

UNOFFICIAL TRANSLATION

**MINISTER OF ECONOMY OF THE REPUBLIC OF LITHUANIA****ORDER  
REGARDING THE APPROVAL OF THE ENERGY EFFICIENCY ACTION PLAN**

2 July 2007 No. 4-270  
Vilnius

While implementing Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (OJ L 114, 27.4.2006, p. 64),

hereby I a p p r o v e the Energy Efficiency Action Plan (enclosed).

Minister of Economy

Vytas Navickas

## UNOFFICIAL TRANSLATION

## APPROVED

by the 2 July 2007 Order No. 4-270  
of the Minister of Economy of the  
Republic of Lithuania

**ENERGY EFFICIENCY ACTION PLAN****I. GENERAL PART**

1. In accordance with the requirements laid down in the Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (OJ L 114, 27.4.2006, p. 64) (hereinafter – the Directive), the Energy Efficiency Action Plan (hereinafter – the Action Plan), provides national energy savings targets, description of their calculation and an overview of its strategy for the achievement of these targets.

2. The Action Plan has been prepared in pursuance of realization of the provisions laid down in the Directive. The purpose of the Action Plan is to provide measures under implementation and measures planned to be taken, which are necessary by aiming to increase energy end-use efficiency, ensuring the achievement of the national energy savings target for 2008-2016.

3. The national energy savings target for the period of nine years (2008-2016) as calculated according to the requirements laid down in the Directive equals to 325 ktoe. National official energy savings target is 9 percent of the final energy consumption amount, which corresponds to 400 ktoe.

4. Intermediate energy savings target for the period of three years equals to 1.5 percent of the average final energy consumption during 2001-2005, which corresponds to 54 ktoe when calculating in accordance with the requirements laid down in the Directive.

**NATIONAL ENERGY SAVINGS TARGET**

5. Calculation of the national energy savings target (hereinafter – the energy savings target):

5.1. In compliance with the requirements laid down in Article 4 of the Directive, the Lithuanian energy savings target has been set and calculated according to the provisions and methodology provided in Annex I of the Directive.

5.2. An annual average amount of energy consumption shall be calculated in accordance with 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. 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.

5.3. In the Directive, energy is to be interpreted as all forms of commercially available energy, including electricity, natural gas (including liquefied natural gas), liquefied petroleum gas, any fuel for heating and cooling (including district heating and cooling), hard coal and lignite, peat, transport fuels (excluding aviation and maritime bunker fuels) and biomass as defined in Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001

on the promotion of electricity produced from renewable energy sources in the internal electricity market (OJ Special Edition, 2004, Chapter 12, Volume 2, p. 121).

5.4. Energy consumers in respect of which the Directive is applied are indicated in Article 2 of the Directive – they are all final customers, except 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, (OJ Special Edition, 2004, Chapter 15, Volume 7, p. 631). Furthermore, the requirements of the Directive shall be applied to the armed forces however 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 except for materials used exclusively for military purposes.

5.5. The final level of the annual inland energy consumption of consumers in respect of which the Directive shall be applied is calculated by deducting from the indicator “final consumption”, as submitted by the Department of Statistics under the Government of the Republic of Lithuania (hereinafter – the Department of Statistics) for each year, the final energy consumption and fuel that does not fall within the scope of the definition ‘energy’ of the Directive - aviation and maritime bunker fuels - of energy users in respect of which the Directive is not applied, i.e. the participants of the emissions trading scheme. For purposes of comparison of consumption of different types of energy savings and for conversion to a comparable unit, the conversion factors set out in Annex II of the Directive shall apply. Table of the calculation of the energy savings is presented in Annex 1 of the Action Plan.

#### 6. Aspects of calculation of the energy savings target:

6.1. When calculating energy savings targets, data of the Department of Statistics, which is responsible for the official statistics of the Republic of Lithuania, except for data on the final energy consumption in 2001 of undertakings that do not fall within the scope of this Directive, have been used.

6.2. Official statistics data on the final energy consumption in 2001 of undertakings that do not fall within the scope of this Directive are not available. For the said reason, the following assumption has been made: in 2001, the final energy consumption of such undertakings was 4 percent lower as compared with 2002. The foregoing assumption has been made on the basis that the average annual final energy consumption and the final energy consumption of undertakings that do not fall within the scope of this Directive, for the period under examination, represented an average rate increase of 4 percent each year.

6.3. The final consumption of energy of undertakings that participate in the greenhouse gas emission allowance trading and do not fall within the scope of this Directive has been taken in accordance with the final consumption of energy of the legal entity owning the installation and participating in the greenhouse gas emission allowance trading.

6.4. Energy consumption that is related to the armed forces is not deducted from the overall energy consumption because official statistics data about such consumption are not selected. Furthermore, the impact of such consumption on the final result is inconsiderable.

6.5. For purposes of calculation of energy savings target, the conversion factors were adopted in accordance with the requirements set out in Annex II of the Directive. Conversion factors of those sources that were not present in the above-mentioned Annex have been adopted in accordance with the values as used by the Department of Statistics. Annex 2 of the Action Plan contains net calorific values of energy sources.

In the assessment of electrical energy consumption I was taken as the conversion factor.

#### 7. Adoption of the national energy savings target.

7.1. The national energy savings target has been set in the National Energy Strategy, approved by the 18 January 2007 Resolution No. X-1046 of the Seimas of the Republic of Lithuania (Valstybės žinios (Official Gazette), No. 11-430, 2007). The foregoing Strategy is a key strategic document of the energy sector, setting out energy development directions until 2025.

The above-mentioned Strategy notes that in pursuance of implementation of strategic and development objectives and given the results of implementation of the objectives set out in previous strategies, one of the most significant tasks is being established: as of 1 January 2008, to save 9% of final energy over the period of 9 years in comparison with the level of final energy consumption in 2005 (final energy consumption in 2005 was 7.7 percent higher than the average in 2001–2005).

7.2. The Plan of Implementation Measures of the National Energy Strategy will set out an intermediate energy savings objective for the period of 2008–2010: from 1 January 2008, within a three-year period, to save 1.5% of final energy if compared with the average final energy consumption level during 2001–2005.

Legal framework, necessary for implementation of the Directive, will be prepared by May 2008, therefore during the first years of calculation of energy savings target, new measures for enhancing the improvement of energy efficiency will be applied. By taking into account the foregoing, it has been accepted that during the period of 2008–2010 energy savings on average will reach 0.5 percent per year. The overall energy savings during 2008–2010 will make 1.5% of final energy, i.e. an intermediate energy savings target as calculated in accordance with the provisions set out in the Directive equals to 54 ktoe. The remaining 7.5 percent of the final energy will be saved during the period of 2011–2016.

### III. STRATEGY FOR THE ACHIEVEMENT OF THE NATIONAL ENERGY SAVINGS TARGETS

#### I. GENERAL MEASURES

##### NEW MEASURES PLANNED TO BE TAKEN

8. To assign to authorities or agencies the overall control and responsibility for overseeing the framework set up in relation to the target of energy savings.

9. To create and legalize monitoring of the efficiency of the already implemented energy savings measures and carry out this monitoring.

10. By aiming to coordinate the development of all modes of transport, by giving priority to modes of transport with less negative environmental impact on the surroundings, to prepare and implement energy resources and energy efficiency improvement programme in the transport sector.

##### MEASURES UNDER IMPLEMENTATION

11. National Energy Strategy containing long-term energy development directions, including tasks related to energy savings.

12. National Energy Efficiency Programme for 2006–2010, approved by the 11 May 2006 Resolution No. 443 of the Government of the Republic of Lithuania (Valstybės žinios, No. 54-1956, 2006), which is an inter-institutional programme, containing organizational, legal, economic, technology improvement and installation, applied scientific investigations, public education and information measures for increasing energy resources and energy use efficiency, as well as monitoring implementation thereof in the sectors of buildings and their engineering systems, cogeneration, district heating, institutions, undertakings and household facilities, transport, indigenous, renewables and waste energy sources. After the implementation of the above-mentioned Programme, the use of heat in the current buildings will decrease by 7%; living conditions will be improved – buildings and energy systems thereof will be renovated, they will be properly used and maintained; monitoring of energy efficiency and energy demands good management projects will be carried out and summarized; legal and methodological documents designed for positive regulation of energy efficiency and environmental pollution in transport and industry sectors will be prepared; legal and standard documents meant for the Lithuanian international and the European Union (hereinafter – the EU) undertakings, related to efficient use of energy, will be improved and developed; scientific works will be carried out, the public will be informed and educated on the issues of efficient use of energy resources.

13. The Lithuanian Housing Strategy, approved by the 21 January 2004 Resolution No. 60 of the Government of the Republic of Lithuania (Valstybės žinios, No. 13-387, 2004), before 2020 predicts the reduction of heat energy consumption, calculated for a useful floor area unit, by at least 30%. In the said Strategy, priority is focused on the renovation of multi-apartment residential buildings.

## II. REQUIREMENTS OF ENERGY PERFORMANCE OF BUILDINGS

### MEASURES UNDER IMPLEMENTATION

14. The Technical Regulation for Building Construction STR 2.05.01:2005 “Thermal Technique of Building Envelope” approved by the 18 March 2005 Order No. D1-156 of the Minister of Environment of the Republic of Lithuania (Valstybės žinios, No. 100-3733, 2005). The foregoing renewed Regulation contained stricter thermal technical requirements for constructing residential and non-residential (public purpose and industrial) building envelopes. The requirements shall be applied for building design and reconstruction.

15. System of certification of energy performance of buildings has been created and energy performance requirements for buildings have been established. The Technical Regulation for Building Construction STR 2.01.09:2005 “Energy performance of buildings. Certification of Energy Performance” approved by the 20 December 2005 Order No. D1-624 of the Minister of Environment of the Republic of Lithuania (Valstybės žinios, No. 151-5568, 2005) contains the following requirement: energy performance class of the newly constructed buildings (parts of the building) shall be at least C, while the energy performance class of the buildings (parts of the building) undergoing major repairs with the useful area exceeding 1000 m<sup>2</sup> shall be not lower than D.

### III. FINANCIAL INSTRUMENTS

#### NEW MEASURES PLANNED TO BE TAKEN

16. To prepare and draft model contracts for those financial instruments available to existing and potential purchasers of energy services and other energy efficiency improvement measures in the public and private sectors.

#### MEASURES UNDER IMPLEMENTATION

17. Funds are used and programmes related with increase of energy efficiency are under implementation:

17.1. In the period of 2007–2013, it is planned to grant a support from the EU Structural Funds for renovation of public and residential buildings in the national problematic territories.

17.2. Given the implementation of the Lithuanian Housing Strategy, under the 23 September 2004 Resolution No. 1213 (Valstybės žinios, No. 143-5232, 2004; No. 78-2839, 2005), the Government of the Republic of Lithuania approved the Programme of Multi-Apartment Buildings Modernization, setting the following objective: by increasing the efficiency of energy use, reducing heating expenses, ensure favourable conditions for owners of multi-apartment buildings and low income population as well as single persons to modernize their apartments in multi-flat buildings wherein they reside. Upon the implementation of the said Programme, about 70% of multi-apartment buildings constructed before 1993 will be modernized. Thermal energy and fuel consumption in the present housing sector will decrease by 30%.

17.3. Special programme “Implementation of energy saving projects”, which ensures the financing of preparation and realization of the projects for increasing efficiency of energy use, energy resources and energy savings the implementation of which provides the savings of energy resources and energy, is carried out according to the Rules of administration of the programmes funds, granted for financing the project activities and forming the capital, of the Ministry of Economy of the Republic of Lithuania, approved by the 27 April 2006 Order No. 4-143 of the Minister of Economy of the Republic of Lithuania (Valstybės žinios, No. 54-1966, 2006). Implementation of energy savings projects in public buildings is financed from the said Programme.

17.4. Under the 1 September 2006 Resolution No. 843 (Valstybės žinios, No. 94-3699, 2006), the Government of the Republic of Lithuania approved the Programme of Renovation and Reconstruction of Students Hostels of Higher University Education Establishments for 2006–2009. The foregoing Programme set the objective to renovate hostel buildings, to ensure their conformity with the essential construction requirements, to increase energy performance and improve students' living conditions in hostels, facilities of hygiene, usage of premises. After the reconstruction and repair of hostels, higher education institutions will save approximately 30% of heat consumed before the renovation of buildings.

17.5. Under the 16 November 2005 Resolution No. 1230 (Valstybės žinios, No. 137-4919, 2005), the Government of the Republic of Lithuania approved the 2006-2008 Programme of Reconstruction of Comprehensive and Professional Schools and Supply with Training Aids, one of the objectives of the Programme is to renovate buildings of schools. Tasks set in the Programme provide for the following: to use the saved funds received from the reduced use of energy for improving education quality and availability; to train the personnel of renovated

schools, to use heat, electricity, to ensure proper maintenance of reconstructed buildings in order to prolong the usage time of buildings.

17.6. Under the 17 September 2002 Resolution No. 1454 (Valstybės žinios, No. 92-3943, 2002), the Government of the Republic of Lithuania approved the Programme on Libraries Renovation and Modernisation for 2003-2013, one of the objectives of which is to improve activities of libraries by renovating old and constructing new public library buildings. In reconstructed, repaired or new library buildings, modernized heating, electricity and other systems will ensure rational use of state and municipalities' funds, reduce costs of rendering cultural services to inhabitants.

17.7. Under the 24 May 2004 Resolution No. 619, the Government of the Republic of Lithuania approved the Programme of the Renovation of Custodial Places and the Humanization of Conditions of Imprisonment for the years 2004 – 2009 (Valstybės žinios, No. 85-3081, 2004) the objective of which is by 2010 to reconstruct custodial places so that they correspond to the requirements as prescribed in the Lithuanian Hygiene Norms and the European Prison Rules, to improve the living environment of imprisoned persons, their medical care, to remove custodial hospital, to supply custodial institutions with capital tangible assets.

17.8. Under the 4 August 2006 Resolution No. 785 (Valstybės žinios, No. 88-3470, 2006), the Government of the Republic of Lithuania approved the Programme of Modernization of Cultural Centres for 2007–2020. In pursuance of the objectives set forth in the said Programme, it has been planned to capitally repair buildings of cultural centres of municipalities. The implementation of the foregoing Programme will ensure the saving of funds for maintenance of municipal cultural centres and creation of proper working conditions for their employees.

17.9. Under the 28 December 2006 Order No. ISAK-2456, the Minister of Education and Science of the Republic of Lithuania approved the Programme of Renovation and Reconstruction of Academic and Studies Institutions for 2007–2009 (Valstybės žinios, No. 4-174, 2007). The objective of the said Programme is to renovate buildings of academic and studies institutions, to secure their conformity with the material building requirements, increase energy performance, improve the quality of academic and study process, usage and maintenance conditions of appropriate buildings.

17.10. Under the 14 March 2007 Resolution No. 275 (Valstybės žinios, No. 34-1238, 2007), the Government of the Republic of Lithuania approved the Programme of Modernization of Museums for 2007–2015, which sets the following objectives: to create favourable conditions in the museums for proper accumulation, storage, restoration, exhibition and protection of cultural heritage values as well as to develop public creativity upon qualitative renovation of museum activities.

#### 18. Tax rebates are assigned:

18.1. According to the Law on Value Added Tax of the Republic of Lithuania (Valstybės žinios, No. 35-1271, 2002), the standard VAT rate is 18%. Reduced 9% rate of VAT shall be applied to supplies of services relating to construction, renovation and insulation of residential houses which are financed with state and municipal budget resources as well as with soft credits granted by the state and resources of state special funds.

18.2. According to the Law on Excise Duties of the Republic of Lithuania (Valstybės žinios, No. 98-3482, 2001; No. 26-802, 2004), energy products, electricity, hard coal, coke and

lignite are identified as a subject of excise duties. However, Lithuania was granted a transition period for electricity, hard coal, coke and lignite taxation. Electricity will be subject to taxation from 1 January 2010. Orimulsion will be subject to excise duty of 0 Litas per ton of product until 1 January 2016. Higher excise duties will be imposed on petrol and diesel fuels. Increasing prices of energy products, electricity will induce a more efficient use of energy and wider use of renewables.

18.3. According to the Law on Environmental Pollution Charge of the Republic of Lithuania (Valstybės žinios, No. 47-1469, 1999; No. 13-474, 2002), natural persons and legal entities, implementing environment protection measures that reduce pollutant emission into atmosphere from stationary pollution sources at least 5% calculating from the highest fixed permitted pollution standard, under the established procedure shall be exempt from pollution charge if pollutant amount is reduced by 5%.

#### **IV. ENERGY END-USE EFFICIENCY IN THE PUBLIC SECTOR**

##### **NEW MEASURES PLANNED TO BE TAKEN**

19. To draft and prepare programmes for implementation of most necessary energy resources and energy savings measures in the buildings maintained from state budget and municipalities' budgets of the Republic of Lithuania.

20. To analyze energy efficient public procurement measures as submitted in Annex VI of the Directive, and apply at least two of them in the public sector:

20.1. 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);

20.2. 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 authorities or agencies, using, where applicable, minimized life-cycle cost analysis or comparable methods to ensure cost effectiveness;

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

20.4. requirements to replace or retrofit existing equipment and vehicles with the equipment listed in points 20.2 and 20.3;

20.5. requirements to use energy audits and implement the resulting cost-effective recommendations;

20.6. 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.

21. To prepare recommendations that would endeavour to use energy efficiency criteria in tendering procedures for public procurement.

22. To assign institutions responsible for the integration of energy efficiency improvement requirements in tendering procedures for public procurement.



23. To ensure that information on best energy and energy resources use practices is exchanged and widely disseminated among public sector bodies.

24. To communicate effectively the examples of best practice of the public sector in the mass media.

#### MEASURES UNDER IMPLEMENTATION

25. In 2007–2013 it is planned to give support from the EU Structural Funds to renovate public buildings.

26. The following programmes designed to increase energy efficiency in the public sector buildings are implemented:

26.1. The Programme of Renovation and Reconstruction of Students Hostels of Higher University Education Establishments for 2006–2009;

26.2. The Programme of Reconstruction of Comprehensive and Professional Schools and Supply with Training Aids for 2006–2008;

26.3. The Programme on Libraries Renovation and Modernisation for 2003–2013;

26.4. The Programme of the Renovation of Custodial Places and the Humanization of Conditions of Imprisonment for the years 2004 – 2009;

26.5. The Programme of Modernization of Cultural Centres for 2007–2020;

26.6. The Programme of Renovation and Reconstruction of Academic and Studies Institutions for 2007–2009;

26.7. The Programme of Modernization of Museums for 2007–2015;

26.8. Special programme “Implementation of energy savings projects”.

27. Energy use audits are being organized and performed in public buildings and measures recommended in the audit report are being implemented.

28. Employees engaged in the public sector are consulted, provided with appropriate information, trained on the topics of increasing energy efficiency.

29. Information on savings of energy resources and energy is disseminated.

#### V. ENERGY DISTRIBUTORS, DISTRIBUTION SYSTEM OPERATORS AND RETAIL ENERGY SALES COMPANIES

##### NEW MEASURES PLANNED TO BE TAKEN

30. To prepare draft schemes of implementation of Article 6 set in the Directive and by holding consultations with the interested parties, to prepare the impact assessment of such schemes.

31. To draft, prepare and adopt legislation and regulations that are necessary for the implementation of the most optimal scheme.

32. To oblige energy undertakings to submit, on a yearly basis, aggregated statistical information on their energy users.

## **VI. AVAILABILITY OF INFORMATION**

### **NEW MEASURES PLANNED TO BE TAKEN**

33. To establish procedure regarding the delivery of information about energy undertakings on efficient use of energy resources and energy, safe and efficient use of energy objects and facilities, objects and facilities that undergo construction, reconstruction, energy prices and services to energy users and municipal bodies.

34. To render information, consulting, organizational support for cooperation of Lithuanian and EU business entities as well as academic and advisory institutions, participating in EU programmes designed to increase the efficiency of energy use and energy resources.

### **MEASURES UNDER IMPLEMENTATION**

35. Final consumers of energy are consulted, informed; trainings on the topics related to increasing energy efficiency are carried out.

36. Information on the programmes that are carried out is communicated and announced, consultations and trainings how to use such programmes are performed.

37. Preparation and printing of information material on energy resources and energy savings are arranged; ideas related to energy savings are disseminated via TV and radio; conferences, seminars, tenders, exhibitions, which enhance the ability of national specialists and society to use energy resources and energy in a more efficient manner, are held; information on projects, increasing energy efficiency and financing possibilities, is spread.

## **VII. AVAILABILITY OF QUALIFICATION, ACCREDITATION AND CERTIFICATION SCHEMES**

### **NEW MEASURES PLANNED TO BE TAKEN**

38. To draft and prepare a procedure for assessment of auditors of energy use.

### **MEASURES UNDER IMPLEMENTATION**

39. Procedure for assessment of experts for certification of energy performance of buildings has been established (the Technical Regulations for Building Construction STR 1.02.09:2005 "Schedule of the procedure for acquisition of the right to perform energy performance assessment of buildings", approved by the 28 December 2005 Order No. D1-641 of the Minister of Environment of the Republic of Lithuania (Valstybės žinios, No. 2-19, 2006).

40. Procedure for assessment of heads engaged in the principal fields of construction technical activities (design of construction works, supervision of the implementation of a design documentation of construction works, expert examination of a design documentation of construction works, technical supervision of the construction) (the Technical Regulations for Building Construction STR 1.02.06:2006 "Schedule of the procedure to acquire the right hold

the duties of the heads engaged in the principal fields of construction technical activities", approved by the 15 January 2007 Order No. D1-33 of the Minister of Environment of the Republic of Lithuania (Valstybės žinios, No. 8-339, 2007)) has been set.

41. Procedure for assessment of employees engaged in the construction and operation of energy facilities and equipment ("Rules of assessment of employees building and operating energy objects and facilities", approved by the 24 March 2005 Order No. 4-122 (Valstybės žinios, No. 41-1321, 2005)) has been set.

42. Requirements for qualification of inspectors of the efficiency of boilers, heating systems, air conditioning systems have been established (Regulation of efficiency inspection of boilers fired by non-renewable liquid or solid fuel of an effective rated output at least 20 kW, and heating installations with boilers of an effective rated output of more than 20 kW which are not older than 15 years, fired by non-renewable liquid or solid fuel, Regulation of efficiency inspection of air conditioning systems of an effective rated output of more than 12 kW, have been approved by the 28 February 2006 Order No. 4-73 (Valstybės žinios, No. 27-902, 2006), as well as the Training Programme of inspectors of the efficiency of boilers fired by non-renewable liquid or solid fuel of an effective rated output at least 20 kW, and heating installations with boilers of an effective rated output of more than 20 kW which are not older than 15 years, fired by non-renewable liquid or solid fuel, and the Training Programme of inspectors of the efficiency of air conditioning systems of an effective rated output of more than 12 kW, have been approved by the 18 May 2007 Order No. V(6)-145 of the General Director of the Lithuanian Labour Market Training Authority under the Ministry of Social Security and Labour).

## **VIII. ENERGY EFFICIENT TARIFFS AND OTHER REGULATIONS FOR NET-BOUND ENERGY**

### **MEASURES UNDER IMPLEMENTATION**

43. Transmission and distribution tariff structure, inducing to reduce the volume of distributed or transmitted energy has been created and legalized because tariffs of natural gas, electricity transmission or distribution and heat distribution are shifting and depend on the amount of transmitted or distributed energy.

## **IX. ENERGY AUDITS**

### **NEW MEASURES PLANNED TO BE TAKEN**

44. To draft and prepare a procedure for performance of energy audits.

### **MEASURES UNDER IMPLEMENTATION**

45. Certification procedure in accordance with the requirements set forth in Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings has been prepared and legalized (The Technical Regulations for Building Construction STR 2.01.09:2005 "Energy performance of buildings. Certification of Energy Performance" approved by the 20 December 2005 Order No. D1-624 of the Minister of Environment of the Republic of Lithuania (Valstybės žinios, No. 151-5568, 2005) (OJ Special Edition, 2004, Chapter 12, Volume 2, p. 168).

## X. METERING AND INFORMATIVE BILLING OF ENERGY CONSUMPTION

### NEW MEASURES PLANNED TO BE TAKEN

46. To establish requirements that, in so far as it is technically possible, financially reasonable and proportionate in relation to the potential energy savings, final customers for electricity, natural gas, district heating and/or cooling and domestic hot water are provided with competitively priced individual meters that accurately reflect the final customer's actual energy consumption and that provide information on actual time of use.

### MEASURES UNDER IMPLEMENTATION

47. Requirements with regard to installation of billing and metering facilities of energy that is generated, transmitted, distributed, sold, exported, imported or transmitted by transit have been established.

## IV. EARLY ACTIONS

48. Energy savings in a particular year following the entry into force of this Directive that result from energy efficiency improvement measures initiated in a previous year not earlier than 1995 and that have a lasting effect may be taken into account in the calculation of the annual energy savings.

49. Energy savings measures implemented since 1995:

49.1. In the period of 1996–2000, the National Energy Efficiency Programme and its key implementation directions for 1996–2000, approved by the 5 August 1996 Resolution No. 940 of the Government of the Republic of Lithuania (Valstybės žinios, No. 76-1833, 1996) were carried out. In the period of 2001–2005, the National Energy Efficiency Programme for the summary and key implementation directions for 2001–2005, approved by the 19 September 2001 Resolution No. 1121 of the Government of the Republic of Lithuania (Valstybės žinios, No. 82-2856, 2001), was implemented. In accordance with these Programmes, organizational, legal, economic, technology improvement and installation, applied scientific investigations, public education and information measures designed to improve efficiency of energy resources and energy use were carried out.

49.2. From the EU Structural Funds in accordance with the Single Programming Document of Lithuania for 2004–2006, approved by the 2 August 2004 Resolution No. 935 of the Government of the Republic of Lithuania (Valstybės žinios, No. 123-4486, 2004), support designed to improve energy efficiency in public buildings was given.

49.3. Quite a number of other programmes intended to assist municipalities to carry out construction, reconstruction and repairs works of education, culture, health care, social and other purpose buildings as well as to acquire capital tangible assets necessary for implementation of other municipal projects related to reconstruction of municipal heat and energy sector, water management systems, street lighting, etc, were carried out:

49.3.1. The programme of construction, reconstruction, repairs and material provision of education, culture, health care, social and other purpose municipal buildings for 2006, approved by the 29 May 2006 Resolution No. 481 of the Government of the Republic of Lithuania (Valstybės žinios, No. 61-2192, 2006);

49.3.2. The programme of construction, reconstruction, repairs and material support of education, culture, health care, social and other purpose municipal buildings for 2005, approved by the 30 May 2005 Resolution No. 595 of the Government of the Republic of Lithuania (Valstybės žinios, No. 69-2474, 2005);

49.3.3. The programme of construction, reconstruction, repairs and material provision of education, culture, health care, social and other purpose municipal buildings for 2004, approved by the 19 April 2004 Resolution No. 449 of the Government of the Republic of Lithuania (Valstybės žinios, No. 58-2059, 2004);

49.3.4. The programme of construction, reconstruction, repairs and material provision of education, culture, health care, social and other purpose municipal buildings, approved by the 8 April 2003 Resolution No. 425 of the Government of the Republic of Lithuania (Valstybės žinios, No. 35-1480, 2003).

49.4. School Improvement Programme, approved by the 28 May 2002 Resolution No. 759 of the Government of the Republic of Lithuania (Valstybės žinios, No. 54-2130, 2002). School buildings were renovated using the Programme funds in 2002 – 2005.

49.5. On 28 October 2002, the Ministry of Finance of the Republic of Lithuania and North Investment Bank signed the loan agreement designed to finance the Programme of State Buildings Energy Savings Investments. The foregoing Programme was focused on the objective to improve energy efficiency in public buildings; reduce energy costs and induce investments in energy saving measures. Funds of the foregoing Programme were allocated for renovation of hostels of higher education, health care institutions and state owned administrative buildings.

49.6. Energy saving/housing demonstrative project, which was financed from the loan received by the Republic of Lithuania after signing the agreement with the International Reconstruction and Development Bank. Municipalities, associations of owners of multi-apartment residential buildings and owners of individual houses, participating in the project, could receive soft loans designed for the implementation of energy savings measures.

49.7. The Regulation of Technical Requirements for Building Construction STR 2.05.01:1999 "Thermal Technique of Building Envelope", approved by the 29 April 1999 Order No. 117 of the Minister of Environment of the Republic of Lithuania (Valstybės žinios, No. 41-297, 1999), which is not in force since 19 August 2005 (Valstybės žinios, No. 100-3733, 2005). The foregoing Technical Regulation was established in order to set out stricter thermal technical requirements for projection of residential, public and industrial building envelopes.

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Energy Efficiency Action Plan  
Annex 1

**CALCULATION OF ENERGY SAVINGS TARGET**

		Final consumption, ktoe					
		2001	2002	2003	2004	2005	Average
1.	Overall final energy consumption	3838.6	3987.7	4097.8	4263.8	4446.3	4126.8
2.	Final inland energy consumption of the consumers that do not fall within the scope of this Directive	449.6	468.3	472.6	492.2	525.2	481.6
3.	Final inland energy consumption of fuel that does not fall within the scope of this Directive (aviation petrol and kerosene-type jet fuel)	34.8	30.6	33.0	39.4	50.8	37.7
4.	Final inland energy consumption according to the application of this Directive, ktoe (1-2-3)	3354.2	3488.8	3592.2	3732.2	3870.3	3607.5
9% energy savings target in 2016, ktoe							325
Adopted energy savings target, ktoe							400
Intermediate national energy savings target in 2010, ktoe							54

Energy Efficiency Action Plan  
Annex 2**NET CALORIFIC VALUES OF ENERGY SOURCES**

	<b>Energy sources</b>	<b>Net calorific value, toe/kg</b>
1.	Hard coal	0.60
2.	Brown coal	0.35
3.	Peat	0.28
4.	Peat briquettes	0.36
5.	Coke and semi-coke	0.70
6.	Wood and wood waste	0.342
7.	Agricultural waste	0.35
8.	Charcoal	0.651
9.	Bioethanol fuel	0.884
10.	Biodiesel fuel	0.884
11.	Biogas	0.48
12.	Natural gas	1.176
13.	Shale oil	0.932
14.	Fuel oil	0.955
15.	Diesel fuel	1.022
16.	Motor petrol	1.05
17.	Liquefied petroleum gas	1.11
18.	Petroleum coke	0.73
19.	Gasoline	1.022