Electricity and Gas Prices according to Directive 2008/92/EC - Methodologies applied

Study tour on Energy statistics and Energy balances under INOGATE programme
Sofia, 5-7 November 2013

Iveta Minkova
PRESENTATION OVERVIEW

 ✓ History of the Electricity and Gas prices reporting in Bulgaria and legislation
 ✓ Survey on Electricity and Gas prices – National practice
   ➢ Data sources/Responding units
   ➢ Survey coverage
   ➢ Organization of the survey
 ✓ National specificities
   ➢ State regulation and regulatory body
   ➢ Gas trade and reporting
   ➢ Calculation of national prices
   ➢ National taxation characteristics
 ✓ Supporting documentation
 ✓ Electricity and Gas price Questionnaires – forms and contents
History of the Electricity and Gas prices reporting in Bulgaria and legislation

✓ **2004** – Project “Electricity and natural gas prices”.


✓ **2008** – First reporting according to the new methodology.

✓ **since 2008 up to now** – Regular submission of Electricity and Natural gas prices.
SURVEY ON ELECTRICITY AND GAS PRICES – NATIONAL PRACTICE (1)

✔ Data sources/ Responding units

- **for Electricity prices**
  - Public provider company.
  - Electricity power plants – producers – participating on the liberalized market.
  - Electricity trading companies.

- **for Gas prices**
  - Public supplier company.
  - Gas distribution companies supplying natural gas through mains (gas transmission and gas distribution networks).
Survey coverage

- The survey covers whole country territory and no regions excluded.
- The survey covers 100% of industrial (according Directive’s criterion) and household end-users.
  - All industrial uses of electricity are considered.
  - All industrial uses of gas are considered, excluding consumers who use gas:
    - for electricity generation in power plants or in CHP plants
    - in non-energy uses (e.g. in the chemical industry)
    - above 4 000 000 gigajoule (GJ) per year
  - All household uses of gas/electricity are considered (heating, cooking, cooling, etc.)
- Reported data are based on the invoiced quantities for the reference period.
SURVEY ON ELECTRICITY AND GAS PRICES – NATIONAL PRACTICE (3)

✓ Organization of the survey

- National legal base – National Statistical Programme (NSP)
- Role of Regional Statistical Offices (RSO)
- Electricity and Gas prices questionnaires
- Data checks and cooperation with the RSO’s
  - First checking at regional level
  - Subsequent data checks and verifications at NSI – Energy Statistics division
- Data submissions
State regulation and regulatory body

Pursuant to the Energy Law, the energy-sector activities in Bulgaria are regulated by the State Energy and Water Regulatory Commission (SEWRC). The commission is an independent specialized state body whose members are elected by a decision of the Council of Ministers and are appointed by the Prime Minister. One of its competences is price regulation of the electricity and natural gas.

Electricity prices

- Electricity market has been liberalized since 1st of July 2007. Big consumers participate directly on it and prices are contracted on the market.
- SEWRC still approves Electricity prices for the Households and small companies not participating on the liberalized Electricity market.

Gas prices

- Natural Gas market is coming to be liberalized. For that reason SEWRC still regulates completely all Gas prices and determine price caps as follows:
  - for sale from the Public supplier to gas distribution companies and consumers assigned to the gas transmission network;
  - for sale from the different gas distribution companies to end-users – industrial; public and administrative; and households.
NATIONAL SPECIFICITIES (2)

✓ for the Gas trade and reporting

- **Unit of measure** – According to the Bulgarian National Standard, unit of measure is 1000 cubic meters at 20° C and 760 mm Hg and natural gas trade is carried out at the same conditions.

- **Consumption bands transformation** – Under the terms of Directive, consumption bands are defined according to their annual consumption in GJ. Because of above mentioned specificity of bulgarian national gas trading, consumption bands in GJ has been transformed in corresponding bands in thousand cubic meters using an average Gross caloricity value 37.037 GJ/thousand m³.

<table>
<thead>
<tr>
<th>Industrial end-users</th>
<th>Annual Gas consumption (GJ)</th>
<th>Annual Gas consumption (thousand m³)</th>
<th>Household end-users</th>
<th>Annual Gas consumption (GJ)</th>
<th>Annual Gas consumption (thousand m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
<td>Highest</td>
<td>Lowest</td>
<td>Highest</td>
<td>Lowest</td>
</tr>
<tr>
<td>Band-I1</td>
<td>&lt; 1000</td>
<td>&lt; 27</td>
<td></td>
<td></td>
<td>Band-D1 (Small)</td>
</tr>
<tr>
<td>Band-I2</td>
<td>1000</td>
<td>&lt; 10 000</td>
<td>27</td>
<td>&lt; 270</td>
<td>Band-D2 (Medium)</td>
</tr>
<tr>
<td>Band-I3</td>
<td>10 000</td>
<td>&lt; 100 000</td>
<td>270</td>
<td>&lt; 2 700</td>
<td>Band-D3 (Large)</td>
</tr>
<tr>
<td>Band-I4</td>
<td>100 000</td>
<td>&lt; 1 000 000</td>
<td>2 700</td>
<td>&lt; 27 000</td>
<td></td>
</tr>
<tr>
<td>Band-I5</td>
<td>1 000 000</td>
<td>&lt;= 4 000 000</td>
<td>27 000</td>
<td>&lt; 110 000</td>
<td></td>
</tr>
</tbody>
</table>
NATIONAL SPECIFICITIES (3)

☑ Calculation of National prices

➢ Criteria used for average weighted prices
  ▪ using the market shares of Electricity and Gas suppliers surveyed as weighting factors
  ▪ market shares are based on the Electricity and Gas quantities invoiced by suppliers to industrial end-users and households for the reference period and calculated separately for each band.

➢ Method of calculation
  ▪ By MS Office Excel only – accumulating all reports and dividing “Total amounts” to “Total quantities” is the way that prices are calculated as national average weighted prices for the respective bands and levels.
  ▪ for Gas prices, because of the national specialty, they are submitted in national currency (BGL) per thousand cubic meters and for the needs of reporting we convert them in BGL per GJ using an average Gross caloricity Value. It is calculated as average weighted with deliveries of natural gas for the semester from the monthly survey “Production and deliveries of natural gas”.

■
National taxation characteristics

- **Recoverable taxes** – the only tax imposed on sales of Electricity and Natural gas to end-users is Value Added Tax (VAT) at the rate of 20%. This tax is identified on the invoices.

- **Non-recoverable taxes**
  - for **Electricity** – since June 2008 excise duty has been imposed on the Electricity. It has changed annually and currently the rate is 2.00 BGL per MWh. Electricity consumed by households is free of excise duty.
  - for **Natural gas** - since 1st of June 2012 with amendment in Excise Duties and Tax Warehouses Act, an excise duty has been imposed on the natural gas for economic activities (heating). The excise rate is 0.10 BGL per GJ (based on Gross Calorific Value). Natural gas sales to household end-users are free of excise duty.
Gas and Electricity price systems – together with the reporting of 2nd semester of previous calendar year – concerning a Community procedure to improve the transparency of Gas and Electricity prices:

Information about the national compilation system:
- Number of supply undertakings that participated in the last survey of Electricity and Natural gas prices.
- Percentage of the market based on total consumption in MWh/GJ for the industrial and household sector that was used in the survey.
- Description of the Electricity and Natural gas prices survey – is the survey carried out on a half yearly basis, are regions excluded from the survey, are estimations used in the survey, etc.
- Criteria that are used to calculate weighted average national Electricity and Gas prices.
- Consumption volumes for each Industrial/Household consumption band.
Description of taxes for industrial and household end-users:

- Taxes, levies, non-tax levies, fees (e.g. concession fees) and other fiscal charges that are not identified on invoices and that are considered to be an integral part of the “basic costs”.
- Taxes and levies, identified on the invoices that are considered not recoverable.
- Value Added Tax (VAT) and other recoverable taxes identified on the invoices.

Disaggregated Electricity price data for industrial end-users

- Industrial end-users - Total without VAT and all other recoverable taxes and levies (Level 2) - Prices in national currency/kWh for:
  1. Energy and supply.
  2. Network cost.
  3. Non-recoverable taxes and levies.

- Household end-users - Total including all taxes, levies and VAT (Level 3) - Prices in national currency/kWh for:
  1. Energy and supply.
  2. Network cost.
  3. Taxes and levies.
Electricity and Natural gas prices questionnaires – forms and contents

- Questionnaires are in MS Office Excel format and no arithmetical and logical checks are programmed at data entry.
- Questionnaires include detailed written methodological notes giving explanations to respondents.
- Questionnaires consist of 4 sections as Sections 3 and 4 are to be submitted together with the reporting of 2\textsuperscript{nd} semester of the previous year:
  - Section 1 – Industrial end-users
  - Section 2 – Household end-users
  - Section 3: Annual consumption for Industrial and household end-users (for the calendar year) /for Natural Gas/ and Factors affecting prices for Industrial end-users (for the calendar year) /for Electricity/
  - Section 4 - Description of taxes (for the calendar year)
- Additional sections 1A and 2A are added to Electricity prices Questionnaire concerning required disaggregated data.
THANK YOU FOR YOUR ATTENTION!

For further questions, please contact at:
IMinkova@nsi.bg