1.9	1.2	2.8
Energy Branch	1.5	1.1	1.3	0.6	0.5	0.4	0.3	0.1	0.1	-1.5	-8.4	-6.3	-8.5
Industry	21.9	10.4	10.2	13.4	15.1	16.9	18.2	18.8	19.0	-7.3	3.9	1.9	0.4
Residential	5.8	3.3	3.3	4.7	5.6	6.1	6.5	6.7	7.0	-5.5	5.4	1.6	0.8
Tertiary	7.6	3.8	2.0	1.6	1.5	1.6	1.7	1.9	2.1	-12.5	-2.5	1.1	1.9
Transport	4.7	4.2	4.4	5.0	5.5	5.5	5.7	5.7	5.8	-0.8	2.2	0.5	0.2
CO2 Emissions Index (1990=100)	**100.0**	**71.8**	**63.8**	**70.5**	**82.3**	**89.2**	**93.8**	**99.2**	**106.5**				

Source: PRIMES

SLOVAKIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	5.297	5.363	5.401	5.380	5.347	5.309	5.271	5.237	5.186	0.2	-0.1	-0.1	-0.2
GDP (in 000 MEUR'00)	19.1	18.3	21.9	27.5	34.4	42.6	52.5	62.4	71.9	1.4	4.6	4.3	3.2
Gross Inl. Cons./GDP (toe/MEUR'00)	1101.2	910.6	750.8	657.4	596.7	535.1	473.6	420.7	386.9	-3.8	-2.3	-2.3	-2.0
Gross Inl. Cons./Capita (toe/inhabitant)	3.96	3.11	3.05	3.36	3.84	4.29	4.71	5.01	5.36	-2.6	2.3	2.1	1.3
Electricity Generated/Capita (kWh/inhabitant)	4422	4855	5634	6197	7229	8574	9713	10760	11876	2.5	2.5	3.0	2.0
Carbon intensity (t of CO_2/toe of GIC)	2.38	2.15	1.94	1.95	2.01	1.96	1.89	1.89	1.91	-2.0	0.4	-0.6	0.1
CO_2 Emissions/Capita (t of CO_2/inhabitant)	9.44	6.69	5.90	6.55	7.69	8.40	8.90	9.47	10.27	-4.6	2.7	1.5	1.4
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	2622.6	1961.3	1453.6	1280.5	1196.5	1047.4	894.2	794.5	740.7	-5.7	-1.9	-2.9	-1.9
Import Dependency %	77.4	69.0	64.5	64.9	67.7	68.4	68.0	68.5	69.6	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	59.7	58.6	54.3	48.6	44.0	39.0	34.9	32.3	-5.2	-1.9	-2.2	-1.9
Residential (Energy on Private Income)	100.0	100.5	89.2	100.6	96.2	89.6	81.0	73.8	69.3	-1.1	0.8	-1.7	-1.5
Tertiary (Energy on Value added)	100.0	73.8	38.9	30.3	26.9	25.8	24.3	23.1	22.6	-9.0	-3.6	-1.0	-0.7
Transport (Energy on GDP)	100.0	93.8	80.4	73.3	64.4	53.2	44.9	38.1	34.0	-2.2	-2.2	-3.5	-2.7
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.27	0.39	0.24	0.20	0.23	0.21	0.19	0.20	0.21	-1.1	-0.8	-1.5	0.6
Final energy demand (t of CO_2/toe)	2.62	2.22	2.03	2.05	2.00	1.94	1.86	1.79	1.71	-2.5	-0.2	-0.7	-0.9
Industry	2.72	2.52	2.19	2.23	2.18	2.14	2.07	1.99	1.88	-2.1	-0.1	-0.5	-0.9
Residential	2.39	1.64	1.50	1.61	1.62	1.57	1.52	1.46	1.43	-4.5	0.8	-0.6	-0.6
Tertiary	2.42	1.80	1.44	1.18	1.01	0.90	0.83	0.79	0.78	-5.0	-3.5	-2.0	-0.6
Transport	2.83	2.76	2.82	2.82	2.81	2.78	2.75	2.73	2.70	0.0	-0.1	-0.2	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**7148**	**7608**	**7770**	**7972**	**9154**	**10505**	**12391**		**0.8**	**1.7**	**3.1**
Nuclear			2640	2640	2640	2640	2640	2640	2640		0.0	0.0	0.0
Hydro (pumping excluded)			1735	1855	1905	1958	2041	2128	2164		0.9	0.7	0.6
Wind			1	1	6	492	547	612	697		19.6	57.0	2.5
Solar			0	0	2	7	15	26	39			25.5	10.5
Thermal			2773	3113	3218	2875	3911	5099	6851		1.5	2.0	5.8
of which cogeneration units			2301	2302	2401	1938	2512	3061	3765		0.4	0.5	4.1
Solids fired			1519	1462	1661	1001	1321	2138	3047		0.9	-2.3	8.7
Gas fired			1151	1536	1536	1632	1770	1716	1657		2.9	1.4	-0.7
Oil fired			103	103	4	4	4	4	4		-28.6	0.0	2.2
Biomass-waste fired			0	12	18	239	817	1240	2142			46.7	10.1
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			40.7	40.9	41.8	45.4	46.4	48.3	48.5	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			48.6	50.0	56.8	65.2	63.8	61.2	56.7	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			24.7	26.3	26.8	30.3	31.9	29.8	31.1	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			69.7	69.8	62.3	57.9	60.7	58.4	56.1	0.0	0.0	0.0	0.0
- nuclear			54.2	54.4	48.5	41.6	37.0	33.7	30.9	0.0	0.0	0.0	0.0
- renewable energy forms			15.5	15.4	13.9	16.3	23.6	24.7	25.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**40.6**	**33.9**	**35.5**	**38.3**	**41.2**	**44.1**	**46.7**	**49.6**	**53.1**	**-1.3**	**1.5**	**1.3**	**1.3**
Public road transport	19.8	11.2	8.4	8.2	8.0	7.6	7.2	6.9	6.5	-8.2	-0.5	-1.0	-1.1
Private cars and motorcycles	13.5	18.0	23.9	27.1	30.5	33.8	36.9	40.1	44.0	5.9	2.4	1.9	1.8
Rail	7.3	4.7	3.2	2.9	2.5	2.5	2.4	2.3	2.2	-7.9	-2.2	-0.8	-0.7
Aviation	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4			4.4	3.9
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Travel per person (km per capita)	7670	6315	6579	7110	7710	8299	8864	9467	10236	-1.5	1.6	1.4	1.4
Freight transport activity (Gtkm)	**35.1**	**31.2**	**34.0**	**39.7**	**47.7**	**50.6**	**51.9**	**53.0**	**54.0**	**-0.3**	**3.4**	**0.9**	**0.4**
Trucks	11.8	15.9	21.4	27.4	36.3	40.7	44.9	45.8	46.6	6.1	5.4	2.2	0.4
Rail	21.4	13.8	11.2	10.9	9.7	8.1	5.0	5.1	5.3	-6.2	-1.4	-6.5	0.7
Inland navigation	1.8	1.5	1.4	1.5	1.7	1.8	2.0	2.0	2.1	-2.7	1.9	1.6	0.6
Freight activity per unit of GDP (tkm/000 Euro'00)	1839	1703	1550	1443	1387	1188	989	848	752	-1.7	-1.1	-3.3	-2.7
Energy demand in transport (ktoe)	**1676**	**1509**	**1549**	**1774**	**1944**	**1992**	**2072**	**2092**	**2148**	**-0.8**	**2.3**	**0.6**	**0.4**
Public road transport	239	179	151	146	142	131	119	108	95	-4.5	-0.6	-1.7	-2.2
Private cars and motorcycles	735	749	962	1087	1118	1114	1178	1231	1306	2.7	1.5	0.5	1.0
Trucks	579	445	338	432	572	638	677	662	655	-5.2	5.4	1.7	-0.3
Rail	100	119	83	78	68	58	43	39	37	-1.9	-1.9	-4.4	-1.6
Aviation	0	0	0	14	26	30	33	30	33			2.5	0.0
Inland navigation	23	17	16	17	19	21	22	23	23	-3.5	1.8	1.4	0.4
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	25.1	29.2	32.5	33.6	32.0	29.6	29.0	28.0	27.4	2.6	-0.2	-1.0	-0.6
Freight transport (toe/Mtkm)	18.7	16.7	11.6	12.3	13.2	13.6	13.8	13.3	12.9	-4.7	1.2	0.5	-0.7

SLOVENIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**2902**	**3020**	**3084**	**3325**	**3222**	**3174**	**3029**	**3054**	**3232**	**0.6**	**0.4**	**-0.6**	**0.7**
Solids	1432	1216	1062	1210	1025	880	676	660	535	-2.9	-0.4	-4.1	-2.3
Oil	3	2	1	0	0	0	0	0	0	-10.4			
Natural gas	20	16	5	7	9	0	0	0	0	-12.7	5.1		
Nuclear	1192	1245	1228	1320	1334	1360	1388	1277	1600	0.3	0.8	0.4	1.4
Renewable energy sources	254	542	788	788	855	934	966	1117	1097	12.0	0.8	1.2	1.3
Hydro	254	279	330	335	344	357	379	402	410	2.7	0.4	1.0	0.8
Biomass & Waste	0	263	458	441	493	551	547	657	614		0.7	1.0	1.2
Wind	0	0	0	0	0	1	2	2	3			27.1	4.4
Solar and others	0	0	0	12	17	25	39	56	70			8.5	6.1
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**2565**	**3038**	**3317**	**3869**	**4364**	**4796**	**5311**	**5469**	**5491**	**2.6**	**2.8**	**2.0**	**0.3**
Solids	130	187	245	252	223	215	602	729	723	6.5	-0.9	10.4	1.8
Oil	1797	2243	2409	2533	2675	2751	2866	2945	2977	3.0	1.1	0.7	0.4
- Crude oil and Feedstocks	595	599	156	666	704	724	754	775	772	-12.5	16.3	0.7	0.2
- Oil products	1202	1644	2253	1867	1971	2027	2112	2170	2205	6.5	-1.3	0.7	0.4
Natural gas	723	750	776	1021	1281	1672	1709	1681	1693	0.7	5.1	2.9	-0.1
Electricity	-85	-142	-114	63	185	157	134	115	98			-3.1	-3.1
Gross Inland Consumption	**5516**	**6087**	**6367**	**7193**	**7586**	**7970**	**8340**	**8523**	**8723**	**1.4**	**1.8**	**1.0**	**0.5**
Solids	1645	1402	1306	1462	1248	1095	1278	1389	1259	-2.3	-0.4	0.2	-0.1
Oil	1747	2294	2377	2533	2675	2751	2866	2945	2977	3.1	1.2	0.7	0.4
Natural gas	763	746	782	1028	1289	1672	1709	1681	1693	0.2	5.1	2.9	-0.1
Nuclear	1192	1245	1228	1320	1334	1360	1388	1277	1600	0.3	0.8	0.4	1.4
Electricity	-85	-142	-114	63	185	157	134	115	98			-3.1	-3.1
Renewable energy forms	254	542	788	788	855	934	966	1117	1097	12.0	0.8	1.2	1.3
as % in Gross Inland Consumption													
Solids	29.8	23.0	20.5	20.3	16.5	13.7	15.3	16.3	14.4				
Oil	31.7	37.7	37.3	35.2	35.3	34.5	34.4	34.6	34.1				
Natural gas	13.8	12.3	12.3	14.3	17.0	21.0	20.5	19.7	19.4				
Nuclear	21.6	20.5	19.3	18.4	17.6	17.1	16.6	15.0	18.3				
Renewable energy forms	4.6	8.9	12.4	10.9	11.3	11.7	11.6	13.1	12.6				
Electricity Generation in GWh_e	**12440**	**12652**	**13622**	**14959**	**15738**	**17676**	**19497**	**20669**	**21788**	**0.9**	**1.5**	**2.2**	**1.1**
Nuclear	4621	4778	4760	5118	5169	5273	5378	4950	6201	0.3	0.8	0.4	1.4
Hydro & wind	2949	3240	3833	3890	4006	4165	4441	4732	4849	2.7	0.4	1.0	0.9
Thermal (incl. biomass)	4869	4633	5028	5951	6563	8238	9678	10987	10738	0.3	2.7	4.0	1.0
Fuel Inputs for Thermal Power Generation [1]	**1532**	**1551**	**1403**	**1645**	**1648**	**1834**	**1995**	**2155**	**1939**	**-0.9**	**1.6**	**1.9**	**-0.3**
Solids	1277	1314	1254	1419	1218	1072	1263	1379	1254	-0.2	-0.3	0.4	-0.1
Oil (including refinery gas)	163	119	20	9	5	3	2	2	2	-19.0	-13.3	-8.6	0.0
Gas	92	90	80	115	282	572	525	440	389	-1.4	13.4	6.4	-2.9
Biomass & Waste	0	28	49	102	143	188	205	334	293		11.3	3.7	3.6
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**638**	**692**	**253**	**737**	**805**	**863**	**930**	**974**	**986**	**-8.8**	**12.2**	**1.5**	**0.6**
Refineries	585	615	174	666	704	724	754	775	772	-11.4	15.0	0.7	0.2
Biofuels and hydrogen production	0	0	0	4	32	65	99	124	146			11.8	4.0
District heating	53	76	80	66	69	75	78	75	68	4.2	-1.5	1.3	-1.3
Others	1	1	0	0	0	0	0	0	0				
Energy Branch Consumption	**101**	**100**	**98**	**120**	**119**	**122**	**129**	**129**	**126**	**-0.3**	**2.0**	**0.8**	**-0.2**
Non-Energy Uses	**6**	**121**	**127**	**222**	**267**	**292**	**297**	**292**	**291**	**35.1**	**7.7**	**1.1**	**-0.2**
Final Energy Demand	**3375**	**3936**	**4660**	**5179**	**5618**	**5943**	**6283**	**6530**	**6746**	**3.3**	**1.9**	**1.1**	**0.7**
by sector													
Industry[1]	1475	1176	1559	1789	2015	2142	2211	2248	2271	0.6	2.6	0.9	0.3
- energy intensive industries	733	598	896	1025	1142	1211	1237	1239	1238	2.0	2.5	0.8	0.0
- other industrial sectors	742	578	664	764	873	931	974	1008	1033	-1.1	2.8	1.1	0.6
Residential	850	1176	1116	1263	1393	1491	1561	1602	1652	2.8	2.2	1.1	0.6
Tertiary	122	259	671	687	738	799	859	912	971	18.6	0.9	1.5	1.2
Transport	928	1326	1313	1441	1472	1512	1652	1769	1852	3.5	1.2	1.2	1.2
by fuel [1]													
Solids	243	115	96	42	30	23	15	10	5	-8.9	-10.9	-6.8	-11.2
Oil	1495	2098	2238	2312	2413	2466	2576	2659	2710	4.1	0.8	0.7	0.5
Gas	603	468	629	817	908	1003	1078	1132	1198	0.4	3.7	1.7	1.1
Electricity	837	807	905	1179	1367	1507	1642	1733	1817	0.8	4.2	1.8	1.0
Heat (from CHP and District Heating)	196	215	391	478	540	580	619	644	655	7.2	3.3	1.4	0.6
Other	0	233	401	350	360	364	353	352	362		-1.1	-0.2	0.3
CO2 Emissions (Mt of CO2)	**13.1**	**14.1**	**14.1**	**15.3**	**15.3**	**15.8**	**16.8**	**17.4**	**17.1**	**0.8**	**0.8**	**0.9**	**0.1**
Power generation/District heating	6.1	6.2	5.6	6.3	5.9	5.9	6.5	6.8	6.1	-0.9	0.5	1.1	-0.6
Energy Branch	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	-16.4	15.1	1.0	1.2
Industry	2.5	1.8	2.3	2.4	2.6	2.7	2.6	2.6	2.6	-0.8	1.2	0.3	-0.3
Residential	1.7	2.1	1.3	1.5	1.7	1.9	2.1	2.2	2.3	-2.6	3.0	1.8	0.8
Tertiary	0.0	0.0	1.2	1.0	1.0	1.0	1.0	1.0	1.0	49.9	-1.9	0.3	0.4
Transport	2.7	3.9	3.8	4.1	4.2	4.2	4.5	4.8	5.0	3.6	0.9	0.9	1.0
CO2 Emissions Index (1990=100)	**100.0**	**107.6**	**108.3**	**117.2**	**117.4**	**120.6**	**128.8**	**133.5**	**130.7**				

Source: PRIMES

SLOVENIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	1.998	1.989	1.989	1.997	2.015	2.019	2.017	2.014	2.006	0.0	0.1	0.0	-0.1
GDP (in 000 MEUR'00)	17.2	16.7	20.6	24.3	29.2	33.3	37.1	40.7	43.8	1.8	3.6	2.4	1.7
Gross Inl. Cons./GDP (toe/MEUR'00)	321.0	364.7	309.3	296.4	259.6	239.1	224.9	209.4	199.0	-0.4	-1.7	-1.4	-1.2
Gross Inl. Cons./Capita (toe/inhabitant)	2.76	3.06	3.20	3.60	3.76	3.95	4.14	4.23	4.35	1.5	1.6	0.9	0.5
Electricity Generated/Capita (kWh/inhabitant)	6226	6361	6848	7491	7811	8756	9668	10262	10861	1.0	1.3	2.2	1.2
Carbon intensity (t of CO_2/toe of GIC)	2.37	2.31	2.22	2.13	2.02	1.98	2.02	2.05	1.96	-0.6	-0.9	0.0	-0.3
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.54	7.07	7.11	7.67	7.61	7.80	8.35	8.66	8.51	0.8	0.7	0.9	0.2
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	760.4	842.1	687.4	631.1	524.8	472.6	453.9	428.7	389.6	-1.0	-2.7	-1.4	-1.5
Import Dependency %	46.5	49.9	52.1	53.8	57.5	60.2	63.7	64.2	62.9	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	98.7	99.0	89.1	82.7	77.4	71.7	66.5	62.8	-0.1	-1.8	-1.4	-1.3
Residential (Energy on Private Income)	100.0	124.7	102.8	102.9	94.5	88.9	83.8	78.5	75.3	0.3	-0.8	-1.2	-1.1
Tertiary (Energy on Value added)	100.0	201.9	441.8	388.9	349.1	331.9	320.9	309.1	304.0	16.0	-2.3	-0.8	-0.5
Transport (Energy on GDP)	100.0	147.1	118.2	110.0	93.3	84.0	82.5	80.5	78.3	1.7	-2.3	-1.2	-0.5
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.42	0.41	0.30	0.30	0.26	0.24	0.24	0.24	0.20	-3.2	-1.5	-0.8	-1.6
Final energy demand (t of CO_2/toe)	2.03	1.99	1.83	1.73	1.68	1.65	1.63	1.62	1.61	-1.0	-0.9	-0.3	-0.1
Industry	1.69	1.56	1.47	1.31	1.27	1.24	1.20	1.16	1.13	-1.4	-1.4	-0.6	-0.5
Residential	1.98	1.80	1.16	1.20	1.25	1.30	1.33	1.35	1.37	-5.2	0.8	0.6	0.3
Tertiary	0.17	0.13	1.74	1.39	1.30	1.24	1.16	1.11	1.07	26.4	-2.8	-1.2	-0.8
Transport	2.88	2.91	2.89	2.87	2.82	2.78	2.74	2.72	2.70	0.0	-0.2	-0.3	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**2885**	**3195**	**3359**	**3433**	**3623**	**3821**	**4022**		**1.5**	**0.8**	**1.1**
Nuclear			664	664	664	664	664	606	758		0.0	0.0	1.3
Hydro (pumping excluded)			981	992	1008	1062	1096	1140	1162		0.3	0.8	0.6
Wind			0	0	2	7	22	29	34			27.1	4.4
Solar			0	0	2	5	12	23	38			22.6	12.5
Thermal			1240	1539	1683	1696	1830	2024	2030		3.1	0.8	1.0
of which cogeneration units			1108	1165	1301	1440	1567	1500	1503		1.6	1.9	-0.4
Solids fired			984	984	984	1005	1135	1107	1117		0.0	1.4	-0.2
Gas fired			65	353	461	529	529	650	643		21.7	1.4	2.0
Oil fired			168	168	138	6	2	2	2		-1.9	-35.3	0.0
Biomass-waste fired			24	34	100	156	164	266	269		15.4	5.1	5.0
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			30.8	31.1	34.3	38.6	41.7	43.8	47.6	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			53.9	53.5	53.5	58.8	61.4	61.7	61.8	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			36.9	39.7	38.5	35.4	38.6	40.4	38.5	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			63.6	61.5	61.8	58.0	54.9	55.0	58.3	0.0	0.0	0.0	0.0
- nuclear			34.9	34.2	32.8	29.8	27.6	23.9	28.5	0.0	0.0	0.0	0.0
- renewable energy forms			28.7	27.3	28.9	28.1	27.3	31.0	29.8	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**15.9**	**14.4**	**13.1**	**13.9**	**14.8**	**16.5**	**18.7**	**21.1**	**23.8**	**-1.9**	**1.2**	**2.4**	**2.4**
Public road transport	7.4	3.3	2.2	1.8	1.4	1.3	1.3	1.3	1.2	-11.3	-4.4	-0.8	-0.5
Private cars and motorcycles	6.9	10.4	10.0	11.0	12.0	13.6	15.6	17.8	20.2	3.8	1.8	2.6	2.6
Rail	1.4	0.6	0.7	0.9	1.0	1.1	1.3	1.5	1.7	-6.8	3.6	2.6	2.7
Aviation	0.2	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	-1.1	7.8	4.4	4.0
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Travel per person (km per capita)	7950	7244	6596	6949	7329	8149	9273	10482	11871	-1.8	1.1	2.4	2.5
Freight transport activity (Gtkm)	**9.1**	**6.4**	**8.1**	**9.6**	**11.2**	**12.6**	**14.0**	**15.3**	**16.5**	**-1.2**	**3.3**	**2.3**	**1.6**
Trucks	4.9	3.3	5.3	6.2	7.2	8.1	8.9	9.7	10.4	0.8	3.2	2.1	1.6
Rail	4.2	3.1	2.8	3.4	4.0	4.5	5.1	5.6	6.0	-4.0	3.5	2.6	1.7
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Freight activity per unit of GDP (tkm/000 Euro'00)	530	383	394	396	383	378	378	376	376	-2.9	-0.3	-0.1	0.0
Energy demand in transport (ktoe)	**928**	**1326**	**1313**	**1441**	**1472**	**1512**	**1652**	**1769**	**1852**	**3.5**	**1.2**	**1.2**	**1.2**
Public road transport	123	62	57	47	36	33	30	28	26	-7.4	-4.6	-1.6	-1.7
Private cars and motorcycles	418	1025	1052	1147	1147	1159	1281	1393	1461	9.7	0.9	1.1	1.3
Trucks	330	189	157	184	213	237	252	263	274	-7.2	3.1	1.7	0.9
Rail	29	29	23	27	31	32	32	30	30	-2.5	3.0	0.3	-0.5
Aviation	27	21	25	36	45	51	57	54	60	-0.8	6.2	2.3	0.6
Inland navigation	0	0	0	0	0	0	0	0	0				
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	36.7	77.5	86.6	88.8	83.4	75.7	73.3	70.0	65.1	9.0	-0.4	-1.3	-1.2
Freight transport (toe/Mtkm)	37.9	32.6	21.9	21.8	21.6	21.1	20.1	18.9	18.3	-5.3	-0.1	-0.7	-0.9

SPAIN: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**33780**	**31503**	**32359**	**34565**	**36609**	**36775**	**44834**	**46178**	**50740**	**-0.4**	**1.2**	**2.0**	**1.2**
Solids	11679	10170	8306	7075	4869	3674	1949	1800	1300	-3.4	-5.2	-8.7	-4.0
Oil	794	779	225	267	250	150	100	0	0	-11.8	1.0	-8.8	
Natural gas	1273	379	148	200	130	100	0	0	0	-19.4	-1.3		
Nuclear	13701	14305	16046	16370	16207	15194	20931	19144	23187	1.6	0.1	2.6	1.0
Renewable energy sources	6332	5870	7634	10652	15153	17656	21854	25234	26253	1.9	7.1	3.7	1.9
Hydro	2184	1987	2534	2493	2745	2769	2801	2843	2860	1.5	0.8	0.2	0.2
Biomass & Waste	4123	3831	4654	6463	8701	10089	12426	15080	15674	1.2	6.5	3.6	2.3
Wind	1	23	406	1628	3578	4590	6305	6865	7150	79.0	24.3	5.8	1.3
Solar and others	21	25	32	53	116	196	308	434	556	4.3	13.6	10.3	6.1
Geothermal	2	3	8	16	14	13	13	13	13	12.3	6.0	-0.6	-0.2
Net Imports	**59857**	**75415**	**98351**	**114105**	**127285**	**136365**	**134475**	**133759**	**134992**	**5.1**	**2.6**	**0.6**	**0.0**
Solids	7038	9146	12636	15436	12179	10987	6464	6942	9478	6.0	-0.4	-6.1	3.9
Oil	49166	58363	69866	73266	79906	83393	85667	83623	84249	3.6	1.4	0.7	-0.2
- Crude oil and Feedstocks	53256	55362	58393	68610	74749	78083	80435	78707	79598	0.9	2.5	0.7	-0.1
- Oil products	-4091	3001	11473	4656	5157	5310	5232	4916	4651		-7.7	0.1	-1.2
Natural gas	3690	7521	15467	24966	34901	41710	42085	42966	41057	15.4	8.5	1.9	-0.2
Electricity	-36	386	382	437	298	275	259	228	208		-2.4	-1.4	-2.2
Gross Inland Consumption	**89457**	**102354**	**123712**	**142261**	**156853**	**165624**	**171361**	**171722**	**177267**	**3.3**	**2.4**	**0.9**	**0.3**
Solids	18942	19515	21208	22511	17048	14661	8413	8742	10778	1.1	-2.2	-6.8	2.5
Oil	45547	54556	63223	67124	73115	76028	77819	75408	75784	3.3	1.5	0.6	-0.3
Natural gas	4971	7722	15219	25166	35031	41810	42085	42966	41057	11.8	8.7	1.9	-0.2
Nuclear	13701	14305	16046	16370	16207	15194	20931	19144	23187	1.6	0.1	2.6	1.0
Electricity	-36	386	382	437	298	275	259	228	208		-2.4	-1.4	-2.2
Renewable energy forms	6332	5870	7634	10652	15153	17656	21854	25234	26253	1.9	7.1	3.7	1.9
as % in Gross Inland Consumption													
Solids	21.2	19.1	17.1	15.8	10.9	8.9	4.9	5.1	6.1				
Oil	50.9	53.3	51.1	47.2	46.6	45.9	45.4	43.9	42.8				
Natural gas	5.6	7.5	12.3	17.7	22.3	25.2	24.6	25.0	23.2				
Nuclear	15.3	14.0	13.0	11.5	10.3	9.2	12.2	11.1	13.1				
Renewable energy forms	7.1	5.7	6.2	7.5	9.7	10.7	12.8	14.7	14.8				
Electricity Generation in GWh_e	**150944**	**165582**	**222771**	**282609**	**335758**	**370638**	**392371**	**409229**	**425191**	**4.0**	**4.2**	**1.6**	**0.8**
Nuclear	54258	55445	62195	63450	62819	58892	81129	74202	89872	1.4	0.1	2.6	1.0
Hydro & wind	25409	23378	34188	47937	73678	85987	106879	114556	118780	3.0	8.0	3.8	1.1
Thermal (incl. biomass)	71276	86759	126388	171222	199261	225759	204362	220471	216539	5.9	4.7	0.3	0.6
Fuel Inputs for Thermal Power Generation [1]	**17836**	**20392**	**30903**	**36121**	**39669**	**42332**	**36408**	**38855**	**38268**	**5.7**	**2.5**	**-0.9**	**0.5**
Solids	13768	13590	18889	19525	14412	12224	6133	6716	9048	3.2	-2.7	-8.2	4.0
Oil (including refinery gas)	2170	3654	4947	3216	3477	3636	3381	3323	3312	8.6	-3.5	-0.3	-0.2
Gas	915	2097	5333	11239	19065	23266	21414	20595	16938	19.3	13.6	1.2	-2.3
Biomass & Waste	983	1051	1735	2141	2714	3206	5480	8221	8970	5.8	4.6	7.3	5.1
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**57883**	**58965**	**63144**	**75487**	**82670**	**86672**	**89187**	**87059**	**87551**	**0.9**	**2.7**	**0.8**	**-0.2**
Refineries	53753	56041	60048	70712	77086	80347	82491	80389	81040	1.1	2.5	0.7	-0.2
Biofuels and hydrogen production	0	0	65	1711	2984	3965	4481	4768	4916		46.6	4.2	0.9
District heating	0	0	0	0	0	0	0	0	0			-2.2	-1.4
Others	4131	2924	3031	3063	2600	2359	2215	1902	1596	-3.0	-1.5	-1.6	-3.2
Energy Branch Consumption	**4757**	**5473**	**5821**	**6855**	**7420**	**7729**	**7814**	**7769**	**7789**	**2.0**	**2.5**	**0.5**	**0.0**
Non-Energy Uses	**5847**	**8011**	**9101**	**10532**	**11670**	**12507**	**13191**	**13697**	**14034**	**4.5**	**2.5**	**1.2**	**0.6**
Final Energy Demand	**57010**	**63954**	**80118**	**94716**	**106958**	**115095**	**120922**	**122985**	**124486**	**3.5**	**2.9**	**1.2**	**0.3**
by sector													
Industry[1]	20377	20893	26180	32084	37023	40133	42192	43351	44061	2.5	3.5	1.3	0.4
- energy intensive industries	13415	13875	17515	21257	23859	25566	26452	26741	26804	2.7	3.1	1.0	0.1
- other industrial sectors	6961	7018	8665	10827	13164	14567	15740	16611	17257	2.2	4.3	1.8	0.9
Residential	9266	9986	11881	14208	16075	17523	17728	17180	16588	2.5	3.1	1.0	-0.7
Tertiary	5041	7007	9210	10576	11828	12713	13448	14055	14652	6.2	2.5	1.3	0.9
Transport	22326	26069	32848	37847	42032	44726	47554	48399	49186	3.9	2.5	1.2	0.3
by fuel [1]													
Solids	3519	2230	1597	1794	1658	1590	1530	1397	1201	-7.6	0.4	-0.8	-2.4
Oil	33488	38971	45773	50290	54904	57374	59464	59008	58323	3.2	1.8	0.8	-0.2
Gas	4443	5731	9873	12823	14257	15995	17289	18231	19148	8.3	3.7	1.9	1.0
Electricity	10817	12116	16205	20939	25141	27851	29708	31109	32358	4.1	4.5	1.7	0.9
Heat (from CHP and District Heating)	1578	2099	3713	4901	5603	6115	6677	7007	7292	8.9	4.2	1.8	0.9
Other	3164	2808	2958	3968	5395	6170	6254	6232	6164	-0.7	6.2	1.5	-0.1
CO2 Emissions (Mt of CO2)	**201.5**	**224.0**	**282.7**	**315.9**	**332.1**	**344.7**	**324.1**	**323.7**	**323.1**	**3.4**	**1.6**	**-0.2**	**0.0**
Power generation/District heating	64.2	70.8	103.4	114.2	113.0	114.5	85.3	85.4	85.9	4.9	0.9	-2.8	0.1
Energy Branch	11.5	13.0	11.9	13.0	13.7	13.5	13.1	12.4	11.8	0.4	1.4	-0.4	-1.0
Industry	39.5	39.2	40.7	47.9	52.6	56.3	58.1	58.1	57.1	0.3	2.6	1.0	-0.2
Residential	12.9	13.6	16.4	19.3	21.0	22.2	21.8	20.0	18.1	2.5	2.5	0.4	-1.8
Tertiary	7.7	10.5	12.9	13.4	14.2	15.1	15.5	15.8	16.1	5.3	1.0	0.9	0.4
Transport	65.6	76.9	97.3	108.2	117.5	123.1	130.3	132.0	133.9	4.0	1.9	1.0	0.3
CO2 Emissions Index (1990=100)	**100.0**	**111.2**	**140.3**	**156.8**	**164.8**	**171.1**	**160.9**	**160.7**	**160.3**				

Source: PRIMES

SPAIN: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	38.850	39.223	39.927	41.273	44.603	45.264	45.559	45.556	45.379	0.3	1.1	0.2	0.0
GDP (in 000 MEUR'00)	468.3	504.6	610.5	693.4	801.8	921.8	1040.2	1150.3	1240.4	2.7	2.8	2.6	1.8
Gross Inl. Cons./GDP (toe/MEUR'00)	191.0	202.8	202.6	205.2	195.6	179.7	164.7	149.3	142.9	0.6	-0.4	-1.7	-1.4
Gross Inl. Cons./Capita (toe/inhabitant)	2.30	2.61	3.10	3.45	3.52	3.66	3.76	3.77	3.91	3.0	1.3	0.7	0.4
Electricity Generated/Capita (kWh/inhabitant)	3885	4222	5579	6847	7528	8188	8612	8983	9370	3.7	3.0	1.4	0.8
Carbon intensity (t of CO_2/toe of GIC)	2.25	2.19	2.28	2.22	2.12	2.08	1.89	1.89	1.82	0.1	-0.8	-1.1	-0.4
CO_2 Emissions/Capita (t of CO_2/inhabitant)	5.19	5.71	7.08	7.65	7.45	7.62	7.11	7.11	7.12	3.2	0.5	-0.5	0.0
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	430.3	443.9	463.0	455.6	414.2	373.9	311.6	281.4	260.4	0.7	-1.1	-2.8	-1.8
Import Dependency %	64.2	71.5	75.9	76.8	77.7	78.8	75.0	74.3	72.7	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	102.9	104.8	119.6	118.9	111.4	103.1	95.8	90.5	0.5	1.3	-1.4	-1.3
Residential (Energy on Private Income)	100.0	101.6	100.9	103.9	101.9	96.9	87.1	76.4	68.5	0.1	0.1	-1.6	-2.4
Tertiary (Energy on Value added)	100.0	130.3	146.0	149.3	145.2	135.6	126.9	119.4	114.4	3.9	-0.1	-1.3	-1.0
Transport (Energy on GDP)	100.0	108.4	112.8	114.5	109.9	101.8	95.9	88.2	83.2	1.2	-0.3	-1.4	-1.4
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.38	0.37	0.38	0.33	0.28	0.26	0.18	0.17	0.17	0.2	-3.2	-4.3	-0.7
Final energy demand (t of CO_2/toe)	2.21	2.19	2.09	1.99	1.92	1.88	1.87	1.84	1.81	-0.5	-0.8	-0.3	-0.3
Industry	1.94	1.88	1.55	1.49	1.42	1.40	1.38	1.34	1.30	-2.2	-0.9	-0.3	-0.6
Residential	1.39	1.36	1.38	1.36	1.31	1.27	1.23	1.17	1.09	0.0	-0.6	-0.6	-1.2
Tertiary	1.53	1.50	1.40	1.27	1.20	1.18	1.15	1.13	1.10	-0.8	-1.5	-0.4	-0.5
Transport	2.94	2.95	2.96	2.86	2.80	2.75	2.74	2.73	2.72	0.1	-0.6	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**48457**	**67370**	**87094**	**96268**	**108646**	**114392**	**120787**		**6.0**	**2.2**	**1.1**
Nuclear			7807	7807	7647	7181	9844	8943	10782		-0.2	2.6	0.9
Hydro (pumping excluded)			12867	12908	14049	14132	14249	14372	14409		0.9	0.1	0.1
Wind			2235	9183	18307	22429	31472	34327	35912		23.4	5.6	1.3
Solar			14	26	160	438	1027	1722	2451		28.0	20.5	9.1
Thermal			25535	37446	46931	52088	52054	55028	57234		6.3	1.0	1.0
of which cogeneration units			4961	11318	10655	14732	16559	17817	18629		7.9	4.5	1.2
Solids fired			11587	12392	9518	7312	3702	4655	6855		-1.9	-9.0	6.4
Gas fired			4227	16014	31725	37725	37725	37624	37047		22.3	1.7	-0.2
Oil fired			8353	7540	4112	4142	5669	5547	5522		-6.8	3.3	-0.3
Biomass-waste fired			1368	1500	1576	2909	4958	7202	7810		1.4	12.1	4.6
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			35.2	40.8	43.2	45.9	48.3	48.8	48.7	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			52.5	47.9	44.0	44.0	41.2	40.8	40.2	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			12.2	21.0	20.5	25.2	24.7	24.9	25.0	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			47.4	42.5	44.1	43.7	56.0	58.0	61.7	0.0	0.0	0.0	0.0
- nuclear			27.9	22.5	18.7	15.9	20.7	18.1	21.1	0.0	0.0	0.0	0.0
- renewable energy forms			19.5	20.0	25.4	27.8	35.4	39.9	40.5	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**271.4**	**365.7**	**451.5**	**518.3**	**591.0**	**651.0**	**712.8**	**769.0**	**820.8**	**5.2**	**2.7**	**1.9**	**1.4**
Public road transport	33.4	39.6	50.3	52.4	53.9	51.3	48.8	46.5	44.3	4.2	0.7	-1.0	-1.0
Private cars and motorcycles	186.8	264.0	315.2	358.8	406.9	449.9	494.2	533.7	569.3	5.4	2.6	2.0	1.4
Rail	19.9	20.8	25.4	30.1	34.8	37.9	41.2	44.4	47.3	2.5	3.2	1.7	1.4
Aviation	30.3	40.1	59.3	75.5	93.5	109.8	126.3	141.9	157.2	6.9	4.7	3.1	2.2
Inland navigation	1.1	1.2	1.3	1.6	1.9	2.1	2.3	2.5	2.7	2.1	3.7	2.1	1.6
Travel per person (km per capita)	6986	9324	11309	12558	13250	14383	15646	16880	18088	4.9	1.6	1.7	1.5
Freight transport activity (Gtkm)	**128.0**	**150.5**	**191.3**	**217.3**	**246.5**	**275.5**	**306.3**	**333.5**	**356.0**	**4.1**	**2.6**	**2.2**	**1.5**
Trucks	83.8	101.6	148.7	173.4	201.5	228.5	257.6	283.4	304.8	5.9	3.1	2.5	1.7
Rail	11.2	11.0	11.6	11.9	11.9	12.5	13.0	13.6	14.2	0.4	0.2	0.9	0.8
Inland navigation	33.0	38.0	31.0	32.0	33.1	34.5	35.7	36.5	37.0	-0.6	0.7	0.7	0.4
Freight activity per unit of GDP (tkm/000 Euro'00)	273	298	313	313	307	299	294	290	287	1.4	-0.2	-0.4	-0.3
Energy demand in transport (ktoe)	**22326**	**26069**	**32848**	**37847**	**42032**	**44726**	**47554**	**48399**	**49186**	**3.9**	**2.5**	**1.2**	**0.3**
Public road transport	297	278	351	364	372	345	312	274	237	1.7	0.6	-1.7	-2.7
Private cars and motorcycles	7748	8788	10412	11760	12179	12061	12715	13066	12714	3.0	1.6	0.4	0.0
Trucks	9631	11400	15364	17892	20764	23281	25162	26502	27752	4.8	3.1	1.9	1.0
Rail	528	626	847	879	837	608	584	584	603	4.8	-0.1	-3.5	0.3
Aviation	2467	3105	4497	5514	6387	6881	7209	6396	6304	6.2	3.6	1.2	-1.3
Inland navigation	1655	1871	1378	1437	1493	1551	1571	1577	1576	-1.8	0.8	0.5	0.0
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	40.6	35.0	35.5	35.6	33.4	30.6	29.3	26.5	24.3	-1.3	-0.6	-1.3	-1.9
Freight transport (toe/Mtkm)	88.4	88.3	88.0	89.3	90.5	90.0	87.1	84.0	82.2	0.0	0.3	-0.4	-0.6

SWEDEN: Baseline scenario										SUMMARY ENERGY BALANCE AND INDICATORS (A)			
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**29728**	**31613**	**30530**	**34989**	**35005**	**31286**	**27885**	**20941**	**19735**	**0.3**	**1.4**	**-2.2**	**-3.4**
Solids	216	321	230	350	320	270	0	0	0	0.6	3.3		
Oil	3	4	0	0	0	0	0	0	0				
Natural gas	0	0	0	0	0	0	0	0	0				
Nuclear	17764	18040	14781	18715	18663	14099	10101	1251	0	-1.8	2.4	-6.0	
Renewable energy sources	11745	13248	15519	15924	16022	16917	17784	19690	19735	2.8	0.3	1.0	1.0
Hydro	6234	5856	6757	6091	5723	5774	5779	5778	5777	0.8	-1.6	0.1	0.0
Biomass & Waste	5507	7378	8717	9725	10118	10704	11418	12230	12137	4.7	1.5	1.2	0.6
Wind	1	9	39	100	161	405	541	1623	1742	54.2	15.2	12.9	12.4
Solar and others	3	5	5	9	19	33	46	58	79	5.3	13.8	9.0	5.6
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**17866**	**19206**	**19096**	**20224**	**22147**	**24735**	**26312**	**28555**	**28625**	**0.7**	**1.5**	**1.7**	**0.8**
Solids	2329	2657	2342	2698	2759	4203	6239	8065	8031	0.1	1.7	8.5	2.6
Oil	15169	16014	15654	16703	17402	17243	16968	16540	16089	0.3	1.1	-0.3	-0.5
- Crude oil and Feedstocks	16989	17815	20372	17299	17820	17703	17480	17073	16638	1.8	-1.3	-0.2	-0.5
- Oil products	-1820	-1801	-4718	-596	-419	-460	-512	-533	-549				
Natural gas	519	679	698	948	1951	3166	2894	3639	4135	3.0	10.8	4.0	3.6
Electricity	-152	-145	402	-124	35	122	210	310	370		-21.7	19.8	5.8
Gross Inland Consumption	**47108**	**50470**	**48225**	**53806**	**55630**	**54419**	**52531**	**47793**	**46624**	**0.2**	**1.4**	**-0.6**	**-1.2**
Solids	2677	2893	2443	3048	3079	4473	6239	8065	8031	-0.9	2.3	7.3	2.6
Oil	14555	15754	14382	15295	15880	15641	15303	14837	14353	-0.1	1.0	-0.4	-0.6
Natural gas	519	679	698	948	1951	3166	2894	3639	4135	3.0	10.8	4.0	3.6
Nuclear	17764	18040	14781	18715	18663	14099	10101	1251	0	-1.8	2.4	-6.0	
Electricity	-152	-145	402	-124	35	122	210	310	370		-21.7	19.8	5.8
Renewable energy forms	11745	13248	15519	15924	16022	16917	17784	19690	19735	2.8	0.3	1.0	1.0
as % in Gross Inland Consumption													
Solids	5.7	5.7	5.1	5.7	5.5	8.2	11.9	16.9	17.2				
Oil	30.9	31.2	29.8	28.4	28.5	28.7	29.1	31.0	30.8				
Natural gas	1.1	1.3	1.4	1.8	3.5	5.8	5.5	7.6	8.9				
Nuclear	37.7	35.7	30.7	34.8	33.5	25.9	19.2	2.6	0.0				
Renewable energy forms	24.9	26.2	32.2	29.6	28.8	31.1	33.9	41.2	42.3				
Electricity Generation in GWh_e	**145952**	**148271**	**145524**	**154003**	**155870**	**161057**	**165162**	**166375**	**167355**	**0.0**	**0.7**	**0.6**	**0.1**
Nuclear	68173	69922	57306	72556	72356	54660	39160	4849	0	-1.7	2.4	-6.0	
Hydro & wind	72496	68196	79027	71981	68425	71862	73490	86074	87436	0.9	-1.4	0.7	1.8
Thermal (incl. biomass)	5283	10153	9191	9466	15089	34536	52512	75453	79919	5.7	5.1	13.3	4.3
Fuel Inputs for Thermal Power Generation [1]	**1524**	**3382**	**3389**	**3790**	**5357**	**9288**	**11380**	**15067**	**15282**	**8.3**	**4.7**	**7.8**	**3.0**
Solids	558	705	468	127	284	1844	3913	5845	6348	-1.7	-4.9	30.0	5.0
Oil (including refinery gas)	268	766	434	556	461	845	41	126	37	4.9	0.6	-21.5	-0.9
Gas	251	393	402	293	1255	2427	2120	2855	3055	4.8	12.0	5.4	3.7
Biomass & Waste	447	1518	2085	2815	3357	4172	5305	6241	5841	16.7	4.9	4.7	1.0
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**20574**	**22365**	**24830**	**23812**	**24329**	**23248**	**22440**	**21625**	**21239**	**1.9**	**-0.2**	**-0.8**	**-0.5**
Refineries	18041	19475	21618	19204	20008	19825	19510	19017	18499	1.8	-0.8	-0.3	-0.5
Biofuels and hydrogen production	0	0	0	87	221	434	601	705	789			10.5	2.7
District heating	1118	1275	1509	2704	2391	1353	851	573	762	3.0	4.7	-9.8	-1.1
Others	1415	1615	1704	1817	1708	1637	1478	1330	1190	1.9	0.0	-1.4	-2.1
Energy Branch Consumption	**1761**	**1629**	**1528**	**1493**	**1453**	**1380**	**1259**	**1122**	**1054**	**-1.4**	**-0.5**	**-1.4**	**-1.8**
Non-Energy Uses	**1769**	**1772**	**1458**	**1995**	**2330**	**2428**	**2478**	**2484**	**2474**	**-1.9**	**4.8**	**0.6**	**0.0**
Final Energy Demand	**30522**	**33708**	**34554**	**34957**	**36234**	**37485**	**38467**	**38371**	**37977**	**1.2**	**0.5**	**0.6**	**-0.1**
by sector													
Industry[1]	11869	12639	13631	12661	12885	13406	13760	13784	13646	1.4	-0.6	0.7	-0.1
- energy intensive industries	8593	8949	10909	10188	10276	10627	10866	10825	10670	2.4	-0.6	0.6	-0.2
- other industrial sectors	3275	3690	2722	2473	2609	2780	2894	2958	2975	-1.8	-0.4	1.0	0.3
Residential	6838	8029	7539	7660	7821	8049	8144	8166	8179	1.0	0.4	0.4	0.0
Tertiary	4553	5375	5256	5779	6198	6537	6813	6946	7019	1.4	1.7	1.0	0.3
Transport	7263	7666	8127	8857	9330	9492	9750	9476	9134	1.1	1.4	0.4	-0.7
by fuel [1]													
Solids	1231	1192	1141	1697	1667	1642	1520	1512	1087	-0.8	3.9	-0.9	-3.3
Oil	11988	12538	12505	12220	12554	12324	12533	12048	11684	0.4	0.0	0.0	-0.7
Gas	570	593	651	758	814	719	892	856	1068	1.3	2.3	0.9	1.8
Electricity	10348	10711	11068	11378	11823	12399	12947	13267	13442	0.7	0.7	0.9	0.4
Heat (from CHP and District Heating)	1765	3620	3747	4163	4550	5132	5264	5267	5133	7.8	2.0	1.5	-0.3
Other	4620	5054	5442	4742	4825	5267	5311	5421	5562	1.7	-1.2	1.0	0.5
CO2 Emissions (Mt of CO2)	**50.4**	**53.9**	**51.4**	**52.6**	**56.0**	**63.4**	**68.6**	**76.3**	**76.1**	**0.2**	**0.9**	**2.1**	**1.0**
Power generation/District heating	6.3	8.0	5.6	5.3	7.6	16.6	21.2	30.6	32.7	-1.1	3.1	10.8	4.4
Energy Branch	1.5	1.8	1.9	1.8	1.9	1.3	1.4	1.3	1.2	2.2	-0.3	-2.9	-1.3
Industry	11.5	12.4	11.5	12.3	12.2	10.9	10.9	10.4	9.4	0.0	0.6	-1.1	-1.5
Residential	4.8	4.5	3.7	2.6	2.4	2.2	2.0	1.9	1.7	-2.6	-4.3	-1.6	-1.5
Tertiary	5.6	5.4	5.6	5.5	5.7	6.0	6.3	6.4	6.5	0.0	0.2	1.0	0.3
Transport	20.7	21.8	23.2	25.1	26.3	26.4	26.8	25.8	24.6	1.1	1.3	0.2	-0.9
CO2 Emissions Index (1990=100)	**100.0**	**107.0**	**102.0**	**104.5**	**111.1**	**125.8**	**136.2**	**151.5**	**151.0**				

Source: PRIMES

SWEDEN: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	8.559	8.827	8.872	9.038	9.187	9.373	9.575	9.769	9.911	0.4	0.4	0.4	0.3
GDP (in 000 MEUR'00)	213.3	221.5	259.9	289.8	329.1	370.9	414.0	454.8	484.3	2.0	2.4	2.3	1.6
Gross Inl. Cons./GDP (toe/MEUR'00)	220.8	227.8	185.5	185.7	169.0	146.7	126.9	105.1	96.3	-1.7	-0.9	-2.8	-2.7
Gross Inl. Cons./Capita (toe/inhabitant)	5.50	5.72	5.44	5.95	6.06	5.81	5.49	4.89	4.70	-0.1	1.1	-1.0	-1.5
Electricity Generated/Capita (kWh/inhabitant)	17052	16797	16403	17039	16965	17183	17248	17032	16885	-0.4	0.3	0.2	-0.2
Carbon intensity (t of CO_2/toe of GIC)	1.07	1.07	1.07	0.98	1.01	1.16	1.31	1.60	1.63	0.0	-0.6	2.6	2.2
CO_2 Emissions/Capita (t of CO_2/inhabitant)	5.89	6.11	5.80	5.82	6.10	6.76	7.17	7.81	7.68	-0.2	0.5	1.6	0.7
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	236.2	243.4	197.8	181.7	170.2	170.8	165.8	167.8	157.1	-1.8	-1.5	-0.3	-0.5
Import Dependency %	37.4	37.3	38.5	36.6	38.8	44.2	48.5	57.7	59.2	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	85.3	66.1	51.4	44.5	40.1	36.3	32.9	30.7	-4.1	-3.9	-2.0	-1.7
Residential (Energy on Private Income)	100.0	118.6	95.1	89.5	81.5	75.4	69.1	63.5	59.8	-0.5	-1.5	-1.6	-1.4
Tertiary (Energy on Value added)	100.0	113.7	98.2	99.0	93.5	87.2	81.1	74.7	70.4	-0.2	-0.5	-1.4	-1.4
Transport (Energy on GDP)	100.0	101.7	91.9	89.8	83.3	75.2	69.2	61.2	55.4	-0.8	-1.0	-1.8	-2.2
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.04	0.04	0.03	0.03	0.04	0.07	0.09	0.13	0.14	-2.4	2.1	9.8	4.4
Final energy demand (t of CO_2/toe)	1.39	1.31	1.27	1.30	1.28	1.21	1.20	1.16	1.11	-0.9	0.1	-0.7	-0.7
Industry	0.97	0.98	0.84	0.97	0.95	0.81	0.79	0.75	0.69	-1.4	1.2	-1.8	-1.5
Residential	0.70	0.57	0.49	0.34	0.30	0.27	0.25	0.23	0.21	-3.6	-4.7	-2.0	-1.5
Tertiary	1.22	1.00	1.06	0.95	0.92	0.92	0.92	0.92	0.92	-1.5	-1.4	0.0	0.0
Transport	2.85	2.85	2.85	2.83	2.82	2.78	2.75	2.72	2.69	0.0	-0.1	-0.2	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**32268**	**34663**	**37101**	**39118**	**43011**	**45201**	**45767**		**1.4**	**1.5**	**0.6**
Nuclear			9824	9824	9824	6933	4967	615	0		0.0	-6.6	
Hydro (pumping excluded)			15777	15777	15777	15777	15777	15777	15777		0.0	0.0	0.0
Wind			231	524	958	1814	2342	7209	7743		15.3	9.3	12.7
Solar			3	6	12	23	33	47	60		15.5	10.9	6.0
Thermal			6433	8532	10530	14571	19892	21554	22188		5.1	6.6	1.1
of which cogeneration units			3640	4097	4215	5610	9282	10255	10583		1.5	8.2	1.3
Solids fired			838	838	838	1659	4988	5961	6460		0.0	19.5	2.6
Gas fired			470	1070	4171	6936	8086	8086	8086		24.4	6.8	0.0
Oil fired			3478	4960	3495	2739	1792	1792	1620		0.1	-6.5	-1.0
Biomass-waste fired			1647	1665	2026	3236	5026	5715	6022		2.1	9.5	1.8
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			23.3	21.5	24.2	32.0	39.7	43.1	45.0	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			51.5	50.7	48.0	47.0	43.8	42.0	41.7	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			5.5	5.2	7.1	14.9	21.8	26.6	27.0	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			97.5	97.8	95.1	85.6	78.9	69.1	67.0	0.0	0.0	0.0	0.0
- nuclear			39.4	47.1	46.4	33.9	23.7	2.9	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			58.1	50.7	48.6	51.6	55.1	66.2	67.0	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**116.4**	**117.7**	**129.1**	**139.8**	**152.8**	**164.7**	**175.2**	**183.5**	**188.9**	**1.0**	**1.7**	**1.4**	**0.8**
Public road transport	8.0	8.5	9.3	9.4	9.5	9.6	9.6	9.7	9.7	1.5	0.2	0.1	0.1
Private cars and motorcycles	86.9	87.4	91.9	98.0	106.0	114.9	122.8	128.9	132.8	0.6	1.4	1.5	0.8
Rail	8.4	8.3	10.4	11.5	12.6	12.7	12.7	12.8	12.8	2.2	2.0	0.1	0.1
Aviation	8.8	9.0	12.6	15.6	18.9	21.3	23.6	25.4	26.6	3.6	4.1	2.3	1.2
Inland navigation	4.3	4.4	4.9	5.4	5.8	6.2	6.5	6.8	6.9	1.4	1.7	1.1	0.7
Travel per person (km per capita)	13596	13329	14550	15464	16636	17575	18298	18783	19057	0.7	1.3	1.0	0.4
Freight transport activity (Gtkm)	**53.9**	**58.9**	**62.6**	**67.0**	**73.2**	**79.8**	**85.8**	**91.0**	**95.2**	**1.5**	**1.6**	**1.6**	**1.0**
Trucks	26.5	31.6	35.6	39.4	45.0	49.8	54.4	58.4	61.5	3.0	2.4	1.9	1.2
Rail	19.1	19.4	20.1	20.5	20.9	21.8	22.4	22.8	23.2	0.5	0.4	0.7	0.4
Inland navigation	8.3	7.9	6.9	7.0	7.3	8.1	9.0	9.9	10.5	-1.8	0.5	2.2	1.5
Freight activity per unit of GDP (tkm/000 Euro'00)	253	266	241	231	222	215	207	200	197	-0.5	-0.8	-0.7	-0.5
Energy demand in transport (ktoe)	**7263**	**7666**	**8127**	**8857**	**9330**	**9492**	**9750**	**9476**	**9134**	**1.1**	**1.4**	**0.4**	**-0.7**
Public road transport	230	275	189	189	188	181	170	159	149	-2.0	0.0	-1.0	-1.3
Private cars and motorcycles	4001	4094	4081	4335	4273	4119	4208	4122	3912	0.2	0.5	-0.2	-0.7
Trucks	1872	2066	2471	2734	3111	3386	3550	3654	3621	2.8	2.3	1.3	0.2
Rail	252	273	299	309	288	251	226	215	210	1.7	-0.4	-2.4	-0.7
Aviation	764	856	934	1131	1306	1374	1400	1117	1027	2.0	3.4	0.7	-3.0
Inland navigation	143	103	154	158	163	180	197	209	215	0.8	0.6	1.9	0.9
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	44.6	46.1	42.0	42.1	39.2	35.6	34.0	30.3	27.8	-0.6	-0.7	-1.4	-2.0
Freight transport (toe/Mtkm)	38.5	38.0	43.2	44.3	45.7	45.5	44.3	42.9	40.8	1.2	0.6	-0.3	-0.8

UNITED KINGDOM: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**205508**	**249731**	**268701**	**234558**	**196817**	**118276**	**87976**	**93360**	**96700**	**2.7**	**-3.1**	**-7.7**	**0.9**
Solids	54125	30516	18588	14500	13000	12000	10000	9000	8000	-10.1	-3.5	-2.6	-2.2
Oil	92813	132256	127882	100000	85000	45000	25000	23798	23000	3.3	-4.0	-11.5	-0.8
Natural gas	40925	63715	97654	94000	70000	30000	15000	14250	13538	9.1	-3.3	-14.3	-1.0
Nuclear	16574	21249	21942	22429	22474	22632	26513	31453	36591	2.8	0.2	1.7	3.3
Renewable energy sources	1070	1996	2635	3629	6344	8644	11464	14860	15572	9.4	9.2	6.1	3.1
Hydro	436	416	437	410	447	455	462	471	476	0.0	0.2	0.3	0.3
Biomass & Waste	627	1539	2104	2901	4213	6134	8184	9658	10195	12.9	7.2	6.9	2.2
Wind	1	34	81	294	1646	2002	2720	4612	4772	59.3	35.1	5.2	5.8
Solar and others	5	6	11	22	36	52	94	116	128	8.1	12.3	10.1	3.1
Geothermal	1	1	1	1	2	2	2	3	3	0.0	8.6	3.3	0.9
Net Imports	**5932**	**-36021**	**-39031**	**1675**	**46285**	**127851**	**159341**	**152456**	**152296**			**13.2**	**-0.5**
Solids	9122	10493	14576	23504	26581	24778	21404	19612	21945	4.8	6.2	-2.1	0.2
Oil	-10396	-48554	-45515	-18907	-1745	38156	56700	54195	54383				-0.4
- Crude oil and Feedstocks	-4537	-36357	-39025	-11515	6119	46306	65096	62769	62961			26.7	-0.3
- Oil products	-5858	-12196	-6490	-7391	-7863	-8150	-8397	-8574	-8578				
Natural gas	6178	637	-9310	-3853	20564	64158	80553	78096	75522			14.6	-0.6
Electricity	1027	1403	1219	931	885	759	684	552	447	1.7	-3.1	-2.5	-4.2
Gross Inland Consumption	**211082**	**218011**	**230427**	**234202**	**241009**	**244018**	**245189**	**243673**	**246829**	**0.9**	**0.5**	**0.2**	**0.1**
Solids	64305	45866	35733	38004	39581	36778	31404	28612	29945	-5.7	1.0	-2.3	-0.5
Oil	80903	82378	81399	79063	81161	81047	79571	75850	75216	0.1	0.0	-0.2	-0.6
Natural gas	47203	65119	87500	90147	90564	94158	95553	92346	89059	6.4	0.3	0.5	-0.7
Nuclear	16574	21249	21942	22429	22474	22632	26513	31453	36591	2.8	0.2	1.7	3.3
Electricity	1027	1403	1219	931	885	759	684	552	447	1.7	-3.1	-2.5	-4.2
Renewable energy forms	1070	1996	2635	3629	6344	8644	11464	14860	15572	9.4	9.2	6.1	3.1
as % in Gross Inland Consumption													
Solids	30.5	21.0	15.5	16.2	16.4	15.1	12.8	11.7	12.1				
Oil	38.3	37.8	35.3	33.8	33.7	33.2	32.5	31.1	30.5				
Natural gas	22.4	29.9	38.0	38.5	37.6	38.6	39.0	37.9	36.1				
Nuclear	7.9	9.7	9.5	9.6	9.3	9.3	10.8	12.9	14.8				
Renewable energy forms	0.5	0.9	1.1	1.5	2.6	3.5	4.7	6.1	6.3				
Electricity Generation in GWh_e	**316937**	**332435**	**374548**	**403594**	**439445**	**467024**	**489171**	**511267**	**529311**	**1.7**	**1.6**	**1.1**	**0.8**
Nuclear	65735	88948	85048	86934	87108	87719	102762	121909	141824	2.6	0.2	1.7	3.3
Hydro & wind	5083	5228	6031	8188	24339	28575	37364	59499	61478	1.7	15.0	4.4	5.1
Thermal (incl. biomass)	246119	238259	283469	308472	327998	350729	349044	329859	326009	1.4	1.5	0.6	-0.7
Fuel Inputs for Thermal Power Generation [1]	**56554**	**50141**	**56769**	**61982**	**65085**	**65563**	**60211**	**55333**	**54810**	**0.0**	**1.4**	**-0.8**	**-0.9**
Solids	47277	33862	27245	31183	33678	31368	26690	24510	26226	-5.4	2.1	-2.3	-0.2
Oil (including refinery gas)	7172	3403	1330	935	813	666	257	233	176	-15.5	-4.8	-10.9	-3.7
Gas	1884	12198	26760	27698	28143	29988	28615	24745	22110	30.4	0.5	0.2	-2.5
Biomass & Waste	222	678	1434	2166	2450	3540	4648	5844	6299	20.5	5.5	6.6	3.1
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**99145**	**102334**	**100475**	**98379**	**101498**	**102219**	**101384**	**97387**	**96264**	**0.1**	**0.1**	**0.0**	**-0.5**
Refineries	89882	94255	89299	90555	92973	92866	91245	87330	86432	-0.1	0.4	-0.2	-0.5
Biofuels and hydrogen production	0	0	0	87	1224	2152	3258	3677	3800			10.3	1.6
District heating	0	0	3511	1538	1573	1651	1677	1691	1711		-7.7	0.6	0.2
Others	9263	8079	7665	6199	5728	5550	5205	4690	4321	-1.9	-2.9	-1.0	-1.8
Energy Branch Consumption	**12836**	**14458**	**14723**	**13171**	**12419**	**11711**	**11013**	**10196**	**9612**	**1.4**	**-1.7**	**-1.2**	**-1.4**
Non-Energy Uses	**11502**	**12550**	**11192**	**11473**	**12447**	**12943**	**13229**	**13411**	**13619**	**-0.3**	**1.1**	**0.6**	**0.3**
Final Energy Demand	**139016**	**144706**	**154668**	**158793**	**164268**	**169087**	**173697**	**175091**	**174815**	**1.1**	**0.6**	**0.6**	**0.1**
by sector													
Industry[1]	37031	37410	39166	38401	39573	40905	41328	41462	41158	0.6	0.1	0.4	0.0
- energy intensive industries	20349	21497	20429	19010	19327	19562	19328	18863	18358	0.0	-0.6	0.0	-0.5
- other industrial sectors	16682	15913	18736	19391	20246	21343	22000	22600	22800	1.2	0.8	0.8	0.4
Residential	37957	39573	43099	45378	46990	49163	50461	51148	51524	1.3	0.9	0.7	0.2
Tertiary	18578	20856	20338	20155	21238	22566	23955	25216	26581	0.9	0.4	1.2	1.0
Transport	45451	46867	52066	54859	56467	56453	57953	57265	55552	1.4	0.8	0.3	-0.4
by fuel [1]													
Solids	12266	8891	5029	4350	3716	3372	2899	2567	2359	-8.5	-3.0	-2.5	-2.0
Oil	58770	60197	62480	65016	66073	65355	65189	63660	61327	0.6	0.6	-0.1	-0.6
Gas	41348	46918	51415	52663	53500	55954	57955	58593	58387	2.2	0.4	0.8	0.1
Electricity	23597	25274	28335	30316	33227	35513	37490	39395	40758	1.8	1.6	1.2	0.8
Heat (from CHP and District Heating)	2623	2557	6833	5794	6312	6776	7249	7652	8649	10.0	-0.8	1.4	1.8
Other	412	868	577	653	1440	2118	2915	3225	3335	3.4	9.6	7.3	1.4
CO2 Emissions (Mt of CO2)	**565.3**	**532.0**	**542.6**	**555.7**	**566.8**	**562.5**	**539.4**	**515.0**	**505.3**	**-0.4**	**0.4**	**-0.5**	**-0.6**
Power generation/District heating	214.6	173.3	184.8	196.0	206.5	201.4	178.2	160.3	160.6	-1.5	1.1	-1.5	-1.0
Energy Branch	27.2	31.4	30.2	25.0	22.9	21.5	19.4	17.4	15.7	1.1	-2.7	-1.7	-2.1
Industry	80.5	78.3	67.4	67.4	66.6	67.5	66.0	64.0	60.3	-1.8	-0.1	-0.1	-0.9
Residential	77.8	77.3	82.0	84.0	84.7	87.3	87.7	87.1	86.7	0.5	0.3	0.3	-0.1
Tertiary	32.9	35.2	26.4	23.8	24.3	25.4	26.7	27.9	29.1	-2.2	-0.8	1.0	0.9
Transport	132.4	136.5	151.8	159.6	161.8	159.5	161.4	158.3	153.0	1.4	0.6	0.0	-0.5
CO2 Emissions Index (1990=100)	**100.0**	**94.1**	**96.0**	**98.3**	**100.3**	**99.5**	**95.4**	**91.1**	**89.4**				

Source: PRIMES

UNITED KINGDOM: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Main Energy System Indicators													
Population (Million)	57.237	57.928	58.643	60.254	60.924	61.934	62.930	63.792	64.388	0.2	0.4	0.3	0.2
GDP (in 000 MEUR'00)	1227.8	1333.6	1559.6	1758.5	2031.5	2304.9	2578.9	2841.5	3061.6	2.4	2.7	2.4	1.7
Gross Inl. Cons./GDP (toe/MEUR'00)	171.9	163.5	147.7	133.2	118.6	105.9	95.1	85.8	80.6	-1.5	-2.2	-2.2	-1.6
Gross Inl. Cons./Capita (toe/inhabitant)	3.69	3.76	3.93	3.89	3.96	3.94	3.90	3.82	3.83	0.6	0.1	-0.2	-0.2
Electricity Generated/Capita (kWh/inhabitant)	5537	5739	6387	6698	7213	7541	7773	8015	8221	1.4	1.2	0.8	0.6
Carbon intensity (t of CO_2/toe of GIC)	2.68	2.44	2.35	2.37	2.35	2.31	2.20	2.11	2.05	-1.3	0.0	-0.7	-0.7
CO_2 Emissions/Capita (t of CO_2/inhabitant)	9.88	9.18	9.25	9.22	9.30	9.08	8.57	8.07	7.85	-0.7	0.1	-0.8	-0.9
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	460.4	398.9	347.9	316.0	279.0	244.0	209.1	181.2	165.1	-2.8	-2.2	-2.8	-2.3
Import Dependency %	2.8	-16.3	-16.8	0.7	19.0	51.9	64.4	62.0	61.2	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	98.1	99.5	102.2	99.0	93.4	87.6	82.2	78.2	-0.1	0.0	-1.2	-1.1
Residential (Energy on Private Income)	100.0	97.6	87.3	80.1	72.1	66.8	61.5	56.7	53.1	-1.4	-1.9	-1.6	-1.5
Tertiary (Energy on Value added)	100.0	101.3	81.3	68.2	60.7	56.1	52.5	49.7	48.2	-2.1	-2.9	-1.4	-0.9
Transport (Energy on GDP)	100.0	94.9	90.2	84.3	75.1	66.2	60.7	54.4	49.0	-1.0	-1.8	-2.1	-2.1
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.62	0.48	0.40	0.41	0.40	0.37	0.31	0.26	0.25	-4.2	-0.1	-2.6	-2.0
Final energy demand (t of CO_2/toe)	2.33	2.26	2.12	2.11	2.05	2.01	1.97	1.93	1.88	-0.9	-0.3	-0.4	-0.4
Industry	2.17	2.09	1.72	1.76	1.68	1.65	1.60	1.54	1.46	-2.3	-0.2	-0.5	-0.9
Residential	2.05	1.95	1.90	1.85	1.80	1.78	1.74	1.70	1.68	-0.7	-0.5	-0.4	-0.3
Tertiary	1.77	1.69	1.30	1.18	1.14	1.13	1.12	1.10	1.09	-3.0	-1.3	-0.2	-0.2
Transport	2.91	2.91	2.92	2.91	2.86	2.83	2.79	2.77	2.75	0.0	-0.2	-0.3	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**88855**	**95349**	**95552**	**101518**	**109139**	**120608**	**125590**		**0.7**	**1.3**	**1.4**
Nuclear			14213	13793	13793	11314	13233	15649	18065		-0.3	-0.4	3.2
Hydro (pumping excluded)			1371	1396	1418	1433	1446	1464	1480		0.3	0.2	0.2
Wind			406	1366	6520	7870	10870	19416	20125		32.0	5.2	6.4
Solar			2	4	6	24	63	145	271		11.5	27.3	15.7
Thermal			72863	78791	73815	80877	83527	83934	85648		0.1	1.2	0.3
of which cogeneration units			10272	10670	14381	18326	21863	23533	25704		3.4	4.3	1.6
Solids fired			31696	30826	22261	19490	19743	19645	22223		-3.5	-1.2	1.2
Gas fired			35673	41160	44892	53587	56161	55948	56097		2.3	2.3	0.0
Oil fired			4480	5392	5085	4623	3139	2101	912		1.3	-4.7	-11.6
Biomass-waste fired			1014	1413	1576	3178	4484	6240	6416		4.5	11.0	3.6
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			42.9	42.8	43.3	46.0	49.9	51.3	51.2	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			48.1	48.3	52.5	52.5	51.2	48.4	48.1	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			12.6	12.6	15.1	17.3	17.1	16.9	17.5	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			25.5	25.2	27.1	28.0	33.4	41.6	44.8	0.0	0.0	0.0	0.0
- nuclear			22.7	21.5	19.8	18.8	21.0	23.8	26.8	0.0	0.0	0.0	0.0
- renewable energy forms			2.8	3.7	7.3	9.2	12.4	17.7	18.0	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**712.4**	**719.1**	**765.7**	**839.3**	**932.5**	**1019.5**	**1096.1**	**1146.4**	**1179.9**	**0.7**	**2.0**	**1.6**	**0.7**
Public road transport	46.2	44.3	45.0	45.3	46.4	47.6	48.4	49.2	49.8	-0.3	0.3	0.4	0.3
Private cars and motorcycles	593.9	596.3	619.0	676.4	750.4	817.9	876.7	914.6	939.3	0.4	1.9	1.6	0.7
Rail	39.7	37.0	46.7	49.1	52.1	53.6	54.7	55.7	56.6	1.6	1.1	0.5	0.3
Aviation	28.4	36.6	50.5	63.7	78.4	94.6	109.8	120.1	127.1	5.9	4.5	3.4	1.5
Inland navigation	4.2	4.8	4.5	4.8	5.3	5.9	6.4	6.9	7.1	0.7	1.7	2.0	1.0
Travel per person (km per capita)	12446	12413	13056	13930	15306	16461	17418	17971	18325	0.5	1.6	1.3	0.5
Freight transport activity (Gtkm)	**217.5**	**227.9**	**243.7**	**255.1**	**270.2**	**277.7**	**284.3**	**290.1**	**296.1**	**1.1**	**1.0**	**0.5**	**0.4**
Trucks	145.7	161.5	165.6	174.0	185.4	192.1	198.5	204.4	210.7	1.3	1.1	0.7	0.6
Rail	16.0	13.3	18.1	20.1	22.6	23.2	23.7	24.3	25.0	1.2	2.2	0.5	0.5
Inland navigation	55.8	53.1	60.0	61.0	62.3	62.4	62.1	61.3	60.3	0.7	0.4	0.0	-0.3
Freight activity per unit of GDP (tkm/000 Euro'00)	177	171	156	145	133	120	110	102	97	-1.2	-1.6	-1.9	-1.3
Energy demand in transport (ktoe)	**45451**	**46867**	**52066**	**54859**	**56467**	**56453**	**57953**	**57265**	**55552**	**1.4**	**0.8**	**0.3**	**-0.4**
Public road transport	2626	2273	2192	2183	2150	2076	1966	1864	1782	-1.8	-0.2	-0.9	-1.0
Private cars and motorcycles	23302	22670	24503	26687	26903	26056	26750	26015	24579	0.5	0.9	-0.1	-0.8
Trucks	10384	11724	12077	12676	13472	13773	13733	13580	13187	1.5	1.1	0.2	-0.4
Rail	1076	1246	1192	1199	1142	943	866	815	796	1.0	-0.4	-2.7	-0.8
Aviation	6794	7838	11182	11179	11849	12658	13711	14096	14341	5.1	0.6	1.5	0.5
Inland navigation	1269	1117	920	936	952	949	926	895	867	-3.2	0.3	-0.3	-0.7
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	47.3	47.2	50.9	49.1	45.0	40.9	39.5	37.3	35.1	0.8	-1.2	-1.3	-1.2
Freight transport (toe/Mtkm)	54.1	56.7	53.6	53.7	53.7	53.2	51.7	50.0	47.6	-0.1	0.0	-0.4	-0.8

BULGARIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**9136**	**10185**	**9840**	**9942**	**9228**	**10402**	**10218**	**11275**	**12398**	**0.7**	**-0.6**	**1.0**	**2.0**
Solids	5121	5287	4310	4317	4392	4583	4272	3480	3372	-1.7	0.2	-0.3	-2.3
Oil	60	43	42	42	41	41	41	41	41	-3.5	-0.3	0.0	0.0
Natural gas	11	40	11	270	237	200	169	143	122	0.3	35.8	-3.3	-3.2
Nuclear	3783	4453	4689	4362	3286	4104	4072	5877	6945	2.2	-3.5	2.2	5.5
Renewable energy sources	161	363	788	952	1273	1475	1664	1734	1918	17.2	4.9	2.7	1.4
Hydro	161	151	230	286	301	308	313	327	359	3.6	2.7	0.4	1.4
Biomass & Waste	0	212	558	662	911	1068	1218	1254	1383		5.0	2.9	1.3
Wind	0	0	0	0	45	59	68	75	80			4.2	1.7
Solar and others	0	0	0	4	16	40	65	78	96			14.9	3.9
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**17823**	**13484**	**8409**	**8950**	**10034**	**11496**	**13515**	**14114**	**15252**	**-7.2**	**1.8**	**3.0**	**1.2**
Solids	3527	2424	2258	2535	2787	2147	3097	3228	3133	-4.4	2.1	1.1	0.1
Oil	8540	6511	4081	4863	5508	6268	7027	7515	8173	-7.1	3.0	2.5	1.5
- Crude oil and Feedstocks	8247	8003	5346	6147	6983	7946	8906	9523	10357	-4.2	2.7	2.5	1.5
- Oil products	292	-1492	-1265	-1284	-1475	-1677	-1879	-2008	-2184				
Natural gas	5430	4563	2468	2085	2285	3589	3864	3812	4355	-7.6	-0.8	5.4	1.2
Electricity	326	-14	-397	-534	-546	-508	-473	-440	-409				
Gross Inland Consumption	**27961**	**23304**	**18296**	**18795**	**19141**	**21755**	**23570**	**25209**	**27452**	**-4.2**	**0.5**	**2.1**	**1.5**
Solids	8706	7673	6417	6852	7178	6730	7369	6708	6505	-3.0	1.1	0.3	-1.2
Oil	9589	6245	4160	4807	5428	6166	6905	7375	8016	-8.0	2.7	2.4	1.5
Natural gas	5395	4584	2639	2355	2521	3788	4033	3955	4477	-6.9	-0.5	4.8	1.0
Nuclear	3783	4453	4689	4362	3286	4104	4072	5877	6945	2.2	-3.5	2.2	5.5
Electricity	326	-14	-397	-534	-546	-508	-473	-440	-409				
Renewable energy forms	161	363	788	952	1273	1475	1664	1734	1918	17.2	4.9	2.7	1.4
as % in Gross Inland Consumption													
Solids	31.1	32.9	35.1	36.5	37.5	30.9	31.3	26.6	23.7				
Oil	34.3	26.8	22.7	25.6	28.4	28.3	29.3	29.3	29.2				
Natural gas	19.3	19.7	14.4	12.5	13.2	17.4	17.1	15.7	16.3				
Nuclear	13.5	19.1	25.6	23.2	17.2	18.9	17.3	23.3	25.3				
Renewable energy forms	0.6	1.6	4.3	5.1	6.6	6.8	7.1	6.9	7.0				
Electricity Generation in GWh_e	**42133**	**41219**	**40639**	**40748**	**42628**	**46922**	**50557**	**55160**	**60424**	**-0.4**	**0.5**	**1.7**	**1.8**
Nuclear	14662	17258	18175	16906	12737	15905	15781	22779	26917	2.2	-3.5	2.2	5.5
Hydro & wind	1878	1751	2673	3326	4020	4275	4444	4686	5137	3.6	4.2	1.0	1.5
Thermal (incl. biomass)	25593	22210	19791	20517	25871	26741	30332	27695	28370	-2.5	2.7	1.6	-0.7
Fuel Inputs for Thermal Power Generation [1]	**10103**	**9151**	**6192**	**6382**	**6900**	**6980**	**7431**	**6130**	**5994**	**-4.8**	**1.1**	**0.7**	**-2.1**
Solids	6800	6725	5245	5356	5782	5391	5911	4923	4838	-2.6	1.0	0.2	-2.0
Oil (including refinery gas)	951	613	160	344	191	61	61	61	61	-16.3	1.8	-10.7	0.0
Gas	2352	1813	783	662	784	1311	1110	825	809	-10.4	0.0	3.5	-3.1
Biomass & Waste	0	0	3	20	144	217	349	321	286		45.9	9.2	-1.9
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**13079**	**11644**	**7584**	**7709**	**8408**	**9313**	**10182**	**10853**	**11602**	**-5.3**	**1.0**	**1.9**	**1.3**
Refineries	8341	8023	5406	6188	7024	7987	8947	9564	10398	-4.2	2.7	2.4	1.5
Biofuels and hydrogen production	0	0	0	3	31	62	87	159	266			10.7	11.9
District heating	2779	1544	296	146	123	155	98	216	111	-20.1	-8.4	-2.2	1.2
Others	1960	2078	1882	1372	1229	1109	1050	914	827	-0.4	-4.2	-1.6	-2.4
Energy Branch Consumption	**1106**	**1101**	**1122**	**1229**	**1318**	**1467**	**1585**	**1542**	**1610**	**0.1**	**1.6**	**1.9**	**0.2**
Non-Energy Uses	**1427**	**1236**	**1179**	**888**	**750**	**820**	**904**	**1003**	**1080**	**-1.9**	**-4.4**	**1.9**	**1.8**
Final Energy Demand	**16041**	**11402**	**8519**	**9518**	**10890**	**12883**	**14773**	**16368**	**18154**	**-6.1**	**2.5**	**3.1**	**2.1**
by sector													
Industry[1]	8966	6032	3580	3609	3926	4618	5298	6008	6760	-8.8	0.9	3.0	2.5
- energy intensive industries	5579	4837	2767	2755	2910	3337	3746	4141	4527	-6.8	0.5	2.6	1.9
- other industrial sectors	3387	1195	813	854	1016	1280	1552	1867	2232	-13.3	2.3	4.3	3.7
Residential	2228	2257	2165	2189	2369	2707	3014	3246	3471	-0.3	0.9	2.4	1.4
Tertiary	2372	1137	957	994	1187	1423	1633	1819	2032	-8.7	2.2	3.2	2.2
Transport	2476	1976	1817	2725	3407	4135	4828	5296	5892	-3.0	6.5	3.5	2.0
by fuel [1]													
Solids	1477	1280	860	902	862	844	945	1199	1227	-5.3	0.0	0.9	2.6
Oil	4923	2893	2980	3710	4518	5426	6197	6685	7314	-4.9	4.2	3.2	1.7
Gas	2066	1787	1137	1136	1289	1756	2139	2520	2981	-5.8	1.3	5.2	3.4
Electricity	3033	2467	2075	2136	2382	2795	3192	3629	4087	-3.7	1.4	3.0	2.5
Heat (from CHP and District Heating)	4543	2798	912	993	1063	1189	1383	1363	1414	-14.8	1.5	2.7	0.2
Other	0	178	555	642	776	873	916	973	1132		3.4	1.7	2.1
CO2 Emissions (Mt of CO2)	**72.3**	**58.0**	**41.5**	**44.2**	**48.4**	**51.7**	**56.8**	**55.1**	**57.2**	**-5.4**	**1.6**	**1.6**	**0.1**
Power generation/District heating	44.8	38.1	24.6	25.1	26.6	25.9	27.4	23.1	22.3	-5.8	0.8	0.3	-2.0
Energy Branch	1.6	1.4	1.2	1.3	1.5	1.7	1.8	1.0	1.0	-2.5	2.1	1.5	-5.6
Industry	11.2	9.3	8.0	7.6	8.1	9.3	10.5	12.2	13.3	-3.3	0.1	2.6	2.4
Residential	3.0	2.2	1.2	1.1	1.1	1.3	1.6	1.8	2.2	-8.9	-1.1	4.0	3.3
Tertiary	4.7	1.4	1.2	1.1	1.4	1.6	1.8	1.9	2.0	-13.0	1.5	2.8	1.3
Transport	6.9	5.6	5.2	7.9	9.8	11.9	13.8	15.0	16.5	-2.8	6.5	3.5	1.8
CO2 Emissions Index (1990=100)	**100.0**	**80.2**	**57.3**	**61.1**	**66.9**	**71.5**	**78.5**	**76.1**	**79.1**				

Source: PRIMES

BULGARIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	8.718	8.406	8.170	7.759	7.439	7.130	6.796	6.465	6.175	-0.6	-0.9	-0.9	-1.0
GDP (in 000 MEUR'00)	16.3	14.3	13.7	17.5	23.4	31.0	39.8	49.8	61.1	-1.7	5.5	5.5	4.4
Gross Inl. Cons./GDP (toe/MEUR'00)	1717.5	1633.8	1335.0	1075.2	819.6	701.5	592.2	506.5	449.3	-2.5	-4.8	-3.2	-2.7
Gross Inl. Cons./Capita (toe/inhabitant)	3.21	2.77	2.24	2.42	2.57	3.05	3.47	3.90	4.45	-3.5	1.4	3.0	2.5
Electricity Generated/Capita (kWh/inhabitant)	4833	4903	4974	5252	5730	6581	7439	8532	9786	0.3	1.4	2.6	2.8
Carbon intensity (t of CO_2/toe of GIC)	2.59	2.49	2.27	2.35	2.53	2.38	2.41	2.18	2.08	-1.3	1.1	-0.5	-1.4
CO_2 Emissions/Capita (t of CO_2/inhabitant)	8.29	6.90	5.07	5.69	6.51	7.25	8.35	8.52	9.27	-4.8	2.5	2.5	1.0
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	4441.8	4065.2	3025.2	2526.1	2073.0	1666.8	1426.2	1106.3	936.6	-3.8	-3.7	-3.7	-4.1
Import Dependency %	63.6	57.2	45.8	47.4	52.1	52.5	56.9	55.6	55.2	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	91.0	70.6	54.3	43.8	37.4	32.4	28.5	25.4	-3.4	-4.7	-3.0	-2.4
Residential (Energy on Private Income)	100.0	113.9	108.2	84.1	69.6	61.2	54.0	47.2	41.6	0.8	-4.3	-2.5	-2.6
Tertiary (Energy on Value added)	100.0	65.3	61.6	50.6	45.3	41.5	37.7	34.0	31.3	-4.7	-3.0	-1.8	-1.8
Transport (Energy on GDP)	100.0	91.1	87.2	102.5	95.9	87.7	79.8	70.0	63.4	-1.4	1.0	-1.8	-2.3
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.46	0.51	0.45	0.45	0.45	0.40	0.38	0.29	0.26	-0.3	0.1	-1.7	-3.9
Final energy demand (t of CO_2/toe)	1.61	1.62	1.83	1.87	1.87	1.87	1.87	1.89	1.87	1.3	0.2	0.0	0.0
Industry	1.25	1.55	2.25	2.12	2.07	2.01	1.98	2.03	1.96	6.0	-0.8	-0.5	-0.1
Residential	1.35	0.97	0.55	0.52	0.45	0.47	0.52	0.56	0.62	-8.7	-2.0	1.5	1.8
Tertiary	1.99	1.21	1.23	1.12	1.15	1.15	1.10	1.05	1.00	-4.7	-0.7	-0.5	-0.9
Transport	2.80	2.84	2.87	2.89	2.88	2.87	2.86	2.84	2.80	0.2	0.0	0.0	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**12723**	**11772**	**12168**	**11065**	**11646**	**13243**	**15041**		**-0.4**	**-0.4**	**2.6**
Nuclear			3760	2880	2000	2432	2432	3182	3530		-6.1	2.0	3.8
Hydro (pumping excluded)			1998	1998	2173	2198	2213	2268	2418		0.8	0.2	0.9
Wind			0	4	373	492	565	621	667			4.2	1.7
Solar			0	0	2	4	8	15	27			17.5	13.5
Thermal			6965	6890	7620	5938	6428	7157	8399		0.9	-1.7	2.7
of which cogeneration units			1588	1701	3068	2466	3413	4149	4688		6.8	1.1	3.2
Solids fired			5453	5361	5334	4203	4829	4556	4606		-0.2	-1.0	-0.5
Gas fired			511	511	1283	1283	1180	1670	2818		9.6	-0.8	9.1
Oil fired			780	780	696	86	63	63	63		-1.1	-21.3	0.0
Biomass-waste fired			221	238	307	365	356	868	912		3.3	1.5	9.9
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			27.5	27.6	32.2	32.9	35.1	38.9	40.7	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			36.5	39.5	40.0	48.4	49.6	47.5	45.9	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			14.9	15.7	26.2	24.1	31.7	35.1	36.7	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			51.3	49.8	40.6	44.8	42.5	51.9	54.7	0.0	0.0	0.0	0.0
- nuclear			44.7	41.5	29.9	33.9	31.2	41.3	44.5	0.0	0.0	0.0	0.0
- renewable energy forms			6.6	8.3	10.7	10.9	11.3	10.6	10.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**40.6**	**24.0**	**34.6**	**40.5**	**47.1**	**54.8**	**62.7**	**70.4**	**76.9**	**-1.6**	**3.1**	**2.9**	**2.1**
Public road transport	26.0	11.6	14.6	12.9	11.3	10.0	9.1	8.4	7.9	-5.6	-2.5	-2.1	-1.4
Private cars and motorcycles	5.6	6.6	15.7	23.4	30.4	37.8	45.1	52.2	57.9	10.9	6.8	4.0	2.5
Rail	7.8	4.7	3.5	2.7	3.0	3.4	3.9	4.5	4.9	-7.8	-1.5	2.7	2.4
Aviation	1.1	1.0	0.8	1.6	2.4	3.5	4.5	5.3	6.1	-2.7	11.1	6.6	3.1
Inland navigation	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-20.9	2.6	2.2	1.6
Travel per person (km per capita)	4654	2857	4231	5215	6327	7680	9221	10895	12450	-0.9	4.1	3.8	3.0
Freight transport activity (Gtkm)	**27.8**	**18.9**	**12.3**	**18.2**	**23.7**	**30.3**	**37.2**	**44.2**	**51.6**	**-7.9**	**6.8**	**4.6**	**3.3**
Trucks	12.0	9.7	6.4	12.3	17.3	23.1	29.1	35.1	41.4	-6.1	10.4	5.4	3.6
Rail	14.1	8.6	5.5	5.3	5.4	5.9	6.4	7.0	7.8	-8.9	-0.3	1.7	1.9
Inland navigation	1.6	0.5	0.3	0.7	1.0	1.3	1.6	2.0	2.4	-15.1	12.3	5.0	4.2
Freight activity per unit of GDP (tkm/000 Euro'00)	1705	1322	894	1044	1013	976	934	887	844	-6.3	1.3	-0.8	-1.0
Energy demand in transport (ktoe)	**2476**	**1976**	**1817**	**2725**	**3407**	**4135**	**4828**	**5296**	**5892**	**-3.0**	**6.5**	**3.5**	**2.0**
Public road transport	473	251	377	332	292	257	227	202	183	-2.2	-2.5	-2.5	-2.1
Private cars and motorcycles	228	298	653	983	1152	1289	1511	1700	1850	11.1	5.8	2.8	2.0
Trucks	1257	999	608	1164	1641	2180	2619	2987	3444	-7.0	10.4	4.8	2.8
Rail	216	144	77	63	58	52	50	50	52	-9.8	-2.8	-1.6	0.3
Aviation	284	278	101	182	261	353	417	352	356	-9.8	10.0	4.8	-1.6
Inland navigation	18	6	1	2	3	4	4	5	7	-25.5	11.5	4.6	3.9
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	27.8	38.2	34.3	38.0	37.0	35.3	34.8	32.4	31.5	2.1	0.8	-0.6	-1.0
Freight transport (toe/Mtkm)	48.6	56.2	51.7	65.1	70.4	72.8	71.2	68.3	67.4	0.6	3.1	0.1	-0.5

ROMANIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**41398**	**30900**	**28707**	**30408**	**32543**	**33914**	**34331**	**34517**	**35144**	**-3.6**	**1.3**	**0.5**	**0.2**
Solids	7935	7886	5875	6832	6957	7065	7635	7840	7954	-3.0	1.7	0.9	0.4
Oil	7946	6965	6338	6249	6205	6183	6172	6167	6164	-2.2	-0.2	-0.1	0.0
Natural gas	22911	12999	10968	11190	12490	11706	11008	10383	9822	-7.1	1.3	-1.3	-1.1
Nuclear	0	0	1407	1460	1475	2949	2982	2977	3555		0.5	7.3	1.8
Renewable energy sources	2606	3049	4118	4677	5417	6011	6534	7150	7649	4.7	2.8	1.9	1.6
Hydro	1460	1435	1271	1420	1538	1651	1860	2083	2172	-1.4	1.9	1.9	1.6
Biomass & Waste	1146	1614	2840	3240	3835	4180	4412	4734	5103	9.5	3.0	1.4	1.5
Wind	0	0	0	1	4	80	92	98	109			35.3	1.7
Solar and others	0	0	0	2	8	28	61	102	131			22.6	7.9
Geothermal	0	0	7	14	32	72	108	132	136		16.9	12.9	2.3
Net Imports	**20352**	**14084**	**8099**	**11358**	**14235**	**20510**	**26609**	**29027**	**34509**	**-8.8**	**5.8**	**6.5**	**2.6**
Solids	2442	2870	1904	2642	2903	3242	6048	7744	8620	-2.5	4.3	7.6	3.6
Oil	11167	6799	3543	5199	7023	8844	9550	10040	11754	-10.8	7.1	3.1	2.1
- Crude oil and Feedstocks	16092	8675	4837	6980	9084	11189	12008	12578	14564	-11.3	6.5	2.8	1.9
- Oil products	-4925	-1876	-1294	-1781	-2061	-2345	-2458	-2537	-2810				
Natural gas	5928	4390	2712	3600	4384	8493	11073	11300	14186	-7.5	4.9	9.7	2.5
Electricity	815	26	-60	-82	-75	-69	-62	-57	-51				
Gross Inland Consumption	**61319**	**44951**	**36996**	**41766**	**46779**	**54425**	**60939**	**63544**	**69654**	**-4.9**	**2.4**	**2.7**	**1.3**
Solids	10145	10793	7752	9474	9860	10307	13683	15584	16575	-2.7	2.4	3.3	1.9
Oil	18914	13694	10099	11448	13227	15027	15722	16207	17918	-6.1	2.7	1.7	1.3
Natural gas	28838	17389	13680	14790	16874	20200	22081	21683	24008	-7.2	2.1	2.7	0.8
Nuclear	0	0	1407	1460	1475	2949	2982	2977	3555		0.5	7.3	1.8
Electricity	815	26	-60	-82	-75	-69	-62	-57	-51				
Renewable energy forms	2606	3049	4118	4677	5417	6011	6534	7150	7649	4.7	2.8	1.9	1.6
as % in Gross Inland Consumption													
Solids	16.5	24.0	21.0	22.7	21.1	18.9	22.5	24.5	23.8				
Oil	30.8	30.5	27.3	27.4	28.3	27.6	25.8	25.5	25.7				
Natural gas	47.0	38.7	37.0	35.4	36.1	37.1	36.2	34.1	34.5				
Nuclear	0.0	0.0	3.8	3.5	3.2	5.4	4.9	4.7	5.1				
Renewable energy forms	4.3	6.8	11.1	11.2	11.6	11.0	10.7	11.3	11.0				
Electricity Generation in GWh_e	**63398**	**59255**	**51925**	**62487**	**76353**	**91839**	**107376**	**122719**	**137394**	**-2.0**	**3.9**	**3.5**	**2.5**
Nuclear	0	0	5455	5659	5715	11431	11558	11540	13779		0.5	7.3	1.8
Hydro & wind	16977	16690	14775	16525	17938	20136	22708	25398	26569	-1.4	2.0	2.4	1.6
Thermal (incl. biomass)	46421	42565	31694	40303	52700	60272	73110	85780	97046	-3.7	5.2	3.3	2.9
Fuel Inputs for Thermal Power Generation [1]	**19297**	**15876**	**10574**	**11947**	**13287**	**14706**	**17811**	**17923**	**19166**	**-5.8**	**2.3**	**3.0**	**0.7**
Solids	8166	7352	5401	7043	7361	7780	11135	12947	14088	-4.0	3.1	4.2	2.4
Oil (including refinery gas)	6202	2997	1661	1469	1955	1822	866	330	279	-12.3	1.6	-7.8	-10.7
Gas	4893	5491	3507	3325	3686	4756	5383	4131	4246	-3.3	0.5	3.9	-2.3
Biomass & Waste	36	37	4	111	285	348	427	515	553	-19.0	51.9	4.1	2.6
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**29303**	**21301**	**14547**	**15568**	**17686**	**19786**	**20682**	**21344**	**23471**	**-6.8**	**2.0**	**1.6**	**1.3**
Refineries	23112	15539	11268	13229	15289	17372	18180	18744	20728	-6.9	3.1	1.7	1.3
Biofuels and hydrogen production	0	0	0	6	79	162	233	420	729			11.4	12.1
District heating	4644	1738	1735	83	63	0	0	0	0	-9.4	-28.2	-55.1	1.8
Others	1547	4024	1544	2250	2255	2252	2269	2179	2014	0.0	3.9	0.1	-1.2
Energy Branch Consumption	**4289**	**4007**	**4335**	**5445**	**5770**	**6259**	**6603**	**6833**	**7322**	**0.1**	**2.9**	**1.4**	**1.0**
Non-Energy Uses	**2940**	**1630**	**2058**	**1650**	**1788**	**1927**	**2061**	**2188**	**2344**	**-3.5**	**-1.4**	**1.4**	**1.3**
Final Energy Demand	**33251**	**25187**	**22436**	**27072**	**32264**	**38280**	**43911**	**49064**	**54657**	**-3.9**	**3.7**	**3.1**	**2.2**
by sector													
Industry[1]	21988	13795	9012	11306	13724	16378	18820	21195	23611	-8.5	4.3	3.2	2.3
- energy intensive industries	17446	9866	6368	8067	9533	11112	12633	14155	15872	-9.6	4.1	2.9	2.3
- other industrial sectors	4542	3929	2644	3239	4192	5266	6188	7040	7739	-5.3	4.7	4.0	2.3
Residential	4160	6127	8390	8505	9545	10778	11695	12347	12903	7.3	1.3	2.1	1.0
Tertiary	2686	2058	1612	1817	2226	2723	3256	3786	4354	-5.0	3.3	3.9	2.9
Transport	4417	3207	3421	5444	6768	8401	10140	11737	13789	-2.5	7.1	4.1	3.1
by fuel [1]													
Solids	2673	1528	698	1231	1256	1235	1245	1339	1240	-12.6	6.1	-0.1	0.0
Oil	8098	5379	5603	8155	9609	11457	13191	14331	15976	-3.6	5.5	3.2	1.9
Gas	17328	9029	6867	8351	10259	12540	14535	16400	18500	-8.8	4.1	3.5	2.4
Electricity	4314	3126	2916	3724	4894	6182	7372	8589	9763	-3.8	5.3	4.2	2.8
Heat (from CHP and District Heating)	0	4679	3570	2479	2683	2966	3454	4028	4494		-2.8	2.6	2.7
Other	839	1446	2782	3133	3563	3900	4114	4377	4685	12.7	2.5	1.4	1.3
CO2 Emissions (Mt of CO2)	**161.4**	**109.6**	**84.6**	**101.1**	**112.5**	**126.9**	**146.3**	**154.1**	**168.2**	**-6.3**	**2.9**	**2.7**	**1.4**
Power generation/District heating	76.1	57.4	40.3	42.0	45.7	49.3	61.0	63.5	68.2	-6.2	1.3	2.9	1.1
Energy Branch	8.0	7.5	7.9	9.4	8.3	8.3	6.1	3.2	3.3	-0.1	0.5	-3.1	-5.9
Industry	50.9	28.6	18.3	23.5	26.5	30.4	33.2	35.5	38.4	-9.7	3.8	2.3	1.5
Residential	7.5	4.8	6.5	8.2	10.1	11.9	13.3	14.2	14.6	-1.4	4.5	2.8	1.0
Tertiary	6.7	2.4	1.9	2.1	2.4	2.9	3.5	4.2	4.9	-11.8	2.4	3.8	3.3
Transport	12.3	8.9	9.7	15.8	19.5	24.1	29.2	33.5	38.8	-2.3	7.2	4.1	2.9
CO2 Emissions Index (1990=100)	**100.0**	**67.9**	**52.4**	**62.6**	**69.7**	**78.6**	**90.6**	**95.5**	**104.2**				

Source: PRIMES

ROMANIA: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	23.206	22.681	22.435	21.540	21.345	20.917	20.342	19.746	19.244	-0.3	-0.5	-0.5	-0.6
GDP (in 000 MEUR'00)	47.9	43.0	40.3	53.6	74.0	99.6	129.3	163.4	203.1	-1.7	6.3	5.7	4.6
Gross Inl. Cons./GDP (toe/MEUR'00)	1279.4	1045.7	917.0	778.5	632.2	546.5	471.3	388.9	343.0	-3.3	-3.7	-2.9	-3.1
Gross Inl. Cons./Capita (toe/inhabitant)	2.64	1.98	1.65	1.94	2.19	2.60	3.00	3.22	3.62	-4.6	2.9	3.2	1.9
Electricity Generated/Capita (kWh/inhabitant)	2732	2613	2314	2901	3577	4391	5279	6215	7139	-1.6	4.4	4.0	3.1
Carbon intensity (t of CO_2/toe of GIC)	2.63	2.44	2.29	2.42	2.40	2.33	2.40	2.42	2.41	-1.4	0.5	0.0	0.1
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.96	4.83	3.77	4.69	5.27	6.07	7.19	7.80	8.74	-5.9	3.4	3.2	2.0
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	3368.0	2549.7	2097.8	1884.1	1520.3	1274.3	1131.4	942.9	828.3	-4.6	-3.2	-2.9	-3.1
Import Dependency %	33.2	31.3	21.9	27.2	30.4	37.7	43.7	45.7	49.5	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	87.6	52.7	50.8	45.7	40.8	36.2	32.3	28.8	-6.2	-1.4	-2.3	-2.3
Residential (Energy on Private Income)	100.0	163.1	217.7	153.6	133.0	118.2	104.0	91.0	80.0	8.1	-4.8	-2.4	-2.6
Tertiary (Energy on Value added)	100.0	79.3	68.7	59.7	54.3	50.5	47.3	44.2	41.5	-3.7	-2.3	-1.4	-1.3
Transport (Energy on GDP)	100.0	81.0	92.0	110.1	99.3	91.6	85.1	77.9	73.7	-0.8	0.8	-1.5	-1.4
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	1.20	0.46	0.38	0.42	0.36	0.33	0.33	0.28	0.27	-10.8	-0.6	-1.0	-1.8
Final energy demand (t of CO_2/toe)	2.33	1.78	1.63	1.83	1.81	1.81	1.80	1.78	1.77	-3.5	1.1	-0.1	-0.2
Industry	2.31	2.08	2.04	2.08	1.93	1.85	1.77	1.67	1.63	-1.3	-0.5	-0.9	-0.8
Residential	1.80	0.78	0.77	0.97	1.06	1.10	1.13	1.15	1.13	-8.1	3.2	0.7	0.0
Tertiary	2.51	1.18	1.19	1.16	1.09	1.07	1.09	1.11	1.13	-7.2	-0.8	0.0	0.3
Transport	2.78	2.78	2.84	2.91	2.88	2.87	2.88	2.85	2.82	0.2	0.1	0.0	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**22702**	**23788**	**26647**	**27402**	**29247**	**40181**	**44984**		**1.6**	**0.9**	**4.4**
Nuclear			700	700	700	1400	1400	1400	1690		0.0	7.2	1.9
Hydro (pumping excluded)			6020	6020	6270	6575	7051	7406	7551		0.4	1.2	0.7
Wind			1	6	41	668	767	819	905		45.0	34.0	1.7
Solar			0	0	2	4	8	23	45			18.0	19.1
Thermal			15981	17062	19635	18755	20021	30532	34793		2.1	0.2	5.7
of which cogeneration units			5739	6530	9702	10842	13342	19326	21488		5.4	3.2	4.9
Solids fired			9172	9172	8572	8046	10400	14511	15518		-0.7	2.0	4.1
Gas fired			3541	4590	7648	8178	7310	13063	16346		8.0	-0.5	8.4
Oil fired			3228	3228	3141	2213	1158	629	301		-0.3	-9.5	-12.6
Biomass-waste fired			40	72	275	318	1153	2328	2628		21.1	15.4	8.6
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			25.8	29.0	34.1	35.2	35.3	41.2	43.5	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			26.1	30.0	32.7	38.3	41.9	34.9	34.9	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			38.1	36.6	46.9	49.0	53.5	68.1	68.9	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			39.5	36.1	32.3	35.7	33.3	31.6	30.8	0.0	0.0	0.0	0.0
- nuclear			10.5	9.1	7.5	12.4	10.8	9.4	10.0	0.0	0.0	0.0	0.0
- renewable energy forms			28.9	27.1	24.8	23.2	22.5	22.2	20.8	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**88.0**	**60.6**	**67.6**	**78.5**	**99.5**	**128.2**	**157.7**	**188.1**	**217.8**	**-2.6**	**3.9**	**4.7**	**3.3**
Public road transport	24.0	12.3	7.7	9.5	10.6	12.5	14.6	17.0	19.4	-10.7	3.3	3.3	2.9
Private cars and motorcycles	32.3	28.4	47.6	59.8	79.4	104.0	128.0	150.5	171.3	4.0	5.3	4.9	3.0
Rail	30.6	18.9	11.6	8.6	8.3	9.6	11.3	13.3	15.3	-9.2	-3.3	3.1	3.1
Aviation	1.1	0.9	0.7	0.7	1.1	2.0	3.8	7.2	11.8	-5.1	5.5	13.0	12.0
Inland navigation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	-0.6	2.7	1.9
Travel per person (km per capita)	3791	2672	3013	3647	4663	6129	7754	9523	11320	-2.3	4.5	5.2	3.9
Freight transport activity (Gtkm)	**79.9**	**47.0**	**33.3**	**61.8**	**79.0**	**96.2**	**116.0**	**137.7**	**162.2**	**-8.4**	**9.0**	**3.9**	**3.4**
Trucks	29.0	19.7	14.3	37.5	50.6	66.8	84.5	103.7	125.6	-6.8	13.5	5.3	4.0
Rail	48.8	24.2	16.4	17.2	18.8	18.2	18.5	19.1	19.6	-10.3	1.4	-0.1	0.6
Inland navigation	2.1	3.1	2.6	7.1	9.6	11.2	12.9	14.9	17.1	2.3	13.8	3.0	2.8
Freight activity per unit of GDP (tkm/000 Euro'00)	1667	1094	826	1152	1067	966	897	843	799	-6.8	2.6	-1.7	-1.2
Energy demand in transport (ktoe)	**4417**	**3207**	**3421**	**5444**	**6768**	**8401**	**10140**	**11737**	**13789**	**-2.5**	**7.1**	**4.1**	**3.1**
Public road transport	371	181	119	143	160	184	204	222	240	-10.8	3.0	2.5	1.6
Private cars and motorcycles	1148	1029	1717	2153	2606	3071	3676	4153	4602	4.1	4.3	3.5	2.3
Trucks	2070	1284	892	2344	3159	4158	5011	5759	6851	-8.1	13.5	4.7	3.2
Rail	282	471	449	361	247	230	223	223	233	4.8	-5.8	-1.0	0.4
Aviation	233	191	133	143	192	297	498	778	1178	-5.5	3.7	10.0	9.0
Inland navigation	312	52	112	300	404	462	527	601	685	-9.8	13.7	2.7	2.7
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	22.3	28.9	34.1	34.2	31.0	28.7	28.6	28.1	28.3	4.3	-0.9	-0.8	-0.1
Freight transport (toe/Mtkm)	30.8	31.0	33.6	44.6	46.6	49.1	48.6	46.9	47.0	0.9	3.3	0.4	-0.3

TURKEY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**33159**	**33312**	**26710**	**24483**	**26112**	**29116**	**34674**	**42158**	**46075**	**-2.1**	**-0.2**	**2.9**	**2.9**
Solids	12410	12083	13293	10334	10534	11144	13653	14465	14888	0.7	-2.3	2.6	0.9
Oil	3710	3515	2746	3002	3244	3335	3382	3541	3739	-3.0	1.7	0.4	1.0
Natural gas	175	150	526	783	1075	1272	1355	1398	1421	11.7	7.4	2.3	0.5
Nuclear	0	0	0	0	0	0	0	3071	3468				
Renewable energy sources	16865	17565	10144	10363	11259	13364	16284	19682	22559	-5.0	1.0	3.8	3.3
Hydro	1990	3056	2655	3077	3148	3190	3529	3958	4150	2.9	1.7	1.1	1.6
Biomass & Waste	14413	13855	6541	5896	6014	6632	7439	7859	8846	-7.6	-0.8	2.1	1.7
Wind	0	0	3	3	155	685	740	1247	1300		49.2	16.9	5.8
Solar and others	28	143	262	437	794	1598	3176	5039	6619	25.1	11.7	14.9	7.6
Geothermal	433	511	684	951	1149	1260	1400	1578	1644	4.7	5.3	2.0	1.6
Net Imports	**27266**	**36758**	**50873**	**58591**	**70590**	**87587**	**107401**	**127253**	**153473**	**6.4**	**3.3**	**4.3**	**3.6**
Solids	4208	4476	9248	12361	12681	14477	15833	17716	21119	8.2	3.2	2.2	2.9
Oil	20439	26677	29285	28255	32985	41805	51819	61971	71922	3.7	1.2	4.6	3.3
- Crude oil and Feedstocks	20051	24685	21458	26246	30657	38904	48271	57761	67059	0.7	3.6	4.6	3.3
- Oil products	388	1992	7827	2009	2329	2901	3548	4211	4863	35.0	-11.4	4.3	3.2
Natural gas	2682	5665	12051	18394	25240	31496	39982	47843	60742	16.2	7.7	4.7	4.3
Electricity	-63	-60	288	-420	-316	-191	-232	-278	-311				
Gross Inland Consumption	**59487**	**68816**	**77354**	**82635**	**96202**	**116135**	**141435**	**168704**	**198769**	**2.7**	**2.2**	**3.9**	**3.5**
Solids	16922	16616	23278	22695	23215	25620	29486	32182	36008	3.2	0.0	2.4	2.0
Oil	22909	28908	31005	30819	35730	44572	54560	64806	74883	3.1	1.4	4.3	3.2
Natural gas	2855	5787	12639	19178	26314	32768	41336	49241	62163	16.0	7.6	4.6	4.2
Nuclear	0	0	0	0	0	0	0	3071	3468				
Electricity	-63	-60	288	-420	-316	-191	-232	-278	-311				
Renewable energy forms	16865	17565	10144	10363	11259	13364	16284	19682	22559	-5.0	1.0	3.8	3.3
as % in Gross Inland Consumption													
Solids	28.4	24.1	30.1	27.5	24.1	22.1	20.8	19.1	18.1				
Oil	38.5	42.0	40.1	37.3	37.1	38.4	38.6	38.4	37.7				
Natural gas	4.8	8.4	16.3	23.2	27.4	28.2	29.2	29.2	31.3				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.7				
Renewable energy forms	28.3	25.5	13.1	12.5	11.7	11.5	11.5	11.7	11.3				
Electricity Generation in GWh_e	**57533**	**86231**	**124900**	**150306**	**172936**	**210112**	**258814**	**324472**	**399480**	**8.1**	**3.3**	**4.1**	**4.4**
Nuclear	0	0	0	0	0	0	0	11907	13444				
Hydro & wind	23144	35535	30906	35813	38400	45067	49678	60617	63553	2.9	2.2	2.6	2.5
Thermal (incl. biomass)	34389	50697	93993	114494	134536	165045	209136	251948	322483	10.6	3.7	4.5	4.4
Fuel Inputs for Thermal Power Generation [1]	**8886**	**12658**	**21625**	**23736**	**27730**	**32648**	**39519**	**44680**	**53702**	**9.3**	**2.5**	**3.6**	**3.1**
Solids	5139	7173	9963	9086	10130	13870	19078	23385	27769	6.8	0.2	6.5	3.8
Oil (including refinery gas)	1187	1792	2933	2140	1943	1534	1096	980	909	9.5	-4.0	-5.6	-1.9
Gas	2492	3341	8579	12341	14966	16237	17975	18527	23095	13.2	5.7	1.8	2.5
Biomass & Waste	0	278	85	104	498	814	1177	1502	1642		19.3	9.0	3.4
Geothermal heat	69	74	65	65	193	193	193	287	287	-0.5	11.5	0.0	4.0
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**27576**	**31335**	**27764**	**32842**	**37260**	**45416**	**54941**	**64698**	**74503**	**0.1**	**3.0**	**4.0**	**3.1**
Refineries	23014	27349	23819	29248	33901	42239	51653	61302	70798	0.3	3.6	4.3	3.2
Biofuels and hydrogen production	0	0	0	14	90	184	274	537	925			11.8	12.9
District heating	0	0	0	9	37	80	126	185	218			13.1	5.6
Others	4562	3986	3945	3570	3233	2914	2888	2674	2561	-1.4	-2.0	-1.1	-1.2
Energy Branch Consumption	**1969**	**2461**	**2704**	**2764**	**2979**	**3410**	**3959**	**4497**	**5024**	**3.2**	**1.0**	**2.9**	**2.4**
Non-Energy Uses	**2768**	**3751**	**3505**	**3286**	**3391**	**3730**	**3986**	**4238**	**4539**	**2.4**	**-0.3**	**1.6**	**1.3**
Final Energy Demand	**38680**	**44787**	**54627**	**61585**	**73900**	**91530**	**114094**	**138695**	**165257**	**3.5**	**3.1**	**4.4**	**3.8**
by sector													
Industry[1]	12179	13363	20668	23534	27176	33053	40792	50463	61893	5.4	2.8	4.1	4.3
- energy intensive industries	5836	6125	7464	7747	8310	9224	10434	11762	13398	2.5	1.1	2.3	2.5
- other industrial sectors	6343	7239	13205	15786	18866	23829	30357	38701	48495	7.6	3.6	4.9	4.8
Residential	14556	15784	16996	17103	19438	23040	28360	33886	40042	1.6	1.4	3.8	3.5
Tertiary	2595	3751	4795	6256	8706	11118	13827	16163	17809	6.3	6.1	4.7	2.6
Transport	9351	11889	12167	14692	18579	24319	31116	38184	45513	2.7	4.3	5.3	3.9
by fuel [1]													
Solids	8040	6670	10483	11820	11446	10250	8956	7478	6993	2.7	0.9	-2.4	-2.4
Oil	17788	22303	22812	24738	30148	39204	49565	59735	69726	2.5	2.8	5.1	3.5
Gas	1156	2635	4600	7646	11991	17109	23909	31040	39141	14.8	10.1	7.1	5.1
Electricity	3865	5600	8244	9757	12282	15427	19565	24549	30346	7.9	4.1	4.8	4.5
Heat (from CHP and District Heating)	240	247	1249	512	784	1091	1501	3287	4016	17.9	-4.5	6.7	10.3
Other	7591	7331	7239	7113	7247	8449	10600	12607	15034	-0.5	0.0	3.9	3.6
CO2 Emissions (Mt of CO2)	**126.4**	**150.7**	**198.7**	**215.9**	**249.1**	**299.1**	**363.0**	**421.4**	**495.5**	**4.6**	**2.3**	**3.8**	**3.2**
Power generation/District heating	31.5	43.7	71.2	73.5	83.3	100.1	124.1	142.4	170.3	8.5	1.6	4.1	3.2
Energy Branch	4.7	5.8	5.9	2.9	1.8	1.3	0.5	0.5	0.5	2.4	-11.0	-11.7	-1.3
Industry	35.2	35.6	56.0	66.0	72.6	83.3	96.6	110.0	130.5	4.8	2.6	2.9	3.0
Residential	21.4	22.5	21.9	20.9	25.5	30.9	38.4	46.4	53.6	0.2	1.5	4.2	3.4
Tertiary	5.8	7.7	8.1	9.7	11.9	13.3	14.0	13.2	11.6	3.4	4.0	1.6	-1.9
Transport	27.9	35.4	35.6	42.9	53.9	70.2	89.4	108.9	129.0	2.5	4.2	5.2	3.7
CO2 Emissions Index (1990=100)	**100.0**	**119.2**	**157.1**	**170.7**	**197.0**	**236.5**	**287.1**	**333.3**	**391.9**				

Source: PRIMES

TURKEY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	56.201	61.644	67.461	72.966	77.154	81.659	85.744	89.490	92.761	1.8	1.4	1.1	0.8
GDP (in 000 MEUR'00)	152.5	178.6	216.7	258.8	326.4	434.6	583.3	786.2	1059.1	3.6	4.2	6.0	6.1
Gross Inl. Cons./GDP (toe/MEUR'00)	390.1	385.3	356.9	319.2	294.8	267.2	242.5	214.6	187.7	-0.9	-1.9	-1.9	-2.5
Gross Inl. Cons./Capita (toe/inhabitant)	1.06	1.12	1.15	1.13	1.25	1.42	1.65	1.89	2.14	0.8	0.8	2.8	2.7
Electricity Generated/Capita (kWh/inhabitant)	1024	1399	1851	2060	2241	2573	3018	3626	4307	6.1	1.9	3.0	3.6
Carbon intensity (t of CO_2/toe of GIC)	2.13	2.19	2.57	2.61	2.59	2.58	2.57	2.50	2.49	1.9	0.1	-0.1	-0.3
CO_2 Emissions/Capita (t of CO_2/inhabitant)	2.25	2.44	2.95	2.96	3.23	3.66	4.23	4.71	5.34	2.7	0.9	2.7	2.4
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	829.2	843.8	916.7	834.0	763.2	688.2	622.4	536.0	467.8	1.0	-1.8	-2.0	-2.8
Import Dependency %	45.7	53.3	65.4	70.5	73.0	75.1	75.6	75.1	76.9	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	87.3	111.3	99.2	88.9	80.2	72.4	65.3	58.7	1.1	-2.2	-2.0	-2.1
Residential (Energy on Private Income)	100.0	95.0	83.6	71.9	67.4	61.2	57.0	51.1	45.2	-1.8	-2.1	-1.7	-2.3
Tertiary (Energy on Value added)	100.0	126.4	131.6	146.1	160.6	153.9	143.3	125.1	102.8	2.8	2.0	-1.1	-3.3
Transport (Energy on GDP)	100.0	108.6	91.6	92.6	92.8	91.3	87.0	79.2	70.1	-0.9	0.1	-0.6	-2.1
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.52	0.49	0.51	0.44	0.42	0.41	0.41	0.36	0.35	-0.2	-1.9	-0.3	-1.4
Final energy demand (t of CO_2/toe)	2.33	2.26	2.22	2.27	2.22	2.16	2.09	2.01	1.96	-0.5	0.0	-0.6	-0.6
Industry	2.89	2.67	2.71	2.81	2.67	2.52	2.37	2.18	2.11	-0.6	-0.1	-1.2	-1.2
Residential	1.47	1.43	1.29	1.22	1.31	1.34	1.35	1.37	1.34	-1.3	0.2	0.3	-0.1
Tertiary	2.23	2.05	1.69	1.55	1.37	1.20	1.01	0.82	0.65	-2.8	-2.0	-3.0	-4.3
Transport	2.98	2.98	2.93	2.92	2.90	2.89	2.87	2.85	2.83	-0.2	-0.1	-0.1	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**28285**	**37692**	**39500**	**47341**	**54611**	**70752**	**88808**		**3.4**	**3.3**	**5.0**
Nuclear			0	0	0	0	0	1519	1714				
Hydro (pumping excluded)			11407	11432	11557	11667	12283	13099	13649		0.1	0.6	1.1
Wind			20	21	613	3044	3325	7361	7751		40.8	18.4	8.8
Solar			0	0	0	8	31	77	148				16.9
Thermal			16858	26238	27330	32623	38972	48696	65547		5.0	3.6	5.3
of which cogeneration units			2400	3750	4921	6450	10023	15439	17686		7.4	7.4	5.8
Solids fired			7044	10222	10092	11372	12656	18464	26143		3.7	2.3	7.5
Gas fired			7213	12648	13239	18053	23100	26592	35119		6.3	5.7	4.3
Oil fired			2492	3207	3569	2431	2093	2130	1966		3.7	-5.2	-0.6
Biomass-waste fired			91	144	362	698	1055	1417	2226		14.8	11.3	7.8
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			18	18	68	68	68	93	93		14.5	0.0	3.2
Indicators													
Efficiency for thermal electricity production (%)			37.4	41.5	41.7	43.5	45.5	48.5	51.6	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			50.4	45.5	50.0	50.7	54.1	52.4	51.3	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			11.0	9.0	11.5	13.3	17.1	22.2	19.1	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			25.0	24.1	23.2	22.9	21.1	24.4	21.2	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	3.7	3.4	0.0	0.0	0.0	0.0
- renewable energy forms			25.0	24.1	23.2	22.9	21.1	20.8	17.8	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**111.9**	**153.9**	**184.4**	**224.3**	**301.2**	**453.5**	**642.5**	**869.5**	**1069.5**	**5.1**	**5.0**	**7.9**	**5.2**
Public road transport	64.3	85.7	87.4	94.1	101.6	115.7	121.3	121.8	112.2	3.1	1.5	1.8	-0.8
Private cars and motorcycles	34.5	52.9	81.0	111.5	174.3	297.1	459.2	658.2	839.8	8.9	8.0	10.2	6.2
Rail	6.4	5.8	5.8	6.4	8.6	13.4	20.6	30.2	39.4	-0.9	3.9	9.2	6.7
Aviation	2.2	5.5	6.4	7.9	11.5	19.9	31.6	47.1	64.6	11.2	6.1	10.6	7.4
Inland navigation	4.5	4.1	3.8	4.3	5.3	7.4	9.9	12.3	13.6	-1.7	3.4	6.4	3.2
Travel per person (km per capita)	1990	2497	2734	3074	3904	5554	7493	9717	11530	3.2	3.6	6.7	4.4
Freight transport activity (Gtkm)	**96.8**	**125.4**	**175.2**	**209.4**	**262.6**	**330.3**	**410.2**	**493.5**	**585.7**	**6.1**	**4.1**	**4.6**	**3.6**
Trucks	84.4	112.5	161.6	194.8	245.3	308.9	383.8	462.3	549.3	6.7	4.3	4.6	3.6
Rail	7.9	8.5	9.8	10.3	11.9	14.9	18.5	22.2	26.4	2.1	2.0	4.5	3.6
Inland navigation	4.5	4.4	3.8	4.3	5.4	6.6	7.8	9.0	10.1	-1.6	3.4	3.8	2.5
Freight activity per unit of GDP (tkm/000 Euro'00)	635	702	808	809	805	760	703	628	553	2.4	0.0	-1.3	-2.4
Energy demand in transport (ktoe)	**9351**	**11889**	**12167**	**14692**	**18579**	**24319**	**31116**	**38184**	**45513**	**2.7**	**4.3**	**5.3**	**3.9**
Public road transport	949	1284	1244	1339	1438	1606	1623	1557	1376	2.7	1.5	1.2	-1.6
Private cars and motorcycles	688	1151	1830	2515	3549	5392	8247	11649	14674	10.3	6.9	8.8	5.9
Trucks	6740	7812	7373	8888	11171	13880	16544	19065	22039	0.9	4.2	4.0	2.9
Rail	243	276	268	266	269	269	293	357	437	1.0	0.0	0.9	4.1
Aviation	480	1150	1261	1466	1885	2820	3964	5027	6408	10.2	4.1	7.7	4.9
Inland navigation	250	216	192	218	268	353	444	530	579	-2.6	3.4	5.2	2.7
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	21.8	25.3	25.1	25.1	23.9	22.5	22.3	21.7	21.6	1.4	-0.5	-0.7	-0.3
Freight transport (toe/Mtkm)	71.5	63.8	43.0	43.3	43.3	42.7	41.0	39.2	38.2	-4.9	0.1	-0.6	-0.7

NORWAY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
										Annual % Change			
Primary Production	**120053**	**181635**	**224497**	**221524**	**240769**	**257053**	**259830**	**232011**	**215853**	**6.5**	**0.7**	**0.8**	**-1.8**
Solids	201	194	425	474	534	407	327	326	303	7.8	2.3	-4.8	-0.8
Oil	84248	141609	164957	130247	131537	132194	124319	97348	81836	7.0	-2.2	-0.6	-4.1
Natural gas	24148	28258	45817	77800	94995	109988	120153	118848	117926	6.6	7.6	2.4	-0.2
Nuclear	0	0	0	0	0	0	0	0	0				
Renewable energy sources	11456	11574	13297	13003	13703	14465	15031	15489	15788	1.5	0.3	0.9	0.5
Hydro	10437	10434	11945	11467	11697	12291	12643	12873	13006	1.4	-0.2	0.8	0.3
Biomass & Waste	1019	1140	1350	1497	1662	1812	1867	1921	1959	2.8	2.1	1.2	0.5
Wind	0	1	3	38	341	356	512	680	800		62.5	4.1	4.6
Solar and others	0	0	0	2	3	5	9	14	24			11.3	9.7
Geothermal	0	0	0	0	0	0	0	0	0				
Net Imports	**-96177**	**-156762**	**-197840**	**-194685**	**-212231**	**-227596**	**-229793**	**-201778**	**-185646**				
Solids	668	853	602	532	609	452	366	332	282	-1.0	0.1	-5.0	-2.6
Oil	-73306	-132245	-154618	-120251	-121433	-122027	-114069	-87129	-71551				
- Crude oil and Feedstocks	-68375	-127128	-148847	-114431	-115685	-116355	-108417	-81553	-65969				
- Oil products	-4931	-5117	-5770	-5820	-5748	-5672	-5652	-5575	-5582				
Natural gas	-22172	-24797	-42185	-73987	-90664	-105323	-115413	-114270	-113631				
Electricity	-1368	-573	-1638	-979	-742	-697	-677	-711	-747				
Gross Inland Consumption	**21568**	**23684**	**26061**	**25930**	**27492**	**28292**	**28758**	**28839**	**28710**	**1.9**	**0.5**	**0.5**	**0.0**
Solids	860	1015	1079	1006	1142	858	693	658	585	2.3	0.6	-4.9	-1.7
Oil	8643	8206	9691	9087	9058	9002	8971	8826	8788	1.2	-0.7	-0.1	-0.2
Natural gas	1976	3461	3632	3813	4331	4665	4740	4578	4295	6.3	1.8	0.9	-1.0
Nuclear	0	0	0	0	0	0	0	0	0				
Electricity	-1368	-573	-1638	-979	-742	-697	-677	-711	-747				
Renewable energy forms	11456	11574	13297	13003	13703	14465	15031	15489	15788	1.5	0.3	0.9	0.5
as % in Gross Inland Consumption													
Solids	4.0	4.3	4.1	3.9	4.2	3.0	2.4	2.3	2.0				
Oil	40.1	34.6	37.2	35.0	32.9	31.8	31.2	30.6	30.6				
Natural gas	9.2	14.6	13.9	14.7	15.8	16.5	16.5	15.9	15.0				
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Renewable energy forms	53.1	48.9	51.0	50.1	49.8	51.1	52.3	53.7	55.0				
Electricity Generation in GWh_e	**121501**	**122033**	**139653**	**136691**	**142710**	**148580**	**154463**	**159450**	**162457**	**1.4**	**0.2**	**0.8**	**0.5**
Nuclear	0	0	0	0	0	0	0	0	0				
Hydro & wind	121360	121331	138922	133776	139991	147083	152978	157628	160564	1.4	0.1	0.9	0.5
Thermal (incl. biomass)	141	702	731	2915	2719	1497	1485	1822	1892	17.9	14.0	-5.9	2.5
Fuel Inputs for Thermal Power Generation [1]	**99**	**150**	**260**	**655**	**625**	**510**	**490**	**561**	**577**	**10.2**	**9.2**	**-2.4**	**1.6**
Solids	14	21	16	106	195	66	22	0	0	1.1	28.8	-19.7	
Oil (including refinery gas)	0	0	0	81	74	58	43	34	37			-5.2	-1.6
Gas	18	42	35	306	242	0	7	8	8	7.0	21.2	-29.3	0.2
Biomass & Waste	67	87	210	162	114	386	418	519	533	12.1	-5.9	13.9	2.5
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**13660**	**13295**	**15562**	**15132**	**15407**	**15652**	**15882**	**15903**	**16067**	**1.3**	**-0.1**	**0.3**	**0.1**
Refineries	13572	13191	15440	14913	15073	15166	15291	15245	15343	1.3	-0.2	0.1	0.0
Biofuels and hydrogen production	0	0	0	12	69	209	301	365	434			15.9	3.7
District heating	55	69	87	180	239	260	266	273	275	4.8	10.6	1.1	0.3
Others	33	35	35	26	26	18	23	19	15	0.6	-3.0	-1.1	-4.6
Energy Branch Consumption	**3063**	**4465**	**3952**	**3966**	**4220**	**4231**	**4036**	**3684**	**3287**	**2.6**	**0.7**	**-0.4**	**-2.0**
Non-Energy Uses	**1591**	**1594**	**1906**	**1728**	**1592**	**1509**	**1476**	**1481**	**1503**	**1.8**	**-1.8**	**-0.8**	**0.2**
Final Energy Demand	**16087**	**16854**	**18076**	**18974**	**20483**	**21459**	**22205**	**22687**	**22942**	**1.2**	**1.3**	**0.8**	**0.3**
by sector													
Industry[1]	6097	6143	6977	6780	7002	7279	7530	7739	7734	1.4	0.0	0.7	0.3
- energy intensive industries	4537	4779	5928	5810	5995	6208	6370	6495	6421	2.7	0.1	0.6	0.1
- other industrial sectors	1560	1364	1049	970	1007	1071	1160	1245	1313	-3.9	-0.4	1.4	1.3
Residential	3570	3860	3824	3923	4227	4441	4496	4570	4644	0.7	1.0	0.6	0.3
Tertiary	2294	2649	2798	3304	3889	4113	4277	4400	4526	2.0	3.3	1.0	0.6
Transport	4126	4202	4478	4968	5365	5627	5901	5977	6038	0.8	1.8	1.0	0.2
by fuel [1]													
Solids	808	964	1007	822	838	701	592	579	516	2.2	-1.8	-3.4	-1.4
Oil	5971	5860	6147	6800	7158	7421	7515	7444	7416	0.3	1.5	0.5	-0.1
Gas	10	15	192	145	243	525	685	787	852	33.8	2.4	10.9	2.2
Electricity	8324	8922	9418	9642	10409	10989	11575	12035	12276	1.2	1.0	1.1	0.6
Heat (from CHP and District Heating)	74	105	241	309	410	515	513	557	569	12.5	5.5	2.3	1.0
Other	899	987	1072	1256	1425	1308	1325	1285	1312	1.8	2.9	-0.7	-0.1
CO2 Emissions (Mt of CO2)	**28.7**	**32.2**	**33.0**	**35.0**	**37.0**	**36.8**	**36.3**	**35.4**	**34.3**	**1.4**	**1.1**	**-0.2**	**-0.6**
Power generation/District heating	0.1	0.2	0.2	1.7	2.0	1.0	0.8	0.7	0.7	4.5	25.0	-8.7	-0.8
Energy Branch	7.2	10.4	9.8	9.3	9.7	9.6	9.1	8.3	7.3	3.1	-0.2	-0.6	-2.1
Industry	6.2	6.0	6.8	5.6	5.3	5.5	5.5	5.6	5.5	1.0	-2.5	0.4	0.0
Residential	1.4	0.8	0.7	0.7	0.9	0.9	0.8	0.8	0.7	-5.9	1.3	-0.5	-0.9
Tertiary	1.7	2.7	2.5	3.3	3.7	3.9	3.5	3.4	3.3	3.9	4.2	-0.6	-0.9
Transport	12.0	12.1	12.9	14.4	15.4	15.9	16.6	16.7	16.7	0.7	1.8	0.7	0.1
CO2 Emissions Index (1990=100)	**100.0**	**112.4**	**115.3**	**122.2**	**129.2**	**128.4**	**126.8**	**123.4**	**119.5**				

Source: PRIMES

NORWAY: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	4.241	4.358	4.491	4.597	4.710	4.821	4.939	5.059	5.168	0.6	0.5	0.5	0.5
GDP (in 000 MEUR'00)	125.6	151.7	181.1	200.7	225.8	254.8	285.0	315.7	343.5	3.7	2.2	2.4	1.9
Gross Inl. Cons./GDP (toe/MEUR'00)	171.7	156.1	143.9	129.2	121.8	111.0	100.9	91.4	83.6	-1.7	-1.7	-1.9	-1.9
Gross Inl. Cons./Capita (toe/inhabitant)	5.09	5.43	5.80	5.64	5.84	5.87	5.82	5.70	5.56	1.3	0.1	0.0	-0.5
Electricity Generated/Capita (kWh/inhabitant)	28649	28002	31096	29735	30299	30822	31274	31521	31435	0.8	-0.3	0.3	0.1
Carbon intensity (t of CO_2/toe of GIC)	1.33	1.36	1.27	1.35	1.35	1.30	1.26	1.23	1.19	-0.5	0.6	-0.6	-0.6
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.76	7.39	7.36	7.62	7.86	7.63	7.36	6.99	6.63	0.9	0.7	-0.7	-1.0
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	228.2	212.4	182.5	174.4	164.0	144.4	127.5	112.1	99.7	-2.2	-1.1	-2.5	-2.4
Import Dependency %	-437.0	-643.0	-736.1	-725.4	-743.7	-772.6	-765.0	-667.4	-614.6	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	88.5	97.1	93.9	88.7	82.2	75.2	69.0	63.0	-0.3	-0.9	-1.6	-1.8
Residential (Energy on Private Income)	100.0	94.3	77.1	67.6	67.0	62.2	56.2	51.4	47.9	-2.6	-1.4	-1.8	-1.6
Tertiary (Energy on Value added)	100.0	98.4	84.3	87.0	90.0	83.9	78.0	72.5	68.6	-1.7	0.7	-1.4	-1.3
Transport (Energy on GDP)	100.0	84.3	75.3	75.4	72.3	67.3	63.1	57.7	53.5	-2.8	-0.4	-1.4	-1.6
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00				
Final energy demand (t of CO_2/toe)	1.33	1.28	1.27	1.27	1.24	1.22	1.19	1.16	1.14	-0.4	-0.3	-0.4	-0.4
Industry	1.02	0.97	0.98	0.83	0.76	0.75	0.73	0.72	0.71	-0.4	-2.6	-0.4	-0.3
Residential	0.39	0.22	0.20	0.19	0.20	0.20	0.18	0.17	0.16	-6.6	0.3	-1.1	-1.3
Tertiary	0.74	1.03	0.89	0.99	0.96	0.95	0.83	0.76	0.72	1.9	0.8	-1.5	-1.4
Transport	2.92	2.87	2.89	2.89	2.88	2.83	2.81	2.79	2.76	-0.1	0.0	-0.2	-0.2
Electricity and steam generation													
Generation Capacity in MW_e			**27583**	**28174**	**31151**	**32218**	**32854**	**33535**	**33932**		**1.2**	**0.5**	**0.3**
Nuclear			0	0	0	0	0	0	0				
Hydro (pumping excluded)			26688	27135	28135	29135	29135	29135	29135		0.5	0.3	0.0
Wind			77	227	1419	1484	2097	2757	3212		33.8	4.0	4.4
Solar			7	14	29	52	68	89	110		15.6	9.1	4.9
Thermal			812	799	1570	1548	1554	1554	1476		6.8	-0.1	-0.5
of which cogeneration units			490	477	575	576	595	601	523		1.6	0.3	-1.3
Solids fired			156	156	93	47	16	0	0		-5.0	-16.4	
Gas fired			392	392	1192	1192	1200	1104	1008		11.8	0.1	-1.7
Oil fired			69	47	45	44	38	33	33		-4.1	-1.8	-1.2
Biomass-waste fired			196	205	240	265	301	416	435		2.0	2.3	3.8
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			24.1	38.3	37.4	25.3	26.1	27.9	28.2	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			57.8	55.4	52.3	52.6	53.7	54.3	54.7	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			0.5	1.0	1.2	1.0	1.0	1.1	1.2	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			100.0	98.3	98.3	99.7	99.8	99.9	99.9	0.0	0.0	0.0	0.0
- nuclear			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- renewable energy forms			100.0	98.3	98.3	99.7	99.8	99.9	99.9	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**53.3**	**55.4**	**61.1**	**66.1**	**72.7**	**79.0**	**84.2**	**88.9**	**93.0**	**1.4**	**1.7**	**1.5**	**1.0**
Public road transport	3.9	3.8	4.1	4.2	4.3	4.4	4.4	4.4	4.5	0.6	0.4	0.2	0.2
Private cars and motorcycles	43.2	44.4	47.9	51.6	56.7	61.9	66.3	70.2	73.5	1.0	1.7	1.6	1.0
Rail	2.2	2.5	3.1	3.3	3.6	3.7	3.7	3.7	3.7	3.6	1.4	0.2	0.2
Aviation	3.6	4.1	5.2	6.0	7.1	8.0	8.8	9.5	10.1	3.8	3.2	2.1	1.4
Inland navigation	0.5	0.6	0.8	0.9	1.0	1.0	1.1	1.2	1.2	4.9	1.8	1.3	1.0
Travel per person (km per capita)	12577	12707	13615	14368	15425	16390	17048	17580	17997	0.8	1.3	1.0	0.5
Freight transport activity (Gtkm)	**47.8**	**47.4**	**63.1**	**67.0**	**72.6**	**78.7**	**83.5**	**87.7**	**91.8**	**2.8**	**1.4**	**1.4**	**1.0**
Trucks	8.2	9.7	15.1	19.0	24.2	29.3	34.7	40.4	45.9	6.3	4.8	3.7	2.8
Rail	2.6	2.7	3.0	3.1	3.2	3.4	3.6	3.6	3.7	1.4	0.8	0.9	0.5
Inland navigation	37.0	35.0	45.0	45.0	45.2	46.0	45.2	43.6	42.2	2.0	0.0	0.0	-0.7
Freight activity per unit of GDP (tkm/000 Euro'00)	380	312	349	334	322	309	293	278	267	-0.9	-0.8	-0.9	-0.9
Energy demand in transport (ktoe)	**4126**	**4202**	**4478**	**4968**	**5365**	**5627**	**5901**	**5977**	**6038**	**0.8**	**1.8**	**1.0**	**0.2**
Public road transport	64	61	82	82	81	78	73	69	66	2.5	-0.1	-1.0	-1.0
Private cars and motorcycles	1747	1817	1786	1920	1919	1864	1908	1899	1844	0.2	0.7	-0.1	-0.3
Trucks	779	948	1090	1368	1733	2061	2330	2507	2663	3.4	4.7	3.0	1.3
Rail	104	176	150	160	151	131	119	112	109	3.7	0.1	-2.3	-0.8
Aviation	505	561	658	722	757	761	756	706	697	2.7	1.4	0.0	-0.8
Inland navigation	926	640	711	716	724	734	716	685	658	-2.6	0.2	-0.1	-0.8
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	46.4	47.4	44.2	44.2	40.6	36.4	34.5	32.0	29.9	-0.5	-0.9	-1.6	-1.4
Freight transport (toe/Mtkm)	34.6	33.3	28.1	30.6	33.3	34.9	35.9	35.7	35.5	-2.1	1.7	0.7	-0.1

SWITZERLAND: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (A)				
ktoe	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**'90-'00**	**'00-'10**	**'10-'20**	**'20-'30**
											Annual % Change		
Primary Production	**9797**	**11048**	**11792**	**12549**	**13261**	**13665**	**14319**	**14444**	**14845**	**1.9**	**1.2**	**0.8**	**0.4**
Solids	0	0	0	0	0	0	0	0	0				
Oil	0	0	0	0	0	0	0	0	0				
Natural gas	3	0	0	0	0	0	0	0	0				
Nuclear	6181	6507	6914	6967	7002	7072	7143	6740	6987	1.1	0.1	0.2	-0.2
Renewable energy sources	3613	4541	4878	5582	6259	6593	7176	7704	7858	3.0	2.5	1.4	0.9
Hydro	2562	3025	3168	3163	3382	3582	3740	3852	3904	2.1	0.7	1.0	0.4
Biomass & Waste	990	1423	1595	2307	2749	2841	3238	3645	3739	4.9	5.6	1.7	1.4
Wind	0	0	0	2	14	50	76	84	90		49.3	18.3	1.7
Solar and others	0	16	24	24	25	26	28	31	35		0.1	1.3	2.2
Geothermal	61	78	91	85	90	93	94	92	90	4.1	-0.1	0.5	-0.4
Net Imports	**15164**	**13903**	**14276**	**16403**	**16830**	**17092**	**17205**	**16906**	**16243**	**-0.6**	**1.7**	**0.2**	**-0.6**
Solids	338	159	189	224	205	184	172	163	140	-5.6	0.8	-1.8	-2.0
Oil	13379	12174	12262	12948	12882	12631	12484	12117	11509	-0.9	0.5	-0.3	-0.8
- Crude oil and Feedstocks	3226	4808	4798	5011	4987	4830	4718	4690	4400	4.0	0.4	-0.6	-0.7
- Oil products	10153	7366	7464	7937	7896	7800	7766	7427	7108	-3.0	0.6	-0.2	-0.9
Natural gas	1628	2195	2433	3900	4405	4932	5198	5269	5229	4.1	6.1	1.7	0.1
Electricity	-181	-625	-608	-668	-662	-655	-649	-642	-636				
Gross Inland Consumption	**25059**	**25265**	**26597**	**28940**	**30079**	**30743**	**31510**	**31336**	**31072**	**0.6**	**1.2**	**0.5**	**-0.1**
Solids	359	193	252	224	205	184	172	163	140	-3.5	-2.0	-1.8	-2.0
Oil	13456	12455	12728	12936	12870	12617	12469	12102	11493	-0.6	0.1	-0.3	-0.8
Natural gas	1631	2195	2433	3900	4405	4932	5198	5269	5229	4.1	6.1	1.7	0.1
Nuclear	6181	6507	6914	6967	7002	7072	7143	6740	6987	1.1	0.1	0.2	-0.2
Electricity	-181	-625	-608	-668	-662	-655	-649	-642	-636				
Renewable energy forms	3613	4541	4878	5582	6259	6593	7176	7704	7858	3.0	2.5	1.4	0.9
as % in Gross Inland Consumption													
Solids	1.4	0.8	0.9	0.8	0.7	0.6	0.5	0.5	0.5				
Oil	53.7	49.3	47.9	44.7	42.8	41.0	39.6	38.6	37.0				
Natural gas	6.5	8.7	9.1	13.5	14.6	16.0	16.5	16.8	16.8				
Nuclear	24.7	25.8	26.0	24.1	23.3	23.0	22.7	21.5	22.5				
Renewable energy forms	14.4	18.0	18.3	19.3	20.8	21.4	22.8	24.6	25.3				
Electricity Generation in GWh_e	**54617**	**62295**	**65955**	**68890**	**73776**	**79713**	**85354**	**89168**	**91283**	**1.9**	**1.1**	**1.5**	**0.7**
Nuclear	23933	25196	26771	26977	27112	27383	27657	26100	27054	1.1	0.1	0.2	-0.2
Hydro & wind	29795	35175	36848	36810	39502	42267	44414	45836	46559	2.1	0.7	1.2	0.5
Thermal (incl. biomass)	889	1924	2336	5103	7163	10064	13284	17233	17670	10.1	11.9	6.4	2.9
Fuel Inputs for Thermal Power Generation [1]	**610**	**895**	**1037**	**1302**	**1802**	**2242**	**2857**	**3650**	**3758**	**5.5**	**5.7**	**4.7**	**2.8**
Solids	14	1	0	0	0	0	0	0	0				
Oil (including refinery gas)	100	56	12	130	85	28	25	22	29	-18.8	21.2	-11.5	1.6
Gas	102	127	179	470	628	1028	927	837	646	5.8	13.4	4.0	-3.5
Biomass & Waste	394	710	846	701	1090	1187	1905	2791	3083	7.9	2.6	5.7	4.9
Geothermal heat	0	0	0	0	0	0	0	0	0				
Hydrogen - Methanol	0	0	0	0	0	0	0	0	0				
Fuel Input in other transformation proc.	**3175**	**4832**	**4805**	**5197**	**5295**	**5255**	**5325**	**5408**	**5123**	**4.2**	**1.0**	**0.1**	**-0.4**
Refineries	3168	4826	4803	5009	4984	4827	4715	4688	4398	4.3	0.4	-0.6	-0.7
Biofuels and hydrogen production	0	0	0	124	268	367	501	568	583			6.5	1.5
District heating	0	0	0	64	43	61	110	153	142			9.8	2.6
Others	8	6	2	0	0	0	0	0	0	-11.8			
Energy Branch Consumption	**331**	**471**	**460**	**422**	**429**	**441**	**450**	**449**	**446**	**3.4**	**-0.7**	**0.5**	**-0.1**
Non-Energy Uses	**559**	**518**	**568**	**584**	**618**	**645**	**665**	**673**	**681**	**0.2**	**0.9**	**0.7**	**0.2**
Final Energy Demand	**19416**	**20098**	**21494**	**22621**	**23478**	**24083**	**24681**	**24563**	**24310**	**1.0**	**0.9**	**0.5**	**-0.2**
by sector													
Industry[1]	3687	4017	5056	5209	5556	5928	6191	6343	6466	3.2	0.9	1.1	0.4
- energy intensive industries	2006	1758	2695	2769	2929	3100	3218	3252	3277	3.0	0.8	0.9	0.2
- other industrial sectors	1682	2258	2362	2440	2627	2828	2973	3091	3189	3.5	1.1	1.2	0.7
Residential	5286	5927	5603	5798	6031	6209	6341	6276	6213	0.6	0.7	0.5	-0.2
Tertiary	4150	3714	3774	4076	4290	4483	4645	4715	4709	-0.9	1.3	0.8	0.1
Transport	6293	6441	7061	7537	7600	7464	7504	7229	6922	1.2	0.7	-0.1	-0.8
by fuel [1]													
Solids	343	189	252	224	205	184	172	163	140	-3.0	-2.0	-1.8	-2.0
Oil	12292	12205	12560	12180	12153	12026	11946	11384	10860	0.2	-0.3	-0.2	-0.9
Gas	1515	2053	2234	3394	3738	3858	4184	4266	4385	4.0	5.3	1.1	0.5
Electricity	4039	4188	4504	4736	5149	5651	6140	6482	6666	1.1	1.3	1.8	0.8
Heat (from CHP and District Heating)	249	292	545	465	566	730	953	1434	1588	8.2	0.4	5.3	5.2
Other	978	1172	1399	1621	1667	1634	1286	834	670	3.7	1.8	-2.6	-6.3
CO2 Emissions (Mt of CO2)	**42.7**	**43.3**	**44.8**	**46.7**	**47.5**	**48.1**	**48.5**	**46.9**	**45.2**	**0.5**	**0.6**	**0.2**	**-0.7**
Power generation/District heating	0.6	0.5	0.5	1.5	1.7	2.5	2.4	2.3	1.9	-2.9	14.2	3.1	-1.9
Energy Branch	0.4	0.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	5.5			5.8
Industry	5.1	5.2	6.3	6.2	6.6	7.1	8.1	8.5	8.6	2.2	0.4	2.1	0.7
Residential	11.9	12.2	11.2	11.2	11.5	11.3	10.8	9.8	9.4	-0.6	0.3	-0.6	-1.4
Tertiary	7.1	6.5	6.3	6.6	6.8	6.9	7.0	7.0	6.9	-1.2	0.8	0.3	-0.2
Transport	17.7	18.2	20.0	21.1	20.9	20.4	20.3	19.3	18.4	1.2	0.5	-0.3	-1.0
CO2 Emissions Index (1990=100)	**100.0**	**101.3**	**104.9**	**109.2**	**111.2**	**112.6**	**113.4**	**109.8**	**105.8**				

Source: PRIMES

SWITZERLAND: Baseline scenario									SUMMARY ENERGY BALANCE AND INDICATORS (B)				
	1990	1995	2000	2005	2010	2015	2020	2025	2030	'90-'00	'00-'10	'10-'20	'20-'30
										Annual % Change			
Main Energy System Indicators													
Population (Million)	6.796	7.081	7.209	7.260	7.428	7.462	7.496	7.527	7.539	0.6	0.3	0.1	0.1
GDP (in 000 MEUR'00)	240.3	241.3	266.7	277.5	302.5	332.5	364.2	394.5	419.2	1.0	1.3	1.9	1.4
Gross Inl. Cons./GDP (toe/MEUR'00)	104.3	104.7	99.7	104.3	99.4	92.5	86.5	79.4	74.1	-0.4	0.0	-1.4	-1.5
Gross Inl. Cons./Capita (toe/inhabitant)	3.69	3.57	3.69	3.99	4.05	4.12	4.20	4.16	4.12	0.0	0.9	0.4	-0.2
Electricity Generated/Capita (kWh/inhabitant)	8037	8797	9149	9489	9932	10683	11386	11847	12108	1.3	0.8	1.4	0.6
Carbon intensity (t of CO_2/toe of GIC)	1.71	1.71	1.69	1.61	1.58	1.57	1.54	1.50	1.46	-0.1	-0.7	-0.3	-0.6
CO_2 Emissions/Capita (t of CO_2/inhabitant)	6.29	6.11	6.22	6.43	6.39	6.45	6.47	6.24	6.00	-0.1	0.3	0.1	-0.7
CO_2 Emissions to GDP (t of CO_2/MEUR'00)	177.8	179.3	168.1	168.2	157.0	144.7	133.1	119.0	107.9	-0.6	-0.7	-1.6	-2.1
Import Dependency %	60.5	55.0	53.7	56.7	55.9	55.6	54.6	53.9	52.2	0.0	0.0	0.0	0.0
Energy intensity indicators (1990=100)													
Industry (Energy on Value added)	100.0	80.7	90.8	89.2	85.5	81.3	76.6	72.0	69.1	-1.0	-0.6	-1.1	-1.0
Residential (Energy on Private Income)	100.0	108.7	93.5	91.3	86.9	80.8	74.9	68.2	63.3	-0.7	-0.7	-1.5	-1.7
Tertiary (Energy on Value added)	100.0	98.6	91.3	92.9	89.0	83.9	78.7	73.1	68.2	-0.9	-0.3	-1.2	-1.4
Transport (Energy on GDP)	100.0	102.0	101.1	103.7	96.0	85.7	78.7	70.0	63.1	0.1	-0.5	-2.0	-2.2
Carbon Intensity indicators													
Electricity and Steam production (t of CO_2/MWh)	0.01	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.02			1.3	-3.2
Final energy demand (t of CO_2/toe)	2.15	2.09	2.03	1.99	1.95	1.89	1.87	1.82	1.78	-0.6	-0.4	-0.4	-0.5
Industry	1.37	1.29	1.24	1.19	1.18	1.19	1.30	1.34	1.34	-1.0	-0.5	1.0	0.2
Residential	2.25	2.06	1.99	1.94	1.90	1.81	1.70	1.57	1.51	-1.2	-0.5	-1.1	-1.2
Tertiary	1.70	1.75	1.66	1.63	1.58	1.54	1.51	1.48	1.46	-0.3	-0.5	-0.5	-0.3
Transport	2.82	2.83	2.83	2.79	2.76	2.73	2.70	2.67	2.66	0.0	-0.3	-0.2	-0.1
Electricity and steam generation													
Generation Capacity in MW_e			**16497**	**16875**	**17835**	**18887**	**20300**	**21629**	**22500**		**0.8**	**1.3**	**1.0**
Nuclear			3450	3450	3450	3450	3450	3280	3424		0.0	0.0	-0.1
Hydro (pumping excluded)			12551	12706	13148	13564	14015	14267	14386		0.5	0.6	0.3
Wind			3	15	123	426	640	704	757		46.0	17.9	1.7
Solar			12	12	16	31	43	78	122		2.6	10.6	11.1
Thermal			481	692	1099	1416	2152	3301	3811		8.6	7.0	5.9
of which cogeneration units			481	524	652	732	1204	2353	2864		3.1	6.3	9.0
Solids fired			0	0	0	0	0	0	0				
Gas fired			191	358	637	868	909	909	909		12.8	3.6	0.0
Oil fired			98	98	98	69	29	20	27		0.0	-11.3	-0.8
Biomass-waste fired			192	236	364	480	1214	2372	2875		6.6	12.8	9.0
Fuel Cells			0	0	0	0	0	0	0				
Geothermal heat			0	0	0	0	0	0	0				
Indicators													
Efficiency for thermal electricity production (%)			19.4	33.7	34.2	38.6	40.0	40.6	40.4	0.0	0.0	0.0	0.0
Load factor for gross electric capacities (%)			45.6	46.6	47.2	48.2	48.0	47.1	46.3	0.0	0.0	0.0	0.0
CHP indicator (% of electricity from CHP)			4.6	5.5	4.9	5.8	6.9	11.1	12.8	0.0	0.0	0.0	0.0
Non fossil fuels in electricity generation (%)			97.7	95.0	93.8	91.3	92.4	93.3	94.8	0.0	0.0	0.0	0.0
- nuclear			40.6	39.2	36.7	34.4	32.4	29.3	29.6	0.0	0.0	0.0	0.0
- renewable energy forms			57.1	55.9	57.0	56.9	60.0	64.0	65.2	0.0	0.0	0.0	0.0
Transport sector													
Passenger transport activity (Gpkm)	**98.0**	**101.4**	**111.4**	**119.2**	**128.4**	**134.1**	**139.0**	**141.2**	**142.3**	**1.3**	**1.4**	**0.8**	**0.2**
Public road transport	3.3	3.2	3.1	3.5	3.9	4.2	4.4	4.5	4.6	-0.8	2.5	1.1	0.5
Private cars and motorcycles	75.5	77.5	84.8	90.0	96.8	100.4	103.4	104.6	105.1	1.2	1.3	0.7	0.2
Rail	14.7	15.5	17.0	18.1	19.3	20.1	20.9	21.3	21.6	1.5	1.2	0.8	0.4
Aviation	4.4	5.1	6.4	7.3	8.3	9.2	10.1	10.5	10.8	3.8	2.6	2.0	0.6
Inland navigation	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	5.9	0.1	0.3	0.2
Travel per person (km per capita)	14414	14327	15456	16418	17290	17976	18537	18754	18874	0.7	1.1	0.7	0.2
Freight transport activity (Gtkm)	**20.6**	**23.8**	**32.5**	**35.9**	**39.9**	**44.4**	**48.1**	**51.2**	**53.7**	**4.6**	**2.1**	**1.9**	**1.1**
Trucks	11.5	15.0	21.9	24.4	27.3	31.3	35.0	38.2	40.7	6.6	2.2	2.5	1.5
Rail	8.9	8.7	10.4	11.4	12.5	12.9	12.9	12.8	12.8	1.6	1.8	0.3	-0.1
Inland navigation	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	-4.9	1.8	2.5	1.6
Freight activity per unit of GDP (tkm/000 Euro'00)	86	99	122	129	132	134	132	130	128	3.6	0.8	0.0	-0.3
Energy demand in transport (ktoe)	**6293**	**6441**	**7061**	**7537**	**7600**	**7464**	**7504**	**7229**	**6922**	**1.2**	**0.7**	**-0.1**	**-0.8**
Public road transport	104	91	77	87	97	99	98	93	86	-2.9	2.3	0.1	-1.4
Private cars and motorcycles	3781	3593	3727	3948	3877	3588	3526	3338	3089	-0.1	0.4	-0.9	-1.3
Trucks	976	1170	1320	1465	1635	1849	1988	2073	2073	3.1	2.2	2.0	0.4
Rail	231	220	238	249	248	227	205	189	180	0.3	0.4	-1.9	-1.3
Aviation	1193	1361	1688	1778	1733	1689	1674	1523	1482	3.5	0.3	-0.3	-1.2
Inland navigation	8	6	10	11	11	12	12	13	13	2.3	0.7	1.0	0.4
Efficiency indicator (activity related)													
Passenger transport (toe/Mpkm)	53.8	51.5	51.1	50.5	46.0	41.5	39.4	36.2	33.8	-0.5	-1.0	-1.6	-1.5
Freight transport (toe/Mtkm)	49.7	51.0	42.2	42.3	42.4	42.8	42.3	41.3	39.4	-1.6	0.0	0.0	-0.7

(1) EUROSTAT Energy Balances do not take into account non-marketed steam, i.e. steam generated - either in boilers or in CHP plants - and used on site by industrial consumers. Using statistical information provided by EUROSTAT on CHP, the non-marketed steam generated in CHP units as well as the corresponding fuel input have been estimated for this study. In the PRIMES model, steam has been attributed to the demand side and the fuel input to the supply side. This approach ensures a better comparability of historical figures with the projections. However, slight differences exist for certain figures related to steam generation - both in terms of final energy demand and transformation input - in this report compared to EUROSTAT energy balances.

Disclaimer: Energy and transport statistics reported in this publication and used for the modelling are taken mainly from EUROSTAT and from the publication "EU Energy and Transport in Figures" of the Directorate General for Energy and Transport. Energy and transport statistical concepts have developed differently in the past according to their individual purposes. Energy demand in transport reflects usually sales of fuels at the point of refuelling, which can differ from the region of consumption. This is particularly relevant for airplanes and trucks. Transport statistics deal with the transport activity within a country but may not always fully include transit shipments. These differences should be borne in mind when comparing energy and transport figures. This applies in particular to transport activity ratios, such as energy efficiency in freight transport, which is measured in tonnes of oil equivalent per million tonne-km.

Abbreviations

GIC: Gross Inland Consumption
CHP: combined heat and power

Geographical regions
EU15: EU15 Member States
EU25: EU15 Member States + New Member States
NMS: New Member States (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia)
EU27: EU25 Member States + Bulgaria + Romania
EU28: EU27 + Turkey
Europe 30: EU28 + Norway + Switzerland

Units
toe: tonne of oil equivalent, or 10^{7} kilocalories, or 41.86 GJ (Gigajoule)
Mtoe: million toe

GW: Gigawatt or 10^{9} watt
kWh: kilowatt-hour or 10^{3} watt-hour
MWh: megawatt-hour or 10^{6} watt-hour
TWh: Terawatt-hour or 10^{12} watt-hour

t: metric tonnes, or 1000 kilogrammes
Mt: Million metric tonnes

km: kilometre
pkm: passenger-kilometre (one passenger transported a distance of one kilometre)
tkm: tonne-kilometre (one tonne transported a distance of one kilometre)
Gpkm: Giga passenger-kilometre, or 10^{9} passenger-kilometre
Gtkm: Giga tonne-kilometre, or 10^{9} tonne-kilometre

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