

INOGATE Information Event in Uzbekistan



EU experience in energy market development – some possible options for Uzbekistan

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Tashkent, January 29, 2014

Agenda



- EU common energy policy
- Creation of an internal energy market
- Assuring sustainability:
 - Improving energy efficiency
 - Increasing share of renewable energy sources (RES)
- Ensuring access to energy to all consumers

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The EU energy strategy

Competitiveness

Smart infrastructure

Competitive markets

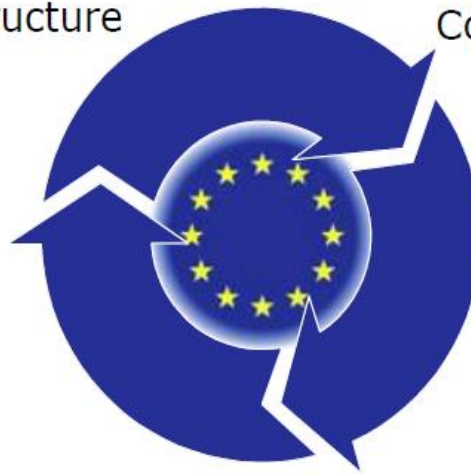
Diversified supply

Energy efficiency

Renewable sources

Security of supply

Sustainability



Energy 2020 - A strategy for competitive, sustainable and secure energy

Priority 1: Achieving an **energy-efficient** Europe

Priority 2: Building a pan-European **integrated energy market**

Priority 3: Extending Europe's leadership in **energy technology**

Priority 4: Protecting **consumers** and achieving the highest level of **safety and security**

Priority 5: Strengthening the **external dimension** of the EU energy market

Priority 1 : Achieving an energy-efficient Europe

- Making the most of National Energy Efficiency Plans
- Tapping into the biggest energy saving potential – buildings and transport
- Reinforcing the competitiveness of our industry
- Reinforcing efficiency in the supply side



Energy efficiency requirements to new buildings (2010/31/EC)

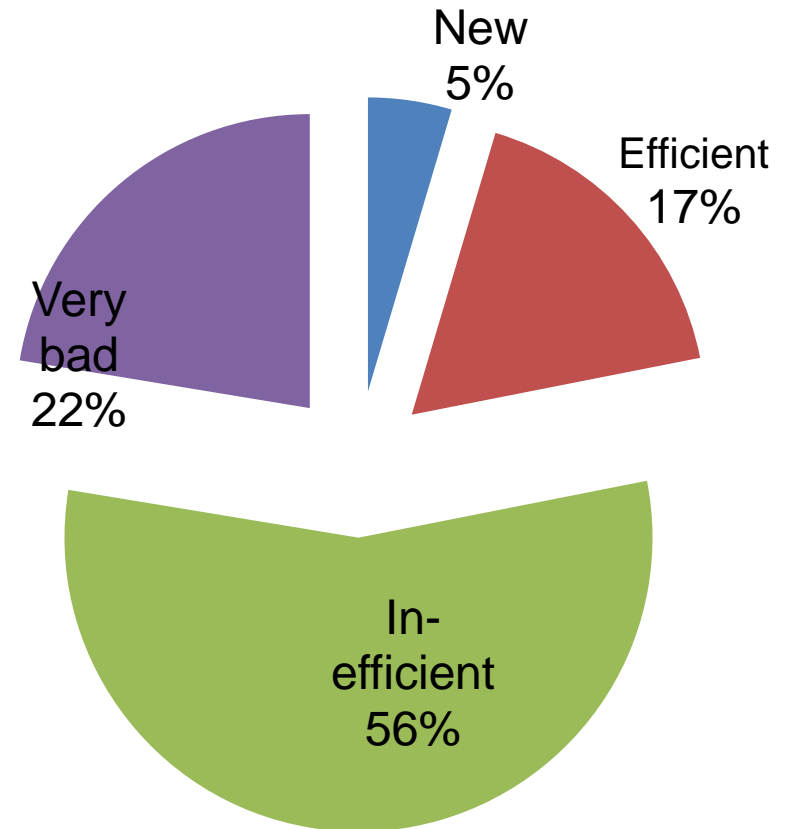
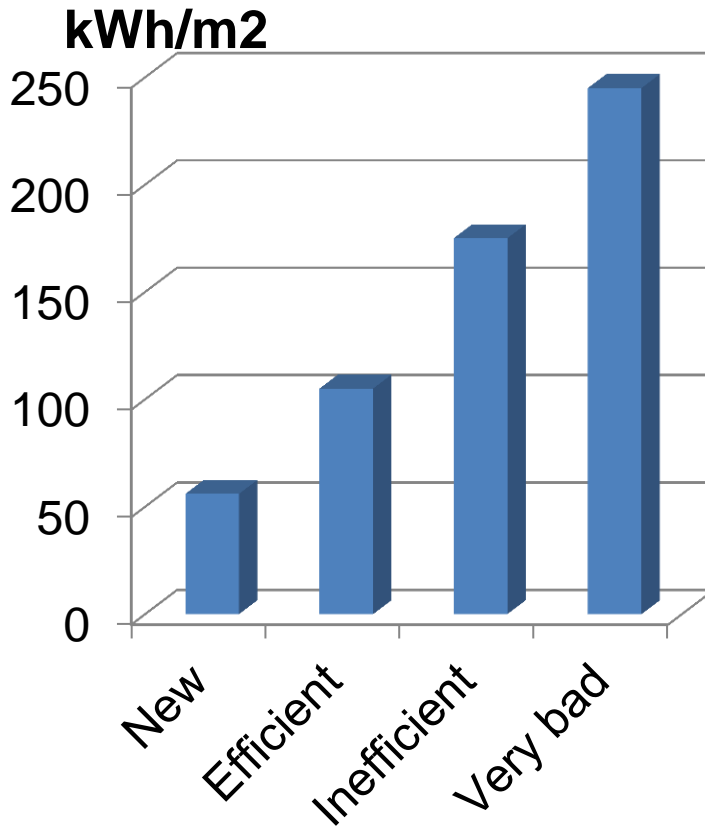


- Obligatory methodologies for energy use calculation in buildings for all MS
- Minimal energy efficiency requirements for new buildings
- Energy efficiency requirements for thermal modernisation (renovation) of buildings
- Energy passports (certificates)
- From 2020 all new buildings with almost zero energy consumption

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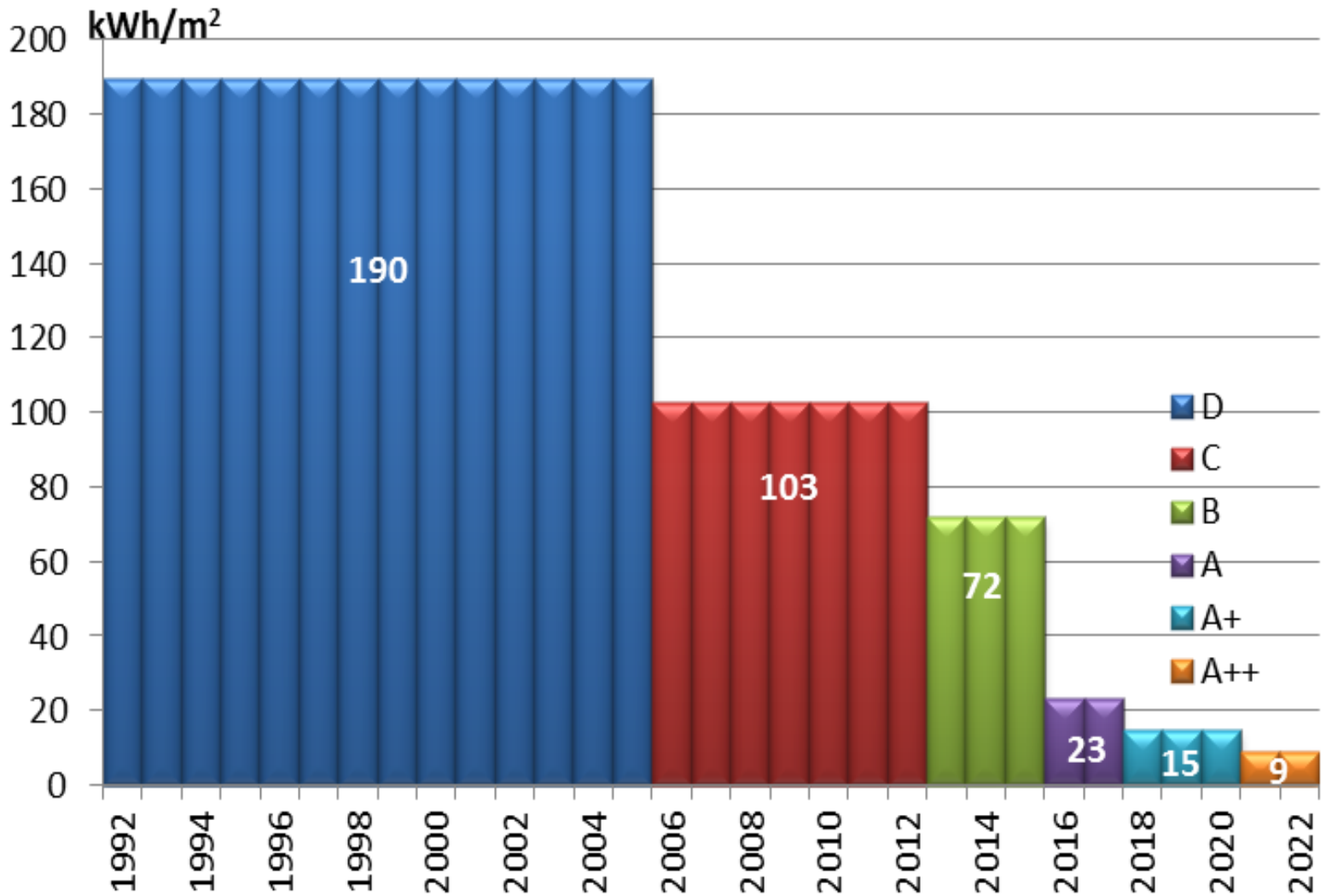
Lithuania: heat energy consumption in buildings



Requirements for the new buildings in Lithuania



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Co-benefits of improved energy efficiency in CEE buildings



- **Employment creation**
 - “producing” energy through energy efficiency or renewables is more employment intensive than through traditional ways
 - a 20% reduction in EU energy consumption by 2020 can potentially create 1 mln new jobs in Europe
- **new business opportunities**
 - for developed countries a market opportunity of € 5–10 billion in energy service markets in Europe
- **Increased comfort**
 - noise reduction, reduction in indoor pollution → reduced need for cleaning and improved health; property values increased
- **Reduced energy costs will make businesses more competitive**

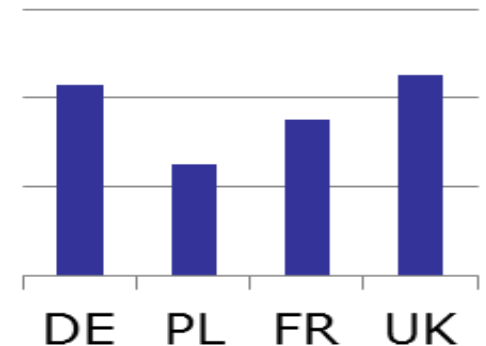


Energy efficiency directive (2012)



- EU energy efficiency target clearly defined
- Indicative national targets for 2020 (to be set by Member States)
- Long-term strategies for building renovation
- Public sector to lead by example

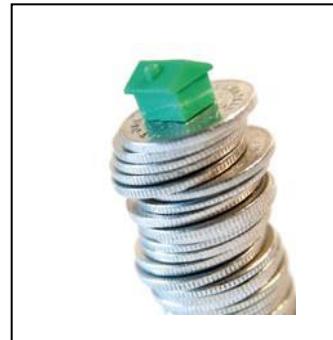
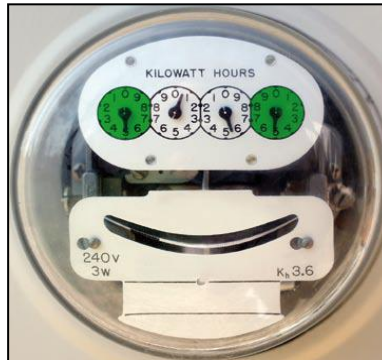
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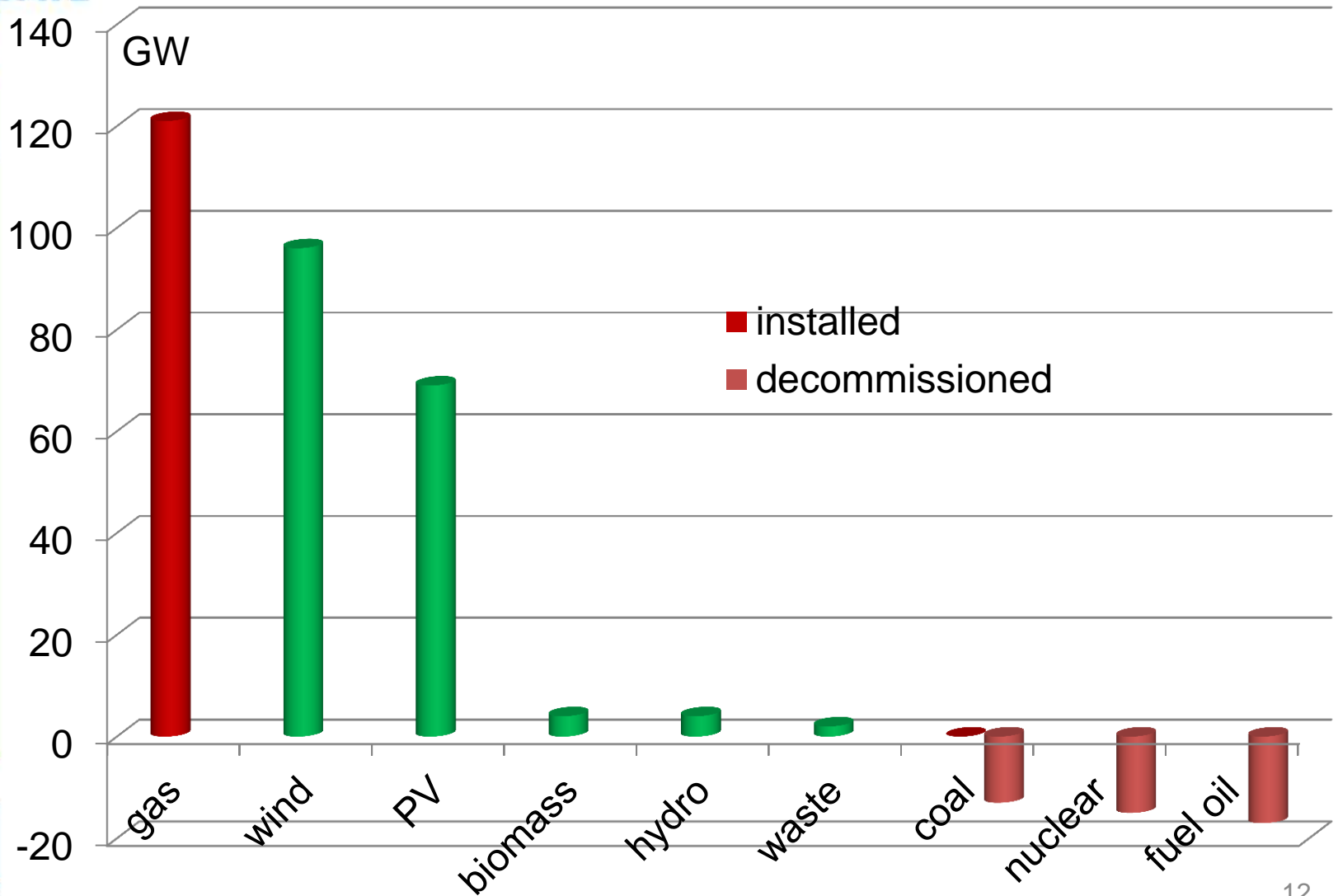
Energy efficiency directive



- For all consumers: more accurate and frequent individual metering and billing
- For large companies: mandatory audits and push towards the introduction of Energy Management Systems
- For SMEs: incentives to undergo energy audits and apply the results
- Efficiency in energy generation



RES development in EU: installed and decommissioned capacities during 2000-2012



Priority 2: Building a pan-European integrated energy market



- Timely and accurate implementation of the internal market legislation
- Establishing a blueprint of the European infrastructure for 2020 and beyond
- Removing technical and regulatory obstacles to infrastructure developments
- Providing the right financing framework (innovative funding mechanisms for projects of 'European interest')

Electricity and Gas Directives

Competitive pan-European market?

2014

Implementation of the 3rd package

2011

3rd package: Electricity and Gas directives, Regulations

2009

2003

2nd Electricity and Gas directives

1998

1st Gas directive

1996

1st Electricity directive



Various models for competitive gas & electricity systems



**Model 1
Monopoly**

**Model 2
Single buyer**

**Model 3
Wholesale
competition**

**Model 4
Retail
competition**

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**Sector becomes more like any other commodity industry
but:**

- **More complexity, regulation, IT infrastructure, etc.**
- **More structural change required**



Unbundling requirements



**First Directives,
1996-1998**

**Second package,
2003**

**Third package,
2009**

**Unbundling of
accounts**

**Legal and
managerial
unbundling**

**Ownership
Unbundling
or ISO or ITO**

Implementation of the internal energy market

- Effective and efficient unbundling – separation of transport and supply/production
- Transparency and consumer protection
- Market integration through framework guidelines and network codes

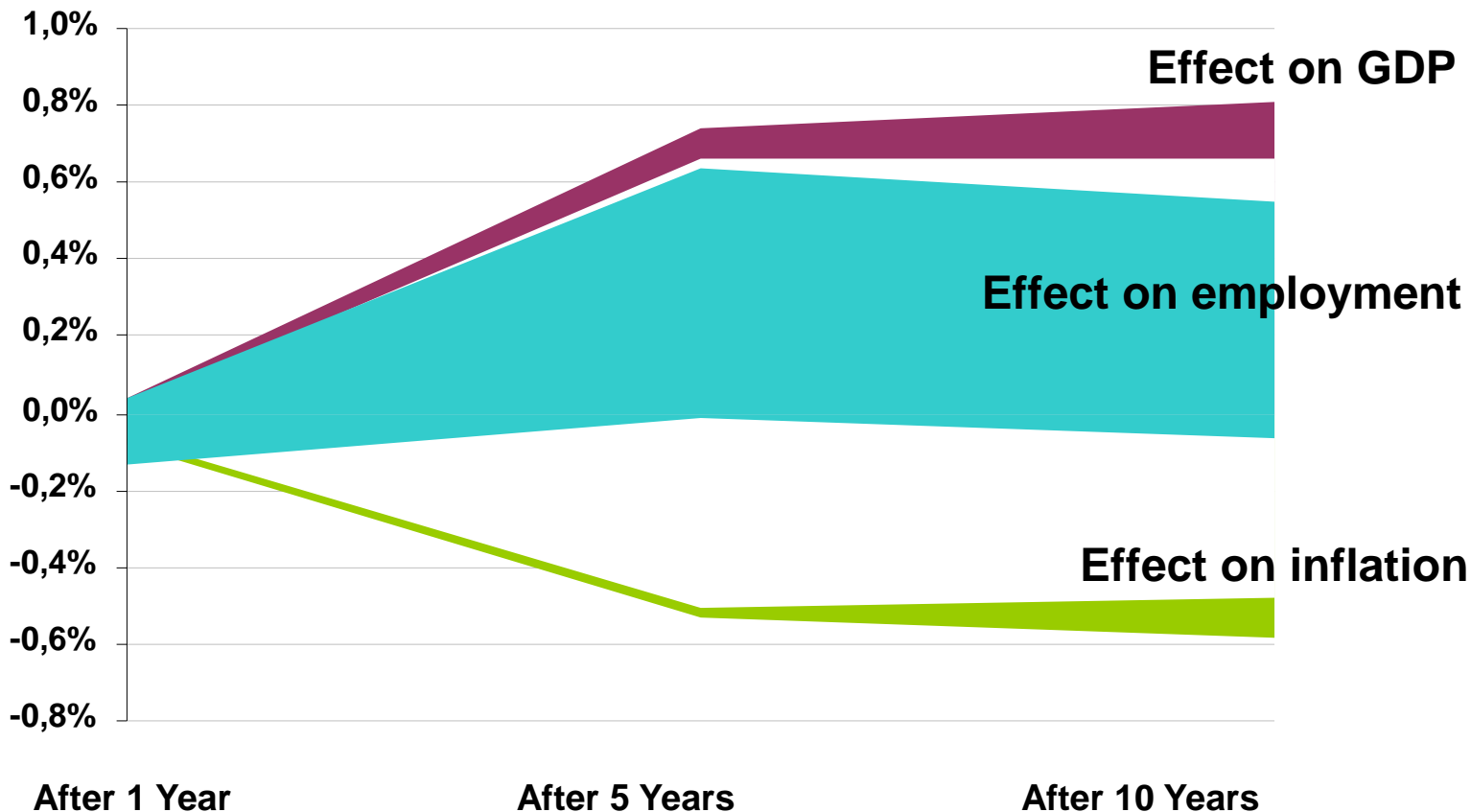


- Agency for the Cooperation of Energy Regulators (ACER) in Ljubljana (Slovenia)
- ENTSO-G/E



- Community-wide 10-Year-Network Development Plans as starting point for joint and consistent investment planning

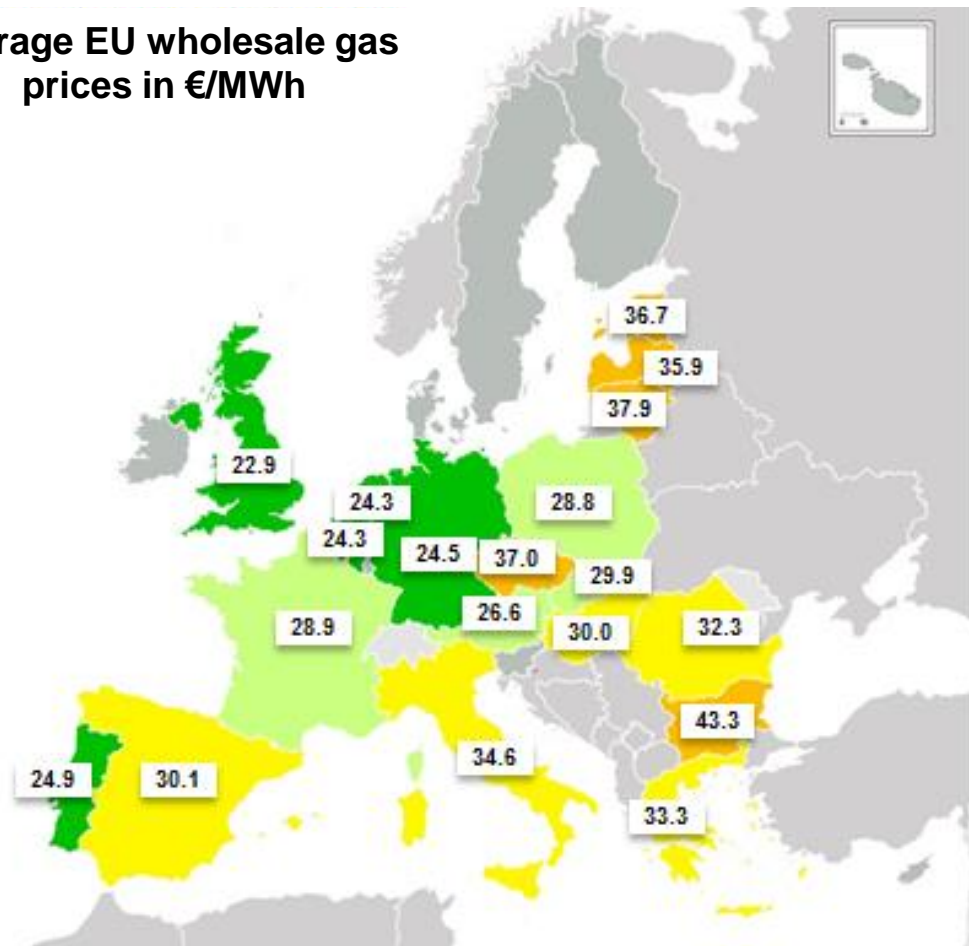
Estimated effects of opening gas & electricity markets



Achieving a fully functioning and competitive European electricity and gas market can add an extra 0.6% - 0.8% to EU GDP by 2020, create employment and curtail inflation

Already some benefits from higher competition

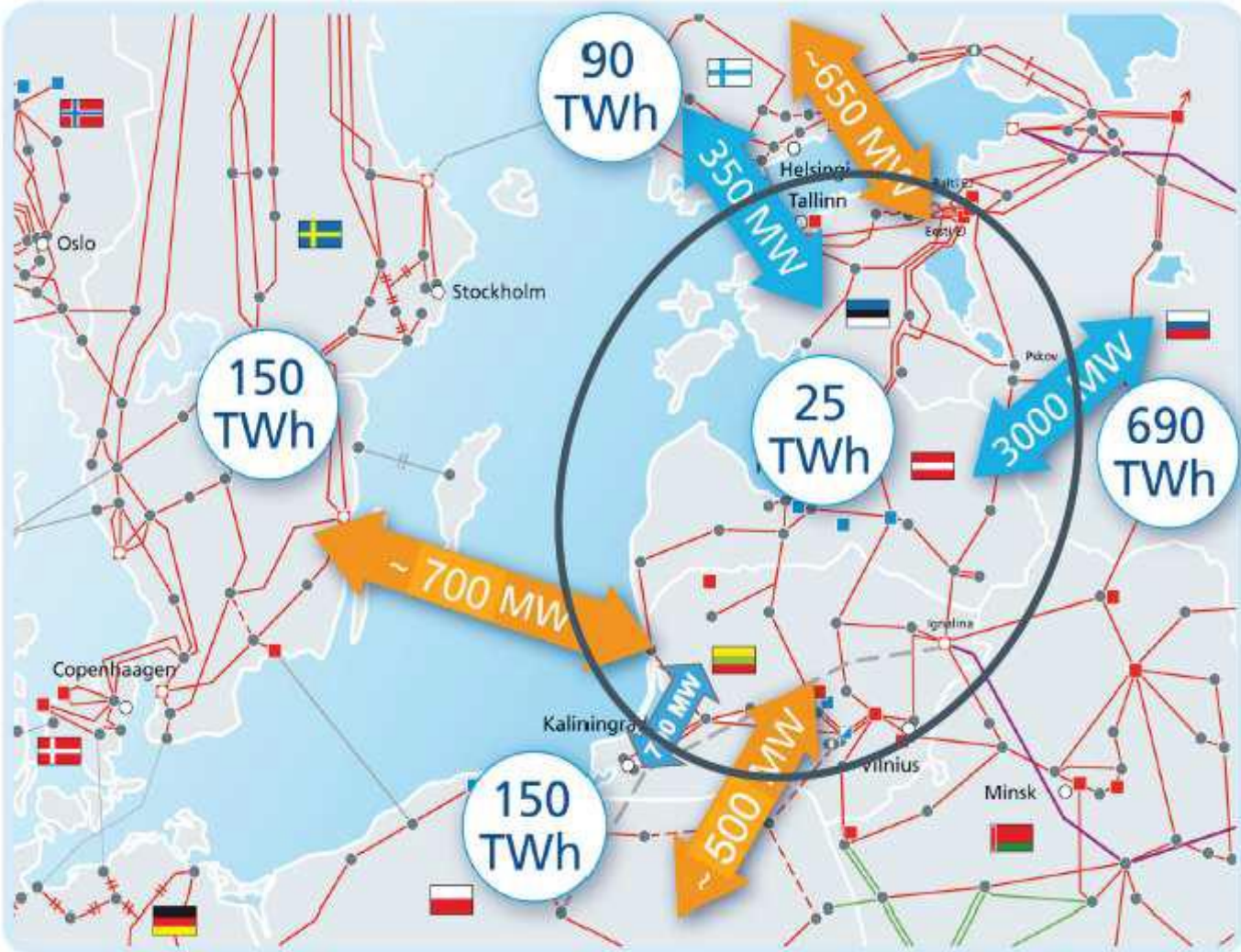
Average EU wholesale gas prices in €/MWh



Integration of the Baltic electricity market



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Green paper on energy policy for 2030 under discussion



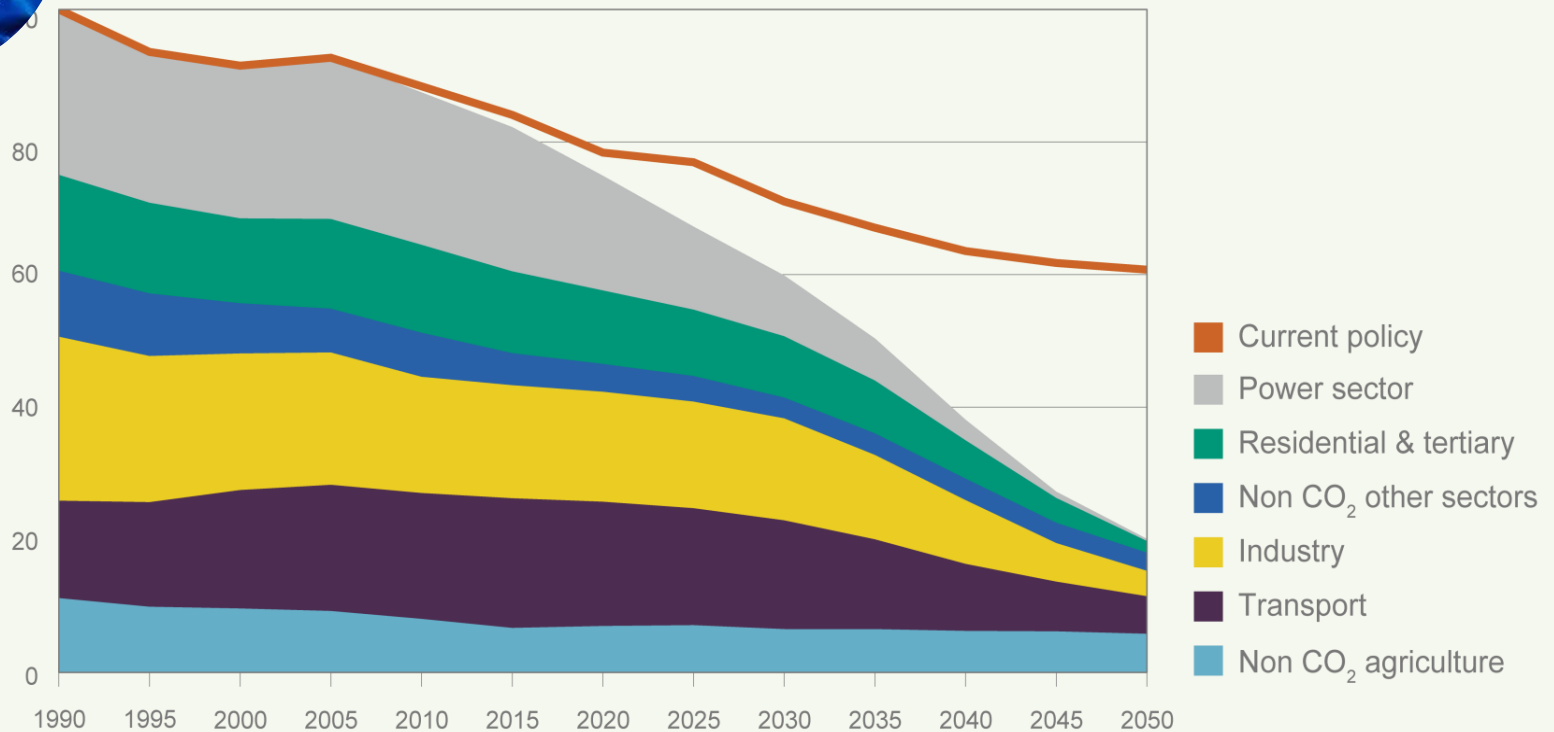
- How to devise a set of targets that is coherent to meet longer term objectives?
- How to ensure consistency and improve cost efficiency of combination of instruments?
- Competitiveness of the EU economy and security of energy supply
- Acknowledging differing capacities
- Need for a policy framework robust to energy developments which will remain key, but uncertain

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Energy strategy roadmap to 2050

Reduction of CO₂ emissions by 80%



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)

Mitigation strategies:



Reducing cost of energy supplies

- ✓lifeline tariffs
- ✓energy discounts
- ✓energy subsidies
- ✓privileges

Compensating consumers for the cost of energy supplies

- ✓compensation up to a certain benchmark
- ✓cash and in-kind transfers

Reducing demand for energy

- ✓energy efficiency measures
- ✓discounts on energy efficient equipment

Improving access to energy supplies

- ✓Lower connection charges
- ✓Relaxed disconnection procedures

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, co-generation, etc.

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Reducing costs of energy supplies



- lifeline tariffs are the most popular
 - two and three block tariffs
 - transparent, predictable and easy to administer
 - but poorly targeted
 - directly distort prices
- discounts and privileges
 - can be applied directly to bills
 - administratively complex and open to corruption
- energy subsidies are non-transparent and indirect

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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 2.15 Lari)

Compensating consumers



• Direct compensation up to a given benchmark

- requires good information about which households are in need
- does not distort prices
- administratively complex, unpredictable and open to corruption

• Cash transfer programs

- similar to direct compensation measures but are not linked to actual energy expenditure
- administering cash transfer programs typically requires more information and administrative purposes

Social protection in Lithuania



- compensation of district heating expenditures exceeding 20% of the household's income
- money are allocated from the state budget and administrated by municipalities
- costly administration
- not very well targeted
- the scheme was recently changed to evaluate the households personal estate

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Thank you

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