Europe

Primary energy consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil</th>
<th>Natural gas</th>
<th>Coal</th>
<th>Nuclear</th>
<th>Renewables</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>792</td>
<td>727</td>
<td>704</td>
<td>668</td>
<td>637</td>
</tr>
<tr>
<td>2010</td>
<td>727</td>
<td>778</td>
<td>694</td>
<td>653</td>
<td>637</td>
</tr>
<tr>
<td>2015</td>
<td>704</td>
<td>745</td>
<td>668</td>
<td>637</td>
<td>620</td>
</tr>
<tr>
<td>2020</td>
<td>686</td>
<td>727</td>
<td>668</td>
<td>637</td>
<td>620</td>
</tr>
<tr>
<td>2025</td>
<td>668</td>
<td>710</td>
<td>668</td>
<td>637</td>
<td>620</td>
</tr>
<tr>
<td>2030</td>
<td>653</td>
<td>704</td>
<td>668</td>
<td>637</td>
<td>620</td>
</tr>
<tr>
<td>2035</td>
<td>637</td>
<td>704</td>
<td>668</td>
<td>637</td>
<td>620</td>
</tr>
</tbody>
</table>
Europe

Shares of fuels in primary energy consumption

Consumption of energy in 2035 compared to 2010
EU-27

Primary energy consumption, mtoe

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td>724</td>
<td>659</td>
<td>637</td>
<td>619</td>
<td>603</td>
<td>587</td>
<td>572</td>
</tr>
<tr>
<td>Nuclear</td>
<td>260</td>
<td>239</td>
<td>217</td>
<td>204</td>
<td>204</td>
<td>204</td>
<td>204</td>
</tr>
<tr>
<td>Renewables</td>
<td>123</td>
<td>177</td>
<td>213</td>
<td>248</td>
<td>284</td>
<td>320</td>
<td>356</td>
</tr>
<tr>
<td>Coal</td>
<td>317</td>
<td>277</td>
<td>258</td>
<td>236</td>
<td>211</td>
<td>191</td>
<td>174</td>
</tr>
<tr>
<td>Natural gas</td>
<td>446</td>
<td>450</td>
<td>469</td>
<td>487</td>
<td>497</td>
<td>504</td>
<td>504</td>
</tr>
</tbody>
</table>
EU-27

Shares of fuels in primary energy consumption

2010
- Natural gas: 25%
- Oil: 15%
- Coal: 10%
- Renewables: 13%
- Nuclear: 10%

2035
- Natural gas: 37%
- Oil: 32%
- Coal: 28%
- Renewables: 20%
- Nuclear: 11%

Consumption of energy in 2035 compared to 2010

<table>
<thead>
<tr>
<th>Fuel</th>
<th>2010 mtoe</th>
<th>2035 mtoe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>250 mtoe</td>
<td>220 mtoe</td>
</tr>
<tr>
<td>Oil</td>
<td>640 mtoe</td>
<td>620 mtoe</td>
</tr>
<tr>
<td>Natural gas</td>
<td>510 mtoe</td>
<td>490 mtoe</td>
</tr>
<tr>
<td>Nuclear</td>
<td>250 mtoe</td>
<td>240 mtoe</td>
</tr>
<tr>
<td>Renewables</td>
<td>400 mtoe</td>
<td>350 mtoe</td>
</tr>
</tbody>
</table>
Fuel consumption by 2035 compared with 2010 level (%)

- Renewables: EU-27 = 101%, Europe = 97%
- Natural gas: EU-27 = 12%, Europe = 17%
- Coal: EU-27 = -37%, Europe = -30%
- Nuclear: EU-27 = -15%, Europe = -11%
- Oil: EU-27 = -13.2%, Europe = -12.4%
Gas consumption in Europe grows at modest rates (0.7% per year)
Europe will remain the main importer of gas

Interregional natural gas trade in 2035, bcm
One-third of gas consumption in Europe will be provided by LNG imports

European natural gas balance

- Gas production in Norway
- Gas production in other European countries
- Imports from North America
- Imports from Latin America
- Imports from CIS
- Imports from Africa
- Imports from Middle East

European interregional gas trade

- Pipeline imports
- LNG imports
Gas prices

Due to high transportation costs, a significant gap price will remain in the gas prices of the particular regional markets
In Russia natural gas will retain its dominant position in the structure of energy production and consumption, while the role of non-fossil fuels will increase.
Russian gas production will increase due to the new field development in Eastern Siberia and Far East, as well as Shtokman.
Russian gas will mainly go to the domestic market, where the demand is growing in all sectors, while the largest increase in gas exports will be to the Eastern direction.
Middle-term outlook for natural gas demand in Europe

The chart shows the middle-term outlook for natural gas demand in Europe from 2012 to 2020, with various scenarios represented by different lines and labels.

- **ENTSOG 2011-2020 (EU-27), 2010**
- **Eurogas Environmental (EU-27) “Long-term Outlook for gas demand and supply”, May 2010**
- **Eurogas Base case (EU-27) “Long-term Outlook for gas demand and supply”, May 2010**
- **Primes Reference Case 2010 (EU-27)**
- **IEA WEO New Policies (OECD Europe), 2010**
- **IEA WEO New Policies (EU-27), 2011**
- **IEA Golden Rules (OECD Europe), 2012**
- **IEA Golden Rules (EU-27), 2012**
- **IEA Golden Age of Gas (OECD Europe), 2011**
- **IEA Golden Age of Gas (EU-27), 2011**
- **IEA Medium-Term Gas Markets (Europe), 2012**
- **IEA Medium-Term Gas Markets (EC-27), 2012**
- **EIA Reference Case (OECD Europe), 2011**
- **CERA Global Redesign Scenario (Europe), 2011**
- **ERI RAS (Europe), 2012**
- **ERI RAS (EU-27), 2012**
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