EP BiH Plans in the context of EU energy policies

1. EP BiH
2. Business policy and goals of EP BiH
3. Plans and projections
4. Summary

Emir Aganović
May 29, 2019
Hydro: **39%**  
Thermal: **61%**

Hydro: **22%**  
Thermal: **78%**

- **GWh**
  - Total: -990, -15%

- **m.t.**
  - Total: -1.7, -23%

Graphs show the production of GWh and m.t. for Thermal, Hydro, Tuzla, and Kakanj over the years from 1990 to 2018.
Reasonable and achievable balance between:

- Security of supply (import dependency)
- Competitiveness (economic growth)
- Sustainability (environmental concerns)

taking into account the specific conditions in BiH and its financial capacity and the economic situation, as well as obligation to ensure affordable energy
Focus of the EU acquis

- Reducing dependence on imported energy
- Mitigation of environmental impacts
- Consumer interest and protection

2. Policy and goals

- Security
- Independency
- RES
- Efficiency

- Affordable and reliable energy

- Fossil fuels
- Emissions limit
- Decarbonisation (CO₂)
Business Policy of EP BiH = EU en. policy

- RES increase
  (intensive investment: hydro, wind, solar, biomass and purchase RE)

- Coal reduction
  (termination of use of old units, reducing working hours, efficiency improvement, cogeneration – district heating)

- Consumer protection and satisfaction
  (security, quality, prices, social sensitivity)
Financial capacities and the economic situation

• Intensive investments are necessary if these goals are to be achieved and to achieve economic growth, sustainable development and employment

• But, investment is limited by financial capacities and capabilities in terms of indebtedness and debt servicing
Financial goals

In order to reach the required financial capacity, it is necessary to achieve the financial objectives:

• increase in profit and return on equity
• maintaining the required liquidity and indebtedness indicators

In case of the EP BiH it primarily means:
• productivity improvement,
• supply of consumers at market prices (in particular households)
• implementation of the aid scheme for vulnerable categories
### 3. Plans and Projections - 3Y Plan

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<td>GWh</td>
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<td>5358</td>
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<td>7351</td>
<td>6983</td>
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<td>6486</td>
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<td>GWh</td>
<td>1113</td>
<td>1703</td>
<td>1625</td>
<td>1680</td>
<td>1784</td>
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<td>RES share %</td>
<td>16%</td>
<td>23%</td>
<td>23%</td>
<td>24%</td>
<td>28%</td>
<td>60.3%</td>
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<tr>
<td><strong>Coal consumt.</strong></td>
<td>000 t.</td>
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<td>000 t.</td>
<td>6188</td>
<td>5724</td>
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3. Plans and Projections
NERP Projections - Emissions

Remaining work hours:
Tz G3-100 MW 17,052
Tz G4-200 MW 16,720
Tz G5-200 MW 40,740
Kak G5-110 MW 13,663
### 3. Plans and Projections

#### Long-term projections

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<th>2017</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
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<td>Production EP BiH Total</td>
<td>GWh</td>
<td>7.009</td>
<td>6.831</td>
<td>7.482</td>
<td>7.744</td>
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<td>10%</td>
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<td>RES EP BiH</td>
<td>GWh</td>
<td>1.002</td>
<td>1.533</td>
<td>1.907</td>
<td>2.216</td>
<td>3.103</td>
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<td>121%</td>
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<td>22%</td>
<td>25%</td>
<td>29%</td>
<td>36%</td>
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<tr>
<td>RES purchase</td>
<td>GWh</td>
<td>111</td>
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<td>167</td>
<td>192</td>
<td>217</td>
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<td>Available</td>
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<td>7.120</td>
<td>6.978</td>
<td>7.649</td>
<td>7.936</td>
<td>8.848</td>
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<td>11%</td>
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<td>RES total</td>
<td>GWh</td>
<td>1.113</td>
<td>1.680</td>
<td>2.074</td>
<td>2.408</td>
<td>3.320</td>
<td>86%</td>
<td>116%</td>
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<td>%</td>
<td>16%</td>
<td>24%</td>
<td>27%</td>
<td>30%</td>
<td>38%</td>
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Based on the assumptions:
- 6 new HPP (234 MW)
- 6 small HPP (51 MW)
- 6 new WP (233 MW)
- 4 thermal units in operation

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**EU 28 in 2017**
- Fossil 48%
- Nuclear 26%
- **RES 26%**
3. Plans and projections

Coal consumption (000 t)

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<tr>
<th>Year</th>
<th>Consumption (000 t)</th>
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<tbody>
<tr>
<td>1990</td>
<td>7416</td>
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<tr>
<td>2011</td>
<td>6522</td>
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<tr>
<td>2017</td>
<td>6187</td>
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<td>2018</td>
<td>5725</td>
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<td>2024</td>
<td>5222</td>
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<td>2028</td>
<td>5208</td>
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-26% decrease in Coal EP BiH from 1990 to 2028

-22% decrease in CO₂ EU emissions from 2015 to 1990

-23% decrease in TPP capacity from 1990 to 2028
Summary

• Long-term projections show that it is possible to make significant changes in EP BiH production portfolio resulting in lower coal use and increased RES

• Intensive investments are needed, and their scope and the dynamics depend on the own financial capacity
Summary

- Financial indicators show the limits in the terms of financial capacity for the realization of large capital projects
  - improvements are necessary in:
    - overall productivity,
    - tariff policy and
    - corporate governance

- Any additional financial burden threatens liquidity and reduces the ability to invest
Summary

• Coal mines status are the most important and social sensitive issue, significant financial resources are needed either for modernization or closure.

• The specificities, conditions and needs of each country, particularly financial capacity and the provision of affordable and reliable energy, must be taken into account when defining the contributions and commitments of the poor countries in the context of the sustainable development program.