TOWARDS COMPETITION ON THE RENEWABLE ENERGY MARKET

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Ministry of Economy
ENERGY STRATEGY OF THE REPUBLIC OF MOLDOVA TILL 2030 – STRATEGIC OBJECTIVES

1. Ensuring the **security of energy supply**

2. Developing **competitive markets** and their regional and European integration

3. Ensuring **sustainability of the energy sector** and climate change mitigation
The Republic of Moldova is highly dependent on energy imports, 86% of the energy consumption is covered by imported energy resources.

The economy of the Republic of Moldova is very energy intensive with an energy intensity value roughly 3 times over EU average.
ENERGY SECTOR CHALLENGES AND THREATS

- The expected growing rate for primary energy consumption until 2020 is 2.7% per year.
- The expected growing rate for final energy consumption equals to 2.2% per year.

- 77% of country’s electricity consumption is generated by Cuciurgan Thermal Power Plant, located on left Dniester river bank.
- 23% of domestic electricity consumption is being generated mainly by local Combined Heat and Power plants.

![Energy Consumption Graph]

![Bar Chart]

- Moldovan TPP /Cuciurgan/ 77%
- Domestic production 23%
- Local CHPs 21%
- Domestic PPs /RE/ 2%
### POWER GENERATING CAPACITIES

**EXISTING VS. PLANNED, STRUCTURED BY FUEL**

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Total Available</th>
<th>Under Development</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COAL</strong></td>
<td>800 MW</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NATURAL GAS/OIL</strong></td>
<td>1.328/420* MW</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NUCLEAR</strong></td>
<td>0 MW</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HYDRO</strong></td>
<td>16 MW</td>
<td>7 MW</td>
<td>200 MW</td>
</tr>
<tr>
<td><strong>RES</strong></td>
<td>7 MW</td>
<td>13 MW</td>
<td>200 MW</td>
</tr>
</tbody>
</table>

**CUMULATIVE CAPACITY**

|                | 2.151 MW | 13 MW | 1.050 MW |

**Note** – New renewable energy power generating capacities are to be commissioned in 2017

* - 2 aggregates of the Cuciurgan TPP are burning natural gas and mazut/oil
ELECTRICITY INTERCONNECTIONS
GEOGRAPHICAL LOCATION OF THE ANALYZED OPTIONS

Three possible asynchronous interconnections through power lines and Back to Back /BtB/ power stations

1. 400 kV OHL Isaccea – Vulcănești Chișinău with BtB station
2. 400 kV OHL Suceava – Bălți with BtB station
3. 400 kV /RO/-Ungheni – Strășeni with BtB station
## EXISTING RES CAPACITIES

<table>
<thead>
<tr>
<th>Source</th>
<th>Existing capacities, MW</th>
<th>Existing tariffs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$E$</td>
<td>$H&amp;C$</td>
</tr>
<tr>
<td>1. Hydro (non-pumping)</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>2. Solar</td>
<td>2,38</td>
<td></td>
</tr>
<tr>
<td>3. Wind</td>
<td>2,33 +10</td>
<td></td>
</tr>
<tr>
<td>4. Biomass</td>
<td></td>
<td>112,57</td>
</tr>
<tr>
<td>- residential sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- public sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Biogas</td>
<td>2,81 +3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>23,52</strong></td>
<td><strong>112,57</strong></td>
</tr>
</tbody>
</table>
SHARE OF RENEWABLE ENERGY IN THE GFEC
THE OVERALL TARGET

17%
- new renewable energy target
RENEWABLE ENERGY SHARE IN GROSS FINAL ELECTRICITY CONSUMPTION

RES – E share in gross final energy consumption


S1  S2  S3

140  130  115

10   10   10

goal  current situation  trend
BREAKDOWN OF THE RES - E PRODUCTION BY SOURCE/ TECHNOLOGY

[Graph showing the production of RES-E by source/technology from 2010 to 2015]
RENEWABLE ENERGY SHARE IN GROSS FINAL ENERGY CONSUMPTION FOR H&C

Graph showing the trend of renewable energy share in gross final energy consumption for H&C from 2010 to 2020. The target line is constant at 30%, while the actual share shows an upward trend. The trend line indicates a steady increase towards the target share.
RENEWABLE ENERGY SHARE
IN GROSS FINAL ENERGY CONSUMPTION BY TRANSPORT SECTOR

RE share in gross final energy consumption for H&C

Target
Real share
Trend
NEW SUPPORTING SCHEMES FOR RE INVESTMENTS
ACCORDING TO THE NEW LAW ON PROMOTION OF THE USE OF RENEWABLE ENERGY

In order to increase the production and use of electricity from RES the following supporting scheme will be applied:

• fixed price (auctions) – for producers who holds or will hold power plants with a power greater than the cumulative capacity limit set by government

• fixed tariffs - for producers who holds or will hold power plants with cumulative power capacity not exceeding the limit set by the government, but not less than 10 kW

• NET metering for small RES investors aiming at covering the own electricity consumption;

• The concept of Single Buyer will be applied
• Electric system operator/TSO/ and DSOs will give priority to RES-E producers
NEW SUPPORTING SCHEME FOR RES INVESTORS
GRAPHIC PRESENTATION OF THE MECHANISM BEHIND THE SCHEME

INSTALLED CAPACITY

100 kW

NET metering

feed-in tariff

0 kW

10 kW

X kW

tender price/ tariff

capacity limit/ threshold

(to be set by Government for different technologies)
TENDERING OF RENEWABLE CAPACITIES
KEY FEATURES

• The Government is organizing and conducting auctions in accordance with a special Regulation, through a Governmental Committee.

• The tender documentation shall set forth terms and conditions including tariff-caps, production capacity limits, construction milestones and other criteria, conditions or requirements that may vary for different categories of renewable energy technologies, set by the Government for each tender.

• ANRE /Regulator/ determines the tariff-caps and suggests them to the Gov.

• A time frame of 24 months is offered to the investor for building the powerplant.

• Only new equipment is allowed, produced at most 36 months before the date of the power plant comissioning.
TENDERING OF RENEWABLE CAPACITIES
MAIN STAGES

1. Establishment of the cumulative RE generating capacity to be tendered
   *Note*: The Gov. Com. can decide on organising simple or complex tenders, for a range of technologies, specifying different criteria and conditions

2. Development of the tender documentation

3. Tendering procedure starting

4. Submitting of the tender documentation/ offers

5. Assessment of the submitted offers
   *Note*: A set of eligibility criteria will be used at first phase, while the awarding criteria will be the price

6. Eligible producer status awarding

7. Monitoring of the RE power plants development

8. PPAs signing
TENDERING OF RENEWABLE CAPACITIES OFFERS EVALUATION CRITERIA

1. Technical credibility criteria
   *Note:* The Offeror will provide the project design documentation or feasibility study ensuring the technical viability of its initiative

2. Financial credibility criteria
   *Note:* The Offeror will demonstrate the availability of the needed investment (equity, loans, guarantees, etc.)

3. Land ownership criteria
   *Note:* The Offeror will prove the land ownership (according to the national legislations)

4. Grid connectivity criteria
   *Note:* The Offeror will prove the technical possibility to get connected to the public grid
THANK YOU!