Towards a new Electricity Market of Ukraine: legislative, organizational, financial and technological basis for implementation

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I. INEFFICIENT WORK OF EXISTING “SINGLE BUYER” MODEL:

• Cross-subsidies from industry to population;
• Lack of competition on wholesale and retail markets;
• Big debts in the whole chain at the market (generation- SC “Energorynok”- oblenergos – consumers)
• Absence incentives to invest in networks and generation;
• Problems with justification of last regulatory decisions in the electricity sector.

II. INTERNATIONAL OBLIGATIONS IN FRONT OF THE EUROPEAN COMMISSION AND EUROPEAN ENERGY COMMUNITY:

• Obligations to fully implement requirements of EUThird Energy Package.

III. STRATEGIC ECONOMIC REASONS FOR UKRAINE TO FOLLOW THE MODERN AND EFFECTIVE ELECTRICITY MARKET MODEL:

• Most EU states use the classic liberalized electricity market design with stock exchange, bilateral contracts, balancing and ancillary services markets;
• In EU only Greece is still using the ”single buyer” model.
KEY REGULATORY DECISIONS ON THE UKRAINE ELECTRICITY MARKET FOR 2017

- The Ministry of energy and coal industry of Ukraine approved the forecasting electricity balance of UES of Ukraine for 2017 with consumption increase level 1,3% in 2017 comparing to 2016;

- The amount of dotation certificates on January 2017 is 4 609,6 million UAH (without VAT);

- The Wholesale Electricity Price for 2017 approved in the amount:
  - I quarter – 1 341,57 UAH/MWh (without VAT), decreased in 10% comparing to IV quarter 2016;
  - II, III, IV quarters – 1 263,76 UAH/MWh (without VAT), decreased in 5,8%;

- The Budget of SC “Energorynok” decreased in 41,5%;

- The average annual tariff of NEC “Ukrenergo” for 2017 decreased from 6,316 kop/KWh to 6,054 kop/KWh (decreased in 4,2%);

- The tariff for SC “Energoatom” for 2017 decreased in 8.9% (from 51,2 kop/KWh to 46,6 kop/KWh);

- The tariff for SC “Ukrhidroenergo” for 2017 decreased in 21,7% (from 85 kop/KWh to 66 kop/KWh);
### Brief overview of problems in the existing electricity market of Ukraine (1/2)

#### Debts Dynamics on Electricity Market of Ukraine for 12M 2016*

<table>
<thead>
<tr>
<th>Category</th>
<th>Debts of Consumers</th>
<th>Debts of Suppliers</th>
<th>Debts of SC “Energorynok”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>on 01.01.17</td>
<td>on 01.01.17</td>
<td>on 01.01.17</td>
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<tr>
<td></td>
<td>26,9 billion UAH</td>
<td>29,8 billion UAH</td>
<td>28,7 billion UAH</td>
</tr>
<tr>
<td>Coal industry</td>
<td>9,5</td>
<td>5,5</td>
<td>1,6</td>
</tr>
<tr>
<td>Water service companies</td>
<td>4,4</td>
<td>2,8</td>
<td>0,0</td>
</tr>
<tr>
<td>Population</td>
<td>3,4</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Housing utilities</td>
<td>1,4</td>
<td>1,6</td>
<td>1,3</td>
</tr>
<tr>
<td>Chemistry industry</td>
<td>1,8</td>
<td>0,8</td>
<td>0,7</td>
</tr>
<tr>
<td>Other industry</td>
<td>1,0</td>
<td>1,5</td>
<td>0,2</td>
</tr>
<tr>
<td>Budget</td>
<td>0,3</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0,1</td>
<td>0,0</td>
<td>0,0</td>
</tr>
</tbody>
</table>

**-without advance payment

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*Source: All-Ukrainian Energy Assembly*
Brief overview of problems in the existing electricity market of Ukraine (1/3)

ELECTRICITY GENERATION PRICES FOR 12M 2016p*

<table>
<thead>
<tr>
<th>Electricity Type</th>
<th>Prices in 2016, UAH/MWh</th>
<th>Electricity outputs 2016, min. KWh</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NPP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HPP</td>
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<td></td>
<td></td>
<td>TPP</td>
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<td>CHPP</td>
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<td></td>
<td></td>
<td>Wind PP</td>
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<td></td>
<td></td>
<td>Biomas PP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HPP (&quot;green tariff&quot;)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Solar PP</td>
</tr>
<tr>
<td>NPP</td>
<td>472</td>
<td>76 162</td>
</tr>
<tr>
<td>HPP</td>
<td>696</td>
<td>8 550</td>
</tr>
<tr>
<td>TPP</td>
<td>1 242</td>
<td>44 904</td>
</tr>
<tr>
<td>CHPP</td>
<td>1 527</td>
<td>9 911</td>
</tr>
<tr>
<td>Wind PP</td>
<td>3 326</td>
<td>924</td>
</tr>
<tr>
<td>Biomas PP</td>
<td>3 514</td>
<td>169</td>
</tr>
<tr>
<td>HPP (&quot;green tariff&quot;)</td>
<td>3 633</td>
<td>189</td>
</tr>
<tr>
<td>Solar PP</td>
<td>8 299</td>
<td>492</td>
</tr>
</tbody>
</table>

*All-Ukrainian Energy Association
Brief overview of problems in the existing electricity market of Ukraine (1/4)

Average TPP tariff during 2016 was: **124,2 kop./KWh**, that is in 41% more than in 2015

**Structure of TPP Tariff for Thermal Generation 2016***

*Source: All-Ukrainian Energy Assembly*
New electricity market law of Ukraine No. 4493: the current status and key features

Current status

• The draft law was voted at the first reading at the Parliament of Ukraine on September 22, 2016;

• The draft law is under finalization and will be ready soon to be submitted for support at the Energy Committee and then, to the Parliament of Ukraine;

• The draft law is supported in its adoption by the international stakeholders: EU Commission, European Energy Community, World Bank, EBRD, USAID and others.

Key features

• Implements EU Third Energy Package;

• Involves many incentives for investments in generation and networks;

• Provides gradual movement from the current “single buyer” model to the new liberalized electricity market model of Ukraine;

• Prescribes conditions for competition in retail level though unbundling of exiting oblenergos;

• Sets up preconditions for further full synchronization with ENTSO-E
The electricity market of Ukraine after adoption of the draft Law of Ukraine ”On electricity market”

Existing “Single Buyer” model will be functioning till the start of operation of the new electricity market of Ukraine (till 01.07.2019)

The key preparation steps during 2 years after adoption of the Law:

- Adoption by the Cabinet of Ministers of Ukraine the Plan for implementation of electricity market reform based on the new Law “On electricity market”;
- Adoption of the law on settlement of debts at the existing electricity market of Ukraine and exercising based on this the relevant settlement;
- Adoption of resolution by NEURC on gradual liquidation of cross-subsidies for population and dotation certificates and its implementation;
- Adoption of secondary legislation for the new electricity market;
- Unbundling of existing oblenergos and setting up distribution system operators and suppliers;
- Buying new software for NEC “Ukrenergo” (balancing and ancillary services markets) and SC “Energorynok” (day-ahead and intraday markets);
Functioning of the new electricity market of Ukraine during transitional period (01.07.2019 – 01.07.2020) under the draft Law of Ukraine “On electricity market”

During transitional period, the compensation for buying electricity under “green tariff” (difference between “green tariff” and price at Day-Ahead Market) is exercised by Nuclear Generation Company through the mechanism of buying service for support RES from Guaranteed Buyer.
Functioning of the new electricity market of Ukraine after transitional period (after 01.07.2020) under the draft Law of Ukraine “On electricity market”

- Combined heat and power plants
- RES (under “green tariff”)
- Nuclear power plants
- Hydro power plants
- Thermal power plants

Guaranteed Buyer

DAY-AHEAD MARKET AND INTRADAY MARKET (administrated by Market Operator)

BILATERAL CONTRACT MARKET

BALANCING MARKET AND ANCILLARY SERVICES MARKET (administrated by TSO)

Traders

Import

Distribution System Operators

CONSUMERS

Suppliers:
- Suppliers
- Suppliers of universal service
- Suppliers of “last resort”

TSO

TSO by transmission tariff compensate for Guaranteed Buyer purchase of electricity under the “green tariff”
### Legislative measures
- Adoption of the Law “On electricity market”;
- Adoption of Market Rules, Day-ahead and Intraday Market Rules;
- Adoption of Transmission Network Code and Distribution Network Code;
- Adoption of Retail market Rules and regulations for unbundling of oblenergos;
- Adoption of Certification Procedure for TSO;
- Adoption of typical agreements at the electricity market;
- Needed amendments to the existing legislation.

### Organizational measures
- Launching activity of the Coordination Centre on electricity market reform at CMU, together with creation the operational Project Office on electricity market reform;
- Corporatization of NEC “Ukrenergo” and exercising certification procedure;
- Reorganization of SC “Energorynok” and setting up separate legal entities – market operator and guaranteed buyer;
- Unbundling of oblenergos by dividing distribution activity from supply.

### Technological measures
- Ensuring development and implementation of software needed for the new segments of electricity market of Ukraine;
- Exercising electricity market functioning in the test regime.

### Financial measures
- Adoption of the law on cancellation of debts at the existing electricity market of Ukraine;
- Preparation and adoption of the mechanism on settlement of debts of consumers with ecological protection;
- Gradual liquidation of cross-subsidies for population and dotation certificates.
Legislative readiness for implementation of the draft Law of Ukraine “On electricity market”

The work on drafting the secondary legislation for the new electricity market of Ukraine has been started based on the Action Plan on electricity market reform approved by NEURC on 29.10.2015.

As of March 1, 2017:

- The Concept design of the new electricity market of Ukraine was approved by NEURC on 03.04.2016;
- The draft of key secondary acts are under finalization (including Market Rules, Day-Ahead Market Rules, Transmission Network Code, Distribution Network Code, Commercial Metering Code, Retail Market Rules, Certification Procedure for TSO, Compliance Program for DSO, Licensing conditions for all market players);
- Other part of secondary acts are under development with support of EU Commission, European Energy Community, World Bank (including Rules for Guaranteed Buyer, Security of Electricity Supply Rules, Procedure of support for CHPPs, Procedure for selection of universal service supplier, Procedure for selection of supplier of “last resort”, Procedure for imposing of public service obligations, Procedure for tendering of new generating capacity, Compliance Program for TSO).
Organizational readiness for implementation of the draft Law of Ukraine "On electricity market"

There is the valid Resolution of the Cabinet of Ministers of Ukraine dated 23.09.2014 (with last amendments from 05.08.2015) on creation of Coordination Centre on launching the new electricity market of Ukraine.

The Coordination Centre is chaired by the Prime-Minister of Ukraine, and consists of heads from all state beneficiaries: Ministry of energy and coal industry, NEURC, The Energy Committee at the Parliament, Ministry of economic development, Ministry of regional development, Ministry of finance, State Agency on energy efficiency, State Fiscal Agency, NEC “Ukrenergo”, SC “Energorynok”.

The Coordination Centre is the advisory body at the Cabinet of Ministers of Ukraine with the following key functions:

- coordination of work of state bodies, state organizations and commercial entities on launching the new electricity market of Ukraine;
- Preparation of proposals and recommendations for measures related to launching the new electricity market of Ukraine;
- Control over fulfilment of measures related to launching the new electricity market of Ukraine;

As of this time, there is under active discussion creation of the Project Office on electricity market reform as the work place which will prepare all "work basis" for the Coordination Centre.
As of March 1, 2017, the draft tender documentation of NEC “Ukrenergo” for buying of software for balancing market and ancillary services market has been prepared and totally correlates with principles and rules of organization and functioning of balancing and ancillary services markets prescribed by the draft Law “On electricity market” and Concept design of the new electricity market of Ukraine;

As of March 1, 2017, the technical task for preparation of feasibility study on day-ahead and intraday markets has been prepared by SC “Energorynok” in line with the provisions of the draft Law “On electricity market” and Concept design of the new electricity market of Ukraine. In feasibility study it shall be further developed the full technical and economical assessment of possible ways of buying and exploitation of software for day-ahead and intraday markets – a) development our own IT platform or b) outsource of existing IT platform (for example, Nord Pool Spot, EPEX).
Financial readiness for implementation of the draft Law of Ukraine “On electricity market”

The NEURC shall exercise appropriate economic assessment and adopt the resolution on retail tariffs till 01.07.2017 where: a) the retail tariffs shall reach the economically-justified prices for electricity, and b) the cross-subsidies between different categories will be terminated. Such decision is under discussion at NEURC.

The Cabinet of Ministers of Ukraine shall during 12 months after adoption of the draft Law “On electricity market” submit the draft law on settlement of debts on the existing electricity market of Ukraine. Such draft law was prepared by NEURC together with SC “Energorynok”.

The Cabinet of Ministers of Ukraine shall prepare and adopt the mechanism on settlement of existing debts of consumers with ecological protection (coal plants, heat water plants, chemistry plants and etc.). Such mechanism is under discussion.
THANK YOU FOR ATTENTION!

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