

EU Energy Strategy and its Implications for Moldova

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Policy Briefing

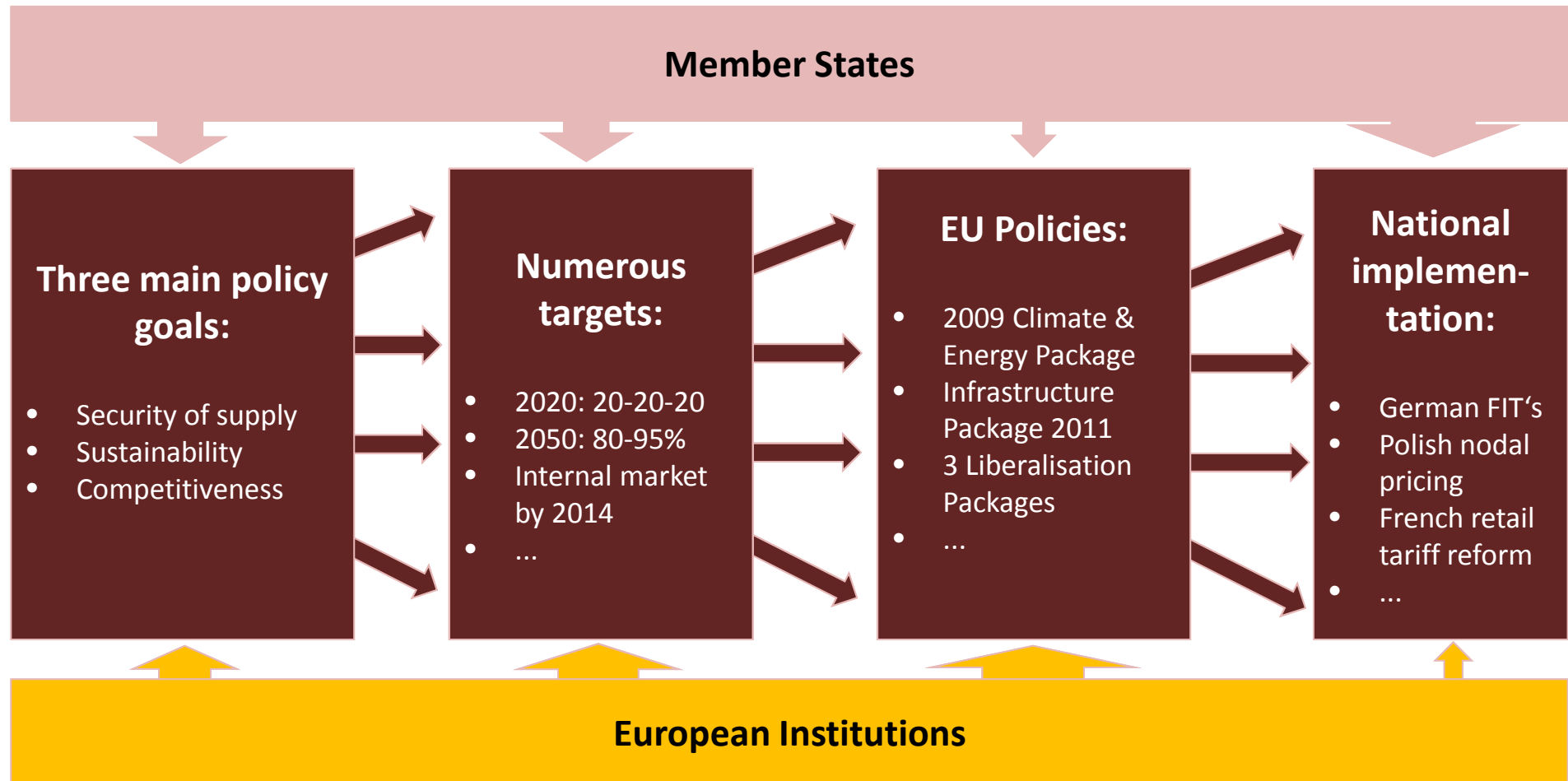
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Structure

1. EU Energy Strategy
2. Expected Consequences
3. Implications for Moldova
4. Conclusions

1. EU Energy Strategy

EU energy policy making



⇒ Varying influence of European institutions at the individual stages of EU policy making

What is the EU energy strategy 2011-2020

- “Energy 2020: A Strategy for competitive, sustainable and secure energy”
- Current status: A Commission communication + conclusions by EP, European Council & Energy Council
- Unsurprising document: bundles legislation in-progress
- Five priority areas:
 1. Achieving an energy efficient Europe
 2. Building a pan-European integrated energy market
 3. Empowering consumers and achieving the highest level of safety and security
 4. Extending Europe’s leadership in energy technology and innovation
 5. Strengthening the external dimension of the EU energy market

1. Energy Efficiency

Implications of some ideas presented in the Strategy:

- Buildings and transport identified as sectors with biggest saving potential => **decreasing demand for oil and gas**
- Supply side: energy efficiency criteria to be included in authorization of generation capacities => **origin of electricity might play an increasing role**
- Obligations to energy suppliers and retailers to introduce energy saving tools for customers (smart meters, white certificates etc.) => **electricity markets will become more complex**

2. Integrated energy market

Implications of some ideas presented in the Strategy:

- Implementation of the 3rd energy package including the institutional framework (ACER, ENTSO-E); European market integration by 2015 => **increasing role of markets as compared to bilateral arrangements**
- Ensuring necessary infrastructure investments (strategic priority projects, grid development); => **European energy market will become deeper and prices will converge**
- Assessment of the effectiveness of the RES Directive in 2011 => **potential changes in RES legislation, but continued emphasis on RES deployment (20%)**

3. Consumers' protection, safety and security

Implications of some ideas presented in the Strategy:

- Legal framework for nuclear safety and security, including nuclear waste + European approach on nuclear liability regimes => possibly stricter rules and higher cost of polluting and dangerous generation

4. Making a technological shift

Implications of some ideas presented in the Strategy:

- European research, development and demonstration projects on essentially all energy technologies => **no prioritisation of particular decarbonisation-technologies**

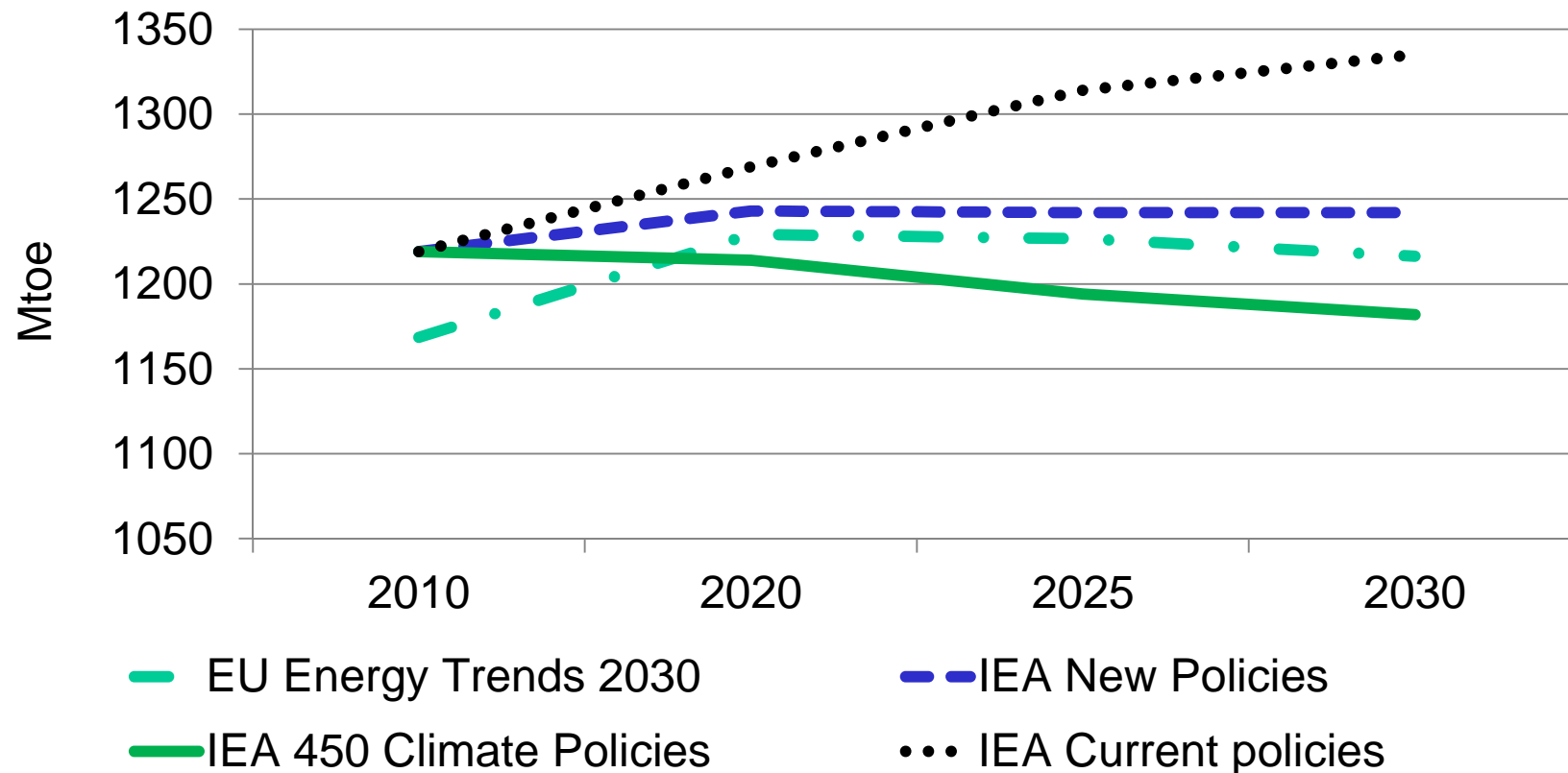
5. External dimension of the EU energy market

Implications of some ideas presented in the Strategy:

- Integrating energy market and regulatory frameworks with neighbouring countries (Energy Community Treaty) => **export of rules and investment security, make freeriding on costly EU rules more difficult**
- More diversification of supplies => **less reliance on individual partners**

2. Implications for Moldova

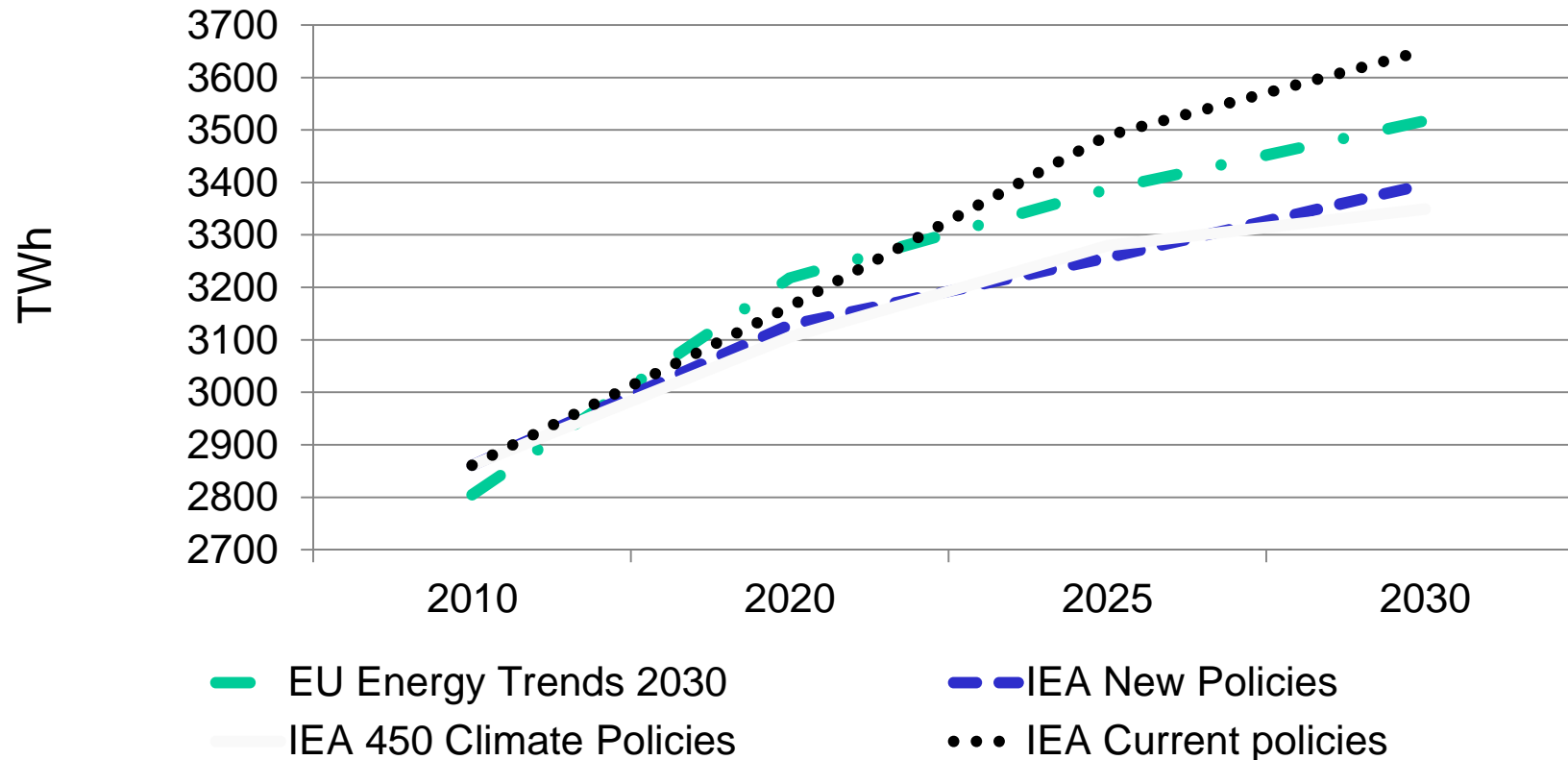
Implications on Energy Demand



- Energy efficiency: The two main scenarios (EU Trends and IEA New Policies) foresee a flat demand development until 2030.

Implications on the electricity market – 1/4

Higher electricity demand



Strong increase of electricity demand (+20%)
 => Increasing electricity prices

Implications on the electricity market – 2/4

Higher electricity prices

- Increasing demand through electrification
 - Increasing cost of carbon (today 15€/t)
 - Higher feed-in of expensive RES
 - Direct feed-in cost
 - Higher cost of networks
 - More back-up capacities needed
 - Increasing requirements on conventional generators (LCPD, IPPD, CCS-ready, ...)
- => Increasing electricity prices in the next decade(s)**
- But, learning/technology might reduce cost thereafter

Implications on the electricity market – 3/4

More volatile electricity prices

- Intermittency of PV and wind
 - Frequent switches between fuels
 - Europe will require overcapacities in many hours
 - ⇒ very low electricity prices in these hours
 - ⇒ Unclear, whether capacities should be compensated by very high prices in tight situations or by „capacity mechanisms“
- ⇒ either, very volatile electricity prices
- ⇒ or, a new market for capacity will become important

Implications on the electricity market – 4/4

Convergence of electricity prices

- More transmission lines
- Convergence of rules
- Prices in the center and at the periphery converge

Higher electricity prices

+ More volatile electricity prices

+ Convergence of electricity prices

= electricity prices at the periphery will become more volatile and higher

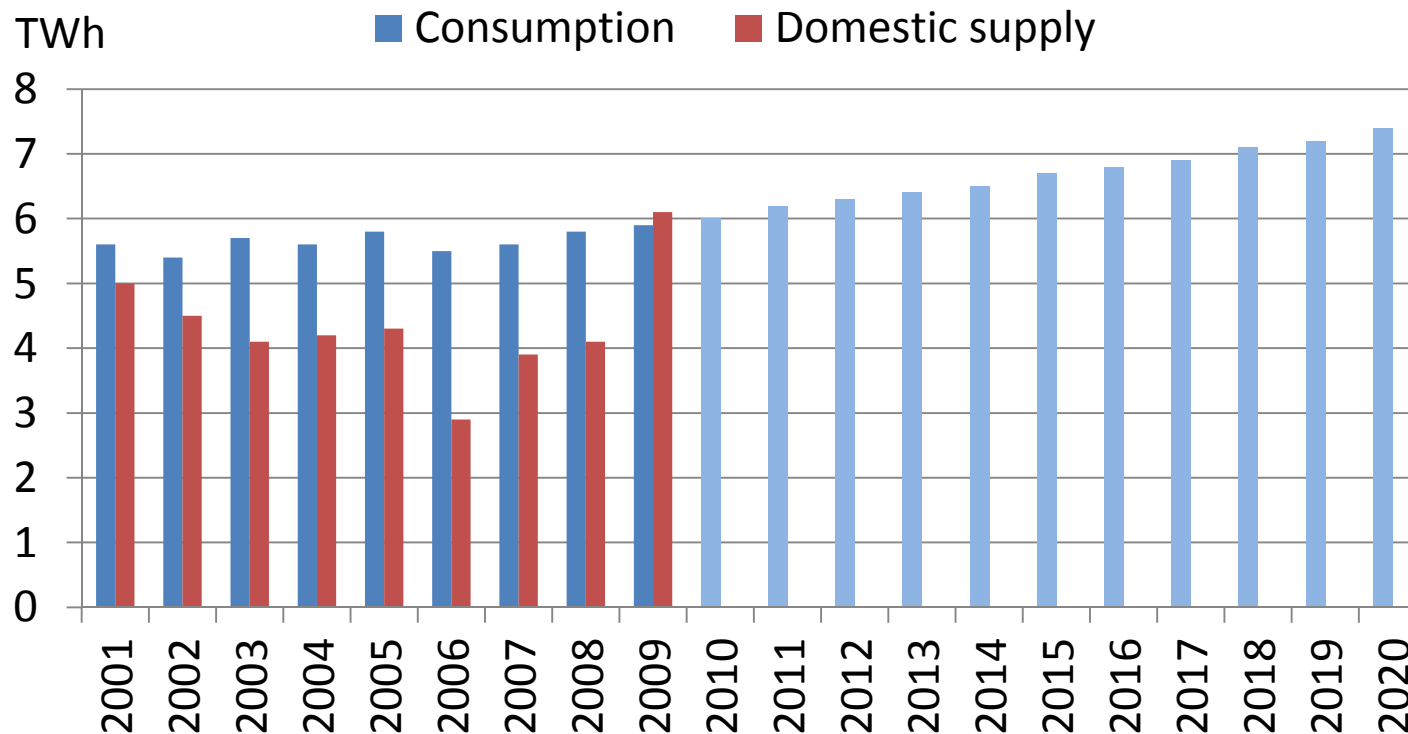
Implications of higher and more volatile electricity prices

=> good news for exporters of cheap and flexible electricity

- But EU market design is going to evolve (capacity markets, intraday markets, ...) => trade with the EU will only be possible through intermediaries

=> full trading benefits only to be expected from making rules compatible

Projected electricity Supply/Demand Balance in Moldova



Rising electricity consumption => increasing imports or new capacity required

Implications on the gas market

Flat gas demand

- Energy efficiency
- Increasing share of RES in electricity, but decreasing share of coal (unclear: nuclear)

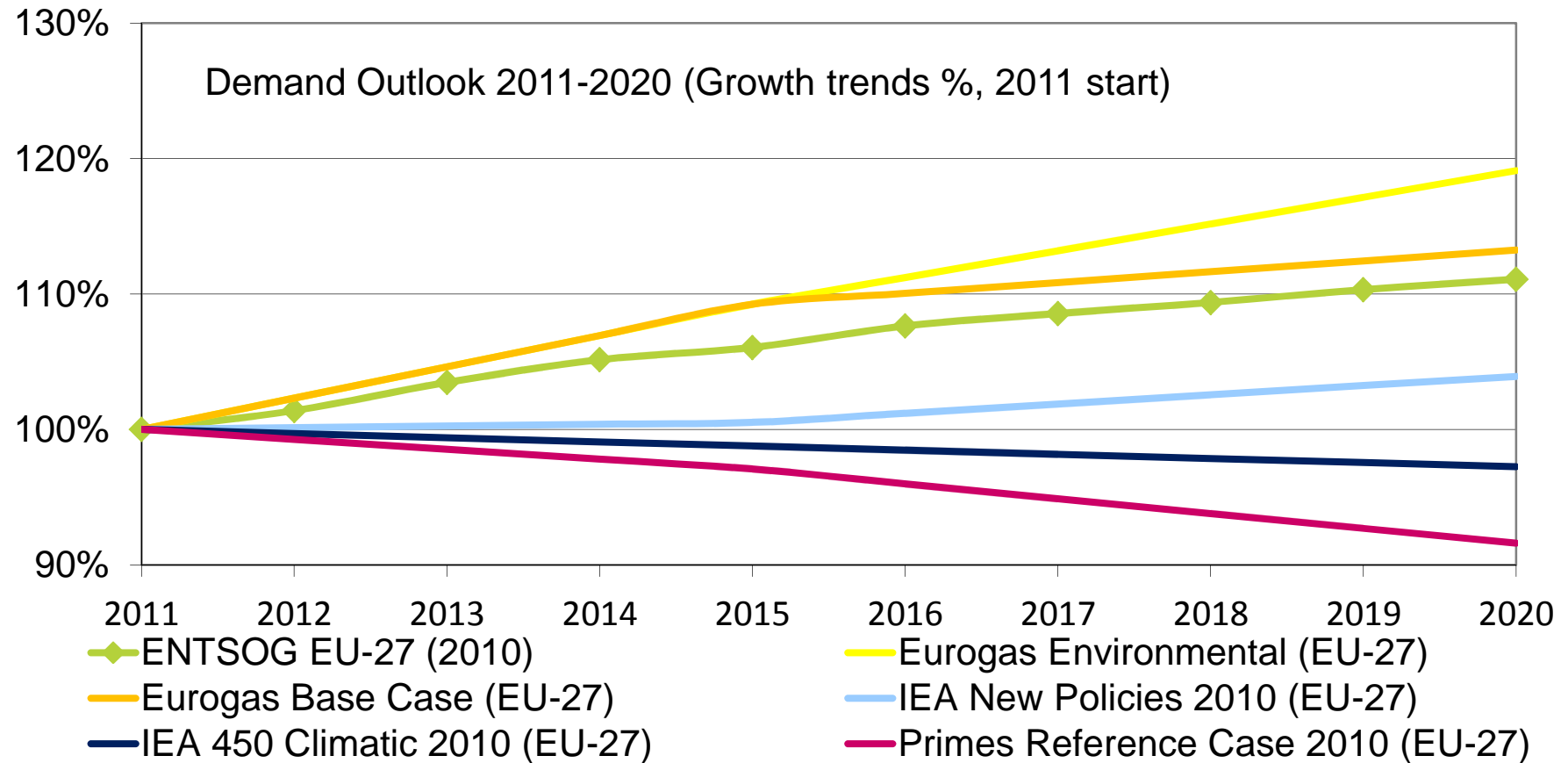
Increasing gas supply

- New pipelines
- LNG
- Unclear: Arab world

Converging prices

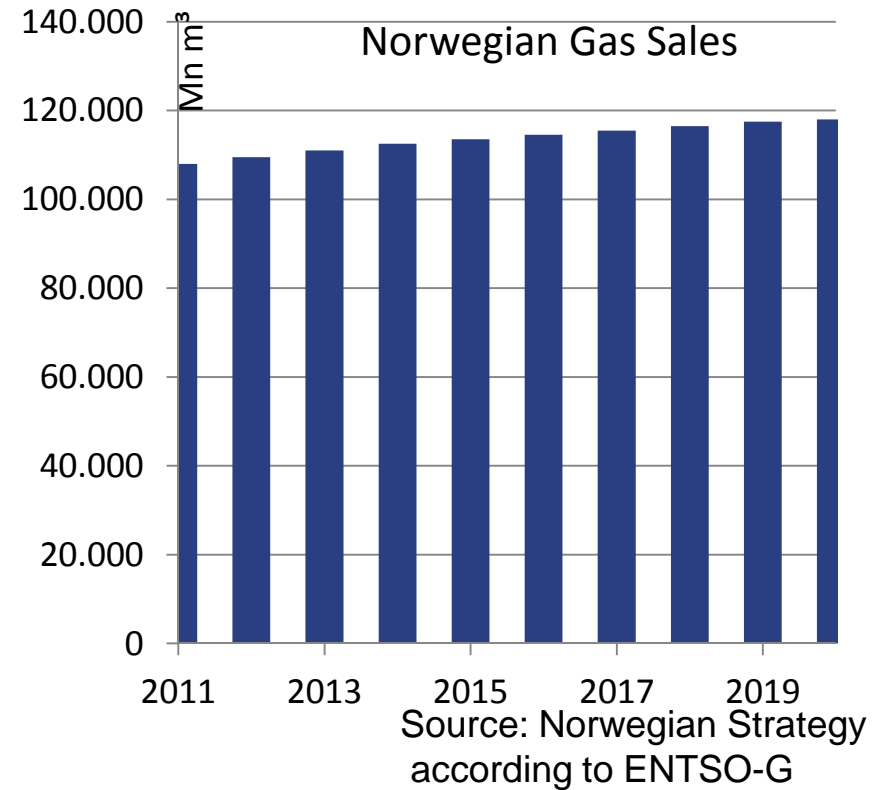
- New pipelines
- Third legal package

Natural gas demand



Rather flat, but uncertain demand development for gas (-10% to +20%)

Gas supply



- Russia intends to export more to Europe and to the CIS
- Norway intends to increase exports + potential EU shale
- US intends to export => no gas shortage

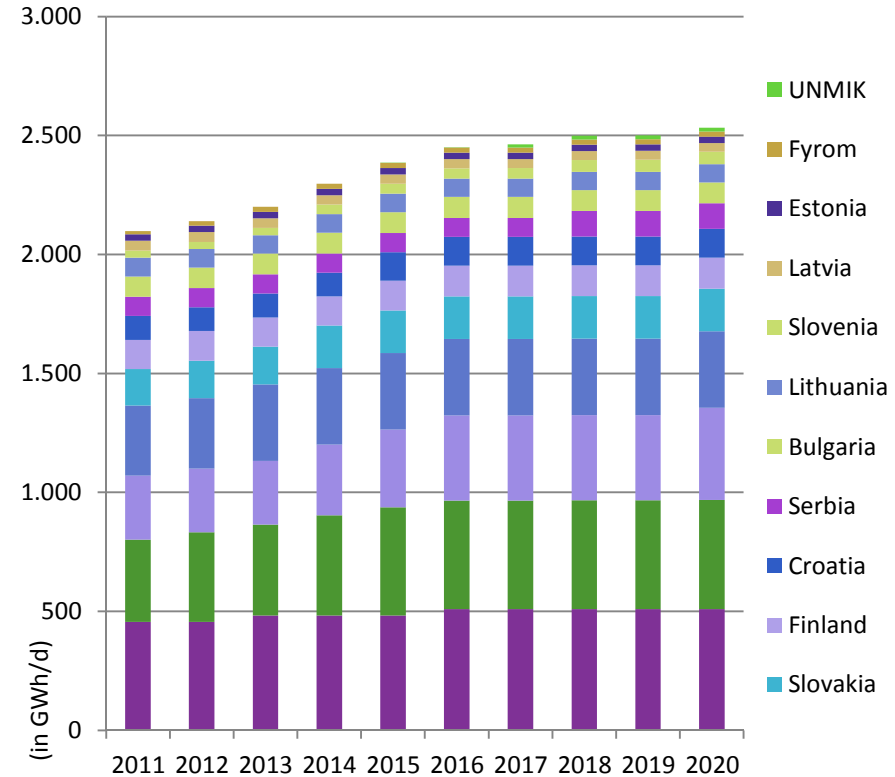
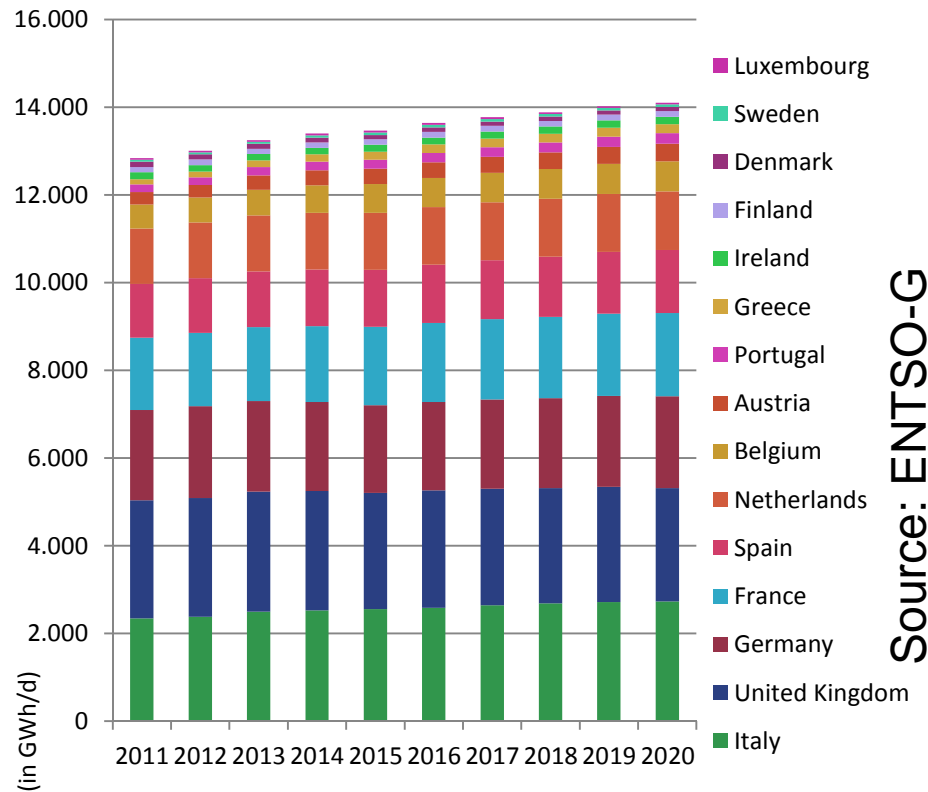
Implications of flat gas demand and increasing supply diversification

- This will reduce the importance of individual pipelines
- However, the EU seems committed to pay a premium for keeping options open
- Gas price at the European market will become more determined by the world market
 - if Asia goes for gas => European and thus Moldovan gas prices will increase
 - If Asia goes for CCS, nuclear or renewables => European and thus Moldovan gas prices will decrease

Regional gas demand ...

in the EU15

in South and East Europe



Gas demand in South and East will increase faster than in the EU15

External energy policy

- EU Energy Strategy foresees a deepening and extension of the **Energy Community**
- **Becoming part of the European market will decrease national discretion and improve investment climate**



Decarbonisation

- reducing greenhouse gas emissions by 80-95% by 2050 compared to 1990 => zero-carbon electricity sector by 2050
 - ⇒ decreasing gas demand
 - ⇒ Increasing share of renewables
 - ⇒ Increasing electricity prices
- The EU has linked its EU Emission Trading System to the systems in Norway and Switzerland and is looking ahead ...
- Trading „dirty“ energy with Europe will become more difficult, trading „clean“ energy will become more profitable
- Dirty energy will become cheaper

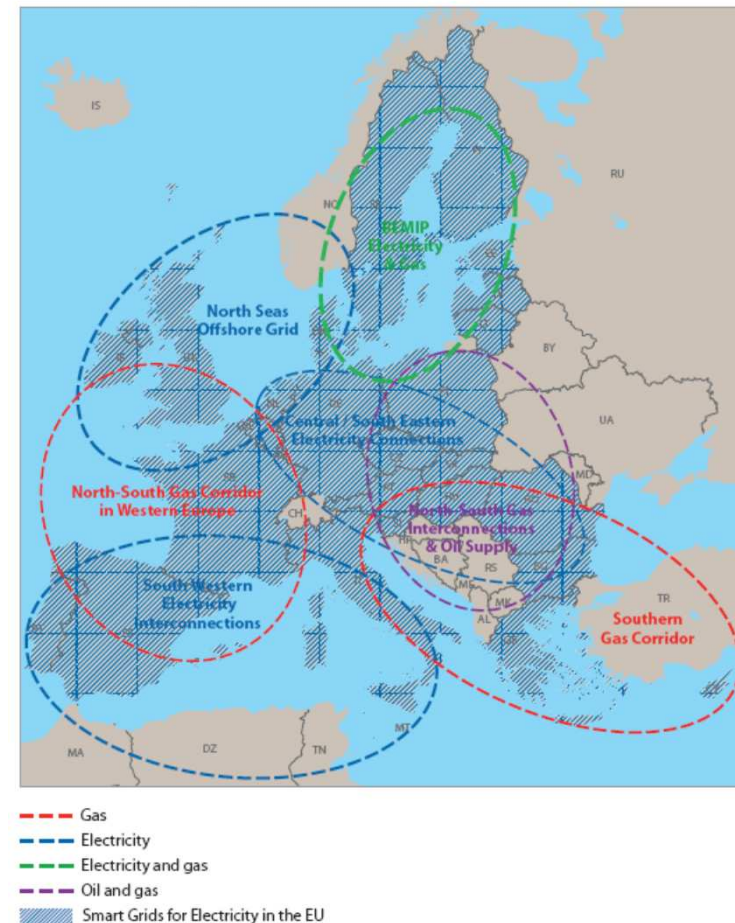
Implications of higher EU emission cost

- Europeans will become more aware of carbon leakage
- Trading „dirty“ (carbon-intensive) energy with Europe will become more difficult
- trading „clean“ (carbon-free) energy will become more profitable
- “Dirty” energy will become cheaper
- Outlook:
 - The EU is linking its EU Emission Trading System to the system in Switzerland and is looking ahead ...

Infrastructure

- Connecting Bulgaria's and Romania's oil, electricity and gas networks to Central Europe is part of the EU priorities
- **Converging prices and increasing supply security can be expected in the long run**

European energy infrastructure priorities for electricity, gas and oil



3. Three Strategic options for Moldova

Three Strategic options for Moldova

1. Exploit the EU Strategy
2. Cooperate on EU Strategy
3. „Leave as is“

1. Exploit the EU Strategy

- Benefit: potentially large „legal arbitrage“ gains
- Risk: trade, investment and technology transfer restrictions
- Sell cheap and dirty electricity to Europe
 - ⇒ Might be difficult if EU gets stringent on “carbon” imports (*“ensure a level playing field for EU power producers vis-à-vis producers outside the European Economic Area”*)
- Free-ride on European supply security and generation capacities
 - ⇒ Would require costly connections

2. Cooperate on EU Strategy

- Offer possibilities for MS to use renewables in Moldova to fulfill their commitments
 - No mechanisms in place - would require negotiations
- Offer MS to use carbon mitigation potential in Moldova to fulfill their commitments
 - Even linking to the EU Emission Trading System could be made beneficial
- Offer MS to cooperate on security of supply infrastructure
- Cost: would require to implement the acquis → significant political and monetary cost

Implementing the Acquis

- More strings to national energy policy
- Some of them „hard to swallow“
 - Environmental regulations are expensive
 - Market rules require reorganizing the industry and are typically met with resistance (e.g., unbundling, TPA)
- But, significant benefits
 - Commitment tool to attract investment
 - EU support for the transition

Acquis: Many open questions

- Time-line for accession to ENTSO-E and ENTSO-G?
- If existing powergrid will have to be upgraded how the costs will be shared (some of it is privately owned, some in the state hands)?
- Privatization of the state-owned network in order to attract investment (so far it's on the list of enterprises non-eligible for privatization)?

3. “Leave as is”

- Balk at integration efforts, possibly under scarcity of funds
- Benefits:
 - Fewer investments and costly reform efforts required
 - Falling power prices as “dirty” electricity becomes in excess in western CIS
- Risks:
 - The internal market remains over-regulated harming energy efficiency and interests of consumers;
 - Decoupling from EU as the acquis is progressing

Current status of cooperation

- Transposing the EU acquis in the energy field is already a key strategic goal
- Projects of electricity and gas connection to RO
- But, Progress is mostly limited to the legislation process, while the implementation of the infrastructure projects, implementation of regulations, development of standards, etc. is extremely slow and often hugely depends on foreign aid (e.g., renewables)

4. Conclusions

Conclusions 1/3

- EU energy strategy is as complex as EU policy making
- But, certain targets are quite clear
 - Decarbonisation
 - Market integration
 - Cooperation with suppliers
- Thus, certain consequences can be expected in the long-term (2050)
 - Decreasing gas and oil demand
 - Increasing electricity demand and prices
 - More need for capacity
 - Stronger market integration
- **Danger of a gradual decoupling of MLD from EU acquis that continues to develop along its decarbonisation agenda**

Conclusions 2/3

- Price for “clean” energy will increase while selling “dirty” energy to the EU will become more difficult => **selling cheap coal-generated power to the EU is no sustainable business model**
- In the short-term (2020) electricity prices will increase and become more volatile in Moldova’s Western neighbors => **selling flexible products is becoming more profitable, while the “energy only” market will lose importance => deeper market integration required to be able to trade more complex products**

Conclusions 3/3

- EU will play „stick and carrot“ on extending the acquis => there is a long-term possibility to participate in the EU support mechanisms for carbon reduction (ETS) and RES-E
- MLD has to decide how to go ahead in light of new EU energy strategy: Standing-by will lead to a gradual decoupling from the European energy market with long-term serious consequences

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