STATE POLICY
FOR ENERGY EFFICIENCY INCREASE AND USE OF RENEWABLES IN THE REPUBLIC OF BELARUS

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Department for Energy Efficiency of the State committee on standardization is a governmental body authorized to implement state policy in the field of efficient use of fuel and energy resources including renewable energy sources.

Main tasks include:

1. implementation of state policy in the field of efficient use of fuel and energy resources;

2. establishment of technical norms, standardization and confirmation of compliance of energy consuming production, works and services, control of compliance of technical and economic indicators of energy consuming and energy generating equipment with state standards, norms and requirements in the field of efficient use of fuel and energy resources;

3. participation in the conduct of the state expertise of energy efficiency of project designs on the construction of new sites, development (reconstruction, modernization) of operating sites with regard to compliance with requirements of efficient use of fuel and energy resources;

4. ensuring in accordance with established procedure state surveillance of:
   rational use of fuel, electric and heat power,
   implementation of measures to save fuel and energy resources by users and producers of these resources, and
   compliance with norms for furnace fuel consumption, electric and heat power consumption.
Legislation in the field of energy efficiency and use of renewables

2. Law of the Republic of Belarus «On renewable energy sources» of 27 December 2010 №204-З.
3. Directive of the President of the Republic of Belarus «Saving and thrift are the main factors of economical security of the state» of 14 June 2007 №3.
Legislation in the field of energy efficiency and use of renewables

7. Other special programmes in the field of energy efficiency and renewables:

7.1. State programme for the construction of power sources fired by domestic fuels in 2010-2015 (approved by the Regulation of the Council of Ministers of the Republic of Belarus of 19 July 2010 N1076);

7.2. Programme for the construction of power sources fired by biogas in 2010–2012 (approved by the Regulation of the Council of Ministers of the Republic of Belarus of 9 June 2010 N885);

Objectives for energy efficiency and use of domestic energy resources and renewables in Belarus

1. Reduce the GDP energy intensity:
   - by 29-32 per cent in 2011-2015;
   - by 20 per cent in 2016-2020.

2. Ensure energy saving (in comparable conditions):
   - at least 7.1-8.9 million tons of fuel equivalent in 2011-2015;
   - at least 5.2 million tons of fuel equivalent in 2016-2020.

3. Ensure use of domestic energy resources in the energy balance for the production of heat and electric power:
   - at least 25 per cent in 2012;
   - at least 28 per cent in 2015;
   - at least 32 per cent in 2020.
Dynamics of GDP, gross consumption of fuel and energy resources (GCFER) and GDP energy intensity in 1997-2010 (%)
### GDP energy intensity in 2008
*(source: International Energy Agency)*

<table>
<thead>
<tr>
<th>Country</th>
<th>1990</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>0.58</td>
<td>0.42</td>
</tr>
<tr>
<td>Ukraine</td>
<td>0.55</td>
<td>0.4</td>
</tr>
<tr>
<td>Belarus</td>
<td>0.78</td>
<td>0.31</td>
</tr>
</tbody>
</table>

**Diagram:**

- **GDP energy intensity (toe / thousand 2000 US$ PPP)**
- **Belarus 2010 - 0.29**
- **Belarus 2015 - 0.2-0.21**
Structure of the gross consumption of fuel and energy resources in the Republic of Belarus in 2010 (%)

Gross consumption of fuel and energy resources is 39.4 million tons of fuel equivalent.
Share of domestic fuel and energy resources consumption, including renewables, for heat and power production in 2005-2020 (%)
Balance of renewables in 2010 (%)
Investments in the use of domestic energy resources, including renewables in 2004-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Investments (million USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>7.4</td>
</tr>
<tr>
<td>2005</td>
<td>14.2</td>
</tr>
<tr>
<td>2006</td>
<td>65.8</td>
</tr>
<tr>
<td>2007</td>
<td>70.1</td>
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<tr>
<td>2008</td>
<td>101.4</td>
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<tr>
<td>2009</td>
<td>122.5</td>
</tr>
<tr>
<td>2010</td>
<td>127.8</td>
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</tbody>
</table>
Investments in energy efficiency and the use of domestic energy resources in 2001-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Investments (million USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>92.5</td>
</tr>
<tr>
<td>2002</td>
<td>91.3</td>
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<tr>
<td>2003</td>
<td>205.7</td>
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<tr>
<td>2004</td>
<td>360.1</td>
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<td>2005</td>
<td>438.9</td>
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<tr>
<td>2006</td>
<td>599.9</td>
</tr>
<tr>
<td>2007</td>
<td>863.4</td>
</tr>
<tr>
<td>2008</td>
<td>1213.9</td>
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<tr>
<td>2009</td>
<td>1063.8</td>
</tr>
<tr>
<td>2010</td>
<td>1397.8</td>
</tr>
</tbody>
</table>
Dynamics of fuel and energy resources consumption by housing stock

Heat power consumed for heating and hot water supply

Electric power consumed

Dwelling area, mln. m2
RUE «Bobruisky plant of tractor components and sets»

- commodity output, million Belarusian rubles
- FER consumption, tons of fuel equivalent

<table>
<thead>
<tr>
<th>Year</th>
<th>Commodity Output</th>
<th>FER Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>15618</td>
<td>16577</td>
</tr>
<tr>
<td>2002</td>
<td>32933</td>
<td>16027</td>
</tr>
<tr>
<td>2003</td>
<td>38623</td>
<td>15848</td>
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<td>2004</td>
<td>52174</td>
<td>71842</td>
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<td>2005</td>
<td>94303</td>
<td>18180</td>
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<tr>
<td>2006</td>
<td>133910</td>
<td>19814</td>
</tr>
<tr>
<td>2007</td>
<td>188910</td>
<td>18753</td>
</tr>
<tr>
<td>2008</td>
<td>244000</td>
<td>13800</td>
</tr>
<tr>
<td>2009</td>
<td>264827</td>
<td>9531</td>
</tr>
<tr>
<td>2010</td>
<td>296148</td>
<td>10223</td>
</tr>
</tbody>
</table>
«Ivatsevichyudrev» public corporation

Output of products, million Belarusian rubles

Product energy intensity

Generalized power inputs, tons of fuel equivalent

Year:
2006: 52308
2007: 63962
2008: 77655
2009: 78377
2010: 89206

Output of products, million

Belarusian rubles

Product energy intensity

Generalized power inputs, tons of fuel equivalent
Examples of successful projects with direct investment in 2010

- Investment contract between the Republic of Belarus and Enertrag AG (Germany) on construction and operation of wind power plants with total installed capacity of 160 MW.

- Agreements between organizations of the Republic of Belarus and TelDaFax AG (Switzerland) on construction of biogas complexes at agricultural organizations (2 sites) and landfills (4 sites).
Change in GDP, the share of energy costs, the gross consumption of energy resources and energy to the level of GDP in 2005 (%)

- Energy intensity
- GDP
- Gross energy consumption

Share of energy costs on GDP
Forecast of dynamics of GDP, gross consumption of fuel and energy resources (GCFER) and GDP energy intensity in 2011-2015 (%)
Investments in energy efficiency and use of domestic energy resources in 2010-2015

Total amount of financing in the field of energy efficiency and domestic energy resources use in 2011-2015 will amount to 8,662.5 million USD.
Cooperation with the World Bank

• Social Infrastructure Retrofitting Project – 22.6 million USD (2002-2008).
• Social Infrastructure Retrofitting Project (additional loan) – 15 million USD (2008-2010).
Cooperation with the UN Development Programme, Global Environment Fund and the UN Economic Commission for Europe

Thank you!

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