1. Energy Efficiency Action Plan of the Republic of Austria

in accordance with EU Directive 2006/32/EC

impressum

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1.1 Establishment of the national energy savings targets in conformity with the Directive

Energy savings target 2010 – intermediate target

Art. 4(2) of EU Directive 2006/32/EC (Energy Service Directive - **ESD**) prescribes: *"For the purpose of the First Energy Efficiency Action Plan (**EEAP**) to be submitted in accordance with Article 14, each Member State shall establish an intermediate national indicative energy savings target for the third year of application of this Directive, and provide an overview of its strategy for the achievement of the intermediate and overall targets. This intermediate target shall be realistic and consistent with the overall national indicative energy savings target...."*[1]

The Directive is to be transposed by the Member States by 17 May 2008. The second EEAP (to include, inter alia, an evaluation of the achievement of the intermediate target) is to be submitted to the Commission by 30 June 2011 at the latest. By reason of this timetable, the intermediate target pertains to 31 December 2010 (and the overall target to 31 December 2016).

Energy savings target 2016 – overall national energy savings target

According to ESD Art. 4(1), the overall national energy savings target shall be set and calculated in accordance with the provisions and methodology set out in Annex 1.

*"Member States shall use the annual final inland energy consumption **of all energy users within the scope of this Directive** for the most recent five-year period previous to the implementation of this Directive for which official data are available, **to calculate an annual average amount of consumption**. This final energy consumption shall be the amount of energy distributed or sold to final customers during the five-year period, not adjusted for degree days, structural changes or production changes.*

On the basis of this annual average amount of consumption, the national indicative energy savings target shall be calculated once and the resulting absolute amount of energy to be saved applied for the total duration of this Directive.

*The **overall national indicative energy** savings target shall:*

- *consist of 9 % of the annual average amount of consumption referred to above;*
- *be measured after the ninth year of application of this Directive (i.e., by 17 May 2018 at the latest);*
- *be the result of cumulative annual energy savings achieved throughout the nine-year application period of this Directive;*

[1] Official Journal L 114, 27.4.2006, p. 69.

- *be reached by way of energy services and other energy efficiency improvement measure"*[2]

"For purposes of comparison of energy savings and for conversion to a comparable unit, the ***conversion factors set out in Annex II*** *shall apply unless the use of other conversion factors can be justified."* (ESD Art. 4(1)). *"The national indicative energy savings target shall be expressed in absolute terms in GWh, or equivalent, calculated in accordance with (conversion table in) Annex II."* (ESD Annex I, paragraph 2)

1.2 Specific considerations in the calculation of the national energy savings targets for 2010 and 2016

1.2.1 Energy savings target 2010 – intermediate target

The intermediate target is to be considered against the background of, firstly, the overall 9 % target which, according to ESD, is to be achieved by 2016 (and is covered by this Action Plan), and the higher 20 % target which is to be achieved by 2020 (not covered by this Action Plan).[3]

Rather than a linear improvement in energy efficiency, a steepening growth curve is assumed. The following figure presents a growth curve for the improvement in energy efficiency which, if realised, would render possible the attainment of the ESD target of a 9 % improvement in energy efficiency by 2016.

[2] Official Journal L 114, 27.4.2006, p. 75.
[3] The 20 % target sought by the European Commission (EC) relates to the saving of primary energy in relation to a defined reference scenario. It is intended that, by 2020, primary energy consumption will have been reduced in relation to this base line. Since the EC's 20 % target does not have the same basis as its 9 % target, in order to simplify the subject-matter considered in this chapter the same basis as that used for the ESD targets has been applied to the 20 % target.

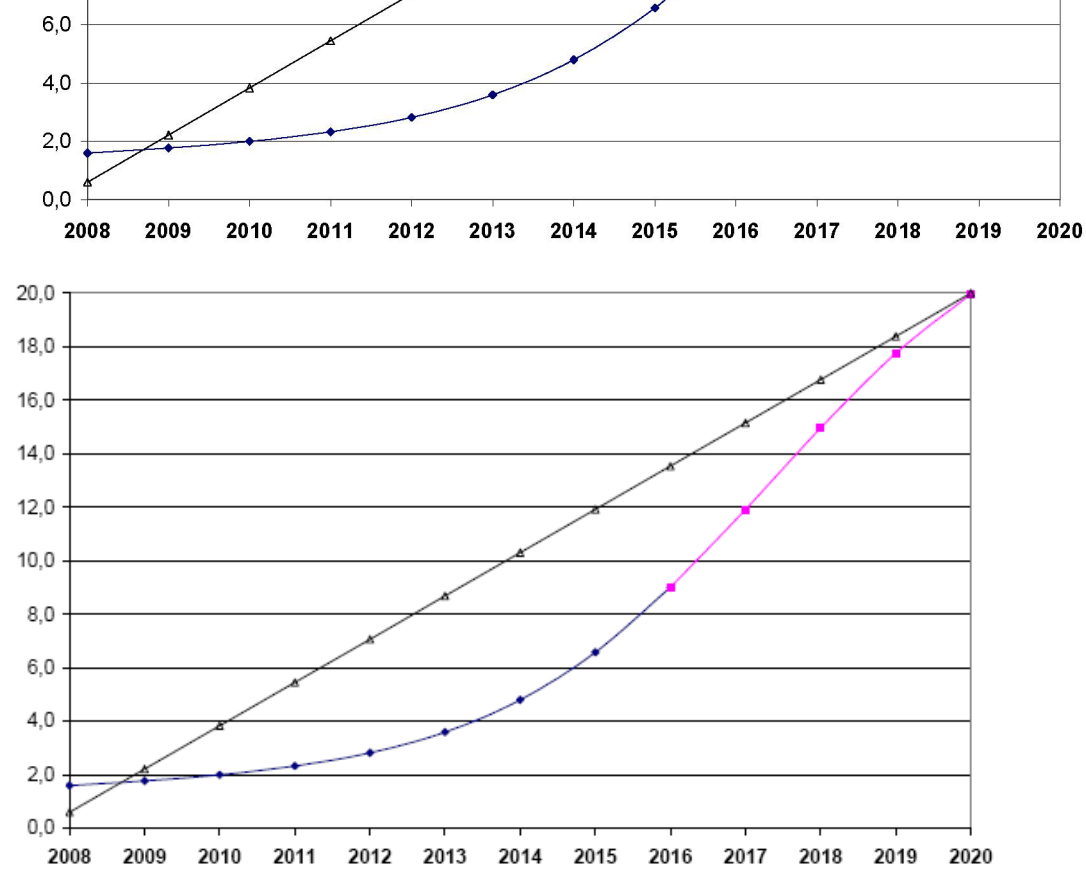

Figure 1: (Possible) growth curve of improvement in energy efficiency, in order to achieve the savings targets for the years 2010 and 2016.

The next graph shows the absolute (t-(t-1)) and relative (t/(t-1)) annual efficiency improvements on which this growth curve is based. The growth curve presented above is obtained from the absolute annual improvement in energy efficiency (see corresponding curve in the following graph) cumulated onto the base value for 2008 shown above.

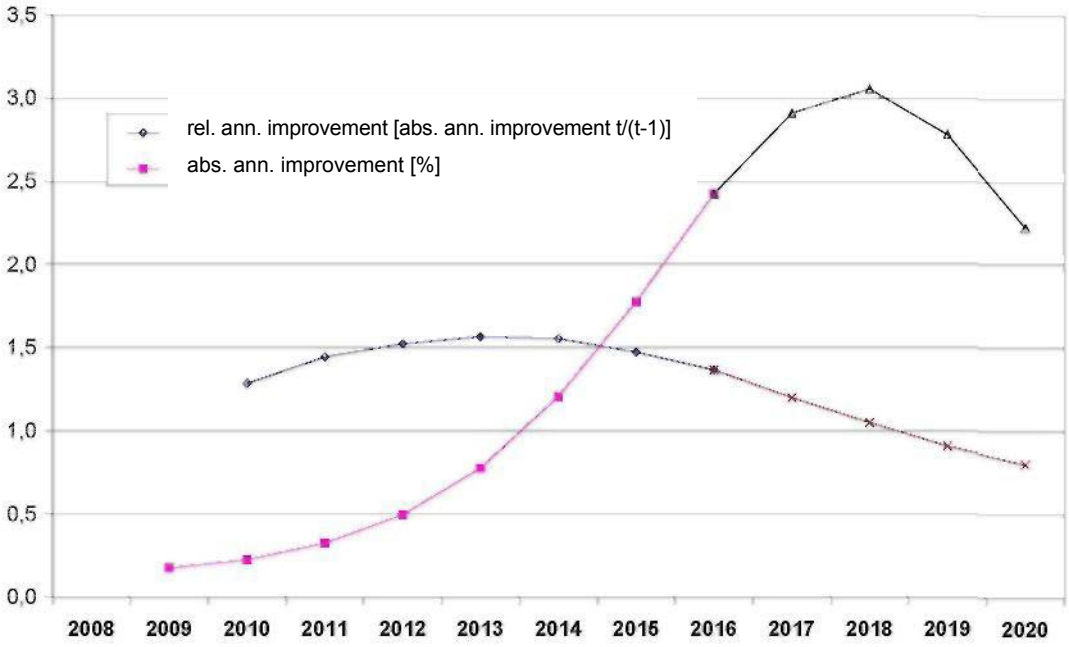

Figure 2: Absolute (t-(t-1)) and relative (t/(t-1)) annual efficiency improvements as a basis for the curve in Figure 1.

According to the first figure, by 2010 the absolute energy efficiency improves by about 30 %, and by a higher rate (about 55 %) by 2014, to enable the 9 % target to be achieved in 2016. After 2014, the relative annual increase in the absolute energy efficiency improvement shows a growth of less than 50 %; from 2018, the absolute annual improvement in energy efficiency could even have a regressive trend (in order to achieve a notional 20 % target, equivalent to the 9 % target).

According to the upper growth curve, the intermediate target for 2010 is 2 %; the overall target for 2016 is 9 %, in conformity with the Directive.

1.2.2 National specificities in the calculation of the annual average consumption of final energy 2001–2005

Basis of data

In Austria, the most recent five-year period, previous to transposition of the ESD, for which official data is available (and which is used for calculation of the annual average consumption) is the period 2001 to 2005.

The basis for determining the final energy consumption of all end users within the scope of the ESD in this period is constituted by the pool of data collected by the Federal Statistical Office of Austria in the context of the "Energy Audit Austria". At the time of compilation of this action plan, the data for the calendar year 2005 is provisional data (published in November 2006).

Choice of system limits relating to the energy sector as a consumer

Data from the Energy Audit Austria regarding the quantities of final energy sold to "end users" are used for calculating the annual average consumption. The final energy quantities for "transport in pipelines", as included in the Energy Audit, are therefore not used for calculating the annual average consumption.

Consumption in the energy sector (which is not categorised as final energy in the Energy Audit Austria) includes the sector's own requirements, as well as distribution and other losses (e.g. in the distribution of electric power and district heating). In fact, the energy needed for transport through pipelines should also be considered as an energy requirement of the sector itself, or as a distribution or other loss. With the exclusion of "transport in pipelines" from the scope of final energy within the meaning of the Directive, a clear distinction is made between the conversion sector and consumer sector energy, on the one hand, and the actual users of final energy, on the other.

Revisions

With each annual revision of the Energy Audit, the most recent figures are incorporated and, if necessary, historical data is also adjusted; for this year, it is also planned that, in the second half of the year, historical data will be definitively established up to and including the year 2002. Furthermore, there is also ongoing work on a revision of the heating value of fuel wood (about 60 PJ out of a total of about 1 000 PJ final energy), since hitherto there have

been discrepancies in various relevant data sources.[4]

1.2.3 Adjustment of the final energy consumption in respect of the Emissions Trading Directive, aviation fuels and parts of the armed forces, within the meaning of the ESD

The scope of the ESD includes, in general, end users of final energy; it excludes *"those undertakings involved in categories of activities listed in Annex I to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community"* (ESD Art, 2 b))[5].

The method of determining which enterprises in Austria are not subject to the ESD is as follows:
The identification numbers of those enterprises listed in the Austrian Emissions Trading Register (www.emissionshandelsregister.at) - and which do not come within the energy conversion sector – are collected in the official company register of the Federal Statistical Office of Austria. The total energy consumption of these enterprises, according to the (ÖNACE*)* classification of economic activities of the "*Energy Audit Austria*"of the Federal Statistical Office of Austria, is then excluded from the ESD. This classification was used by the Federal Statistical Office of Austria for the compilation of the first EEAP.[6]

The quantities of final energy of the aviation fuels[7] excluded from the scope of the ESD are taken from the official Energy Audit Austria (where they are categorised as "Lighting and aviation petroleum", under the energy sources). The data for the final energy consumption of armed forces likewise excluded, within the meaning of the ESD, from the scope of the Directive[8], was provided by the Federal Ministry for National Defence, and has been deducted from the "Private and Public Services" sector of the Energy Audit. In the following, classification is indicated by the classification scheme used in the Energy Audit.[9]

The first table shows the unadjusted, officially declared final energy consumption figures for Austria as a whole, classified according to the sub-sectors of the Energy Audit; the subsequent tables show the same final energy consumption figures classified according to the final energy sources of the Energy Audit Austria, in TJ.

[4] The basis of calculation for obtaining the national annual average consumption, and consequently also the national savings target, remains subject to change at a later date, as final data becomes available.
[5] Official Journal L 114, 27.4.2006, p. 67.
[6] The enterprise identification numbers referred to constitute a precise register of individual enterprises according to Federal State (with, theoretically, several locations). According to the Federal Statistical Office of Austria, however, for enterprises with emissions trading facilities it may be mostly assumed that there are scarcely any cases in which an enterprise identification number represents several locations of an enterprise within a Federal State. The census is therefore largely precise in respect of location.
[7] ESD Art. 3 Definitions, a) " Energy": … fuels (excluding aviation and maritime bunker fuels) …
[8] ESD Art. 2 Scope: *"This Directive shall apply to c) the armed forces, only to the extent that its application does not cause any conflict with the nature and primary aim of the activities of the armed forces and with the exception of material used exclusively for military purposes."*
[9] The final energy sources "Other refinery use", "Refinery residual gas" and "Mixed gas" are disregarded because they are of little significance or no longer exist (moreover, they do not constitute a commercial form of energy in any case and therefore, strictly speaking, they are not energy sources within the meaning of the ESD).

Table 1: Unadjusted national final energy consumption figures, classified according to sub-sectors of the Energy Audit Austria

in TJ	2001	2002	2003	2004	2005
Iron and steel production	35 094	32 262	35 711	37 155	35 774
Chemicals and petrochemicals	35 117	35 076	36 463	37 004	38 313
Non-ferrous metals	5 764	5 865	6 230	6 462	6 132
Minerals and ores, glass	32 428	34 146	34 052	34 171	33 513
Vehicle construction	9 626	9 740	10 848	12 596	12 570
Machine construction	17 738	16 661	17 042	17 862	17 906
Mining	7 863	8 300	8 494	8 564	8 953
Foodstuffs and luxury foods, tobacco	23 468	26 596	23 022	21 984	18 356
Paper and printing	58 888	54 915	48 424	56 668	56 093
Wood processing	18 159	18 106	18 637	16 555	19 437
Construction	32 545	35 025	38 614	40 173	42 260
Textiles and leather	6 656	5 901	5 519	5 266	5 265
Other production sector	8 044	7 316	7 729	8 726	10 149
Railway	9 357	9 065	8 822	8 847	8 978
Other on-ground transportation	237 158	260 625	279 948	286 234	295 382
Transport in pipelines	8 874	5 583	7 244	8 592	10 466
Inland waterway transportation	298	322	346	371	395
Air transport	24 088	22 563	21 369	25 170	28 403
Public and private services	141 471	136 930	154 187	135 936	146 339
Private households	272 226	264 360	277 052	270 507	285 519
Agriculture	24 437	24 045	24 582	24 741	24 987
Total final energy quantity	**1 009 300**	**1 013 401**	**1 064 335**	**1 063 586**	**1 105 190**

Table 2: Unadjusted national final energy consumption figures, classified according to energy sources of the Energy Audit Austria

in TJ	2001	2002	2003	2004	2005
Hard coal	10 072	9 014	7 633	7 886	7 542
Brown coal	2 037	2 345	2 382	2 322	2 156
Brown coal briquettes	1 498	1 264	1 385	1 127	923
Fuel peat	4	4	4	4	4
Coke	9 699	10 333	10 853	11 535	12 912
Petrol	84 969	91 315	93 487	91 037	88 538
Lighting and aviation petroleum	24 006	22 655	21 465	25 198	28 432
Diesel fuel	199 794	221 679	243 317	254 027	268 020
Gas-oil for heating purposes	79 797	76 274	85 410	72 294	79 545
Heating oil	29 992	27 953	29 602	23 776	20 522
Liquid petroleum gas	6 575	7 709	8 099	8 008	7 881
Other petroleum processing products	667	2 053	2 131	3 107	2 052
Natural gas	187 465	180 215	187 716	185 632	201 893

Blast-furnace gas	3 749	2 558	2 527	1 307	0
Coke-oven gas	2 710	2 444	3 493	2 946	2 523
Combustible wastes	7 958	8 649	9 595	11 268	10 615
Fuel wood	66 065	63 358	63 063	61 350	64 737
Biogenous combustion and transportation fuels	43 035	38 685	40 322	41 662	42 093
Ambient heat	7 517	7 634	7 738	8 665	9 051
District heating	50 776	47 076	49 003	51 429	52 763
Electrical energy	190 914	190 184	195 109	199 005	202 989
Total final energy quantity	**1 009 300**	**1 013 401**	**1 064 335**	**1 063 586**	**1 105 190**

The following two tables show, in similar fashion, the final energy consumption figures after adjustment with the energy users not included in the scope of the ESD, i.e., they show the final energy consumption figures of all energy users included in the scope of the ESD. This data constitutes the basis for the calculation, described above, of the annual average consumption of final energy for the years 2001 – 2005.

Table 3: National final energy consumption figures, adjusted within the meaning of the ESD, classified according to sub-sectors of the Energy Audit Austria.

in TJ	**2001**	**2002**	**2003**	**2004**	**2005**
Iron and steel production	8 919	5 789	7 617	8 015	7 134
Chemicals and petrochemicals	16 398	16 078	16 589	18 248	21 714
Non-ferrous metals	5 460	5 556	5 884	6 085	5 761
Minerals and ores, glass	15 046	14 502	14 297	12 788	11 295
Vehicle construction	8 291	8 372	9 123	10 279	9 796
Machine construction	17 552	16 429	16 803	17 667	17 703
Mining	5 713	6 043	6 233	6 075	6 387
Foodstuffs and luxury foods, tobacco	19 199	22 383	18 763	18 744	13 850
Paper and printing	23 113	15 075	13 181	11 550	7 507
Wood processing	14 085	13 427	13 143	10 378	11 061
Construction	32 541	35 021	38 610	40 171	42 257
Textiles and leather	5 815	5 124	4 683	4 449	4 463
Other production sector	7 700	7 122	7 526	8 455	9 960
Railway	9 357	9 065	8 822	8 847	8 978
Other on-ground transportation	237 158	260 625	279 948	286 234	295 382
Transport in pipelines	0	0	0	0	0
Inland waterway transportation	298	322	346	371	395
Air transport	0	0	0	0	0
Public and private services	139 231	134 666	151 799	133 644	144 085
Private households	272 226	264 360	277 052	270 507	285 519
Agriculture	24 437	24 045	24 582	24 741	24 987
Total final energy quantity	**862 539**	**864 004**	**915 003**	**897 250**	**928 233**

Table 4: National final energy consumption figures, adjusted within the meaning of the ESD, classified according to energy sources of the Energy Audit Austria.

in TJ	**2001**	**2002**	**2003**	**2004**	**2005**
Hard coal	2 112	1 958	1 855	1 745	1 390
Brown coal	963	1 040	988	913	873
Brown coal briquettes	1 498	1 264	1 385	1 127	923
Fuel peat	4	4	4	4	4
Coke	5 412	4 859	4 367	3 256	4 192
Petrol	84 713	91 120	93 282	90 801	88 303
Lighting and aviation petroleum	0	0	0	0	0
Diesel fuel	198 703	220 596	242 235	252 921	266 885
Gas-oil for heating purposes	79 733	76 211	85 313	72 179	79 413
Heating oil	26 709	25 168	26 656	20 763	17 200
Liquid petroleum gas	6 505	7 657	8 060	7 973	7 839
Other petroleum processing products	0	0	0	0	0
Natural gas	140 378	134 278	143 249	134 570	143 688
Blast-furnace gas	0	0	0	0	0
Coke-oven gas	0	0	0	0	0
Combustible wastes	3 752	3 308	4 364	6 332	4 812
Fuel wood	65 994	62 961	62 743	60 910	64 209
Biogenous combustion and transport fuels	32 660	25 709	26 038	24 261	25 562
Ambient heat	7 516	7 633	7 737	8 664	9 050
District heating	49 266	45 636	47 597	50 012	51 160
Electrical energy	156 619	154 604	159 131	160 818	162 730
Total final energy quantity	**862 539**	**864 004**	**915 003**	**897 250**	**928 233**

1.2.4 Conversion factors

The heating values for the various final energy sources are to be defined and applied in accordance with Annex II ESD. A special case is that of electrical energy, for the conversion of which, according to Annex II ESD, Member States may apply the coefficient 1 or the coefficient 2.5.[10]

The following table shows the final energy sources that are relevant to the transposition of the ESD in Austria. For these energy sources, the figure shows both the heating values that have been used as standard since 1998 in the Energy Audit Austria of the Federal Statistical Office of Austria (ÖSTAT) and those from Annex II of the ESD (where they differ from the ÖSTAT values, or where the latter values are not within the ranges specified by the ESD).

[10] ESD Annex II: Energy content of selected fuels for end use – conversion table, footnote (3) " *For savings in kWh electricity Member states may apply a default coefficient of 2.5 reflecting the thee estimated 40 % average EU generation efficiency during the target period. Member States may apply a different coefficient provided they can justify it*."

Table 5: Comparison of the official heating values of Energy Audit Austria with those from Annex II of the ESD.

Heating values of the final energy sources	According to **ÖSTAT**	According to **ESD**	**Unit**
Hard coal	0.0280		TJ/t
Brown coal	0.0099		TJ/t
Brown coal briquettes	0.0193	0.0200	TJ/t
Fuel peat	0.0088		TJ/t
Coke	0.0282	0.0285	TJ/t
Petrol	0.0425	0.0440	TJ/t
Lighting and aviation petroleum (paraffin)	(0.0434)	(0.0400)	TJ/t
Diesel fuel	0.0427	kA	TJ/t
Gas-oil for heating purposes	0.0428	0.0423	TJ/t
Heating oil	0.0403	0.0400	TJ/t
Liquid petroleum gas	0.0463	0.0460	TJ/t
Other petroleum processing products	0.0418	kA	TJ/t
Natural gas[11]	0.0487	0.0472	TJ/t
Blast-furnace gas	0.0031	kA	TJ/1 000 m3
Coke-oven gas	0.0179	kA	TJ/1 000 m3
Combustible wastes	0.0087	kA	TJ/t
Fuel wood	0.0144	0.0138	TJ/t
Biogenous combustion and transport fuels	0.0092	kA	TJ/t
Ambient heat	0.0036		TJ/MWh
District heating	0.0036		TJ/MWh
Electrical energy	0.0036		TJ/MWh

The heating values used by ÖSTAT (some of which, as indicated above, differ from those of Annex II) are applied in the ensuing considerations, for the following reasons:

- In Austria, natural gas can only be fed into and transported in public natural-gas supply networks if it has a gross calorific value of 10.7 kWh/Nm³ or above. This gross calorific value requires a minimum methane content of 97%. In the ESD the methane content is substantially lower, at 93 %.
- In the case of fuel wood, the heating value according to the ESD is based on 25 % moisture. The Member States may use other values, depending on the types of wood most frequently used in the respective Member State; use has been made of this option.
- In relation to the annual average consumption, the other, relatively small, differences in

[11] Since 1998, the Energy Audit has stated the heating value of natural gas as being 0.0360 TJ per 1 000 m³. According to the official gas analysis of the natural-gas company Wien Energie Gasnetz GmbH, the average density of the natural gas distributed in the Vienna district gas grid in 2005 (this gas, like that of the entire regulation zone East, originates from Russia), was 0.7394 t per 1 000 m³ (standard cubic metres). This gives the value of 0.0487 TJ/t stated in the table. Actually, however, the ÖSTAT heating value per 1 000 m³ is used for the further calculations.

the heating values virtually cancel each other (see footnote 12 below); for this reason, also, there is no conversion.

The value 1, i.e. 0.0036 TJ/MWh, is used as a conversion factor for electrical energy, for the following reasons:

- The catalogue of energy efficiency measures, agreed at national and federal state level, for transposition of the Directive (see Chapter 2) contains substantially more measures in the NON-electricity sector than in the electricity sector.
- Over 60% of the electricity end users coming within the scope of the Directive are private households and private and public services. In these sectors, there are relatively fewer measures for increasing the efficiency of electricity usage than in the production sector.
- An electricity factor of greater than 1 is appropriate particularly if, on the basis of the final energy coming within the scope of the Directive, relatively more final energy can be saved in electricity applications than in non-electricity applications.

1.3 Establishment of the national energy savings target and intermediate target

Table 6: Annual average consumption and savings targets for Austria

in TJ	Ø 2001-2005	in TJ	Ø 2001-2005
Iron and steel production	7 495	**Hard coal**	1 812
Chemicals and petrochemicals	17 806	**Brown coal**	955
Non-ferrous metals	5 749	**Brown coal briquettes**	1 239
Minerals and ores, glass	13 585	**Fuel peat**	4
Vehicle construction	9 172	**Coke**	4 417
Machine construction	17 231	**Petrol**	89 644
Mining	6 090	**Lighting and aviation petroleum**	0
Foodstuffs and luxury foods, tobacco	18 588	**Diesel fuel**	236 268
Paper and printing	14 086	**Gas-oil for heating purposes**	78 570
Wood processing	12 419	**Heating oil**	23 299
Construction	37 720	**Liquid petroleum gas**	7 607
Textiles and leather	4 907	**Other petrol-processing products**	0
Other production sector	8 153	**Natural gas**	139 233
Railway	9 014	**Blast-furnace gas**	0
Other on-ground transportation	271 870	**Coke-oven gas**	0
Transport in pipelines	0	**Combustible wastes**	4 514
Inland waterway transportation	346	**Fuel wood**	63 364
Air transport	0	**Biogenous combustion and transport fuels**	26 846
Public and private services	140 685	**Ambient heat**	8 120
Private households	273 933	**District heating**	48 734
Agriculture	24 558	**Electrical energy**	158 781
Annual average consumption	**893 406**	Annual average consumption	**893 406**
			in TJ
Energy savings target 2016 (9 % of the annual average consumption)			**80 407**
National overall energy savings target			**80 400**
			in TJ
Intermediate target 2010 (2 % of the annual average consumption)			**17 868**
National intermediate target			**17 900**

The national overall energy savings target established for Austria is 80.4 PJ; the intermediate target is established at 17.9 PJ.[12]

[12] Application of the heating values according to Annex II ESD, listed in Table 5 (and application of an analogous electricity factor of 1) gives an annual average consumption of 888 851 TJ. The overall energy savings value (at 9 %) then comes to 79 997 TJ, and the intermediate target (at, analogously, 2 %) is 17 777 TJ.

2 National catalogue of energy efficiency measures

2.1 General points relating to the overall strategy

2.1.1 The "most significant" programmes and instruments for improving energy efficiency

Government programme 2007- 2010

In the text relating to area of energy-saving:

The objective is to weaken the links between economic growth and energy consumption, in order to improve the energy intensity. A National Energy Efficiency Action Programme is being coordinated by the Austrian Energy Agency.

- *National Energy Efficiency Action Programme*
- *Improvement in energy intensity, by at least 5 % by 2010 and by at least 20 % by 2020*
- *Energy check on all Austrian households by the year 2010*
- *Increased rate of renovation in residential construction; this is intended to achieve thermal renovation of all post-war buildings (1950-1980) by the year 2020*
- *In the case of new buildings, the Austrian government, in conjunction with the Federal States, will promote low-energy and passive-house standards*
- *An active climate protection ("klima:aktiv") standard is being sought for 50 % of new buildings*
- *From 2015 onwards, in respect of financial aid for residential building, aid will only be provided for houses and buildings in large-scale residential construction projects if they conform to the active climate protection ("klima:aktiv") and passive-house standards*
- *Development and use of energy-efficient appliaces and solutions (stand-by)*
- *Expansion of cogeneration as an efficient method of generating electricity and heat*

Energy concepts and strategies of the Federal States

The catalogue of measures set out at a later point in this chapter has been compiled through agreement between the Austrian Government and the Federal States. In addition to measures that come within the area of responsibility of the Austrian Government, the catalogue also lists numerous measures under the responsibility of the Federal States. All the energy efficiency measures listed are measures that have already been approved or for which budget provision has already been made.

The "Federal State measures" referred to have been taken from, inter alia, the energy concepts and strategy papers listed below (in the alphabetical order of the Federal States, or overlap substantially with the declarations of intent and the objectives stated in these energy concepts and strategy papers[13]:

[13] The list comprises the main documents which create both a short-term and medium to long-term framework for energy efficiency activities; in addition, many of the measures originate from

- Burgenland Energy Concept 2003
- Carinthia State Energy Directives 2007 - 2015
- Lower Austria Climate Protection Programme 2000, Lower Austria Climate Protection Programme 2004 - 2008, and Lower Austria Climate Report 2005 and Lower Austria Energy Report 2005
- Energy Concept Upper Austria 1993, Energy Efficiency Programme Upper Austria (Energy Star 2010), and Phase 2 of the Upper Austria Energy Concept (Energy 21)
- Energy model, Federal State of Salzburg and its implementation programme, "Energie Aktiv" (evaluation report on the) Kyoto Option Report Salzburg 2006
- Energy Plan 2005 - 2015 of the Federal State of Styria
- Energy model, Tyrol 2000 - 2020
- Energy concept, Vorarlberg 2010, transport concept Vorarlberg 2006
- Municipal energy efficiency programme for the city of Vienna (data and concept 2006), Vienna transport master-plan 2003

Residential building subsidy

In addition to being very important in terms of housing and social policy, the residential building subsidy is also important in Austria in terms of spatial planning and energy policy. It is a very well established instrument of energy policy, particularly in the private housing sector.

Financial support for residential building currently totals about €2.5 billion per annum. About 70% of this aid is financed by the national government. As a proportion of the total national budget, aid allocated to residential housing represents between 2.8 % and 2.9 %.

Until now, financial support for residential building has focussed on the building of new dwellings . About 80 % of new dwelling construction projects are financed from residential building aid funds, with 20 % of the funds providing support for renovation or being used in other ways (infrastructure, Kyoto objectives). Even if the main objective of residential building support is not directed towards environmental aspects, the latter are becoming an increasingly important component of aid, or increasingly becoming a requirement in the provision of residential building aid by the Federal States. Thus, as well as subsidies and low-interest loans for the construction of residential buildings, additional aid is also being granted for:

- measures for improving thermal, flue-gas and humidity insulation, as well as sound-proofing, on the shell of buildings (e.g. thermal insulation of windows, roofs, outer walls and ceilings, as well as flue renovation)
- measures relating to heating and hot-water systems (connection to district heating, central heating, solar installation, heat pump, biomass heating, etc.)
- the use of environmentally benign construction materials (greater support for wood, with construction material containing HFCs being excluded from financial support)
- agglomerated construction in order to prevent development sprawl and increased traffic

corresponding Federal State laws financial support directives not specified in this document.

The level of financial support is dependent on compliance with criteria relating to energy indices (e.g. the thermal quality of the building shell). Likewise, in the case of financial support for residential houses, measures relating to thermal energy are becoming increasingly important in addition to those relating to maintenance, renovation and the provision of building installations.

Domestic Environmental State Aid

The purpose of domestic environmental state aid, having its basis in the 2005 version of the Environmental State Aid Act (UFG - Umweltförderungsgesetz – Federal Law Gazette No. 185/1993) is to protect the environment through the avoidance or reduction of damage to the environment in the form of air pollution, gases that are detrimental to the climate, and noise and waste. Its field of activity, as an instrument of energy policy and complementing residential building support, is primarily that of the production sector (business environmental support), but is also established in the private and public service sector and in the energy conversion sector (for details, see catalogue of measures).

At the highest level, decisions relating to environmental State aid within the country are made by the Federal Minister for Agriculture, Forestry, Environment and Water Management. The Minister, within the scope of his legal authority, issues directives, defines the objectives of aid policy and makes decisions on the granting of aid. In these activities, the Federal Minister is supported by a consultative body, the "Commission for domestic and foreign environmental aid". The Minister for the Environment does not deal directly with parties seeking aid, but instead employs the services of the company "Kommunalkredit Public Consulting GmbH", which acts as a clearing agency and makes decisions on the aid-worthiness of applicants.

Domestic business environmental support is directed towards enterprises which wish to invest in the sectors of renewable energy sources, efficient use of energy, air, noise and waste, and in commercial transport measures. Specifically, the following have been defined as sectors attracting aid: connection to district heating; biomass installations (stand-alone systems, combined heat and power (CHP) sytstems, local heatiing systems); demonstation systems; efficient energy use; energy production from waste of biogenous origin; optimisation of energy use in waste-water treatment plants; research; combination of fossil fuels and CHP; geothermal; solar systems; electricity production systems; thermal renovation of buildings; prevention and reduction of hazardous wastes, noise and air pollution; heat distribution.

Since the Environmental State Aid Act came into force in 1993, in the field of domestic business environmental support alone 7,687 projects were approved by the end of 2005. In 2005, about 1,387 projects were approved, i.e. just under one fifth of all projects approved up until that date. In the period from 1993 to 2005, the volume of environment-related investment for domestic business environmental support (i.e. including to end customers, who are not covered by the ESD) amounted to €2.2 billion, of which €453.9 million was granted as subsidies. This corresponds to an average subsidy level of 20.4 %. For comparison: in 2005 the volume of environment-related investment amounted to €333.1 million, with a subsidy equivalent value of €63 million. The subsidy level was therefore just under 19 %.

Since 1993, the majority of the financial aid has been granted for projects in the field of renewable energy sources, followed by efficient utilisation of energy. In the period from

1993 to 2005, in Upper Austria the highest proportion of projects granted aid was 21%; Tyrol (20 %), Lower Austria (14 %) and Styria (13 %) also had a high proportion of aid-supported projects. In the same period, the highest proportion of financial support was received by Upper Austria (21 %), followed by Lower Austria (19%), Styria (13 %) and Tyrol (12%). The majority of approved projects were in the hotel and restaurant sectors (36 %), and in goods production (20 %). The largest proportion of financial support, at 40 %, went to projects in the goods industry sector, followed by 33 % in energy and water supply.

Implementation of the National Climate Strategy, in force from 2007

On 21 March 2007, the Council of Ministers adopted the (new, currently in force) National Climate Strategy of Austria for Achieving the Kyoto 2008 – 2013 Objective. The objective of the National Climate Strategy is compliance with the obligations, as provided for in the Kyoto Protocol, to reduce greenhouse gases by 13 % in relation to the base year of 1990.

The new Climate Strategy of Austria is based on the "Strategy for Achieving the Kyoto Objective", which was enacted by the Austrian government and the Heads of Federal States Conference in 2002. Achievement of the climate protection objectives is now to be further promoted through modification of the National Climate Strategy, with new strategic emphases. In this process, the strategic orientation of the National Climate Strategy is based on the following three pillars:

- Greater use of existing, market-ready technologies, particularly in the areas of energy efficiency and renewable energies
- Promotion of the development of new technologies offering long-term potential for substantially reducing greenhouse emissions (and increasing energy efficiency)
- Use of flexible instruments within the framework of the JI/CDM programme and EU emissions trading

The measures modifying the National Climate Strategy are thus intended to concentrate primarily on those areas and sectors in which there are the greatest divergences from the route to attainment of the Kyoto objectives, and in which prevention of emissions is expected to be achieved with least cost to the national economy. These areas and sectors are:

- Transport
- Energy application
- Space heating and small-scale consumption
- Conversion and use of energy in the production sector

Measures in the transport sector concentrate on, amongst other aspects, promoting environmentally friendly, low-consumption engine technologies and the greater use of biofuels, improving the attractiveness of public transport, promotion of cycle transport and pedestrian traffic, improving efficiency in goods transportation, residential development structures that reduce traffic, as well as advisory and promotional programmes.

In the private household sector, more measures are to be put in place to increase energy efficiency in the building sector, and there is to be an expedited changeover to renewable energy sources and efficient district heating in the heating supply sector. There is also to be greater implementation of energy efficiency and the use of renewable energy in industry. In

addition, public sector measures, such as the establishment of a Climate and Energy Fund, and the implementation of a national energy efficiency offensive and continued promotion of eco-electricity will contribute towards achievement of the Kyoto objective.

The numerous measures set out in the National Climate Strategy are also listed in the catalogue of measures in the Energy Efficiency Action Plan.

National Climate and Energy Fund

The Climate and Energy Fund set for the period 2007 – 2010 was adopted by the Council of Ministers on 2 May 2007. The purpose of the fund, to which a total of €500 million has been allocated, is to improve energy efficiency and to increase the proportion of renewable energy sources in the production of energy. The fund is intended as an improtant step in the reduction of greenhouse emissions and in the implementation of the National Climate Strategy. For 2007, it is intended that a total of €50 million will go to projects and research relating to climate and energy, and from 2008 onwards €150 million is to be provided annually by the fund.

The main focus of the fund is the granting of financial aid and the award of contracts in order to support initiatives in the area of climate protection and sustainable energy supply. The programme makes provision in three areas:

- Research and development in sustainable energy technologies
- Promoting of projects in the areas of public local passenger transport and environmentally benign goods transport, as well as mobility management projects
- Projects supporting the market penetration of sustainable energy technologies that are relevant to climate protection

The Climate and Energy Fund, which has a presiding committee, an advisory council of experts and a management board, was set up as a fund which itself constitutes a legal entity under public law. The presiding committee comprises, in addition to the Federal Chancellor, the Federal Minister for Agriculture, Forestry, Environment and Water Management, The Federal Minister for Transport, Innovation and Technology, and the Federal Minister for Trade, Industry and Labour. The advisory council of experts, which comprises four members, makes recommendations concerning financial aid; the company Österreichische Forschungsförderungsgesellschaft mbH and the company Kommunalkredit Public Consulting GmbH act as executive agencies.

The fund is intended, on the one hand, to further strengthen the position of Austria as an industrial location in the field of energy and environmental technologies and, on the other, to secure Austria's energy supply in a sustainable and environmentally sound manner.

National Infrastructure Offensive (improving the attractiveness of public passenger transport and rail transport)

The Federal government has adopted an investment programme for road and rail amounting to approximately €11 billion by the year 2010, and has presented both a framework plan for the Austrian Federal Railways and a long-term construction plan for the road financing body ASFINAG (Autobahnen- und Schnellstraßen- Finanzierungs- Aktiengesellschaft). In the legislative period, there are over €6 billion available for implemenation of the Austrian Federal Railways framework plan, and over €4 billion available for implementation of the ASFINAG construction programme. Over the total period of the plan, from 2007 to 2012, the amount to be invested is over €17.2 billion.

By the year 2020, a total of €22.3 billion is to be invested in railway development. In the same period, approximately €13.3 billion is allocated for new construction in the high-quality road network, with €2 billion being invested in tunnel safety and €4 billion in maintenance measures for the existing ASFINAG network.

In addition to having a positive effect on the national economy in respect of the GDP, production, indirect investment and consumption, the infrastructure offensive will make a major contribution towards the reduction of greenhouse gases. Development of rail transport is also to be promoted, particularly at local level, so that the necessary contribution towards attainment of climate protection objectives can also be achieved in respect of mobility. The projects that are planned in this area are directed towards shifting goods transportation from road to rail. The federal minister with responsibility in this is therefore planning investments of €1.5 billion per annum for rail transport.

Both the truck toll and the tax on petrol and diesel fuels are to be increased in order to finance the infrastructure offensive.

National Action Plan for Danube Shipping

The National Action Plan for Danube Shipping (NAP) is Austria's transport policy instrument for implementation of the NAIADES action programme initiated by the European Commission for the purpose of modernizing the European inland waterway transport fleet and waterway infrastructure. It specifies the content of the national shipping policy until 2015. The basis for the National Action Plan is a 10-point programme, compiled at the start of 2003 by the Federal Ministry for Transport, Innovation and Technology, for the promotion of shipping on the Danube. The Federal Ministry for Transport, Innovation and Technology (bmvit), as the initiator of the National Action Plan, is responsible for the overall running of the plan. Management of the programme is provided by the state-owned company "via donau". The bmvit has also appointed an attendant advisory council to coordinate implementation of the NAP vis à vis external bodies.

The objective of the plan is the management of goods transportation in a socially and environmentally appropriate manner, as well as reduction of the burden on the national road and rail network through greater use of the Danube waterway.

The principal element of the NAP is a catalogue of measures to be implemented. This catalogue describes the Austrian shipping policy plans for the next ten years. It is to be updated annually to take account of the respectively current implementation status. The catalogues of measures comprises the areas of infrastructure, ports, information systems, fleet, education and training, promotion, data and facts, new markets, financial aid and

international activities.

The cost of implementation of these measures is approximately €478 million (which includes €208 million for the "River Development Project East of Vienna"). Approximately 25 % of the remaining €270 million is allocated to financial aid and support measures for ports, the shipping fleet and the development of new markets. The further development of information systems for Danube shipping accounts for approximately 5 %. The remaining 5 % of the costs are allocated for measures in fields of education and training, promotion, and data and facts, as well as international activities.

Benefit in respect of transport policy

The integration of the eastern and south-eastern European states into the European Union will result in cross-border goods transport increasing by about 7 to 8 % per annum. The implementation of all the measures provided for in the NAP would have the effect, by the year 2015, of doubling the 12 million tonnes of goods currently transported on the Austrian section of the Danube, to between 25 and 30 million tonnes, thereby relieving the burden on road and rail transport.

Benefit in respect of economic policy

This increase in transport volumes would allow the Austrian economy to make savings in transport costs amounting to €41.7 million per annum. The greater use of Danube shipping will also help to secure Austria's position as an economic location, and will have a positive effect on employment. The benefit to the national economy lies in the – compared with road and rail – very small amount of infrastructure investment required: compared with an investment of €1.83 in road or €6.57 in rail, an equivalent transport outcome is achieved with an investment of just one euro in waterway transport.

Benefit in respect of environmental policy

Owing to the specific nature of its energy and resource utilisation, shipping transport on the Danube is the most environmentally benign and effective means of transport, and it still offers adequate free capacity. One tonne of goods can be transported for 370 km on the Danube, compared with 100 km by road or 300 km by rail, for the same energy consumption.

Transportation by internal waterways also produces the lowest external costs (congestion, noise, dirt, accidents, etc), at a level of €10/1 000 tkm, whereas rail transport produces external costs of €15/1 000 tkm and road external costs are €35/1 000 tkm. Implementation of the NAP would allow external cost savings amounting to €11.3 million per annum. The objective is to double the amount of transport on the Danube without any increase in detriment to the environment. This means that the total amount of ship emissions is to be reduced, or at least held constant.

Fedceral building contracting

The successful Performance Contracting Project, involving 46 Viennese state schools (started in 1997), was followed in March 2001 by the decision of the Council of Ministers to renovate approximately 300 state properties (i.e. approximately 500 buildings) using performance contracting (= Contracting Offensive).

The objectives of the Contracting Offensive are:

- no additional costs on the budget
- environmental and climate protection, and
- the creation of employment

This project was reconfirmed in the governmental agreement of March 2003. Suitable energy-saving or contracting partners are being sought for the approximately 500 state buildings. These contractors will identify, realise and pre-finance the energy-savings potentials that are available, and will service the project for a period of ten years.

The partners in this cooperative project are the state property company "Bundesimmobiliengesellschaft m.b.H." (BIG[14]), the Federal Ministry for Agriculture, Forestry, Environment and Water Management (BMLFUW) and the Federal Ministry for Trade, Industry and Labour (BMWA).

In practice, the contracting partner implements energy-saving measures in the buildings and assumes responsibility for technical systems management, inspection and some of the maintenance tasks. All associated costs are paid from the savings in energy costs. At the end of the contract period, payment to the contracting partner ceases and the department which uses the building thus benefits fully from the energy-saving measures in which investment was made.

2.1.2 The "most significant" of the final energy users and final energy sources within the scope of the ESD

If the annual average consumption for the period 2001 - 2005 is considered according to sector or according to final energy source, the following two types of statement are obtained.

[14] In recent years, the majority of public state buildings (approx. 75% of the building space) has been transferred to the equitable ownership of the company "Bundesimmobiliengesellschaft" (BIG).

Table 7: Annual average consumption (AAC) of final energy for the period 2001 – 2005, according to sector of the Energy Audit Austria

in TJ	AAC	Proportion of AAC
Iron and steel production	7,495	0.8%
Chemicals and petrochemicals	17,806	2.0%
Non-ferrous metals	5,749	0.6%
Minerals and ores, glass	13,585	1.5%
Vehicle construction	9,172	1.0%
Machine	17,231	1.9%
Mining	6,090	0.7%
Foodstuffs and luxury foods, tobacco	18,588	2.1%
Paper and printing	14,086	1.6%
Wood processing	12,419	1.4%
Construction	37,720	4.2%
Textiles and leather	4,907	0.5%
Other production sector	8,153	0.9%
Railway	9,014	1.0%
Other on-ground transportation	271,870	30.4%
Transport in pipelines	0	0.0%
Inland waterway transportation	346	0.0%
Air transport	0	0.0%
Public and private services	140,685	15.7%
Private households	273,933	30.7%
Agriculture	24,558	2.7%
Annual average consumption (AAC)	893,406	100.0%

The two sectors that are most significant in terms of energy consumption, namely, private households and other on-ground transportation, each at approximately 30 %, together account for 61.1 % of the annual average consumption, followed by the production sector at 19.4 % and public and private services at 15.7 %.

Table 8: Statement of the annual average consumption (AAC) for the period 2001 – 2005, according to final energy sources of the Energy Audit Austria

in TJ	AAC	Proportion of AAC
Hard coal	1,812	0.2%
Brown coal	955	0.1%
Brown coal briquettes	1,239	0.1%
Fuel peat	4	0.0%
Coke	4,417	0.5%
Petrol	89,644	10.0%
Lighting and aviation petroleum	0	0.0%
Diesel fuel	236,268	26.4%
Gas-oil for heating purposes	78,570	8.8%
Heating oil	23,299	2.6%
Liquid petroleum gas	7,607	0.9%
Other petroleum processing products	0	0.0%
Natural gas	139,233	15.6%
Blast-furnace gas	0	0.0%
Coke-oven gas	0	0.0%
Combustible wastes	4,514	0.5%
Fuel wood	63,364	7.1%
Biogenous combustion and transport fuels	26,846	3.0%
Ambient heat	8,120	0.9%
District heating	48,734	5.5%
Electrical energy	158,781	17.8%
Annual average consumption (AAC)	893,406	100.0%

The three final energy sources that are the most significant in terms of the quantity of energy, namely, diesel fuel, electrical energy and natural gas, account for 59.8 % of the annual average consumption. These are followed by petrol at 10.0 % and heating oil extra-light at 8.8 % of the annual average consumption for 2001 – 2005.

2.2 General remarks on the catalogue of measures

This chapter uses a sector-specific classification and subsequent analysis to describe energy efficiency programmes, energy services and other energy efficiency measures that will affect energy savings between 2008 and 2016. The sectors are structured as given in Annex III of the ESD. The method of reporting is the same for all sectors (as described below).

2.2.1 Approach used in describing individual energy efficiency measures (packages) and instruments used for implementing the measures

The purpose of energy efficiency measures is to reduce the final energy consumption of an energy service (the provision of useful energy such as, for example, heat, cooling, light, mechanical energy, etc. directly to the user). It is also intended, however, that energy efficiency measures do not reduce the level of provision rendered by the energy service.

In order to implement energy efficiency measures, various instruments can be used which influence technical or organisational factors, or the factors which determine usage behaviour in the conversion of final energy or in the usage of useful energy.

- In this report, the term "**measures**" refers to specific areas of action that provide potential (technological, organisational or behaviour-related) **starting points for energy efficiency improvements**, i.e. for reducing the final energy consumption while maintaining the level of energy service.[15],[16]
- "**Instruments**", the means of implementing energy efficiency measures, are used in conjunction with the measures, and are intended to aid the realisation of unutilised final energy savings potential. The instruments thus contribute directly to the implementation of the measures, and comprise a **great variety of market instruments relating to efficiency policy**.

2.2.1.1 Qualitative description of the energy efficiency measures and instruments

With regard to the individual energy efficiency measures (packages), the following information, in particular, is described in greater detail:

- Definition of the objective (what is to be achieved)
- Definition of the target group (final energy consumption sub-segment) that is to be reached by the measure

With regard to the instruments, the following information is described in greater detail, according to the data available:

- Description / designation of the instrument
- Status
  - **EA07-**: Early Action, in force since, at most, 1995 (1991), 2007 no significant modifications planned
  - **EA07+**: Early Action, in force since, at most, 1995 (1991), 2007 significant modifications planned
  - **NA07-**: New Action, 2007 already in force
  - **NA07+**: New Action, 2007 not (yet) in force
- Date of entry into force
- Period of validity of the instrument
- Budget relevance of the instrument ("Budget") *low, **medium, ***high
- Importance of the instrument for attainment of objective ("Import.") *low, **medium, ***high
- Overlap with other instruments ("Overlap")

[15] Organizational measures develop potentials for reducing energy consumption that are inherent but undeveloped in the energy system. This is achieved, for example, through improved energy management or the avoidance of unnecessary consumption (e.g. lowering temperatures when user absent), with the energy service being kept constant.

[16] Behaviour-related measures relate, for example, to a change in personal behaviour in respect of an energy service. Thus, for example, the adoption of a fuel-efficient driving style can save final energy without any need to forgo the expected level of service comfort, in this case that of driving a vehicle.

- Bottom-up monitoring mechanism and methods, including determination of existance of the baseline? Yes/no and explanation

The national catalogue of measures is set out below, categorised according to sector

2.3 Measures relating to private households (pHH)

Measures relating to private households are programmes, energy services and other measures that improve energy efficiency in households (in particular space heating, including auxiliary energy, hot water, cooling, electrical and other appliances) and that have effect in the period from 2008 to 2016.

2.3.1 Measures releating to the building shell, in the case of new-builds

Number	Measure								
pHH_01	**Integration of passive heating and cooling in new-builds**								
Description									
Objective	To avoid or minimise the requirement for heating, cooling and air-conditioning								
Target group	Major players involved in new construction in the private residential sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_01_01	Promoting of more densified residential construction, and "solar-oriented building" in building law	NA07-			For new buildings	*	***		
pHH_01_02	Additional points in residential building subsidy for solar passive systems also	NA07-	1.1.2006 Amendment planned 2007		50 % of the radiation-previous components must not be oriented away from south by more than 45°	**	***		
pWs_01_03	Building regulation provisions to minimise the need for cooling		1.6.2003		Implemented in the Thermal Insulation Ordinance				

Number	Measure
pHH_02	**Improving the thermal quality of the building shell in new-builds**
Description	
Objective	To reduce losses of usable energy, or the requirement for usable energy for heating and cooling purposes
Target group	Major players involved in new construction in the private residential sector

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_02_01	Introduction of energy-efficient award criteria in the residential building subsidy	EA07+			Variation between the different Federal States	***	***		Only in some cases
pHH_02_02	Active climate protection ("klima:aktiv") standard sourght for 50% of new buildings	NA07+	Jan. 06	Implementation by 2010	Extent of implementation various between the different Federal States	*	***	k:a Implem. of Buildings Directive	No
pHH_02_03	Improvement of the thermal insulation standard in accordance with the state of the art	NA07+	2007	Unknown	Working party of Austrian Inst. for Construction Engineering working on transposition of Buildings Dir. or Dir. re. Art 15a – Agreement on Harmonisation of Building Law	*	***		No
pHH_02_04	Factor 4 + building	EA07-		By 2000		*	*		Estimate
pHH_02_05	Passive house incentive programme	EA07-	Since 2006	Unknown	Limited to 50 buildings/year	*	*	None	Estimate
pHH_02_06	Creation of incentive systems for reducing heating energy demand/unit area and CO2 emissions in residential building	EA07+			Also for agricultural housing	**	***		
pHH_02_07	Continuation of financial incentives for energy-saving and ecological measures in residential building	EA07+			Also for agricultural housing	***	***		

pHH_02_08	More stringent minimum requirements for components (thermal transmission coefficients)	EA07+	1994	At least 2000	And minimum requirements for thermal insulation	**	***	Yes	In some cases
pHH_02_09	Introduction of an energy passport as identification of the energy quality of a building	EA07+	1994	At least 2000		**	***	Yes	In some cases
pWs_02_10	Energy statement, in accordance with building control law		1.6.2003 Amend-ment 2007						
pHH_02_11	Extension of the monitoring system for residential building subsidies	NA07-			Evaluate and, if necessary, adapt	*	**		
pHH_02_12	Increased number of topics in direction of ultra-low energy and passive-house standards for large-volume new-builds, for building contractor competitions	NA07-			Increased realisation and development of model projects in direction of ultra-low energy and pasive-house standard	*	**		

2.3.2 Increasing the renovation ratios

Number	Measure
pHH_03	**Increasing the thermal renovation ratios**
Description	
Objective	**According to the most recent buildings and housing census, the renovation ratio for 1991–2001 was approx. 1.4 %; however, therm, renovation (facade) only approx. 0.8 %; increase in the renovation ratito to at least 3 % (2008–2012) and, in the medium term, to 5 % per annum.**
Target group	Major players involved in thermal renovation in the private residential sector

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_03_01	Subsidy incentives (residential building subsidy, domestic environmental subsidy)		From 2007	Unknown	See National Climate Strategy	***	***	Accompanying incentive programmes via climate protection initiative klima:aktiv Measure closely related to transposition of Buildings Directive and Art. 15a Agreement on residential building subsidy (supporting)	In some cases
pHH_03_02	Further improvements in residential law (MRG: Mietrechtsgesetz – Tenancy Act; WEG: Wohnungseigentums gesetz – Ownership of Housing Act; WGG: Wohnungs-gemeinnützigkeitsgesetz – Act on Housing for the Public Benefit)		From 2008	Unknown	See National Climate Strategy	*			-
pHH_03_03	Further promoting of contracting models – particularly also in the case of private service buildings		2007	Unknown	See National Climate Strategy	*	**		In some cases
pHH_03_04	Switching of residential building subsidies from new-build to renovation		2006	Unknown	Art. 15a Agreement already in force	*	**		Open
pHH_03_05	Additional subsidy points for thermal insulation and renewable energy		2000	Unlimited					

pHH_03_06	Section of ecological building materials, plujs other ecological measures	2003	Unlimited					
pHH_03_07	Exploration of other subsidy routes, and optimisation in respect of energy			Evaluate renovation-related subsidies and if necessary make energy-efficiency aspects central in the course of revision	*	**		

2.3.3 Measures relating to the building shell, in the case of extensive renovation

Number	Measure								
pHH_04	**Improving the thermal quality of the building shell by means of extensive renovation**								
Description									
Objective	To reduce losses of usable energy, or the requirement for usable energy for heating and cooling purposes								
Target group	Major players involved in renovation of housing and buildings in the private residential sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_04_01	Mandatory minimum requirements for the overall energy efficiency in the case of extensive renovation, irrespective of the usable area, in the course of transposition of the Buildings Directive	NA07+	2007	Unknown	Working party of Austrian Inst. for Construction Engineering working on transposition of Buildings Dir. or Dir. re. Art 15a – Agreement on Harmonisation of Building Law	*	***		-
pHH_04_02	Avoidance or minimisation of the requirement for air-conditioning or cooling in the case of renovated buildings	NA07+	2007	Unknown	To be taken into consideration at time of transposition of Buildings Directive 2007 (OIB – Austrian Inst. for Construction Engineering)	*	***	Accompanying incentive programmes (best practice) incl. through "klima:aktiv"	
pHH_04_03	Resid. building subsidy for thermal renovation of resid. buildings with minimum standards for energy	EA07-	1994	Unknown		***	**		
pHH_04_04	Revision of minimum requirements for thermal transmission coefficient in building law	NA07+			In the case of private households, private services and agricultural housing	*	***		

pHH_04_05	Energy consultation as prerequisite for subsidy	EA07-			In the case of private households, private services and agricultural housing	*	**		
pHH_04_06	Additional subsidy for selection of ecological building materials, plusj other ecological measures		Since 1993 Amendments 2000, 2003, 2006, planned 2007						
pHH_04_07	Extension of an initial consultation service for extensive residential building renovation, based on rough building analyses as a decision aid for building/housing owners and property managers	NA07-			Currently a barrier for smaller housing administration bodies which do not possess this expertise within their own field of competence	**	***		

2.3.4 Measures relating to individual renovation measures on the building shell

Number	Measure
pHH_05	**Improving the thermal quality of individual structual elements of the building shell (e.g. on the outer wall, top-storey ceiling, windows, doors cellar floor)**
Description	
Objective	To reduce losses of usable energy, or the requirement for usable energy for heating and cooling purposes
Target group	Major players involved in renovation of housing and buildings in the private residential sector

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_05_01	Revision of minimum requirements for thermal transmission coefficient in building law	NA07+				*	***		
pHH_05_02	Energy consultation as prerequisite for subisdy	EA07-			In the case of private households, private services and agricultural housing	*	**		
pHH_05_03	Resid. building subsidy for renovation of resid. buildings with minimum standards for energy	EA07-			In the case of private households, private services and agricultural housing	**	***		
pHH_05_04	Ongoing optimiazation of residential building subsidy for renovation of residential houses or extension of dwellings	EA07+	1997	Open	Rendered more stringent since 2002, New Directive 2007 efficiency-dependent additional subsidy	***	***		Planned in context of Climate Protection Programme

2.3.5 Measures relating to building installations (heating, cooling, hot water and ventilation), in the case of new-build and/or renovation

Number	Measure								
pHH_06	**Installation of new, high-efficiency energy conversion systems**								
Description									
Objective	To reduce the final energy consumption in the private residential sector through the use of high-efficiency energy conversion systems								
Target group	Major players involved in new-builds and/or renovation in the private residential sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Impo	Overlap	Monitoring
pHH_06_01	Subsidies for renewable, efficient district heating, heat pump and calorific-value technology in new-build	EA07+	Art, 15a Agreement on resid. building subsidy in force since January 2006 Implementation of the agreement by January 2007	Unknown	Residential building subsidy incentives for use of renewable energy are in force, to differing extents, in all Federal States	**	**	Accompanying incentive programmes through climate protection initiative "klima:aktiv" Measures closely related to implemen. of Buildings Directive	In some cases
pHH_06_02	Further development of district heating supply based on biomass and other renewables	EA07+	Current	Unknown	Particularly in regions not yet supplied with line-system energy for heat provision	**	**	To be taken into consideration at time of transposition of Building Directive 2007 (OIB)	
pHH_06_03	Promoting the use of of high-efficiency CHP systems (incl. micro systems)	EA07+	Current	Unknown	Incl. through investment subsidy according to the Eco-Electricity Act	**	**	Energy Efficiency Directive	

pHH_06_04	Identification and utilisation of existing waste heat potentials	EA07+	Current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***	Buildings Directive	
								CHP Directive	

pHH_06_05	Further development of the district heating network in districts with a high heat density	EA07+	current	Unknown	Investment incentives through domestic environmental subsidy, etc.	*		Green Paper on Energy Efficiency	
pHH_06_06	Utilisation of heat for cooling purposes if necessary space air-conditioning cannot be achieved by other (e.g. structural) measures	EA07+	current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***		
pHH_06_07	Calorific-value technology as a prerequisite for subsidy for natural gas, liquefied gas and high-efficiency output	NA07+				*	***		
pHH_06_08	Increased efficiency of domestic installations; detailed efficiency specifications for heating, ventilation, heat distribution, drinking-water heating and water saving	EA07	1993	Unlimited					
pHH_06_09	Promotion of cascaded utilisation of geothermal (incl. for heating and hot water)	EA07-		Unlimited		*	*		
pHH_06_10	Ongoing optimisation of residential building subsidy for energy-saving and environmentally friendly heating installations	EA07+	1997	Open	Rendered more stringent since 2002, new Directive 2007 Efficiency-dependent additional subsidy	***	***		Planned in context of climate protection programme

pHH_06_11	Replacement of old stand-along solid-fuel heaters and old oil and gas heating systems with modern, energy-efficienct heating systems	EA07+	Unknown	Unknown	With special consideration given to: - Renewable - Efficient district heating - Gas calorific-value technology - Efficient heat pumps			Residential building subsidy and accompanying incentive programmes ("klima:aktiv", BMVIT House of the Future)	In some cases
pHH_06_12	Mandatory replacement of old boilers (> 30 years) in accordance with building regulations / Ordinance on Firing Installations	NA07+	2007	Unknown	Promoting of heating systems based on state-of-the-art renewable, efficient district heating or calorific-value technologies, with inspections / mandatory replacement	*		To be taken into consideration at time of transposition of Building Directive 2007 (OIB)	
pHH_06_13	Optimisation of heating systems in the course of thermal renovation work	NA07-	2004	At least 2016				Yes	Yes
pHH_06_14	Period inspections by qualified, independent experts in respect of the efficiency of the heating system as a whole, central heating systems, storey heating systems and air-conditioning systems	NA07-			In addition to measurements of the waste gas emissions and efficiency of heating boilers, and proposals for improvement	*		Transposition of Buildings Directive	
pHH_06_15	Checking of whether there is potential to optimise the district-heating pumps	NA07-			Ensure that pumps of the highest efficiency class are used	*			

Number	Measure
pHH_07	**Increasing the market penetration of energy-efficient energy conversion systems**
	Description
Objective	As above
Target group	

Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_07_01	Specification for circulating pumps of energy efficiency class A	NA07+							
pHH_07_02	Specification for central heating system in cases of more than 3 dwelling units	EA07-	2003	Unlimited					
pHH_07_03	Specification for local heating network in cases of 2 or more buildings with a gross flor area greater than 1,000 m^2	NA07+	2007	Unlimited					
pHH_07_04	Inclusion in building regulations of specific requirements for thermal insulation of distribution lines of the heating system	NA07-				*	**		
pHH_07_05	Development of a guide for energy efficiency subsidies	NA07-			Ensure that, where a subsidy is granted, the efficiency measures are also implemented	*	**		
pHH_07_06	Campaign focussing on energy-efficient heat pumps	NA07-			Conduct campaign over a limited period	**	**		
pHH_07_07	Development of a guide for the use of energy-efficient circulating pumps in heating systems	NA07-			Research technical principles and information, distribute guide to the target groups	*	**		
pHH_07_08	Raising of awareness amongst installers concerning circulating pumps (focus of training)	NA07-			Compile technical information and distribute to installers (to be taken into consideration during mandatory heating system inspections)	*	**		
pHH_07_09	Circulating pumps focus of campaigns at exhibitions, in conjunction with manufacturers and energy consultants	NA07-			Investigate possibilities for cooperation with manufacturers, and develop exhibition concept	*	*		

pHH_07_10	Best practice replacement programme for heating pumps	NA07-			Devise concept and conduct campaign over a limited period	*	**		Proposed

2.3.6 Measures relating to building installations (heating, cooling, hot water and ventilation), in respect of their ongoing operation

Number	Measure								
pHH_08	**Optimisation of existing energy conversion systems to achieve greater energy efficiency**								
Description									
Objective	To reduce the final energy consumption in the private residential sector through improvement measures, as well as regular servicing and inspection of energy-conversion installations								
Target group	Major players in the private residential sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_08_01	Greater stringency of periodic inspections of heating systems / air-conditioning systems, with corresponding consultation	NA07+			Legal provision for efficiency checks in all Federal States, but differing regulations	*	****		
pHH_08_02	Revision of the interval frequency for heating systems	NA07-			Legal requirement for all sectors	*	*		
pHH_08_03	Creation of an inspection guide for heating systems / air-conditioning systems	NA07+			Legal requirement for all sectors	*	*		

pHH_08_04	Licensing of of experts to conduct inspections (heating systems + air-conditioning systems)	NA07+			Legal requirement for all sectors	*	*		
pHH_08_05	Creation of an offer for voluntary checking of heating system	NA07+			Rough analysis with proposals for immediate and medium-term measures	*	**		
pHH_08_06	Mandatory online energy bookkeeping for residential building projects with a gross floor area over 1,000 m²	NA07	2007	Unlimited					
pHH_08_07	Optimisation of systems based on non-renewable energy sources	EA07+	2006		Establishment of a consultation structure	*	*		
pHH_08_08	Optimisation of systems based on renewable energy sources	EA07+	2006	Unlimited	Services of NOEST used to impart know-how	***	*		Yes

2.3.7 Measures relating to appliances (white goods, etc.) and lighting

Number	Measure								
pHH_09	**Increasing the market penetration and use of energy-efficient appliances (household appliances, IT equipment, lamps)**								
Description									
Objective	To reduce the final energy consumption of appliances through greater market penetration of efficient appliances								
Target group	Final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pHH_09_01	promoting of energy-efficient household appliances (A+/A++)	NA07-	2004	at least 2016		*	***	Yes	

pHH_09_02	Accelerated replacement of old household appliances and increased use of energy-saving lamps, through information campaigns	NA07+			For – amongst other appliances – refrigerators, freezers, washing machines, etc.	*	**		
pHH_09_03	Replacement of incandescent bulbs with energy-saving lamps in corridors and	NA07-			High switching tolerance, inexpensive, cooperation with occupants	**	**		

2.4 Measures relating to the public service sector (öDL)

Measures relating to the public service sector are programmes, energy services and other measures that improve energy efficiency in public service buildings (in particular space heating, including auxiliary energy, hot water, lighting, ventilation and air-conditioning, large-scale cooling, electrical appliances), as well as in other end-use and building types, and that have effect in the period from 2008 to 2016.

2.4.1 Measures relating to the building shell, in the case of new-builds

Number	Measure								
öDL_01	**Improving the thermal quality of the building shell in the case of new-builds and renovations**								
Description									
Objective	To reduce losses of, or requirement for, usable energy for heating and cooling purposes								
Target group	Public service buildings								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_01_01	Specification of minimum energy indices for invitations to tender and competitiions for the construction and renovation of public buildings	EA07+	2000	At least 2010		*	***	Yes	
öDL_01_02	Development and establishing of all energy-related requirements for buildings	NA07-	2004	At least 2016	Energy criteria	*	***	Yes	In some cases
öDL_01_03	Improved final energy efficiency in communal building projects (via local government equalisation fund) and communal residences	EA07-	1998	Open	Additional subsidy points for energy-efficient structural design and renewable energy sources (energy statement required)	***	***		Yes
öDL_01_04	More stringent requirements regarding the energy consumption of public buildings	NA07-	2000	Open	Minimum requirement for thermal transmission coefficient values in partial renovations and renovations of structural elements; overall energy documentation for general renovations	*	***		
öDL_01_05	Energy criteria for Federal State contributions and requirement allocations	NA07-	2000	Open	Energy standards for allocation of subsidy, bonus/penalty system for contribution rates	*	***		

öDL_01_06	Mandatory use of contract specifications (standard texts for inviations to tender) for new-builds, specifying energy standards for various types of building	EA07-			Even at stage of inviting tenders for architect services: ensure stringent energy criteria for official buildings, kindergartens, schools, etc., based on the residential building subsidy.	*	***		

Number	Measure								
öDL_02	**Integration of passive heating and cooling in new-builds**								
Description									
Objective	To avoid or minimise the requirement for heating, cooling and air-conditioning								
Target group	Major players in the construction of new-builds in the public service sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_02_01	Subsidy for thermal renovation of buildings	NA07-			For measures for increased use of passive solar systems	**	***	Not with resident. building subsidy	Yes

2.4.2 Measures relating to the building shell, in the case of renovation

Number	Measure								
öDL_03	**Improving the thermal quality of the building shell by means of renovation**								
Description									
Objective	To reduce losses of usable energy, or the requirement for usable energy for heating and cooling purposes								
Target group	Major players involved in renovation of buildings in the public services sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring

öDL_03_01	Mandatory minimum requirements for the overall energy efficiency in the case of extensive renovation, irrespective of the usable area, in the course of transposition of the Buildings Directive	NA07+	2007	Unknown	Working party of Austrian Inst. for Construction Engineering working on transposition of Buildings Dir. or Dir. re. Art 15a – Agreement on Harmonisation of Building Law	*	***		-
öDL_03_02	Subsidy for thermal renovation of buildings	NA07-			For insulation of structural elements of the building shell and replacement of windows	**	***	Not with resident. building subsidy	Yes
öDL_03_03	Renovation of the third of the building with the poorest energy rating (according to energy index) by 2005 – Federal State special finance programme	EA07+	1994	At least 2000	Based on energy analyses, energy accounting	***	***	Yes	In some cases
öDL_03_04	Pre-ranking of renovation projects with focus on energy-saving in the existing renovation lists	NA07-	2004	At least 2016		***	**	Yes	
öDL_03_05	Initiation of a focus on thermal renovation in combination with programme for conversion of obsolete energy supply to eco-energy in public buildings	NA07-	2004	At least 2016		***	**	Yes	
öDL_03_06	Renovation programme for Federal State buildings, according to energy-related priorities	NA07+			Multi-year planning, time horizon approx. 10 years	**	***		Yes
öDL_03_07	Energy savings offensive for local authority buildings	EA07-	1999	2000	Subsidy programme for thermal renovations, replacement of heating system and installation of a ventilation system with heat recovery	*	**		In some cases

Number	Measure
ÖDL_04	**Increasing the thermal renovation ratios**
Description	
Objective	**According to the most recent buildings and housing census, the renovation ratio for 1991–2001 was approx. 1.4 %; however, therm, renovation (facade) only approx. 0.8 %; increase in the renovation ratito to at least 3 % (2008–2012) and, in the medium term, to 5 % per annum.**

Target group	Major players involved in thermal renovation in the public services sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_04_01	Implementation of a programme, extending to 2015, for the renovation of public services buildings	NA07-		2015	Investigation of status, selection and prioritising, involvement of contracting	*	***		

2.4.3 Measures relating to building installations (heating, cooling, hot water and ventilation)

Number	Measure								
öDL_05	**Installation of new, high-efficiency energy conversion systems**								
Description									
Objective	To reduce the final energy consumption in the private residential sector through the use of high-efficiency energy conversion systems								
Target group	Major players involved in new-builds and/or renovation in the public services sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_05_01	Further development of the district heating network and district heating supply	EA07+	Current	Unknown	Particularly in regions not yet supplied with line-system energy for heat provision	**	**	Subsidy measures (domestic environmental subsidy) Facility contracting	
öDL_05_02	Promoting of high-efficiency CHP systems (incl. micro systems)	EA07+	Current	Unknown	Incl. through investment subsidy according to the Eco-Electricity Act	**	**	Energy Efficiency Directive Buildings Directive CHP Directive Green Paper on Energy Efficiency	
öDL_05_03	Identification and utilisation of existing waste heat potentials	EA07+	Current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***		
öDL_05_04	Utilisation of heat for cooling purposes	EA07+	current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***		
öDL_05_05	Increase heat output from waste-source CHP	EA07+	Current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***		

öDL_05_06	Subsidy for connection to district heating up to/greater than 300 kW connected load	EA07-			For those target groups excluded from the residential building subsidy	**	**		Yes
öDL_05_07	Subsidy for CHP systems used predominantly for combined supply of electricity and heat in-house	EA07-			Only for natural gas and liquefied gas; for systems > 2 MW only coupled-out heat is subsidised	**	***		Yes
öDL_05_08	Subsidy for use of solar thermal energy (in multi-storey residential buildings, public and private services sector)	EA07-				*	***	Not with residential building subsidy	Yes
öDL_05_09	Subsidy for heat pumps	EA07-				*	***	Not with residential building subsidy	Yes
öDL_05_10	Subsidy for geothermal-based heat supply systems	EA07-				*	***		Yes
öDL_05_11	Use of small-scale CHP in new-builds and extension of establishments with year-round heating requirement, where economically justifiable	EA07+	1994	At least 2000	For example in industry, large concerns, hospitals, indoor swimming pools	*	**	Residential building subsidy, regional planning, etc.	
öDL_05_12	Increasing the consumer density in the case of existing district and local heating networks	EA07-		Open	Subsidies for decentralised production of hot water in decentralised heat exchanger	*	**		
öDL_05_13	More stringent requirements for energy consumption of public buildings	NA07-	2000	Open	Conduct ongoing optimisation of existing heat supply, air-conditioning and distribution systems	*	***		
öDL_05_14	Mandatory replacement of old boilers (> 30 years) in accordance with building regulations / Ordinance on Firing Installations	NA07+	2007	Unknown		*	***	To be taken into consideration at time of transposition of Building Directive 2007 (OIB)	
öDL_05_15	Boiler replacement subsidy; incl. subsidy for district heating connection	NA07-	2004		In private residential sector, private services, public services, industry and agricultural housing	**	**		

Number	Measure								
ÖDL_06	**Promoting of efficient, innovative ventilation and air-conditioning systems**								
Description									
Objective	To introduce and disseminate on the market innovative, energy-efficient air-conditioning technologies; example effect								
Target group	Public services buildings								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_06_01	Prescription of technologies and efficiency sstandards	NA07-			Adapt, as appropriate, Domestic Installations Ordinance and space specifications of the city of Vienna	*	**		

2.4.4 Measures relating to building installations (heating, cooling, hot water and ventilation), in respect of their ongoing operation

Number	Measure								
öDL_07	**Optimisation of existing energy conversion systems to achieve greater energy efficiency**								
Description									
Objective	To reduce the final energy consumption in the public services sector through improvement measures, as well as regular servicing and inspection of energy-conversion installations								
Target group	Major players in the public services sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring

öDL_07_01	Greater stringency of periodic inspections of heating systems , with corresponding consultation and establishment of an inspection guide	NA07+				*	**		
öDL_07_02	Revision of the interval frequency for heating systems	NA07-				*	*		
öDL_07_03	Stipulation of the mandatory periodic inspections for air-conditioning systems and establishment of an inspection guide	NA07+				*	*		
öDL_07_04	Training and licensing of experts to conduct inspections for heating and air-conditioning systems	NA07+				*	*		
öDL_07_05	Creation and application of contract specifications with energy standards for renovation of heating and air-conditioning systems	NA07-			Establish the technical principles of the contract specifications	*	**		

Number	Measure								
öDL_08	**Domestic environmental subsidy (DES) for efficient energy utilisation**								
Description									
Objective	To improve energy efficiency and optimise mechanical systems								
Target group	Public-sector institutions in the form of an enterprise having a market-oriented activity								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_08_01	Domestic environmental subsidy for for (enterprise) energy-savings measures	EA07-		Current		**	***		Yes
öDL_08_02	DES for optimisation of regulations	EA07-		Current		*	**		Yes
öDL_08_03	DES for energy-related optimisation of wastewater treatment plants of enterprises	EA07-		Current	Improvement of plant components, energy utilisation of wastewater sludge for generation of electricity and heat within the enterprise	*	**		Yes

2.4.5 Measures relating to appliances, lighting and energy-efficient technologies

Number	Measure
öDL_09	**Acceleration of the market penetration of innovative, energy-efficient technologies, and preparation of the market for such technologies though targeted procurement**
Description	
Objective	Introduction of mandatory energy efficiency criteria in public procurement. Support for the introduction on the market, and accelerated market penetration, of innovative, energy-efficient technologies. The public sector is to extablish itself as a sector preparing the market for innovative, energy-efficient technologies
Target group	Public services sector, and all sectors
Implementation instruments	

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_09_01	For internal lighting, use of energy-efficient lamps with "A" and "B" energy efficiency classifications (EU)	EA07-	2005			*	*		
öDL_09_02	Stipulation of energy efficiency criteria and minimum standards in public procurement, and consideration of energy consumption in appraisal for award of contract	NA07+			For electrical appliances (office machiines, domestic appliances, etc.) and lighting systems	*	**		
öDL_09_03	Informing users of energy consumption values, and energy-saving setting of installed appliances	EA07-			Mandatory energy-efficient procurement directives for appliances, energy efficiency criteria in award of contracts, application of a cost analysis over the entire production cycle (life-cycle costs)	*	**		
öDL_09_04	Grouping of procurement activities in order to achieve "critical" volumes	EA07-				*	**		
öDL_09_05	Development of technology guides for energy-efficient technologies, and compilation of criteria lists for energy-efficient procurement	EA07-			Service package for public-sector procurement personnel	*	**		

Number	Measure
ÖDL_10	**Promoting of energy-efficient technologies for exterior lighting**
	Description
Objective	Optimal use of energy-efficient exterior lighting systems. Use of energy-efficient lighting technology, preferably use of LEDs for decorative lighting
Target group	Öffentlicher Dienstleistungssektor

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring

öDL_10_01	Use of energy-efficient technologies in the installation of new exterior lighting systems	EA07-			Prescribe mandatory energy efficiency criteria for procurrement. Technology procurement, if requirement for technological development	*	**		
öDL_10_02	Mandatory documentation of the numbers of light fittings and lamps used, and of the installed lighting power load of the lighting equipment used	EA07-			Evaluation of the data at the turn of each subsequent year	*	**		
öDL_10_03	Development of an efficiency programme: strategy and implementation concepts for the use of energy-saving light fittings and lamps in stock	EA07-			Establish general technical and financial conditions Draw up details of programme	*	**		
öDL_10_05	Combining of support for decorative lighting (Christmas lighting) with energy efficiency criteria	EA07-			Define efficiency criteria (LEDs are to be used in preference)	*	**		

2.4.6 Measures relating to spatial and urban planning

Number	Measure								
öDL_11	**Consideration of energy efficiency aspects in the leasing of premises by municipal agencies**								
Description									
Objective	More premises may be leased only if they comply with certain minimum criteria in respect of energy								
Target group	Public services sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_11_01	Development and mandatory application of a contract specification summarizing the minimum criteria in respect of energy	NA07-				*	*		

2.4.7 General measures in the public service sector

Number	Measure								
ÖDL_12	**Promotion of contracting and intracting in the public sector**								
Description									
Objective	Environmental and climate protection, and creation of employment, without additional demand on budgets								
Target group	Public services sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_12_01	Energy-saving contracting project "Federal Contracting 500"	EA07-	2003	Open	Reduction of the energy consumption in approx. 500 federal agencies through energy contracting	*	***		Yes
öDL_12_02	"klima:aktiv" programme: federal building contracting	NA07-	01.09.2005	31.12.2007	Uses energy savings contracting to promote the renovation of federal buildings in respect of thermal energy	*	***		
öDL_12_03	Compilation of legal and financial aid conditions for new forms of financing, such as contracting	EA07+	2000	At east 2010		*	**	Yes	
öDL_12_04	Information, consultation and invitation of tenders for communal buildings	EA07+			Support for project design, arrangmenet of contracts, invitation of tenders, etc.	*	**		
öDL_12_05	Supporting of projects through third-party financing (contracting) in the public sector	EA07+		Unlimited		*	*		

Number	Measure
öDL_13	**Improving energy efficiency in the public sector through energy management and cost-transparent administration**
Description	
Objective	Awareness raising and energy management to be used as means of encouraging users to save energy
Target group	Public services sector

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_13_01	Local analyses of load patterns and consumption in public services, to detect power peaks and sources of high demand	NA07-	2006	Open		**	***		
öDL_13_02	Inspection of buildings, building installations and user behaviour in the entire federal region (currently approx. 1,800 departments)	EA07-				*	***		
öDL_13_03	Extensive energy consultation for all public departments	EA07-				*	**		
öDL_13_04	Introduction of energy information management and continuation & optimisation of energy accounting and energy controls, energy database	EA07-				*	**		
öDL_13_05	Introduction of mandatory energy accounting at object level	NA07-				*	***		
öDL_13_06	Motivation of users in administration (dissemination of information, further training, internal competition)	NA07-			Create concept	*	***		

Number	Measure
ÖDL_14	**Consideration of energy efficiency in planning and procurement in the public sector**
Description	
Objective	Greater integration of energy efficiency in public decision-making processes, example effect
Target group	All public areas
Implementation instruments	

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_14_01	Procurement directives for electrical appliances and installations, as well as training and consultation measures for energy-related or procurement-related matters	NA07+		3 years		*	*		
öDL_14_02	Planning of new-builds to low-energy and passive-house standards	EA07-	2004			**	***		
öDL_14_03	Lowering of the limit values for energy indices, mandatory establishing of the low-energy house standard, planning emphasis on solar architecture	NA07-	2004	At least 2016		**	**	Yes	
öDL_14_04	Consideration of external costs in investment decisions, widening of efficiency calculation	EA07+	2000	At least 2010		*	*	No	
öDL_14_05	Mandatory establishing of minimum energy indices and other efficiency criteria in competitions and invitations to tender	NA07-	2004	At least 2016		**	**	Yes	
öDL_14_06	Establishing of efficiency standards for installations	NA07-	2004	At least 2016		**	**	Yes	
öDL_14_07	Greater integration of energy aspects into public development and residential planning	NA07-	2004	at least 2016		**	**	Yes	

Number	Measure
ÖDL_15	**Local authorities in exemplary role – Advice to local authorities concerning efficient use of energy**
	Description
Objective	To raise awareness in local authorities, example effect
Target group	Local authorities and public agencies

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_15_01	Support for various energy-related activities of local authorities	EA07-		Unlimited	For example participlation in e5, "Klimabündnis", local Agenda 21 programmes	**	**		

öDL_15_02	Supervision, certification and classification of activities of local authorities relating to energy and climate policies	EA07-	1998						
öDL_15_03	Creation and expansion of a consultation service for local authorities, for energy-related matters (energy consultation network)	EA07-	2006		Energy accounting, benchmarking, renovation strategies, invitation of tenders for optimisation measures, reporting	**	**		
öDL_15_04	Appointment of energy advisers and personnel with responsibility for energy in the local authority administrations	NA07-	2000	Open	Clearly assign terms of reference and responsibilities in energy matters	*	***		
öDL_15_05	Creation of an instrument for extended regional and local energy planning (handbook)	EA07+	2000	At least 2010	Support for local energy planning	*	**	Yes	
öDL_15_06	Periodic auditing of energy accounting data – linking to financial aid	EA07+	1994	At least 2000		*	***	Yes	In some cases
öDL_15_07	Inclusion of energy efficiency considerations at an early stage in construction planning	EA07+	1994	At least 2000		*	***	Yes	In some cases
öDL_15_08	Information, consultation and training of local authority employees	EA07+	1994	At least 2010		*	***	Yes	In some cases
öDL_15_09	Optimisation of implementation of energy measures and monitoring of implementation (creation of an implementation folder), use of multiplier effects (events)	NA07-	2000	Open	Establish links between the implementing authorities and the private construction specialists / investors / planners	*	***		

Number	Measure
ÖDL_16	**Energy efficiency programmes and action plans**
Description	
Objective	
Target group	Local authorities
Implementation instruments	

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_16_01	Renovation plan, extending to 2010, for Federal State buildings, with contracting models	NA07-	2006	2006-2010		*	**		
öDL_16_02	Supporting of local administration through introduction of local energy concepts	EA07-		Unlimited	Preparation of fully considered energy supply concepts for regional planning	**	**		
öDL_16_03	Implementation of a thermal insulation offensive for local communities	EA07-		Unlimited		**	**		Yes

Number	Measure								
ÖDL_17	**Subsidies and financing**								
Description									
Objective									
Target group	Financial aid applicants, local authorities								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
öDL_17_01	Readoption of an energy-saving investment programme for buildings within the Federal State	NA07+		3 years	Focus on thermal insulation	**	**		Yes
öDL_17_02	Award of financial aid to local authorities is to be dependent on energy and environment related criteria	NA07+		Unlimited		*	***		

2.5 Measures relating to the private service sector

Measures relating to the private service sector are programmes, energy services and other measures that improve energy efficiency in service buildings (in particular space heating, including auxiliary energy, hot water, lighting, ventilation and air-conditioning, large-scale cooling, electrical appliances), as well as in other end-uses and building types, and that have an impact in the period from 2008 to 2016.

2.5.1 Measures relating to the building shell in new-builds

Number	Measure								
pDL_01	**Improving the thermal quality of the building shell in new-builds**								
Description									
Objective	To reduce losses of usable energy, or the requirement for usable energy for heating and cooling purposes								
Target group	Major players in the case of private services buildings								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_01_01	Developing and establishing comprehensive energyefficiency requirements for buildings	EA07-	2004	at least 2016	Energy criteria, Thermal Insulation Ordinance	*	***	Yes	In some cases
pDL_01_02	Increasing the final energy efficiency in communal residences	EA07-	1998	indef.	Additional subsidy points for energy-efficient construction and renewable energy sources (energy statement required)	***	***		Yes
pDL_01_03	Set minimum requirements in respect of total energy index, and adapt continually to advances in construction engineering	EA07+			Linked to transposition of Buildings Directive	*	***		
pDL_01_04	Establishment of a network for innovative buildings technology (CER²)	NA07-			Use CER² activities, and continue beyond duration of project	*	***		
pDL_01_05	Development and dissemination of best practice solutions	NA07-			Incorporate experiences into planning guidelines, ongoing monitoring of data	*	***		
pDL_01_06	Competition: energy-efficient services building (new-build)	NA07-			Prepare and publicise a competition	*	***		

Number	Measure
pDL_02	**Consideration of energy efficiency aspects in the construction and operation of office buildings**
Description	
Objective	Raising of awareness and establishing energy efficiency criteria in respect of office buildings
Target group	Users of office buildings

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_02_01	Creation of sector concepts for offices	NA07-	2004	At least 2016		*	**	Yes	
pDL_02_02	Appointment of personnel with responsibility for energy use in offices	NA07-	2004	At least 2016		*	**	Yes	
pDL_02_03	Information measures such as competition: "environmentally friendly, energy-saving office"	NA07-	2004	At least 2016		*	**	Yes	
pDL_02_04	Creation of benchmarking tools	NA07-	2004	At least 2016		*	**	Yes	
pDL_02_05	Financial aid for energy efficiency improvements	NA07-	2004	At least 2016		*	**	Yes	

Number	Measure
pDL_03	**Integration of passive heating and cooling in new-builds and renovation**
Description	
Objective	To avoid or minimise the requirement for heating, cooling and air-conditioning
Target group	Major players involved in new construction in the private service sector

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring

pDL_03_01	Subsidy for thermal renovation of buildings	NA07-			For measures for increased use of passive solar systems	**	***	Not with resident. building subsidy	Yes

2.5.2 Measures relating to the building shell, in the case of renovation

Number	Measure								
pDL_04	**Improving the thermal quality of the building shell by means of renovation**								
Description									
Objective	To reduce losses of usable energy, or the requirement for usable energy for heating and cooling purposes								
Target group	Major players involved in renovation of buildings in the private service sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_04_01	Mandatory minimum requirements for the overall energy efficiency in the case of extensive renovation, irrespective of the usable area, in the course of transposition of the Buildings Directive	NA07+	2007	Unknown	Working party of Austrian Inst. for Construction Engineering working on transposition of Buildings Dir. or Dir. re. Art 15a – Agreement on Harmonisation of Building Law	*	***		-
pDL_04_02	Subsidy for thermal renovation of buildings	NA07-			For insulation of structural elements of the building shell, and for replacement of windows	**	***	Not with resident. building subsidy	Yes
pDL_04_03	Energy consultation as prerequisite for subsidy	EA07-			In the case of private households, private services and agricultural housing	*	**		
pDL_04_04	Information and consultation for private services buildings / cooperation with the "klima:aktiv" programme, eco-facility	EA07-			Target group: tourism enterprises	**	**		
pDL_04_05	Support for specialist consultation and guidance to potential contracting customers	NA07-			Support for project design, arrangement of contracts, invitation to tender, etc.	*	**		

2.5.3 Measures relating to building installations (heating, cooling, hot water and ventilation)

Number	Measure								
pDL_05	**Installation of high-efficiency energy conversion systems**								
Description									
Objective	To reduce the final energy consumption in the private residential sector through the use of high-efficiency energy conversion systems								
Target group	Major players involved in new-builds and renovation in the private services sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_05_01	Further development of the district heating network and district heating supply	EA07+	Current	Unknown	Particularly in regions not yet supplied with line-system energy for heat provision	**	**	Subsidy measures (domestic environmental subsidy) Facility contracting	
pDL_05_02	Promoting the use of high-efficiency CHP systems (incl. micro systems)	EA07+	Current	Unknown	Incl. through investment subsidy according to the Eco-Electricity Act	**	**	Energy Efficiency Directive Buildings Directive CHP Directive Green Paper on Energy Efficiency	
pDL_05_03	Identification and utilisation of existing waste heat potentials	EA07+	Current	Unknown	Investment incentives through domestic environmental subsidy, etc	**	***		
pDL_05_04	Utilisation of heat for cooling purposes	EA07+	Current	Unknown	Investment incentives through domestic environmental subsidy, etc	**	***		
pDL_05_05	Increase heat output from waste-source CHP	EA07+	current	Unknown	Investment incentives through domestic environmental subsidy, etc	**	***		

pDL_05_06	Subsidy for connection to district heating up to/greater than 300 kW connected load	EA07-			For those target groups excluded from the residential building subsidy	**	**		Yes
pDL_05_07	Subsidy for CHP systems used predominantly for combined supply of electricity and heat in-house	EA07-			Only for natural gas and liquefied gas; for systems > 2 MW only heat extraction is subsidised	**	***		Yes
pDL_05_08	Subsidy for use of solar thermal energy	EA07-			For hot water, and partially solar space heating, cooling	*	***	Not with residential building subsidy	Yes
pDL_05_09	Subsidy for heat pumps	EA07-			For space heating, hot water, cooling, heat recovery	*	***	Not with residential building subsidy	Yes
pDL_05_10	Subsidy for geothermal-based heat supply systems	EA07-			Incl. existing ground boreholes, for space heating, hot water, cooling, CHP	*	***		Yes
pDL_05_11	Use of small-scale CHP in new-builds and extension of establishments with year-round heating requirement, where economically justifiable	EA07+	1994	at least 2000	For example in industry, large concerns, hospitals, indoor swimming pools	*	**	Residential building subsidy, land-use planning, etc.	
pDL_05_12	Increasing the consumer density in the case of existing district and local heating networks	EA07-		Opwn	Subsidies for decentralised production of hot water in decentralised heat exchanger	*	**		
pDL_05_13	Promoted use of solar thermal systems in multi-storey residential buildings, public and private services sector	EA07+		Unlimited	Subsidy programmes Establishing use of active and passive solar systems in legal provisions	*	*		
pDL_05_14	Promoting of efficient, innovative ventilation and air-conditioning systems	NA07-			Development and dissemination of model solutions	*	*		

pDL_05_15	Mandatory replacement of old boilers (> 30 years) in accordance with building regulations / Ordinance on Firing Installations	NA07+	2007	Unknown	Promoting of heating systems based on state-of-the-art renewable, efficient district heating or calorific-value technologies, with inspections / mandatory replacement	*	***	To be taken into consideration at time of transposition of Building Directive 2007 (OIB)	
pDL_05_16	Boiler replacement subsidy; incl. subsidy for district heating connection	NA07-	2004		In the case of private households, private and public services and agricultural housing	**	**		

2.5.4 Measures relating to building installations (heating, cooling, hot water and ventilation), in respect of their operation

Number	Measure								
pDL_06	**Optimisation of existing energy conversion systems to achieve greater energy efficiency**								
Description									
Objective	To reduce the final energy consumption in the private services sector through improvement measures, as well as regular servicing and inspection of energy-conversion installations								
Target group	Major players in the private service sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_06_01	Revision of the interval frequency for heating systems	NA07-				*	*		
pDL_06_02	Prescription of period inspections for heating systems, and creation of an inspection guide	NA07-				*	*		
pDL_06_03	Licensing of experts to conduct inspections (heating systems / air-conditioning systems)	NA07+				*	*		
pDL_06_04	Prescription of mandatory periodic inspections for air-conditioning systems, and creation of an inspection guide	NA07+				*	*		

Number	Measure								
pDL_07	**Domestic environmental subsidy (DES) for efficient utilisation of energy**								
Description									
Objective	To improve energy efficiency and optimise mechanical systems								
Target group	Enterprises, electricity supply companies, non-profit organisations								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_07_01	Subsidy for enterprises Energy-saving measures	EA07-		Current	For example, heat recovery, heat pumps	**	***		Yes
pDL_07_02	Subsidy for energy-saving measures	EA07-		Current	Based on energy sector concepts	**	***		Yes
pDL_07_03	Subsidy for optimisation of regulations	EA07-		Current		*	**		Yes
pDL_07_04	Subsidy for energy optimisation of wastewater treatment plants of enterprises	EA07-		Current	Improvement of plant components, energy utilisation of wastewater sludge for generation of electricity and heat within the enterprise	*	**		Yes

2.5.5 Measures relating to appliances, lighting and energy-efficient technologies

Number	Measure
pDL_08	**Improving the market penetration and use of energy-efficient appliances (particularly IT and other office machines)**
Description	

Objective	To reduce the final energy consumption of appliances through increased market penetration of efficient appliances
Target group	Final energy users

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_08_01	Support for procurement personnal (specialist support, compilation of appliance lists, best-practice solutions)	NA07-			Develop and actively market service package for procurement personnel	*	**		
pDL_08_02	Implementation of a model study(e.g, in a bank: demonstration of the benefits of using energy-efficient appliances)	NA07-				*	**		
pDL_08_03	Dissemination of information on relevant specialist journals	NA07-				*	**		

Number	Measure
pDL_09	**Promoting of energy-efficient technologies: circulating pumps, fans, ventilatos and private lighting systems**

Description

Objective	To establish energy-efficient technologies as standard for energy-efficient drive motors (particularly for circulating pumps, fans, lifts). To support energy system optimisation, from the planning phase (particularly for lighting systems)
Target group	Private service enterprises

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_09_01	Development of guides for the respective technologies, and dissemination of model solutions(e.g: EU Greenlight programme, EU Motor Challenge programme)	NA07-				*	***		

pDL_09_02	Promoting of consultation and advice in these areas	NA07-				**	***		

2.5.6 General measures relating to the private service sector

Number	Measure								
pDL_10	**Consultation, dvice and financial aid**								
Description									
Objective	To optimise, in respect of thermal energy, privately owned service building (e.g. homes for the elderly and care homes, office buildings, hotels and inns, hospitals, event/conference/exhibition centres)								
Target group	Service enterprises seeking to optimise their energy consumption and exploit savings potentials								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
pDL_10_01	Energy check of service buildings and tourism enterprises	NA07-		1-2 years	Advice concerning renovation measures			Yes	
pDL_10_02	Energy advice for tourism enterprises and office buildings	NA07-	2004	indef.	Particularly for hotels and restaurants	*	***	In some cases, With domestic environ. subsidy	

2.6 Measures relating to the production sector and agriculture (IGL)

Measures relating to the production sector and agriculture are programmes, energy services and other measures that improve energy efficiency in those industries, concerns and enterprises which are not subject to emissions trading, as well as measures in the agriculture sector, that have effect in the period from 2008 to 2016.

2.6.1 Measures relating to buildings

Number	Measure
IGL_01	**Integration of passive heating and cooling in new-builds and renovation**
Description	
Objective	To avoid or minimise the requirement for heating, air-conditioning and cooling
Target group	Major players involved in the construction of new-builds and renovation, in the production sector

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_01_01	Subsidy for thermal renovation of buildings	NA07-			For measures for increased use of passive solar systems	**	***	Not with residential building subsidy	Yes

Number	Measure
IGL_02	**Improving the thermal quality of the building shell in new-builds**
Description	
Objective	To reduces losses of usable energy, or the requirement for usable energy for heating and cooling purposes
Target group	Major players involved in new constgruction in the production sector

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring

IGL_02_01	Creation of incentive syst reducing heating energy demand/unit area and CO2 emissions in residential building	EA07+			Also for agricultural housing	**	***		
IGL _02_02	Continuation of financial incentives for energy-saving and ecological measures in residential building	EA07+			Also for agricultural housing	***	***		
IGL_02_03	Development and establishing of totality of energy requirements for buildings	EA07-	2004	At least 2016	Energy criteria	*	***	Yes	In some cases
IGL_02_04	Improving the final energy efficiency farmhouses (energy statement required)	EA07+	1993	Unlimited	Additional subsidy points for energy-efficient construction and use of renewable energy sources	***	***		Yes
IGL_02_05	"WIN" construction programme for sustainable construction and renovation	NA07-	5, Dez, 2002		Business sustainability initiative ("WIN"), incl. the availability of consultation support, etc.	*	**		
IGL_02_06	Thermal insulation requirements for special-purpose buildings prescribed by building regulations	EA07-			Define terms of reference for implementation	*	**		

Number	Measure								
IGL_03	**Improving the thermal quality of the building shell in the case of renovation**								
Description									
Objective	To reduce losses of usable energy, or the requirement for usable energy for heating and cooling purposes								
Target group	Major players involved in renovation of buildings in the production sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring

IGL_03_01	Mandatory minimum requirements for the overall energy efficiency in the case of extensive renovation, irrespective of the usable area, in the course of transposition of the Buildings Directive	NA07+	2007	Unknown	Working party of Austrian Inst. for Construction Engineering working on transposition of Buildings Dir. or Dir. re. Art 15a – Agreement on Harmonisation of Building Law	*	***		-
IGL_03_02	Energy consultation as prerequisite for subsidy	EA07-			In the case of private households, private services and agricultural housing	*	**		
IGL_03_03	Support for specialist consultation and guidance to potential contracting customers	NA07-			Support for project design, arrangement of contracts, invitation to tender, etc.	*	**		
IGL_03_04	Business subsidy – improving thermal insulation of buildings which have commercial use	NA07-	1.1.2007	30.06.2014	Energy index after renovation max. 50 kWh/m²/a	***	*		

Number	Measure
IGL_04	**Consideration of energy-efficiency aspects in the construction and operation of office buildings**
Description	
Objective	Raising of awareness, and establishing of energy efficiency criteria in respect of office buildings
Target group	Builders and operators of office buildings

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_04_01	Creation of sector concepts for offices	EA07-	2004	At least 016		*	**	Yes	
IGL_04_02	Appointment of personnel with responsibility for energy in offices	EA07-	2004	At least 2016		*	**	Yes	
IGL_04_03	Information measures such as competition: "environmentally friendly, energy-saving office"	EA07-	2004	at least 2016		*	**	Yes	
IGL_04_04	Creation of benchmarking tools	EA07-	2004	At least 2016		*	**	Yes	
IGL_04_05	Financial aid for energy efficiency improvements	EA07-	2004	At least 2016		*	**	Yes	
IGL_04_06	Energy consultations for office buildings	NA07-	2004	Open		*	***	Domestic environ. subsidy	

Number	Measure
IGL_05	**Energy efficiency improvements in respect of heating, air-conditioning, air intake and discharge in buildings**
Description	
Objective	To reduce energy consumption in the production sector through the use of high-efficiency energy conversion systems
Target group	Major players involved in buildings for commercial enterprises and industry (incl. industrial buildings, where indicated)
Implementation instruments	

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_05_01	More stringent periodic inspections of heating systems, with corresponding consultation	NA07+				*	**		
IGL_05_02	Mandatory replacement of old boilers (> 30 years) in accordance with building regulations / Ordinance on Firing Installations, boiler replacement requirement	NA07+	2007	Unknown	Promoting of heating systems based on state-of-the-art renewable, efficient district heating or calorific-value technologies, with inspections / mandatory replacement	*	***	To be taken into consideration at time of transposition of Building Directive 2007 (OIB)	
IGL_05_03	Further development of district heating supply	EA07+	current	Unknown		**	**	Subsidy measures (domestic environmental subsidy) Facility contracting	
IGL_05_04	Promoting of high-efficiency CHP systems (incl. micro systems)	EA07+	current	Unknown	Incl. through investment subsidy according to the Eco-Electricity Act	**	**	Energy Efficiency Directive Buildings Dir. CHP Directive Green Paper on Energy Efficiency	
IGL_05_05	Identification and utilisation of existing waste heat potentials	EA07+	current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***		
IGL_05_06	Utilisation of heat for cooling purposes	EA07+	current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***		
IGL_05_07	Increase heat output from waste-source CHP	EA07+	current	Unknown	Investment incentives through domestic environmental subsidy, etc.	**	***		

IGL_05_08	Subsidy for connection to district heating up to/greater than 300 kW connected load	EA07-			For those target groups excluded from the residential building subsidy	**	**		Yes
IGL_05_09	Subsidy for CHP systems used predominantly for combined supply of electricity and heat in-house	EA07-			Only for natural gas and liquefied gas; for systems > 2 MW only coupled-out heat is subsidised	**	***		Yes
IGL_05_10	Subsidy for use of solar thermal energy	EA07-			For hot water, and partially solar space heating and cooling	*	***	Not with residential building subsidy	Yes
IGL_05_11	Subsidy for heat pumps	EA07-			For space heating, hot water, cooling, heat recovery	*	***	Not with residential building subsidy	Yes
IGL_05_12	Subsidy for geothermal-based heat supply systems	EA07-			Incl. existing ground boreholes, for space heating, hot water, cooling, CHP	*	***		Yes
IGL_05_13	Preparation of an inspection guide for heating, air-conditioning and ventilation systems	NA07+			Legal requirement for all sectors	*	*		
IGL_05_14	Licensing of experts to conduct inspections (heating systems)	NA07+			Legal requirement for all sectors	*	*		
IGL_05_15	Improving the final energy efficiency of farmhouses (energy statement required)	EA07+	1993	Unlimited	Additional subsidy points for energy-efficient construction and use of renewable energy sources	***	***		Yes
IGL_05_16	Promotion of cascaded utilisation of geothermal (incl. for heating and hot water, and for agricultural greenhouses)	EA07-		Unlimited		*	*		
IGL_05_17	Business subsidy – installation of heat recovery systems	NA07-	1,1,2007	30,06,2014		***	*		

Number	Measure

IGW_06	**Promotion of energy-efficient, optimised lighting systems (replacement of light fittings, reflectors, etc.)**								
Description									
Objective	For energy-efficient lighting systems to be established as standard technology in the medium term								
Target group	Industrial buildings and buildings in the commercial production sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_06_01	Operation of an information network (information exhibitions, exchange of information for enterprises)	NA07-			Create concept and establish network. Establish contact with lighting planners and manufacturers	*	**		
IGL_06_02	EU Greenlight programme (documentation of demonstration projects, voluntary compliance)	NA07-			Research and present demonstration projects	*	**		

2.6.2 Measures relating to proeduction processes

Number	Measure								
IGL_07	**Energy benchmarking**								
Description									
Objective									
Target group	Industrial concerns, large-scale users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_07_01	Implementation of international benchmarking system in Austria (on sector basis) within the "klima:aktiv" eco-business programme	NA07+	2006			*	**	Yes	
IGL_07_02	Energy benchmarking for large-scale consumers	NA07+		3 years		*	*		

Number	Measure								
IGL_08	**Promoting use of efficient processes, particularly in respect of compressed air**								
Description									
Objective	Use of compressed air to be avoided where possible, continual energy efficiency immprovements in compressed-air installations								
Target group	Industrial and production businesses								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_08_01	Compilation of a check-list for users	NA07-				*	**		

IGL_08_02	Dissemination of information (via sector media) and advice	NA07-			Prepare press texts and advice documents	*	**		

Number	Measure								
IGL_09	**Increased utilisation of waste-heat potentials in industry and production businesses**								
Description									
Objective	To increase the recovery and utilisation of industrial waste heat, etc.								
Target group	Industry, businesses, final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_09_01	Subsidy for heat distribution (local heating networks) and upstream heat exchangers	EA07-			Not for expansion of heating networks of power plants using fossil fuels	**	***	Not with agricultural subsidy	Yes
IGL_09_02	Creation of industrial waste-heat utilisation concepts	NA07-	2004	At least 2016		*	***	Non	
IGL_09_03	Identify existing potentials for waste-heat utilisation, and take such potential into consideration in planning	EA07+	2000	At least 2010		*	***	No	
IGL_09_04	Subsidy for utilisation of industrial waste heat	EA07-			Co-financing by Federal State	**	***		
IGL_09_05	For providers of heating, free access to existing district heating networks	NA07+			For accounting, difficulty in separating district heating network and heat feed-in	*	**		
IGL_09_06	Create network in collaboration with Austrian Chamber of Commerce, develop sector-specific guides and present to parties concerned at regular meetings	NA07-			Establish network structure Compile guides	*	**		
IGL_09_07	Collect and disseminate examples of best practice	NA07-				*	**		

Number	Measure								
IGW_10	**Advice and subsidies**								
Description									
Objective									
Target group									
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_10_01	"klima:aktiv" programme for energy-efficient industrial enterprises	NA07-	2005	2009	Helps industrial enterprises to optimise their use of energy	*	***		
IGL_10_02	Energy advice for industry and businesses, plus focal-point campaigns	NA07-	2007			*	*		
IGL_10_03	Designing of an energy contracting programme (facility and energy-savings contracting) as part of eco-management (adviser structure, work with public)	NA07-	2005		Aimed at least-cost approach and analysis (by means of energy accounting)	**	**		Yes
IGL_10_04	Business subsidy – linked to energy criteria – environmental consultation and advice		NA07-	1.1.2007	30.06.2014	Energy check and energy environmental check and environmental technology	***	*	
IGL_10_05	Creation of energy concepts	EA07-	1995		Consultation and advice by Lower Austria Chamber of Commerce business service	*	*		
IGL_10_06	Energy check for production industries	NA07+	2007	Open	Consultation and advice	*	***		
IGL_10_07	Business sustainability initiative ("WIN"), incl. introduction of sustainable (environmental) management systems, improving resource management, etc.	NA07-	5 Dec. 2002		Consists of numerous programmes, incl. availability of financial aid for consultation, etc.	*	**		

IGL_10_08	Work with public (together with organisations with links to business)	NA07-			Coordinate with Austrian Ch. of Commerce Secure financing Plan and implement PR measures	*	**		

Number	Measure								
IGL_11	**Domestic environmental subsidy (DES) for efficient utilisation of energy**								
Description									
Objective	To improve energy efficiency and optimise mechanical systems								
Target group	Enterprises, electricity supply companies, non-profit organisations								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_11_01	Subsidy for enterprises Energy-saving measures	EA07-		Current	e.g. Heat recovery, heat pumps	**	***		Yes
IGL_11_02	Subsidy for utilisation of industrial waste heat	EA07-		current	e.g. Coupling-out of heat and heat distribution	**	***		Yes
IGL_11_03	Subsidy for energy-saving measures	EA07-		Current	Based on energy sector concepts	**	***		Yes
IGL_11_04	Subsidy for optimisation of regulations	EA07-		Current		*	**		Yes
IGL_11_05	Subsidy for utilisation of solar thermal energy	EA07-			Large-scale solar systems, incl. for cooling	*	***		Yes
IGL_11_06	Subsidy for heat pumps	EA07-			For heat recovery, cooling	*	***		Yes
IGL_11_07	Subsidy for geothermal-based heating supply systems	EA07-			Incl. existing ground boreholes, for cooling, CHP	*	***		Yes

2.6.3 Measures relating to motors and drives

Number	Measure

IGL_12	Use of high-efficiency electric motors and drives								
Description									
Objective									
Target group	Final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_12_01	Focus on motors in "klima:aktiv" programme for energy-efficient industrial enterprises	NA07+	2006		(Tools for consultation and advice, best cases, work with public)	**	**	EU Motor Challenge programme, etc.	
IGL_12_02	Consultation and advice concerning power factor correction	EA07-	1994		Power factor correction systems: consultation and advice, and installation	*	**		

2.6.4 Measures relating to fans, control drives and ventilation

See Measures relating to motors and drives

2.6.5 Measures relating to demand management

Number	Measure
IGL_13	**Support for establishing of energy managment / energy accounting practices**
Description	
Objective	Energy management is to be employed to achieve ongoing monitoring and continual improvement in the efficient use of energy. Energy management in combination with servicing and maintenance management systems
Target group	Industrial enterprises
Implementation instruments	

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_13_01	Check-lists, e-learning for energy management, information and advice in the "klima:aktiv" programme for energy-efficient industrial enterprises	NA07+	2007			*	**	Yes	
IGL_13_02	Advertising for participation in environmental management programmes, with emphasis on energy reporting and energy accounting	NA07+	2005		EMAS validation and ISO 14.001 certification	*	**		Yes
IGL_13_03	Subsidy for energy optimisation of operating premises	EA07-			Advice and subsidies provided by structure improvement fund	*	***		
IGL_13_04	Introduction of energy managment as criterion for subsidy	NA07-				*	**		
IGL_13_05	Further development of benchmarking	NA07-			Develop specific indices	*	**		

2.6.6 Measures relating to high-eficiency combined heat and power (CHP) generation

Number	Measure
IGL_14	**Use of high-efficiency combined heat and power (CHP) generation systems**
Description	
Objective	To improve energy efficiency
Target group	Enterprises, industry, agriculture (e.g. greenhouses)
Implementation instruments	

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
IGL_14_01	Subsidy for CHP systems used predominantly for combined supply of electricity and heat in-house	EA07-		Current	Only for natural gas and liquefied gas; for systems > 2 MW only coupled-out heat is subsidised	**	***		Yes
IGL_14_02	Investigation of possibility of using small-scale CHP systems, and implementation where cost-effective	EA07+	1994	At least 2000	In the case of new-builds and expansion of heating plants in enterprises with year-round heating requirement	*	**	Yes	
IGL_14_03	For CHP systems, mandatory utilisation of waste heat	NA07-	2004	At least 2016		*	***	No	
IGL_14_04	Greater utilisation of waste heat in the industrial / business / service sectors	NA07-	2000	Open	Incl. compilation of a waste-heat survey; collect data on waste-heat potentials; identify potential customers	*	***		

2.7 Measures relating to the transport sector (TS)

Meaures relating to the transport sector are programmes, energy services and other measures that improve energy efficiency in the transport sector, and have effect in the period from 2008 to 2016.

2.7.1 Measures relating to means of transport

Number	Measure
TS_01	**Greater prevalence of low-consumption, environmentally friendly engine technologies and vehicles**
Description	
Objective	To reduce vehicle fleet consumption and promote the use of environmentally friendly engine technologies that reduce consumption
Target group	Fleet operators, local authorities, politicianss, vehicle drivers

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_01_01	Procurement of E85 vehicles for public services	NA07+	2007	By 2009		**	***		
TS_01_02	Procurement of natural-gas vehicles for public services	NA07+	2007	By 2009		**	***		
TS_01_03	Procurement of fuel-efficient vehicles for public services	EA07-	2004	2008		*	**		
TS_01_04	Establishment of (public) natural-gas filling stations	EA07+	2005			**	**		
TS_01_05	Information campaign on energy-efficient vehicles (e.g. gas-operated vehicles, hybrid vehicles, etc.)	NA07-				*	***		

Number	Measure
TS_02	**Support for the development, trialling and application of alternative, energy-efficient vehicles and engine concepts**
Description	
Objective	Development and use of alternative, energy-efficient vehicles
Target group	Fleet operators, local authorities, research

Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS 02 01	Pilot and dissemination projects, particulalrly in towns and ecologically sensitive areas, and with fleet operators	NA07+	Current			***	**		
TS_02_ 02	Focussing of subsidies for automotive research & technology on alternative engines and fuels, as well as reduction of consumption and emissions	NA07-	Current			**	***		

Number	Measure
TS_03	**Raising of awareness in respect of procurement and energy-efficient use of means of transport**
Description	
Objective	
Target group	Vehicle drivers

Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS 03 01	Raising of awareness for the "Car fuel-saving duide"	EA07-	2004			*	*		
TS 03 02	Introduction of climate protection criteria into the public sector procurement guidelines	NA07+				*	**		
TS 03 03	Transport education: mobility advisers, to improve availability of information	EA07+				***	**		

Number	Measure
TS_04	**Revenue-neutral extension of use of methane and E85**
Description	
Objective	To create a methane fuel type, and to extend the network of methane filling stations

Target group	Fleet operators, vehicle drivers, politicianss, gas and agricultural industries								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_04_01	Creation of a methane fuel type with at least 20 % bio-methane by 2010	NA07-	2010		Negotiations since 2006	*			

TS 04 02	Provision of an extensive network of E85 and methane filling stations	NA07-	2010		Amendment of general legal conditions for feed-in of biogas	*			

Number	Measure								
TS_05	**Information technology in transport, with use of telematics**								
Description									
Objective	More efficient organisation of transport and vehicle fleets								
Target group	Transport service providers, transport companies								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_05_01	Telematics applications in rail, ship, lorry and individual motorised transport to increase capacity utilisation and reduce traffic	EA07+				*	**		
TS_05_02	Utilisation of new information and communication technologies for fundamental system innovations (BMVIT Project line 12 "Intelligent Infrastructure")	EA07-	Dec. 2002	bis 2010	Innovative transport management, influencing of choice of means of transport, influencing of mobility of individual citizens	*	*	With several EU projects (national and intermational)	
TS_05_03	BMVIT framework telematics plan	NA07-	Dec. 2002	2015		**	*	With several national projects(e.g. DORIS Donau (Danube) River Information System)	
TS_05_04	Creation of a transport information system in the Eastern region	NA07-	2007			**	**		

Number	Measure								
TS_06	**Speed restrictions and limits**								
Description									
Objective	To reduce emissions thrugh use of speed restrictions								
Target group	Politicians, vehicle drivers								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS 06 01	Use of speed restrictions and selective temporary limits, particularly on main road network	NA07-		Unlimited		*	**		

2.7.2 Measures relating to inducing switch-over to other modes of transport

Number	Measure								
TS_07	**Promotion and advertising of car-sharing**								
Description									
Objective	To reduce traffic volumes through use of shared vehicles								
Target group	Car drivers								
Implementation instruments									
Number	Description	Status	Entry into	Period	Note	Budget	Import.	Overlap	Monitoring
TS_07_ 01	Formation of driving cooperatives (car pooling)	NA07+	Current			*			

Number	Measure
TS_08	**Promotion of inter-modal mobility**
Description	
Objective	To reduce traffic and promote use of other means of transport

Target group	Mobility partners, end users, local business operators, carriers

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_08_01	Strategic partnerships amongst the mobiility partners for inter-modal customer information, joint marketing and uniform tariffs	NA07+	Current		Public transport, dial-up buses and shared taxis, car sharing, car pooling, Bike & Ride, Park & Ride, etc.	*			
TS_08_02	"Go Mobil" initiative: creation of dial-up shared taxis for rural areas	EA07-					*		

Number	Measure
TS_09	**National Action Plan for Danube Shipping: improving environmental performance, with financial aid for an environmentally sound, competitive Danube shipping fleet**

Description

Objective	To improve the environmental performance of the Danube fleet
Target group	Shipping companies

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_09_01	Creation of supplementary environmentally sound, competitive financial aid programme for modernisation of the Austrian fleet	NA07+	2007	2015	Ongoing analysis of aid programmes for the fleets in European countries	*	*	Together with: improvement of the environmental performance of the Danube fleet	

Number	Measure								
TS 10	**Agreements with the vehicle insurance industry**								
Description									
Objective	Shift towards public transport								
Target group	Insurance industry, transport companies, end users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_10_01	Yearly public transport network card as included provision in car insurance packages	NA07-	From 2007			*	**		

Number	Measure								
TS_11	**Support for cycle transport and pedestrians**								
Description									
Objective	To achieve shift to other means of transport, and to improve the transport infrastructure								
Target group	Politicians, national and Federal State government and local authorities								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_11_01	Development of a master plan to promote cycle transport and pedestrian travel in Austria	NA07+	2006	Current		**	***		
TS_11_02	Creation of local cycle path concepts, and extension of local cycle path networks	EA07-				**	**		
TS_11_03	Adaptation of path and road planning, development of infrastructure, and links to public transport (facility to take cycles onto public transport)	NA07+		Current		*	***		

TS_11_04	Extension of P+R facilities at bus/tram stops, railway stations and shopping centres	EA07-	2004			*	*		
TS_11_05	Information, training and raising of awareness concerning public transport and pedestrian & cycle transport	EA07-	2004			*	*		
TS_11_06	Pilot projects for taking cycles onto services buses, using various systems	NA07+				*	*		Evaluation to quantify success
TS_11_07	Expansion of the hire cycle provision, with application of modern telecommunications technologies	NA07-				*	**		

Number	Measure
TS_12	**Administration of parking spaces, and adjustment of tariffs**

Description

Objective	To shift individual motorised transport to more efficient means of mobility
Target group	Politicianss, transport companies, end users

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_12_01	Ordinance on parking places	NA07-		Current	Companies involved in mobility management released from obligation to provide a minimum number of parking places	*	***		
TS_12_02	Liabilities and upper limits for parking places	NA07-				*	**		
TS_12_03	Information and raising of awareness concerning administration of parking spaces	NA07-	2005			*	*		
TS_12_04	Transport consultation concerning charging for public areas in locations with 10,.000+ inhabitants	NA07-			In cases of high levels of usage, parking pressure, etc., in order to achieve a transfer effect	*	*		
TS_12_05	Administration of parking spaces as a means of shifting users of individual motorised transport to more efficient modes of transport	EA07+			Controlled provision of parking areas (subject to charges) at source and target locations	*	***		

Number	Measure
TS_13	**Improvements in goods transport and logistics**

Description

Objective	To improve efficiency in goods transport								
Target group	Public sector, industry, businesses and trading enterprises, logistics companies								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_13_01	Innovation programme: combined rail / road transport	NA07+		Current	Expansion and increased flexibility of combined transport; improvement of general conditions with the objective of increasing use of new technologies and innovative logistics systems	*	**		
TS_13_02	Research & development in technological advances in logistics	NA07+		Current		*	**		
TS_13_03	Change of emphasis in Transport Costs Directive	NA07+		Current		*	***		
TS_13_04	Economic instruments for improved transport management for goods transport	NA07+		Current		*	***		
TS_13_05	Urban, regional and supra-regional logistics concepts	EA07+			Piece-goods logistics, city logistics, use of transport telematics to avoid no-load travel	*	**		
TS_13_06	Promotion of combined transport: rail rail / road / water	NA07+	2008		Container systems	**	**		
TS_13_07	Operational logistics concepts, for rationalisation of transport	EA07+				*	**		
TS_13_08	Goods distribution centres, to achieve efficiency and rationalisation of transport	NA07+		Current		*	***		
TS_13_09	Promotion of goods transport centres and terminals for business enterprises and industrial estates	NA07-	2007			**	**		

TS_13_10	Provision for rail connections at industrial sites with supra-local significance in area ploanning	EA07-	2000			**	**		
TS_13_11	Creation of a competance centre for logistics	NA07-	2007		Training and know-how relating to fleet logistics	*	*		
TS_13_12	Minimisation of waste transport, through use of nearest facility for waste treatment	NA07-				*	**		

Number	Measure								
TS_14	**Improvements in rail transport**								
Description									
Objective	To improve provision and optimise the operation of rail transport								
Target group	Railway transport companies, public sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_14_01	Support for connecting rail systems	NA07+		Current		*			
TS_14_02	Improvement of rail infrastructure through implementation of the European train control systems ERTMS and ETCS, as well as the GSM-R digital radio communication system for trains	NA07-		2015		***	***		

TS_14_03	Implementation of interoperability (avoidance of no-load travel, reduction of down-times, more flexible train formation, replacement of old stock, particularly in cross-border traffic, introduction of telematics for administration of border formalities, freight papers, etc.)	NA07-		2015	In cross-border traffic, use of the same type of tractive units in several European states	***	***		
TS_14_04	Use of lighter, modern rail stock with regenerators (generator operation during braking) – replacement of old stock (electric and diesel)	NA07-		2015		*	**		
TS_14_05	Further electrification of the non-electrified rail network	EA07-			Non-electrified rail network approx. 500 km; total network approx. 5,000 km	**	*		

Number	Measure								
TS_15	**Expansion of public transport and improving its attractiveness; boosting integrated mobility**								
Description									
Objective	To improve efficiency of public transport and create incentives for its use; to improve the general conditions								
Target group	National and Federal State governments, local authorities, transport companies and associations, end users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_15_01	Extension and securing of infrastructure investments, (SCHIG), local transport financing and subsidies for infrastructure and local transport	NA07+	2007			***	***		
TS_15_02	Conclusion of local transport service contracts between Federal States, regional local authority associations and transport companies, and creation of financing models	NA07-	2007			**	***		
TS_15_03	Revision of Road Transport Ordinance to favour public transport	NA07-	2007			*			

TS_15_04	Effective structuring of the traffic originator levy (adaptation of the Public Local and Regional Passenger Transport Act - ÖPNRV and Fiscal Equalisation Act - FAG)	NA07+	2007						
TS_15_05	Incorporation of quality, emission and climate protection criteria for the vehicle fleet in the purchasing of public transport services	NA07-	2007			*	**		
TS_15_06	Creation of (overall) transport concepts for public transport	NA07+		Current		***	**	Yes	
TS_15_07	Transport concepts and transport-related objectives and infrastructure plans to be directed towards reduction of CO2 emissions	EA07+				*	***		
TS_15_08	Expansion of the rail network	EA07+	1994			***	***	Possibly with federal authority action	
TS_15_09	Incentives for greater use of public transport, and attractive structuring of the tariffs for all types of public transport	NA07-	2007		For example, tickets for occupational use of public transport	*			
TS_15_10	Demand-based provision and flexible modes of public transport (e.g. dial-up shared taxis, dial-up buses, etc.)	EA07-	1995		Greater support for community, city and local buses	**	**		
TS_15_11	Public transport stops and interconnection points to be made more attractive and optimised for customers	EA07+							
TS_15_12	Establishment of a nationwide symmetrical regular-interval (or "intelligent") timetable, and creation of a customer-friendly bus and train provision; establishing of minimum standards for area-wide servicing	NA07-				**	***		
TS_15_13	Greater support for, and implementation of, flexible and innovative types of enterprise in public transport	NA07+	current		In particular through removal of legal obstacles	*			

TS_15_14	Alignment of public transport and working / opening/ school times	NA07+	current			*			
TS_15_15	Establishment of an Austria-wide travel information system, for all modes of transport	NA07-	2006			*	**		
TS_15_16	Support for public transport provision for major public events and for leisure & tourism transport	EA07-	2004			*	*		
TS_15_17	Promotion of regional mobility centres	EA07+		Unlimited		***	**		
TS_15_18	Incentives for greater competition between transport service providers	EA07+				*	**		

Number	Measure
TS_16	**Public financial aid**
Description	
Objective	To increase financial aid, and provide subsidies for transport-related projects and research activities
Target group	Politicians, national and Federal State governments, local authorities, end users

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_16_01	Increased budget for the relevant research & technological development programmes	NA07-				*			
TS_16_02	Financial support in the implementation of the results of research	NA07-			For example: through master projects and diffusion measures relating to technology programmes	*			
TS_16_03	Greater harmonisation with environment-related transport subsidies	NA07-			For example; "klima:aktiv" programme and domestic environmental subsidy for enterprises	*			
TS_16_04	Reform of commuter subsidy	NA07+				*	***		
TS_16_05	Subsidizing of small-region projects	EA07-	2004		Criteria relating to transport / climate protection to be taken into account	*	*		

TS_16_06	Measures in tourism and leisure transport	NA07-			See Evaluation of the Kyoto Options Report, March 2006	*	**		

Number	Measure								
TS_17	**Domestic environmental subsidy (DES) for enterprise transport measures**								
Description									
Objective	To provide financial aid for low-emission transport technologies which save resources, in enterprise mobility managment, and in pilot and demonstration projects								
Target group	Enterprises, energy supply companies, associations, public-sector institutions in the form of an enterprise having a market-oriented activity, transport companies, major promoters								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_17_01	Subsidy for rationalisation of transport and shift in transport modes	EA07-		Current	CO2-related conversion of transport systems and vehicle fleets	*	**		
TS_17_02	Subsidy for business investment measures to promote public transport, cycle and pedestrian transport and measures for reducing traffic volumes	EA07-		Current		**	***		
TS_17_03	Subsidy for mobility services, transport information and logistics systems	EA07-		Current		*	**		
TS_17_04	Subsidy for measurres arising from mobility and transport concepts and consultation	EA07-		current		**	***		

2.7.3 Measures relating to transport infrastructure and its use

Number	Measure
TS_18	**Sucessive conversion of traffic signal equipment (traffic-lights, illuminated traffic signs) to LED technology**
Description	
Objective	To promote the market penetration of LED technology in traffic signal equipment, and establish this as future standard technology
Target group	Traffic signal equipment

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_18_01	Mandatory use of LED for new installations	NA07-			Develop procurement criteria for LEDs, with mandatory application	*	***		

Number	Measure
TS_19	**Road tunnels: conversion and optimisation to energy-saving technologies**
Description	
Objective	To promote market penetration of energy-saving technologies in road tunnels, and establish these as future standard technologies
Target group	Road traffic tunnels

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_19_01	Conversion to energy-saving lighting systems during larger-scale maintenance work		2000	2012		*	*		
TS_19_02	Optimisation of tunnel ventilation through use of demand-based control		2000	2012		*	*		

2.7.4 Measures relating to raising of awareness

Number	Measure								
TS_20	**Mobility management – Advice and financial aid programmes**								
Description									
Objective	To raise awareneness of mobility matters, and to implement mobility management in a wide range of sectors								
Target group	Enterprises, public administration, schools, private services, municipalities, local authorities, building contractors, property developers, investors								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_20_01	Mobility management in enterprises	NA07+	Current			*	*		
TS_20_02	Mobility management in public administration	NA07+	Current			*	*		
TS_20_03	Mobility management in schools	NA07+	Current			*	*		
TS_20_04	Mobility management in leisure and tourism transport	NA07+	Current			*	*		
TS_20_05	Mobility management for municipalities, local authorities, regions	NA07+	Current			*	*		
TS_20_06	Mobility management for building contractors, property developers and investors	NA07-	From 2007			*	*		
TS_20_07	Individual and enterprise mobility management and mobility advice	NA07-				*	*		
TS_20_08	Development of transport management systems	NA07+			Proposed: improved timing of traffic-lights; improved road lane guidance, bus through-routing, etc.	*	**		

TS_20_09	Creation of transport information centres	NA07+			Linking of the traffic control centres for individual transport to the operating centres for public transport	*	**		
TS_20_10	Dynamic information for passengers	NA07+			Real-time passenger information for connections between rail and bus	*	**		
TS_20_11	Promotion of regional mobility centres	NA07+				*	**		

Number	Measure								
TS_21	**Fuel econonomy initiative**								
Description									
Objective	To raise awareness concerning fuel-efficient, environmentally aware driving behaviour								
Target group	Politicians, transport clubs, driving schools, end users, fleet operators								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_21_01	Development of consumer information	NA07+	Current since 2005			*	*		
TS_21_02	Information activities relating to fuel economy, in conjunction with providers (e.g. driving schools)	NA07+			Information brochure "Fuel-efficient driving" has been produced	*	*		
TS_21_03	Amendment of the driving licence law: inclusion of fuel economy as topic in driving school instruction				Examination questions on safe, economic and ecologically correct driving behaviour	*	**		
TS_21_04	Provision of subsidised training courses for energy-efficient driving behaviour (e.g. training of driving instructors, fleet operators)	NA07+				*	**		
TS_21_07	Checking of factors affecting fuel consumption (e.g. tyre pressure) in national vehicle fleet	EA07-	2004			*	*		

2.7.5 Measures relating to spatial planning, town planning and residential housing development

Number	Measure								
TS_22	**Changes in spatial and regional planning, and residential housing development**								
Description									
Objective	To embody energy efficiency criteria in the Austrian spatial development concept (ÖRK) and in the spatial planning laws of the Federal States								
Target group	National and Federal State governments								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
TS_22_01	Creation of the legal conditions for equalisation of benefits and burdens for local authorities (e.g. in location policy)		2007			*	**		
TS_22_02	Creation and stipulation of criteria for planning of transport and residential housing development for reduced traffic, and checking of the existing zoning allocations and development plans	NA07+		Current		*	***		
TS_22_03	Integration of shopping and leisure centres into residential areas to facilitate access by public transport, and by pedestrians and cyclists	EA07+		Current		*	***		
TS_22_04	Promotion of densified development and of short-route concept, or co-location of commercial/industrial sites, and of mixed use; expansion of residential developments primarily near existing public transport stops, and promotion of cycle transport and pedestrian access	EA07-		Current		*	***		
TS_22_05	Creation of a mobility concept, with the objective of reducing vehicular traffic in residential building projects	NA07-	2007			*	**		

TS_22_06	Traffic-calming measures, and traffic advice for local communities	EA07-	2004		For example: 30 km speed-limit zones, harmonised with layout criteria		**		
TS_22_07	Seminars on traffic reduction in local communities (training for local authority officials and personnel)	EA07-	2004			*	*		
TS_22_08	Traffic reduction communities – project implementation	EA07-	2004	2004-2007	In 26 communities in the Vienna Woods	**	**		Current and final evaluation
TS_22_09	Pilot projects for climate-benign mobility	EA07+			For example; leisure and commuter transport, space-saving development planning	***	**		

2.8 Cross-sector measures and general measures (ÜM)

In addition to the evaluation by sector used in the preceding chapters, this chapter explains horizontal measues that have an additional effect upon the reduction of final energy consumption in the period from 2008 to 2016.

2.8.1 General measures from the National Climate Strategy for Austria, the government programme and Federal State concepts

-	Measure									
ÜM_01	**General measures from the National Climate Strategy for Austria and the government programme**									
Description										
Objective	To improve energy efficiency									
Target group	Politicians, authorities, final energy users									
Implementation instruments										
Number	Description	Responsib.	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_01_01	Reduction of the energy intensity by at least 5 % by 2010 and by at least 20 % by 2020	National / Federal State govts.	EA07+	From 2008	Unknown	According to government programme 2007	*	***	Buildings Dir. CHP Dir. "klima:aktiv" initiative Alps Convention Protocol: Energy	
ÜM_01_02	Minimum annual use ratio of 60 % for CHP systems, according to Eco-Electricity Act; new	BMWA / E-Control	NA07-	Since Oct. 06	Unknown	Investment incentives for utilisation of waste heat, through domestic environmental subsidy	*	**	DES klima:aktiv	In some cases

Number	Measure
ÜM_02	**Financing of energy efficiency measures**
Description	

Objective									
Target group									
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_02_01	National climate and energy fund	NA07+	Mid-2007	By 2010	€500 million for measures relating to renewables and energy efficiency	***	***		

2.8.2 Measures relating to spatial and town planning

Number	Measure								
ÜM_03	**Consideration of energy efficiency aspects in spatial and town planning**								
Description									
Objective	To reduce final energy consumption in the private residential sector through energy-efficient spatial and town planning								
Target group	Major players involved in construction of new-builds in the private residential sector								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_03_01	New residential building in existing development structures, through incentives in the residential building subsidy	NA07+	Art, 15a Agreement on resid. building subsidy in force since January 2006 Implementation of the agreement by January 2007	Unknown	Extent of implementation differs	*	***		No

ÜM_03_02	Mandatory for industrial waste-heat potentials to be taken into consideration in spatial planning and zone allocation in combination with living space allocation and industrial/commercial developments	NA07+			Joint creation of local / regional heating concepts by enterprises and local authorities	*	***		
ÜM_03_03	Financial incentives for sustainable residential development	EA07-	2005		Substantially greater incentives for densification of residential development in town centres	**	**		
ÜM_03_04	Local supply action and special action for local foodstuffs suppliers	EA07-	2004		Support for small local supply enterprises	*	*		
ÜM_03_05	Selective control of residential development, realisation of development sites and mixed use	EA07+			Maintenance / creation of compact developments close to efficient public transport systems	*	***		
ÜM_03_06	Revision of spatial planning law to take account of energy-related criteria								
ÜM_03_07	In industrial developments, short distances between waste-heat suppliers and customers	NA07+				*	***		
ÜM_03_08	Consideration of economical use of energy in residential development	NA07-	Current	5 years	Implementation of the concept of decentralised concentration and densified forms of building in spatial planning law	*	***		
ÜM_03_09	Consideration of energy aspects in all town planning competitions (to be prescribed as mandatory)	NA07-			Define energy aspects for all town planning competitions	*	**		
ÜM_03_10	Systematic urban development along district heating network and along the main public transport network	NA07-				*	***		
ÜM_03_11	Definition of waste-heat, underground rail tunnel and district heating areas (compilation of corresponding land registers)	NA07-			Target energy connection densities to be taken into account	*	***		

2.8.3 In respect of energy efficiency, aid to existing enterprises and energy services, and creation of new enterprises and services

Number	Measure								
ÜM_04	**In respect of energy efficiency, aid to enterprises and energy services already in operation, and creation of new enterprises and services**								
Description									
Objective	To improve energy efficiency								
Target group	Enterprises								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_04_01	Promotion of energy contracting	EA07+	Current	Unknown	See National Climate Strategy	*	***	Buildings Dir., CHP Dir., Energy Efficiency Dir., Green Paper on Energy Efficiency "klima:aktiv" initiative, Alps Convention Protocol on Energy	
ÜM_04_02	Certification and accreditation of service providers	NA07-	2004	At least 2016		*	***		

Number	Measure
ÜM_05	**Support for research, demonstration, motivational and pilot projects in respect of energy efficiency**
Description	
Objective	Use of exemplary projects to bring about the replication of innovative energy efficiency technologies and applications

Target group	Politicians, authorities, final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_05_01	Subsidy for national research and demonstration projects, for pilot and demonstation systems, and innovative measures	EA07-			Also co-financing for corresponding EU projects	**	***	In some cases, BMVIT "Sustainable Business" incentive programme	
ÜM_05_02	Expansion of research and demonstration projects	EA07+	1994	At least 2000	Integration of projects into architect competition for in-state projects	***	***	Yes	
ÜM_05_03	Financial and organisational support for demonstration projects with innovative technologies	EA07-		3 years	For industry and SMEs	***	**		
ÜM_05_04	Development of the energy technology programme	NA07-	2004	At least 2016		***	***	Yes	
ÜM_05_05	Creation of master projects and competence centres	NA07-	2004	At least 2016		***	***	Yes	

2.8.4 Cross-sector energy efficiency programmes

Number	Measure								
ÜM_06	**Cross-sector energy efficiency programmes**								
Description									
Objective	Promotion of energy-efficient final energy consumption								
Target group	Local actors, politicians, authorities, final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring

ÜM_06_01	Implementation of energy efficiency programmes at national and regional level	NA+							

2.8.5 Standards and norms

Number	Measure
ÜM_07	**Further development of standards and norms**
	Description
Objective	To improve energy efficiency
Target group	Politicians, authorities, final energy users

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_07_01	Timely setting of continued objectives for further development of policy relating to Art. 51a Agreement on residential building subsidy	EA07+		Unknown	current	**	***		indef.
ÜM_07_02	Blocking or withdrawal of benefits for energy-inefficient heating systems	NA07+	2008		Checking of legal provision, up to prohibition for new installations	*	**	With all space insulation measures	
ÜM_07_03	Continuation of harmonisation process in building regulations	NA07-			For new-builds, in all sectors	*	***		
ÜM_07_04	Use of quality-assured software tools in building regulations	NA07+			For new-builds and renovations, in all sectors	*	*		
ÜM_07_05	Amendment of minimum requirements for thermal transmission values in building regulations	NA07+			For new-builds, in all sectors	*	***		

ÜM_07_06	Use of heat pumps embodied in building regulations	NA07+			For new-builds, in all sectors	*	**		
ÜM_07_07	Minimised transport distances as best-tenderer criterion in invitation of tenders for construction projects	NA07-	2005			*	**		
ÜM_07_08	Usable heating energy index model to be extended to all types of building	EA07+	1994	At least 2000		**	***		In some cases
ÜM_07_09	Lower and monitor limit values for energy indices of buildings	NA07-	2004	At least 2016	To improve energy efficiency of buildings	**	***	Yes	In some cases
ÜM_07_10	Mandatory introduction of a type inspection or individual inspection for all heating appliances	EA07+	1994	At least 2000	Regulation of the periodic inspection	*	***	Yes	
ÜM_07_11	Use of the best technology available on the market at a given time, with replacement or new installation of space-heating supply systems	EA07+	1994	At least 2000	More consultation, advice and training in the relevant sectors	*	**	Yes	
ÜM_07_12	Improvement of energy efficiency of all heating technologies	EA07+	seit 2000	At least 2010	Through information, financial aid and laws; objective of greater market penetration	***	***		In some cases
ÜM_07_13	Benchmarking for efficient cooling	NA07-	2004	At least 2016		*	**	Yes	In some cases
ÜM_07_14	Energy-related criteria as prerequisite for business subsidy	NA07-	2000		Linking of business subsidy to energy-related criteria and voluntary agreements	*	***		

2.8.6 Energy labelling programmes

Number	Measure								
ÜM_08	**Energy statement for buildings**								
Description									
Objective	To improve energy efficiency								
Target group	Major players in the building sector, final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_08_01	Creation of a nationwide, standard energy statement	NA07+	2007	Unknown	Introduction of proposed law for integration into housing regulations	*	***		No
ÜM_08_02	Implementation of energy statement in building and housing regulations	NA07+	2007	Unknown	Working party of Austrian Inst. for Construction Engineering working on transposition of Buildings Directive	*	***		No
ÜM_08_03	Creation and application of energy statements for Federal State buildings	NA07+	2006			*	*		
ÜM_08_04	Creation of an energy statement for non-residential buildings, new-builds and general renovations	NA07-	2004	At least 2016	To improve energy efficiency	**	***	Yes	
ÜM_08_05	Accrediation of qualified experts	NA07-			Ensure terms of reference for implementation	**	***		

Number	Measure								
ÜM_09	**Statement of energy consumption of appliances – energy labelling**								
Description									
Objective	To improve energy efficiency								
Target group	Politicians, authorities, final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_09_01	Extension of energy consumption category codes	EA07+	Current			*	**		
ÜM_09_02	Limit value of energy efficiency for refrigerators and freezers	EA07-	1997		Order on Energy Efficiency of Refrigerators, Federal Law Gazette II No. 316/1997, and § 8 ETG 1992	*	**	Labelling of refrigerators and freezers	
ÜM_09_03	Limit value of energy efficiency for ballasts	EA07-	2001		Order on Energy Efficiency of Ballasts, Federal Law Gazette II No. 210/2001	*	**		
ÜM_09_04	Labelling (identification code for conumption information) – general provisions	EA07-	1994		Order on Consumption Information relating to Domestic Appliances, Federal Law Gazette No. 568/1994	*	**		
ÜM_09_05	Labelling of domestic electrical appliances[17]	EA07-	1994, 1996, 1999, 2003, 2004		Specification of the label ("Energy Label"), data sheet, information in (print) media; also specification of measurement and test methods	*	**		
ÜM_09_13	Incentive subsidy for exceptionally energy-efficient appliances	NA07+		Unlimited	Feasibility study ongoing	**	*		

[17] Refrigerators and Freezers (Regulation on Consumption Information relating to Refrigerators, Federal Law Gazette (FLG) No. 569/1994, as amended FLG No. 769/1994, FLG II 426/2004), Laundry Driers (Regulation on Consumption Information relating to Laundry Driers, FLG No. 579/1996), Washing Machines (Regulation on Consumption Information relating to Washing Machines, FLG No. 580/1996, as amended FLG II No. 168/1997), Combined Washer/Driers (Regulation on Consumption Information relating to Combined Washer/Driers, FLG II No. 62/1998), Dishwashers (Regulation on Consumption Information relating to Dishwashers, FLG II No. 182/1999), Lamps (Regulation on Consumption Information relating to Lamps, FLG II No. 311/1999), Electric Baking Ovens (Regulation on Consumption Information relating to Electric Baking Ovens, FLG II No. 475/2003), Room Air-Conditioning Units (Regulation on Consumption Information relating to Room Air-Conditioning Units, FLG II No. 421/2004).

Number	Measure								
ÜM_10	**Labelling of durable and non-durable goods**								
Description									
Objective									
Target group									
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_10_01	Labelling of durable and non-durable goods	NA07+	2007		Indication of the transport intensity of products, through voluntary agreements with traders	*	**		

2.8.7 Recording of consumption data

Number	Measure								
ÜM_11	**Recording of consumption data**								
Description									
Objective	To improve energy efficiency by raising awareness concerning level of final energy consumption								
Target group	Final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_11_01	Near-instant measurement of electric power consumption with data interpretation and savings recommendations for the end user	NA07+	2008		Checking of legal provision, changeover period approx. 10 years, costs probably to be borne by end users	*	*	All measures relating to end use of electric power	

ÜM_11_02	Promotion of innovative billing systems	NA07-	2004	At least 2016	Informative billing of energy consumption	*	**	Yes	

2.8.8 Training and information measures to support the application of energy-efficient technologies and/or methods

Number	Measure								
ÜM_12	**Training and information measures to support the application of nergy-efficient technologies and/or methods**								
Description									
Objective	Provision of comprehensive, customised information and training to individual target groups, for the purpose of raising awareness about energy efficiency and energy saving in the general population								
Target group	Professionals, authorities, final energy users								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_12_01	Information, qualification audits; certification and accreditation of energy service providers	EA07+	Current			*	**		
ÜM_12_02	Training events concerning the implementation of energy-related measures in the building and construction industry	EA07-	2004		Exchange of experience between implementing authorities, construction professionals and investors	*	*		
ÜM_12_03	Further development of energy consultation/adivice and information	EA07+	Current	Unlimited	Advisers, databases for appliances, market surveys	**	***		Yes
ÜM_12_04	Establishing of an energy savings / energy efficiency focus in schools and kindergartens, and in other childrens' and youth eduction forums	NA07-			Combination of existing measures	**	***		

2.8.9 Regulations, taxes, etc. for reduction of final energy consumption

Number	Measure
ÜM_13	**Internalisation of external effects in pricing, regulative policy measures**
Description	
Objective	To rationalise use of final energy through regulative policy instruments such as taxes and duties
Target group	Final energy users

Implementation instruments

Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_13_01	Consumption-related licence duty	EA07+		Unlimited	Tax law: standard consumption excise duty, vehicles with advanced exhaust characteristic	**	**		
ÜM_13_02	Consumer tax on electrical energy	EA07-		Unlimited	Tax law: Electricity Duty Law	**	**		
ÜM_13_03	Consumer tax on natural gas	EA07-		Unlimited	Tax law; Natural Gas Duty Law	**	**		
ÜM_13_04	Consumer tax on mineral oil (MÖSt)	EA07-		Unlimited	Tax law: Mineral Oil Tax Law	***	***		
ÜM_13_05	Refund of energy duties	EA07-		Unlimited	Tax law: Energy Duty Refund Law (MinStG – Mineral Oil Tax Law; ErdgasAbgG – Natural Gas Duty Law; ElAbgG – Electricity Duty Law; Kohle AbgG – Coal Duty Law)	**	*		
ÜM_13_06	Consumer tax on supplied coal	EA07-		Unlimited	Tax law: Coal Duty Law	*	*		

2.8.10 Information campaigns

Number	Measure								
ÜM_14	**Information campaigns**								
Description									
Objective	Provision of comprehensive, customised information and corresponding advice to individual target groups, for the purpose of raising awareness about energy efficiency and energy saving in the general population								
Target group	Final energy users, in all sectors								
Implementation instruments									
Number	Description	Status	Entry into force	Period	Note	Budget	Import.	Overlap	Monitoring
ÜM_14_01	Energy check for all Austrian households	NA07+		Unknown	Implementation by 2010	**	**		
ÜM_14_02	Information tools for consumers, such as power efficiency calculator, heating check, etc.	NA07+	2006		Internet-based, interactive implementation	*	*	All measures relating to electricity and space heating	
ÜM_14_03	Promotion of online energy recording systems and energy accounting for users (owners, tenants, etc.)	NA07-				**	***		
ÜM_14_04	Support for establishment of an Internet platform for purchasing of energy-efficient appliances	EA07-	2004		Particularly for electrical appliances; for public and private consumers	*	*		
ÜM_14_05	Campaign to raise awareness of climate-friendly mobility; "greening events" strategy	NA07+	2005	Current	Particularly to promote public and cycle transport, pedestrian traffic, car sharing and transport communities	*	***		

ÜM_14_06	Campaign: "Saving electricity at home and at work"	NA07-	2004	At least 2016	Know-how platforms	**	***	Yes	
ÜM_14_07	Continuation of campaigns on energy/climate	EA07-				*	*		
ÜM_14_08	Energy advice and information	NA07-	2004	At least 2016	Extension of energy advice to all sectors, to promote planning and implementation of measures	*	***	Yes	
ÜM_14_09	Dissemination of information on energy-efficient appliances, customised according to target group (collaboration with energy supply companies)	NA07-			For example, use of energy-saving lamps / fluorescent lamps; efficient mains-connected applicances, standby consumption	**	**		
ÜM_14_10	Provision of more information to public concerning energy problems	EA07+	current	Unlimited	Construction, mobility, leisure activities, etc.	**	**		
ÜM_14_11	Round-table: property managers	EA07-	2000	Open	Exchange of experience and optimisation of energ-saving strategies	*	**		
ÜM_14_12	Development and coordination of existing training, information provision and activities, according to requirement	NA07-	2000	Open	Actions, programmes and campaigns for the public sector, increased business involvement	*	***		

3 Specific measures in accordance with ESD

3.1 Mandatory selection of measures in accordance with ESD

3.1.1 Article 5: Mandatory selection of measures in the public sector

Under the ESD, the public sector must select two measures from the following list (see Annex VI, ESD):

a) requirements concerning the use of financial instruments for energy savings, including energy performance contracting, that stipulate the delivery of measurable and pre-determined energy savings (including whenever public administrations have outsourced responsibilities);

b) requirements to purchase equipment and vehicles based on lists of energy-efficient product specifications of different categories of equipment and vehicles to be drawn up by the authories or agencies referred to in Article 4(4), using, where applicable, minimised life-cycle cost analysis or comparable methods to ensure cost-effectiveness;

c) requirements to purchase equipment that has efficient energy consumption in all modes, including in standby mode, using, where applicable, minimised life-cycle cost analysis or comparable methods to ensure cost-effectiveness;

d) requirements to replace or retrofit existing equipment and vehicles with the equipments listed in points (b) and (c);

e) requirements to use energy audits and implement the resulting cost-effective recommendations;

f) requirements to purchase or rent energy-efficient buildings or parts thereof, or requirements to replace or retrofit purchased or rented buildings or parts thereof in order to render them more energy-efficient.

The two mandatory measures are selected in agreement with the Federal States.

3.1.2 Article 6: Involvement of energy distributors, distribution system operators and retail energy sales companies

Voluntary agreement with "*Energy distributors and retail energy sales companies*"

This chapter is to be completed following conclusion of the voluntary agreements with the respective contracting partners.

3.2 Other reporting requirements

3.2.1 Article 7(1): Availability of information

In respect of the provision of information and advice to final customers in Austria, Chapter 2.8 lists numerous measures that serve to realise the objectives in Article 7(1) of the ESD.

4 Ex-post and ex-ante development of energy intensity in Austria

4.1 Ex-post development of energy intensity in Austria

In this section, the ratio of the final energy requirement to the gross value added, at production prices, is used to illustrate the gross effect of a potential improvement in energy intensity.[18]

The following table, accordingly, gives the previous development in energy intensity for the total (unadjusted) final energy consumption of Austria for the period from 1995 to 2005. The gross value added, at production prices (since it is the final energy that is considered in respect of energy intensity), was adjusted by excluding the gross value added, at production prices, of the conversion input for the energy sector.

Table 9: Ex-post development of energy intensity in Austria [final energy in TJ/€ million gross value added at production prices – excluding that of the conversion input for the energy sector – at actual prices (2000=100)],

Austria	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Final energy consumption [PJ]	845	920	900	927	936	943	1,009	1,013	1,064	1,064	1,105
Gross value added, at prod. prices [€ billion (actual, 2000=100)]	164	166	167	172	177	183	184	185	187	191	193
Energy intensity [TJ/€ million (actual, 2000=100)]	5.2	5.5	5.4	5.4	5.3	5.1	5.5	5.5	5.7	5.6	5.7

The data shown are based on official data of the Federal Statistical Office of Austria.[19]

4.2 Ex-ante development of energy intensity in Austria

This section describes, with reference to a pertinent WIFO (Austrian Institute of Economic Research) document[20], the gross effect of a potential future improvement in

[18] The development shown has not been adjusted here by excluding exogenous factors, structural effects or by autonomous or price-induced energy savings, since to date there are no harmonised methods for such adjustments.
[19] Provisional Energy Audit Austria of 27.11.2006, gross value added at production prices according to ÖNACE (Austrian National Statistical Classification of Economic Activities) departments, at current prices, and the consumer price index of 27.4.2007.
[20] Study "Energieszenarien für Österreich bis 2020" ("Energy Scenarios for Austria up to 2020"), Kurt Kratena, Michael Wüger, July 2005, of the Austrian Institute for Economic Research (WIFO) commissioned by the Federal Ministry of Economic Affairs and Labour (BMWA).

energy intensity.[21]

For the baseline scenario for the period 2005 to 2020 in Austria, the WIFO study states the ex-ante development of energy intensity to be as follows: In the projection period as a whole, the total final energy consumption expands, at 1.1 % p.a., which, in the case of an average GDP of 2 % to 2.2 %, corresponds to an increase in the macroeconomic energy efficiency (i.e. reduction in the macroeconomic energy intensity) of approximately 1.1 %.

On the basis of the energy intensity indicator, therefore, WIFO indicates a shift towards a macroeconomic increase in energy efficiency.

In general, the energy intensity indicator, described both previously and in this case, provides conclusive information in respect of energy efficiency development in those economic sectors in which there is a very high correlation between the development of the final energy consumption and the economic performance.[22]

[21] The energy efficiency improvements have not been adjusted here by excluding exogenous factors, structural effects or by autonomous or price-induced energy savings, since to date there are no harmonised methods for such adjustments.

[22] In respect of evidence of an overall improvement in energy efficiency, the EU Commission rates the energy efficiency indicator as being less informative than the ODEX model developed by ODYSSEE Mure (likewise a top-down indicator) or "even more data-intensive", bottom-up models. Owing to the data situation, however, it is not possible to use indicators that are "better" than the development of energy intensity for all economic sectors. For this reason, in this chapter energy intensity has been used for the macroeconomic ex-post and ex-ante consideration of the overall improvement in energy efficiency.

5 Presentation of results

5.1 Summary of the national catalogue of energy efficiency measures

The energy efficiency (packages of) measures and programmes described in detail in Chapter 3 are summarised briefly in the following, so as to provide a clearer overview.

Energy efficiency measures for private households

- improving the thermal quality of the building shell
  - Integration of passive heating and cooling
  - Improving the thermal quality of the building shell in the case of new-builds
  - Improving the thermal quality of the building shell in the case of extensive renovation
  - Improving the thermal quality of individual structural elements of the building shell
  - Improving the thermal renovation rates
- Use of energy-efficient building installations (for heating, cooling, hot water and ventilation), in the case of new-builds, renovation and ongoing operation
  - Installation of or connection to high-efficiency energy conversion systems
  - Increasing the market penetration of energy-efficient conversion systems
  - Optimisation of existing energy conversion systems
- Use of energy-efficient appliances (white-goods, etc.) and lighting
  - Increasing the market penetration and use of energy-efficient appliances (domestic appliances, IT equipment, lamps)

Energy efficiency measures in the public service sector

- Improving the thermal quality of the building shell
  - Integration of passive heating and cooling
  - Improving the thermal quality of the building shell in the case of new-builds
  - Improving the thermal quality of the building shell in the case of renovation
  - Improving the thermal renovation rates
- Use of energy-efficient building installations (for heating, cooling and ventilation) in the case of new-builds, renovation and ongoing operation

- Installation of or connection to high-efficiency energy conversion systems
- Promotion of efficient, innovative ventilation and air-conditioning systems
- Increasing the market penetration of energy-efficient energy conversion systems
- Optimisation of existing energy conversion systems
- Domestic environmental subsidy for efficient energy utilisation

■ Use of energy-efficient appliances, lighting and energy-efficient technologies
- Acceleration of market penetration and market preparation for innovative, energy-efficienct technologies through targeted procurement
- Promotion of energy-efficient technologies in exterior lighting

■ Consideration of energy efficiency in spatial planning, town planning and residential development
- Consideration of energy efficiency aspects in leasing of premises by municipal agencies

■ General measures in the public service sector
- Promotion of contracting and intracting in the public sector
- Improving energy efficiency in the public sector through energy management and cost-transparent administration
- Consideration of energy efficiency in planning and procurement in the public sector
- Local authorities setting an example – advice to local authorities concerning efficient use of energy
- Energy efficiency programmes and action plans
- Subsidies and financing

Energy efficiency measures in the private service sector

■ Improving the thermal quality of the building shell
- Integration of passive heating and cooling
- Improving the thermal quality of the building shell in the case of new-builds
- Improving the thermal quality of the building shell in the case of renovation
- Consideration of energy efficiency aspects in the construction and operation of office buildings

■ Use of energy efficient building installations (for heating, cooling, hot water and ventilation) in the case of new-builds, renovation and ongoing operation
- Installation of or connection to high-efficiency energy conversion systems
- Optimisation of existing energy conversion systems
- Domestic environmetal subsidy for efficient utilisation of energy

■ Use of energy efficient appliances, lighting and energy-efficient technologies

  - Increasing the market penetration and use of energy-efficient appliances (particularly IT and other office machines)
  - Promotion of energy-efficient technolgies: circulating pumps, lifts, fans and private lighting systems

- General measures in the private service sector

- Advice and subsidies

Energy efficiency measures in the production sector and agriculture

- Buildings
  - Integration of passive heating and cooling
  - Improving the thermal quality of the building shell
  - Consideration of energy efficiency aspects in the construction and operation of officie buildings
  - Energy efficiency improvements in respect of heating, air-conditioning, air intake and discharge in buildings
  - Promotion of energy-efficient, optimised lighting systems (replacement of light fittings, reflectors, etc.)
- Production processes
  - Energy benchmarking
  - Promotion of efficient processes, particularly in respect of compressed air
  - Increased utilisation of waste-heat potentials in industry and production companies
  - Advice and subsidies
  - Domestic environmental subsidy for efficient utilisation of energy
- Motors and drives
  - Use of high-efficiency electric motors and drives
- Fans, control drives and ventilation
  - Use of high-efficiency electric motors and drives
- Demand management
  - Support for establishing energy management / energy accounting
- Use of high-efficiency combined heat and power (CHP) generation

Energy efficiency measures in the transport sector

- Utilisation of means of transport
  - Greater prevalence of low-consumption, environmentally friendly engine technologies and vehicles

  - Support for the development, trialling and application of alternative, energy-efficient vehicles and engine concepts
  - Raising of awareness in respect of procurement and energy-efficient use of means of transport
  - Revenue-neutral extension of use of methane (natural gas and biogas) and E85
  - Information technology in transport, with use of telematics
  - Speed restrictions and limits
- Switch-over to other modes of transport
  - Promotion and advertising of car sharing
  - Promotion of inter-modal mobility
  - National Action Plan for Danube shipping: improving environmental performance, with financial aid for an environmentally sound, competitive Danube shipping fleet
  - Agreements with the vehicle insurance industry
  - Support for cycle transport and pedestrians
  - Administration of parking spaces, and adjustment of tariffs
  - Improvements in goods transport and logistics
  - Improvements in rail transport
  - Expansion of public transport and improving its attractiveness; boosting integrated mobility
  - Public financial aid
  - Domestic environmental subsidy for enterprise transport measures
- Transport infrastructure and its use
  - Successive conversion of traffic signal equipment (traffic-lights, illuminated traffice signs) to LED technology
  - Road tunnels: conversion and optimisation to energy-saving technologies
- Raising of awareness
  - Mobility management – Advice and financial aid programmes
  - Fuel economy initiative
- Spatial and town planning
  - Changes in spatial and regional planning and residential housing development

Cross-sector measures and general energy efficiency measures

- General measures from the National Climate Strategy for Austria 2007 and the governmental programme 2007 - 2010
- Consideration of energy efficiency aspects in spatial and town planning

- In respect of energy efficiency, aid to existing enterprises and energy services, and creation of new enterprises and energy services
- Support for research, demonstration, motivational and pilot projects in respect of energy efficiency
- Cross-sector energy efficiency programmes
- Further development of standards and norms
- Energy labelling programmes
  - Energy statement for buildings
  - Statement of energy consumption of appliances – energy labelling
  - Labelling of durable and non-durable goods
- Recording of consumption
- Training and information measures to support the application of energy-efficiient technologies and/or methods
- Regulations, taxes, etc. for reduction of final energy consumption
  - Internalisation of external effects in pricing, regulative policy measures to improve efficiency
- Information campaigns

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Bundesministerium für Wirtschaft und Arbeit
(Federal Ministry of Trade, Industry and Labour)
A-1011 Wien • Stubenring 1