Energy policy reforms in the Serbian oil sector: An update

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A R T I C L E   I N F O

Keywords:
- Oil sector
- Regulatory framework reforms
- New petroleum projects
- Sustainable development projects

A B S T R A C T

Since 2012, when Serbia became a candidate for European Union membership, the harmonization of the Serbian energy policy regulatory framework in compliance with EU energy acquis has been accelerating. An umbrella framework adopted recently as a basis for conducting reforms in all Serbian energy sub-sectors involves a new Energy law that transpose the EU Third Energy Package and a new Energy Development Strategy of Serbia by 2025, with projections to 2030. The priorities of Serbian energy policy are increasing energy security supply, the further development of the energy market, and provision of sustainable energy development. The adopted strategic objectives for the oil sector are: providing a secured supply on the domestic market in petroleum products whose quality meets the highest EU standards; reduction of import dependency, and securing new crude oil supply routes. This paper provides an overview of the Serbian oil sector reforming progress concerning adoption of new legislation relating to key issues for adjustment with EU directives. Also, it represents new activities and major development projects in the oil sector, including projects that contribute to the development of the Serbian oil sector on the principles of sustainability.

1. Introduction

Serbia became a candidate for European Union membership in March 2012. In December 2013 the European Union Council approved the opening of negotiations on Serbia’s accession, and the first Intergovernmental Conference as the start of accession negotiations was held in January 2014. It was determined how and when Serbia would adopt the EU acquis communautaire.

One of the most important issues of Serbia’s roadmap to full EU membership is energy policy reforms, i.e. the Energy chapter, number 15, in negotiations, which is planned to be opened by the end of 2017.

The energy sector, as one of the most important in Serbia’s industry from the economic, environmental and social point of view, is on the path of reform, reorganization and harmonization, applying EU energy policies and strategies.

The roadmap for Serbia’s energy sector reform includes improvement in internal energy market openings, energy supply security, competition, energy efficiency increase, environmental protection, and the promotion and greater use of renewable energy sources (EU Information Centre, 2014). Intensive energy policy reforms in Serbia concerning all energy sectors are underway. These reforms started in 2004, but they have accelerated over the last few years. As a basis for conducting reforms in the energy sector, a new legal and institutional framework was recently adopted. The most important documents are the new Energy Law, adopted by the Serbian Parliament in 2014, which includes the European Union’s Third Energy Package (EC, 2009). In compliance with that, the document “Energy Development Strategy of Serbia by 2025 with projections to 2030” was adopted by the Serbian government in December 2015. The main strategic priorities are defined according to European Energy Community strategy.

Following new trends in world and European energy policies in compliance with the principles of sustainable development, NIS-Gazprom neft company (NIS), which is engaged in exploration, production, refining, and trade in crude oil, petroleum products and natural gas in Serbia, is being transformed from a petroleum to an energy company, by using cleaner fossil-fuel technology, increasing energy efficiency, improved environmental protection, and by starting energy production from renewable sources.

The aim of this article is to present an update on the energy policy regulatory framework since the European Union granted Serbia membership candidate status, relating to reforms presented in the paper of Karovic Maricic et al. (2012). Besides that, it provides an overview of new activities and major development projects in the oil sector that contribute to achieving defined strategic goals by the Energy Development Strategy of the Republic of Serbia for the oil sector i.e. increasing the secured supply of petroleum products of higher quality, improving the petroleum product market, reducing import dependency, with a transition to sustainable energy development (Serbian Ministry of Mining and Energy, 2015).

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https://doi.org/10.1016/j.enpol.2017.11.011
Received 17 August 2017; Received in revised form 3 November 2017; Accepted 5 November 2017
Available online 21 November 2017
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2. Serbia’s main energy indicators

Serbia’s main energy indicators for 2011–2015 period are presented in Table 1. Primary energy production includes the exploitation and use of domestic resources of coal (mostly low energy lignite), crude oil, natural gas and renewable energy (hydropower, geothermal energy, and biomass). Coal is the largest primary energy source, with its share of around 50%, and it is mainly used for electricity production. It can be seen that primary energy production increased in the 2012–2013 period, due to an increase in oil and gas production. For that reason, as well as for TPES reduction (mostly due to a decrease in industrial sector consumption), import dependency has been reduced.

In May 2014 severe floods caused serious damage in energy sector, where 90% of the damage was in coal and power generation sectors. Overall damage in the energy sector was estimated at EUR 183.46 million (United Nations and the World Bank, 2014). Disruption in coal production has caused a significant decline in domestic production of primary energy and electricity. A decrease in coal production by 21% compared to production in 2013 affected increasing import dependency, and in 2015 security of electricity supply was re-established. The share of the total primary energy supply in 2015 is presented in Fig. 1.

Electricity generation is dominated by coal with a 71% share, followed by hydro potential with a 28% share, and a minimal amount provided by gas.

In comparison with surrounding countries and EU 28 countries, primary energy consumption per inhabitant in Serbia in 2015 was above regional values (except for Hungary, Bulgaria and Bosnia and Herzegovina), but less than the European Union average (Fig. 2 with last available data from 2015). Energy intensity or total primary energy consumption per unit of GDP (at purchasing power parity) in 2015 was above all regional values (except for Bosnia and Herzegovina) and double the European Union average (Fig. 3 with last available data from 2015).

Fig. 4 presents CO$_2$ emission from fuel combustion in Serbia, surrounding countries, EU-28 and the world in 2015 (toe/capita). Source: IEA (2017a, 2017b).

Table 1

<table>
<thead>
<tr>
<th>Parameters (ktoe)</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total primary production</td>
<td>11,161</td>
<td>10,781</td>
<td>11,362</td>
<td>9,443</td>
<td>10,860</td>
</tr>
<tr>
<td>Solids</td>
<td>7825</td>
<td>7287</td>
<td>7671</td>
<td>5713</td>
<td>7199</td>
</tr>
<tr>
<td>Crude oil</td>
<td>1124</td>
<td>1230</td>
<td>1279</td>
<td>1217</td>
<td>1113</td>
</tr>
<tr>
<td>Natural gas</td>
<td>405</td>
<td>425</td>
<td>423</td>
<td>444</td>
<td>506</td>
</tr>
<tr>
<td>RES</td>
<td>1807</td>
<td>1848</td>
<td>1989</td>
<td>2069</td>
<td>2042</td>
</tr>
<tr>
<td>Imports</td>
<td>5851</td>
<td>4836</td>
<td>4807</td>
<td>4916</td>
<td>5732</td>
</tr>
<tr>
<td>Solids</td>
<td>802</td>
<td>410</td>
<td>309</td>
<td>487</td>
<td>629</td>
</tr>
<tr>
<td>Oil</td>
<td>1516</td>
<td>1115</td>
<td>1845</td>
<td>1853</td>
<td>1899</td>
</tr>
<tr>
<td>Oil products</td>
<td>1556</td>
<td>1377</td>
<td>796</td>
<td>856</td>
<td>1113</td>
</tr>
<tr>
<td>Natural gas</td>
<td>1391</td>
<td>1425</td>
<td>1502</td>
<td>1110</td>
<td>1539</td>
</tr>
<tr>
<td>Electricity</td>
<td>576</td>
<td>497</td>
<td>351</td>
<td>609</td>
<td>542</td>
</tr>
<tr>
<td>Net imports</td>
<td>4940</td>
<td>4050</td>
<td>3590</td>
<td>3718</td>
<td>4259</td>
</tr>
<tr>
<td>Total primary energy supply (TPES)</td>
<td>16,176</td>
<td>14,533</td>
<td>14,891</td>
<td>13,259</td>
<td>15,051</td>
</tr>
</tbody>
</table>

Fig. 1. Share of total primary energy supply in 2015. Source: Statistical Office of the Republic of Serbia (2017); IEA (2017b).

Fig. 2. Primary energy consumption per inhabitant in Serbia, surrounding countries, EU-28 and the world in 2015 (toe/capita). Source: IEA (2017a, 2017b).

Fig. 3. Energy intensity in Serbia, surrounding countries, EU-28 and the world in 2015 (toe/1000 2010 USD). Source: IEA (2017a, 2017b).

Fig. 4. CO$_2$ emissions per capita in Serbia surrounding countries, EU-28 and the world in 2015 (t CO$_2$/capita). Source: IEA (2017a, 2017b).
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