PRICE REGULATION AND PUBLIC SERVICE OBLIGATIONS

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ERRA honorary member

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ERRA Training Course: Price regulation and Tariffs
Agenda

• Regulated tariffs to the final consumers
• Subsidies and cross-subsidies
• Subsidies to renewables
• Poverty and energy use
• Public service obligations in the liberalised EU markets
• Example: British regulator’s (OFGEM) role in fighting the fuel poverty
Regulated tariffs to the final consumers
Pricing in a competitive market

Wholesale:
Bilateral, PX

System use charges:
- Network use
- System operation
- Cross-border capacity use

Retail margin:
Risk management services (wholesale, credit risk)

Final purchase price

regulated

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ERGEG advised the EU regulators already in 2007

- End-user price regulation should be abolished as it distorts the functioning of the market
- It asked all regulators to provide plans to remove any price regulation
- In some countries, although in theory the market is open, in practice there may still be only one supplier and a consequent lack of choice for consumers
Slovakia: price caps

- Regulator sets price cap for the default supplier
- The Regulator argued that Slovakian prices were very high and consumer incomes were low in comparison with the Western countries
- Obviously, the price cap interferes with the free market price by setting a sum which cannot be exceeded by the supplier
- It gives no incentive for customer switching
Electricity prices to residential consumers (2012)
Electricity prices to the residential consumers in PPP (2007)

ct/kWh

Slovakia, Italy, Poland, Hungary, Germany, Czechs, Bulgaria, Austria, Lithuania, Sweden, France, Finland

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Eurostat
Price regulation fails to activate consumers and suppliers

REGULATED PRICES FOR HOUSEHOLD CONSUMERS AND INDUSTRIAL CONSUMERS, IN GAS AND/OR OF ELECTRICITY

REGULATED PRICES FOR HOUSEHOLD CONSUMERS

NO REGULATED PRICES

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European Commission, 2012
Artificially low regulated retail prices

- Discriminative access for cheaper generation capacities
- Cross-financing between consumer groups
- Discriminative access for cross-border interconnection capacities
- Cross-financing between energy price and network tariffs
- Supplier compensation from state sources or other financial funds
Possible negative outcomes

• No new investments
• Decrease of quality and security of supply
• Poorly targeted subsidies
• State aid and competition concerns
• Consumers supporting others may leave the system
• No energy efficiency incentives
• Energy prices are sending a wrong message
• It is not a long term solution of energy poverty
Subsidies and cross-subsidies
Energy subsidies

• Energy subsidies are measures that keep prices for consumers below market levels or for producers above market levels, or reduce costs for consumers and producers.

• Energy subsidies may be direct cash transfers to producers, consumers or related bodies, as well as indirect support mechanisms, as tax exemptions and rebates, price controls, trade restrictions and limits on market access.
Energy subsidy definition by IEA

• Any government action directed primarily at the energy sector that lowers the cost of energy production, raises the price received by energy producers (production subsidy) or lowers the price paid by energy consumers (consumption subsidy)
Why do countries subsidise energy?

- Protect industry
- Ensure employment
- Protect environment
- Promote technology
- Improve energy security
- Social welfare, equity, re-distribution of income
- Ensure access to fuel for poor
- Fixing market imperfections, energy technology
Consequences of undervalued energy prices and subsidies

- distorted economic structure,
- economic efficiency loss, resulting in loss of GDP,
- higher energy consumption and waste of energy,
- discouraging energy efficiency investments,
- promote irrational consumer behaviour
- higher air pollution
- unprofitable operation of the energy sector
- threat to the viability of the energy sector
Subsidies are badly targeted

• Only 8% of the fossil-fuel subsidies in 2010 was distributed to the poorest 20% of population, demonstrating that they are an inefficient means of assisting the poor; other direct forms of welfare support would cost much less

• INTERNATIONAL ENERGY AGENCY, WORLD ENERGY OUTLOOK 2011
Example: subsidies for gas in Ukraine, 2011

- The Government sells the indigenous gas at subsidised prices
- The Regulator further differentiates the tariffs protecting small users
- Who is the winner and who is the loser?
Compare: different distribution tariffs in Latvia

Transmission and storage tariffs and Gas price is the same to all consumers
Subsidies and public service obligations

- Subsidies usually are not acceptable as they distort the market
- But support for low-income, vulnerable, remote consumers, protection of environment, support of the strategic goals of the country, security of supply, etc. could be accepted
- EU Directives allow various public service obligations, but require that they were transparent, fair, well-defined
- Almost all countries support renewables, cogeneration, etc.
Cross-subsidies

• cross-subsidies mean that certain consumers, consumer groups are paying for other consumers or consumer groups
• example: in Azerbaijan, Ukraine, Russia industrial consumers for gas pay more than the residential ones – clear social cross-subsidy
• cross-subsidies provide wrong signals to consumers
• they are unfair to certain consumer groups
• they discourage private investments
• in the long run may lead to shortages
Cross-subsidies in some ERRA countries, Q2 2011

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Fast increase and re-balance of tariffs in Bulgaria and Romania
Popular approach: block tariffs

- **3 blocks tariff**
- **Simple tariff**

The graph shows the relationship between tariff (ct/kWh) and demand (kWh).
Example: residential electricity tariffs in Tbilisi

- 100 kWh or less: 11.42 tetri
- 101-300 kWh: 13.56 tetri
- 301 kWh and more: 14.99 tetri

(without VAT)

GNEWRC decision from 06.2010

(Comment: 100 tetri = 1 Lari, 1 Euro = about 2.2 Lari)
Subsidies to renewables
Subsidies to renewable energy

• By encouraging deployment, renewable energy subsidies can help to cut greenhouse gas emissions
• Most renewable energy sources need to be subsidised in order to compete in the market
• But on-shore wind will become competitive around 2020 in the EU
• Most renewable energy subsidies are time-limited
More arguments to support renewables

• Reduce local and global pollution
  – first best solution: pollution taxation/pricing, including CO2 pricing

• Increase supply security
  – gas import dependence
  – fuel mix diversity

• Industrial development
  – developing local industry and employment
    • Germany, Spain, Denmark
  – developing EU export industry
# Green energy subsidies

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<td>Tax breaks</td>
<td>Tax discounts</td>
<td>Lower VAT</td>
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<td>Credit</td>
<td>Low interest on loans to producers</td>
<td>Loan guarantees to finance RES projects</td>
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<tr>
<td>Direct financial transfers</td>
<td>Premium on top of the market price</td>
<td>Feed-in tariff support scheme</td>
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</table>
RES electricity support schemes in EU
Global subsidies to renewable-based electricity and biofuels by region

Renewable subsidies were $66 billion in 2010 (compared with $409 billion for fossil fuels)
New power plants built in the EU in 2008

EU New Power capacity installed in 2008: 24.351 MW

PV represented in 2008 more than 19% of new power capacity installed

Source: Platts, EPIA, EWEA
Poverty and energy use
How to define the poverty

- **Official poverty line**: value used by the social insurance system (minimum wage)
- **Budget approach**: value of the minimum level of goods and services (food, flat, clothing)
- **Relative poverty line** – poverty is connected to the standard of living of the society
  - lowest income quintile or decile
  - percentage (40 – 60 %) of the average or median income
- **Consensual poverty line**: self-assessment
- **Objective poverty line** – poverty is measured taking into account different consumption patterns and living
Fuel poverty

• Fuel poverty exists when people do not have the ability to pay for energy, most often heating materials (Wikipedia)

• A household is said to be in fuel poverty if it needs to spend more than 10% of its income on fuel to maintain a satisfactory heating regime (usually 21 degrees for the main living area, and 18 degrees for other occupied rooms - WHO recommendations)
Energy poverty

- Energy poverty is a term for a lack of access to electricity, heat, or other forms of power
- Should not be mixed with the fuel poverty
- Energy poverty exists when the required infrastructure is not in place for energy delivery, most often electricity
- Fuel poverty exists when people do not have the ability to pay for energy (most often - heating)
Public service obligations in the liberalised EU markets
Public service obligations (PSO) according to the 3rd Package

- Member States may impose on undertakings operating in the electricity and gas sectors, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection, including energy efficiency, energy from renewable sources and climate protection.
Requirements to PSO

• Such obligations shall be
  – clearly defined,
  – transparent,
  – non-discriminatory,
  – verifiable and
  – shall guarantee equality of access for electricity undertakings of the Community to national consumers
Universal service (electricity)

• Member states (MS) shall ensure that all household customers, and if appropriate, small enterprises enjoy universal service

• Universal service is the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable, transparent and non-discriminatory prices

• To ensure the provision of universal service, MS may appoint a supplier of last resort
Regulators according to the Third Package

• ensure that customers benefit from the effective functioning of their national market
• promote effective competition
• help to ensure consumer protection
• help to achieve high standards of universal and public service
• contribute to the protection of vulnerable customers and to the compatibility of necessary data exchange processes for customer switching
Article 37 of Directive 2009/72/EC states the duties and powers of the NRA

- monitoring the level and effectiveness of market opening and competition at wholesale and retail levels;
- prices for household customers including prepayment systems;
- switching rates;
- disconnection rates;
- charges for and the execution of maintenance services;
- complaints by household customers;
Complaint handling and out-of-Court dispute settlement

• The absolute majority of EU regulators is responsible for complaint handling (exceptions: France, Spain and UK)
• Similar with the dispute settlement concerning access to the grid
• Majority of the regulators are responsible for dispute settlement between customers and service providers
• There are a variety of relationships between the NRAs and the other stakeholders in the field of complaint handling/dispute settlement (e.g. with an Ombudsman)

Source: CEER Report, 2011
Complaint handling and out-of-Court dispute settlement (cont.)

- In Austria, as regards complaint handling, E-Control must publish a yearly report to be sent to the Parliament, ministries and consumer organisations.

- In Belgium, the NRAs cooperate with the public independent Ombudsman, Chambre de Recours Regional, Competition Authority, Federal administration and local entities.

- In Ireland CRE works in co-operation with the National Consumer Agency in relation to some consumer issues.

Source: CEER Report, 2011
Consumer information - Single Point of Contact

• Complaint handling is often supported by a single point of contact service, where, before raising the complaint, the customer can receive useful information.

• Single points of contact should provide consumers with all necessary information on their rights, on the current legislation and on the available means of dispute settlement in the event of a dispute.

Source: CEER Report, 2011
Protection of vulnerable energy consumers

- Member States shall take appropriate measures to protect final customers, and shall, in particular, ensure that there are adequate safeguards to protect vulnerable customers.
- In this context, each Member State shall define the concept of vulnerable customers which may refer to energy poverty and, inter alia, to the prohibition of disconnection of gas to such customers in critical times.
- Member States shall ensure that rights and obligations linked to vulnerable customers are applied. In particular, they shall take appropriate measures to protect final customers in remote areas who are connected to the gas system.
No common definition of vulnerability

• The level of monthly income is often used as criterion for defining the group of vulnerable customers

• In Ireland, the national regulatory authority for electricity and gas defines vulnerable customers as those relying on electrical life support equipment, elderly (66 years and more) and customers with visual/hearing/mobility deficiencies

• Australia defines vulnerable customers as those who, due to genuine financial hardship, are unable to pay for the energy they have been used, be it permanent or temporary in nature
The Definition used by ERGEG to describe a vulnerable customer relies on national provisions, stating that a

“Vulnerable customer” [is] a customer defined by national laws as a person to be protected in his relations with energy suppliers.” (It provides the following non-exhaustive list of examples: “disabled, chronically sick, pensioners, living on low-incomes and living in remote areas”).

(ERGEG: European Regulators’ Group for Electricity and Gas)
Vulnerable consumers in Poland

Population: 38 million

- **Pensioners:** 350,000 families out of 9 mln. people
- **Disabled:** 2.2 mln., 390,000 families supported
- **1 mln. families with many children:** 190,000 supported
- **Unemployed:** 1.2 mln.
- **Chronically ill:** 390,000
- **Below poverty line:** 3 mln.
- **Poor villagers:** 5.7 mln.
- **185,000 disconnected**

Source: URE report

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INFORSE-Europe thinks that

- The requirement not to disconnect vulnerable customers (in critical times) must be combined with
  - programs to increase energy efficiency
  - social support for the most vulnerable, so they can pay bills
  - other measures, like lifeline tariffs
  - the energy price increases can be limited aiming at heat prices below gas prices (more CHPs, local biomass combustion)

INFORSE-Europe is an international NGO network of European environmental organizations promoting sustainable energy development within Europe
INFORSE-Europe recommended

• Make support available for increased energy efficiency in households that are in risk of being unable to pay their energy bills
• Assist those households with free advice how to reduce energy bills
• Combine social support for household is energy poverty with support for increased energy efficiency
• Provide programmes with loans where payments for energy efficiency improvement are directly taken from the energy savings, i.e. at no direct cost to the households
• Consider tariff regulation to reduce fixed payment elements as they harm the smaller, poorer consumers
Why the assistance of vulnerable customers is important?

• Without this „social” safety-net the „tough” market conditions (especially prices) could be dangerous for vulnerable customers.
• Without this safety-net the politicians do not accept market based prices for end-users (especially households), because the vulnerable customers could be endangered.
• Without market based prices the necessary new investment (both network and new generation) could be postponed or endangered.
• Without these investment the medium and long term security of supply of customers could be endangered
## Support of vulnerable consumers in the EU (1)

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<tr>
<th>Country</th>
<th>Social protection measures</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>Social tariffs</td>
<td>Preferential rates for electricity and gas regularly set by ministerial order. Beneficiaries of these specific social tariffs are called “protected customers”.</td>
</tr>
<tr>
<td>Denmark</td>
<td>Heating costs</td>
<td>General housing benefit available and a system of cash benefits which may cover costs for heating. Assistance given to pensioners for heating.</td>
</tr>
<tr>
<td>France</td>
<td>Solidarity energy funds</td>
<td>Financial assistance for vulnerable households who are unable to pay energy bills. Jointly funded by local and central Government, National Unemployment Agency and the voluntary sector. Annual budget €46m.</td>
</tr>
</tbody>
</table>
## Support of vulnerable consumers in the EU (2)

<table>
<thead>
<tr>
<th>Country</th>
<th>Social protection measures</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>Social welfare</td>
<td>Energy bills are one of the acceptable items in the last resort social assistance</td>
</tr>
<tr>
<td>Germany</td>
<td>Social welfare</td>
<td>Households dependent on social welfare can receive costs for accommodation and heating from their social welfare office.</td>
</tr>
<tr>
<td>Greece</td>
<td>Discount tariff</td>
<td>A discount tariff is granted to families with three or more children.</td>
</tr>
<tr>
<td>Romania</td>
<td>Winter heating allowance</td>
<td>Minimum wage families receive monthly allowances from 1 November to 31 March for house heating.</td>
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</table>
End-user energy efficiency

- End-user energy efficiency is often regarded as a tool for the protection of vulnerable customers, since it can reduce their bills through energy savings
- Regulators in Italy and Portugal manage complex mechanisms in promotion of energy efficiency
- In Austria and Greece regulators provide advice on energy efficiency and energy savings
- In Italy the Regulator (AEEG) cooperates in particular with the Energy Service Companies (ESCOs), companies promoting energy efficiency by submitting specific projects to the AEEG

Source: CEER Report, 2011
Other activities related with consumer protection

- In Austria E-Control has to check the general terms of contracts drafted by service providers
- In Hungary HEO sets quality of supply requirements for continuity of supply (network reliability), voltage quality and commercial quality (customer relations) and monitors performance
- In Italy AEEG:
  - sets regulations regarding contractual terms and pre-contractual transparency duties on suppliers
  - has imposed service quality standards on DSOs, regarding technical and commercial quality, and on suppliers, regarding commercial quality

Source: CEER Report, 2011
Other activities… (cont.)

- In Portugal ERSE carries out inspections of the companies complaints records, in order to monitor how they deal with complaints.
- In Ireland CER is responsible for developing guidelines for consumer protection Codes of Practice, which all suppliers must adhere to.
- In Belgium supplier services and processes are screened by CREG and, if necessary, regulation is used to change practices which lead to negative outcomes for customers.

Source: CEER Report, 2011
Example: British regulator’s (OFGEM) role in fighting the fuel poverty
Fuel poverty in the UK

• In the UK **Fuel Poverty** is said to occur when in order to heat its home to an adequate standard of warmth a household needs to spend more than 10% of its income on total fuel use.

• Fuel poverty is not just about access to heating as the definition of fuel is taken to include all expenditure on domestic energy, including that used for hot water, cooling, lights and appliances.
Fuel Poverty is caused by a convergence of four factors:

- **Low income**, which is often linked to absolute poverty
- **High fuel prices**, including the use of relatively expensive fuel sources (such as electricity in the UK, aggravated by higher tariffs for low-volume energy users)
- **Poor energy efficiency of a home**, e.g. through low levels of insulation and old or inefficient heating systems
- **Under-occupancy**: according to UK government statistics, on average those in the most extreme fuel poverty live in larger than average homes
Fuel poverty measures in the UK

**Fuel poverty: objective model and policy**
- Spend, or need to spend more than 10% of household income on energy, driven mostly by energy prices
- Fell to low of 1.2 million (from 21m) households in 2003, risen to around 3-4m 2008 (around 15%), likely to rise further
- Main influences: low income, high energy prices, poorly insulated housing; ‘pay as you go’ electricity (more expensive, used predominantly by low income)

**Subjective measure: feeling fuel poor**
- If respondent could not heat their home adequately because it was difficult to afford the fuel; or
- Respondent could not afford enough fuel for all their water heating and cooking needs

*The objective measurement and subjective „feeling fuel poor” not always match*
• **Winter fuel payments**: households with someone between the ages of 60 and 79 (£250 payment); households with someone aged 80 or over (£400 payment);

• **Cold weather payments**: people in receipt of Pension Credit or income-related Employment and Support Allowance that includes a work-related activity or support component;

• **Warm Front**: Householders aged 60 or over in receipt of one or more of the benefits, like Income support, Housing benefit, Job seekers allowance, etc.
Fuel poverty measures by the OFGEM

• Principal objectives of OFGEM (Office of Gas and Electricity Markets) is to protect consumers (present and future) by promoting competition and regulating network monopolies

• Additional duty of OFGEM is to protect interests and needs of consumers who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas
Tackling fuel poverty

Low household income

Poor quality housing

High energy prices

Clear responsibilities:

• Important and continuing role for regulator and industry on prices and energy efficiency

• Tackling low incomes and improving housing conditions are for Government
OFGEM’s Social Action Strategy

• Securing compliance with regulatory obligations and effective monitoring and reporting by the companies
• Encouraging best practice among energy suppliers, using research to identify effective ways to address fuel poverty and help vulnerable customers
• Informing consumers about ways to lower their energy bills
• Influencing the debate about measures to help tackle fuel poverty, working with other stakeholders, helping to promote a joined up and holistic approach
OFGEM actions regarding fuel poverty

• Regulatory Obligations (as license conditions)
  ✓ ban on disconnecting vulnerable customers in winter
  ✓ debt prevention and management
  ✓ have to accept fortnightly cash payments

• Monitoring Suppliers’ Social programmes
  ✓ April 2008 suppliers increased expenditure on social measures by £225m over next 3 year (to £150m per year)
  ✓ Ofgem set guidance on measures which can be counted and reporting framework
  ✓ allowed wide range for innovation and flexibility and help with targeting challenge
  ✓ set new minimum standard for social tariff
OFGEM actions regarding fuel poverty (cont.)

• Best practice Review – Debt and Disconnection
  ✓ reviewed all suppliers’ debt processes
  ✓ importance of early, proactive contact – many examples of good practice
  ✓ importance of clear communication understandable by all – guidelines provided

• How to save money on your bills (information package)

• Information and advice about available assistance
Thank you for your attention