



Global Goal 7 and UNECE: South East Europe in Focus

Anna Dimitrova, Research Assistant, CEPS Energy Climate House

Oct. 12th, 2015

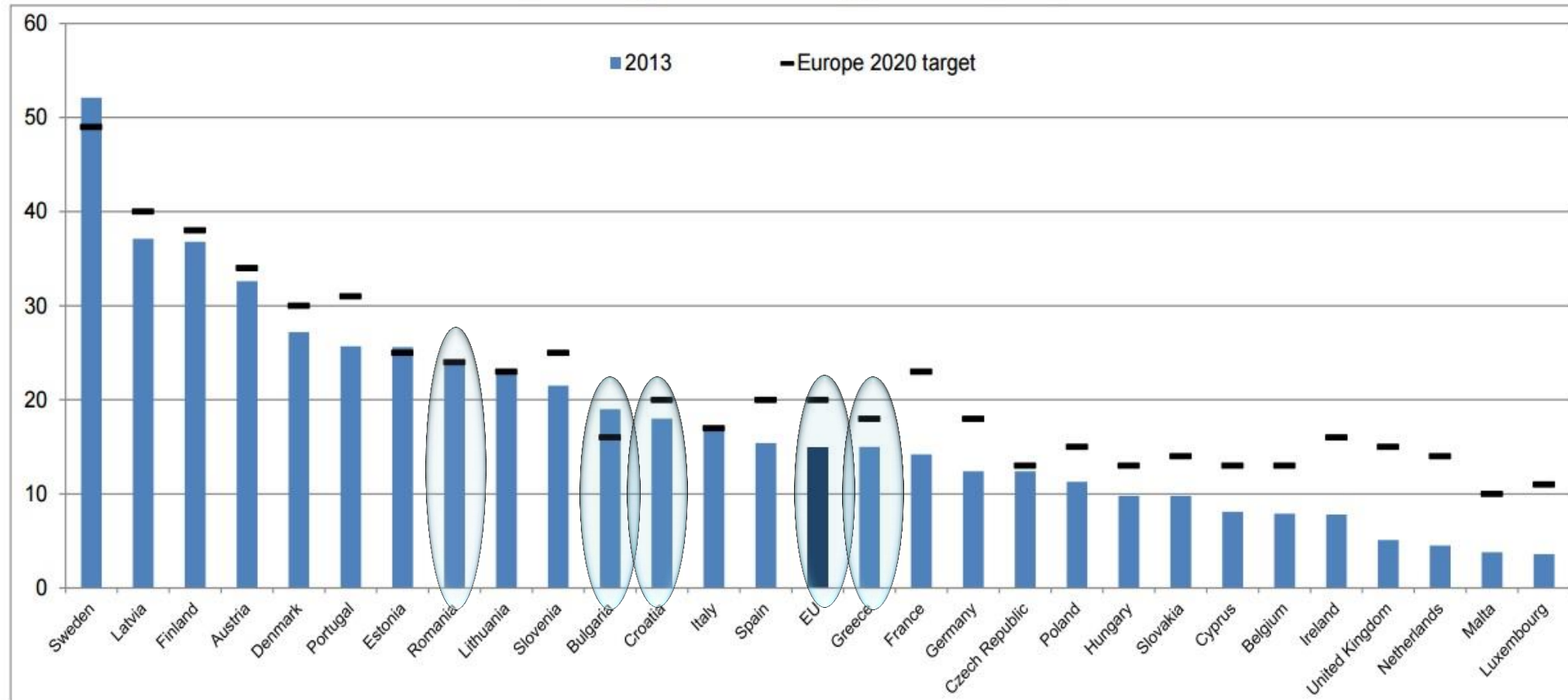
UNECE Group of Experts on Renewable Energy, Annual Meeting
(Geneva, Switzerland)

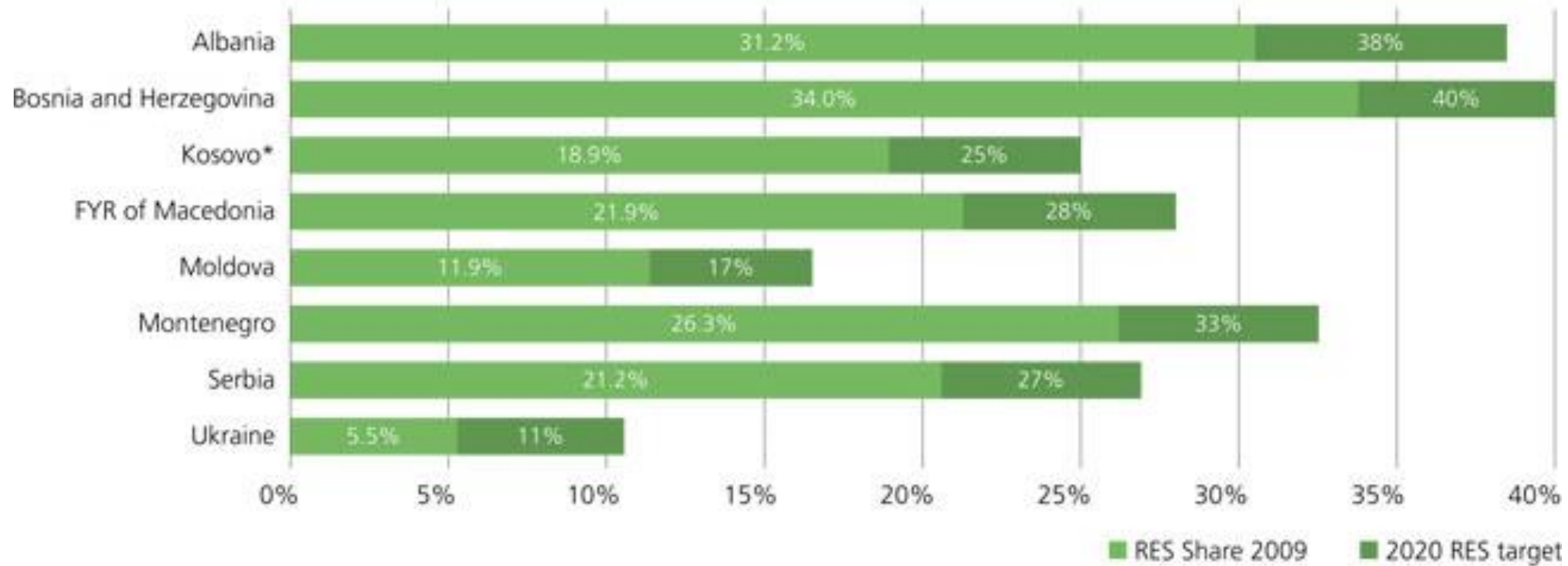


SDG7 targets and SEE profile

- universal access to affordable, reliable and modern energy
 - 2014: 40.5% of Bulgarians, 32.9% of Greeks, 14% of Romanians and 10% of Croatians could not heat their homes adequately, no reliable data for the Western Balkans but estimated at 16%
- substantial share of renewable energy in the final energy mix
 - 2015: Bulgaria and Romania have reached their goals with Croatia and Greece having a few % left and Energy Community members are roughly 6% short of their targets
- double energy efficiency rate of improvement
 - 20-40% potential savings, residential heating and cooling
 - 500 million in targeted funding still available
- infrastructure and technology for supplying modern and sustainable energy services

Share of energy from renewable sources in the EU Member States, 2013 (in % of gross final energy consumption)





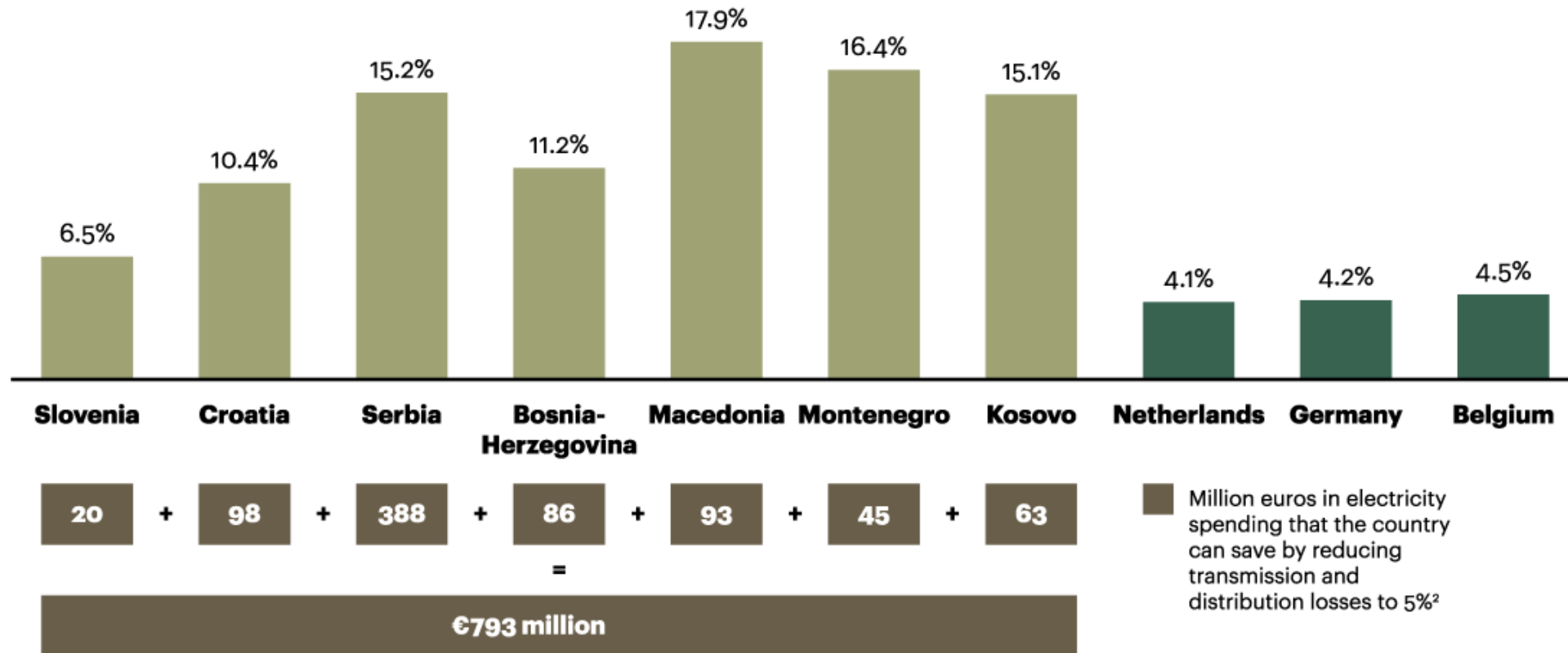
Source: Energy Community

Figure 6

Reducing electricity losses could capture sizable savings in Southeast Europe

Transmission and distribution losses

(% of apparent consumption, 2011–2012¹)



¹ Depending on data availability

² Assumption: average price of electricity of €0.1 per kilowatt hour

Sources: International Energy Agency, publicly available information published by national regulatory agencies or electricity generation companies; A.T. Kearney analysis

RECAP

- Poorly interconnected markets
- High levels of energy dependency, energy intensity and hence low energy efficiency and economic competitiveness
- Regulated prices for households thus no market signals or incentives to consider energy efficiency measure or RES
- Heavily indebted public energy enterprises, extortionate subsidies to RES
- Coal-powered electricity and district heating thus high air pollution, yet cheap prices

WOULD THE TESLA POWER WALL BE EVER COMPETITIVE UNDER SUCH CONDITIONS?

Sustainable
Energy
deployment
in SEE
depends on:

MORE AND MODERN PHYSICAL INFRASTRUCTURE

MARKET SIGNALS AND OPEN MARKETS

LOWER RISK AND INTERESTED INVESTORS

In SEE the above can be guaranteed only
through regional cooperation and the EU has
already taken steps in that direction

Regional Energy Cooperation: A Solution

- Regional Cooperation – a stepping stone to an Internal Energy Market in CSEE
- Unprecedented political momentum in the region - explicit mention in the Energy Union Package and the establishment of the Central and South-Eastern European Gas Connectivity (CESEC) initiative – can be used to address the issues unresolved to date
- Regional Cooperation has already been operationalized as an approach through CESEC

UNECE Sustainability Toolbox

- Current legal framework mainly focused on coal, but work on renewables and energy efficiency is underway
- Common actions to achieve the Sustainable Development Goal on Energy Agreed at the 6th International Forum on Energy for Sustainable Development:
 - National Sustainable Energy Action plans ([can be coordinated with Energy Union governance structure](#))
 - Hammamet Declaration: Energy Market Reform, Energy Efficiency, Renewable Energy, Energy Access, Energy Security, Finance and Investment, Technology, and Energy Data, Indicators and Analysis
 - Framework to exchange best practices in policies in order to accelerate renewable energy uptake
 - Energy Statistics
 - Lack of data on daily individual consumption profiles
 - Lack of a common accepted definition on Energy Poverty rates

CESEC



Existing CSEE Regional Initiatives

- South East Europe Cooperation Process (SEECP), 1996
 - parliamentary and executive powers cooperation through a committee dedicated to Economy, Infrastructure and Energy
- Energy Community (EnC), 2004
 - Permanent High Level Group
 - Projects of Energy Community's Interest (PECIs)
 - Dispute settlement mechanism
- European Network of Transmission System Operators for Electricity (ENTSO-E), 2009
 - Continental South East region, the 8th region (*Italy, Slovenia, Croatia, Hungary, Romania, Bulgaria, Bosnia and Herzegovina, Serbia, Montenegro, FYROM, Greece, Albania, Kosovo*, Turkey*)
 - Ten-Year Network Development Plan (TYNDP) (non-bidding)
 - Electricity Projects of Common Interest (PCIs)
- European Network of Transmission System Operators for Gas (ENTSO-G), 2009
 - Gas Regional Investment Plan (GRIP) – the Central Eastern Europe and the Southern Corridor
 - Neither of these includes the Western Balkan countries or Turkey
 - Also TYNDP and PCIs

Existing CSEE Regional Initiatives

- Agency for the Cooperation of Energy Regulators (ACER), 2009
 - South South-East Regional Initiative (*Austria, Bulgaria, Croatia, Cyprus, the Czech Republic, Hungary, Greece, Italy, Poland, Romania, Slovakia and Slovenia*)
 - Guidance.
- South East Europe Coordination Auction Office (SEE CAO), 2012
 - *Greece, Croatia, Montenegro, Bosnia and Herzegovina, Albania, Kosovo* and Turkey*
- South Eastern European Power Exchange (SEEPEX), expected 2015
 - *Serbia, Montenegro, Macedonia*
- **Central East South Gas Connectivity CESEC High Level Group, 2015**
 - The European Commission, Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Romania, Slovakia, Slovenia, Albania, Bosnia and Herzegovina, FYROM, Serbia, Moldova and Ukraine
 - Kosovo and Montenegro were not signatories to the Memorandum of Understanding
 - Focused on natural gas connectivity but foresees expansion of scope to electricity, heating and cooling

Opportunities and Risks

- **OPPORTUNITIES**

- SECURITY OF SUPPLY
- SYSTEM RESILIENCE
- ADDRESS REGION-SPECIFIC CHALLENGES SUCH AS ENERGY POVERTY
- SUSTAINABLE DEVELOPMENT AND GREEN ECONOMY
- ECONOMIES OF SCALE
- BALANCING RENEWABLE ENERGY INTERMITTENCY
 - storage capacity

- **RISKS**

- Distinct regions cooperating cross-regionally but not sharing a common vision, EU energy and climate objectives

Challenge I: Geographic Definition

CESEC High Level Group offers the most inclusive geographical definition

- Challenge: Ukraine's and Moldova's energy sectors may be in need of different solutions, not applicable to the other members of CESEC
- To guarantee CESEC's effectiveness, Turkey, Kosovo and Montenegro need to be integrated in the process at an early stage

- **Proposal**

- **Voluntary Opt In:**

- Starting with the CESEC definition, "coalitions of willing" may address specific Thematic Groups

- **Thematic Groups** (as identified at a regional workshop in Sofia)

- Electricity: regional emergency frameworks, regional market and market coupling
 - Heating and Cooling
 - Natural Gas: physical connectivity, security of supply, market integration and gas hubs
 - Renewables
 - Energy Efficiency and Energy Storage

Challenge II: External Dimension

- An Immediate priority: develop 'mechanisms for co-operation' with countries not belonging to the EU or the Energy Community
- Energy Union membership before EU membership
- TOOLS:
 - EU Energy Diplomacy Action Plan signed on July 20 as part of the Foreign Affairs Council Conclusions
 - National Energy and Climate Plans, Energy Union Governance
 - National Plans for Competitive, Secure and Sustainable Energy, The 2030 framework

Challenge III: Connectivity

HARDWARE

TYNDP – binding or non-binding?

Converging PCIs and PEICs with priority projects under CESEC's Memorandum of Understanding – a long awaited example of regional infrastructure planning – yet more is needed

SOFTWARE

Carrots or Sticks to enforce market rules and coupling?

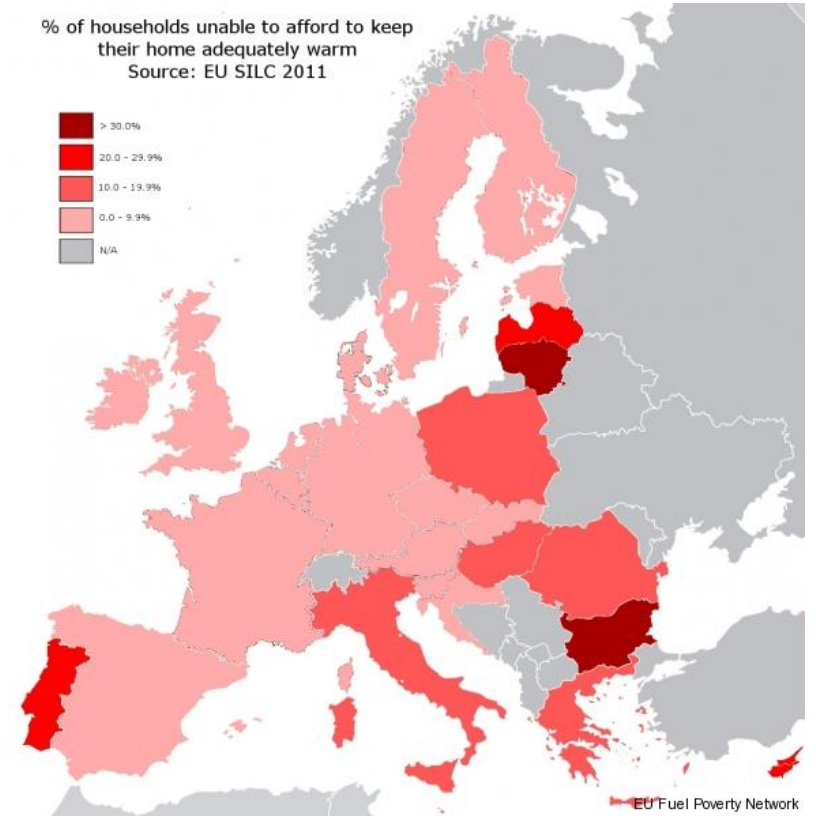
- the power of infringement procedures
- enhancing ACER's independence and enforcement capacity
- lack of market liquidity and inadequate market price signals
- market liberalisation and energy poverty
- What carrots?

Challenge IV: Aligning Finance

- If true regional cooperation is to be achieved, financing instruments need to be aligned.
- CESEC identifies potential challenges to natural gas infrastructure financing and a similar process has to take a place for electricity infrastructure and other areas where a potential for regional cooperation is seen
 - **Uniting PCIs with PEICs**
- Existing Energy Infrastructure Financing Frameworks to name a few:
 - Connecting Europe Facility and PCIs
 - Western Balkans Investment Framework and PEICs
 - Juncker Plan (EFSI)
- Ethical questions: European investments in fossil fuel generation capacity

Challenge V: Fuel Poverty

- Energy prices spikes translated to political instability in Bulgaria, Bosnia and Herzegovina, Albania, Kosovo and Macedonia
- Market liberalisation will be effective, if the needs of vulnerable social groups are considered and potential solutions are tested in advance
- 1 potential solution: energy efficiency for the residential sector with a focus on heating and cooling
 - Ex. Bulgarian Governmental Energy Efficiency Funding Programme



Wand, C.R. (2013). % of households unable to keep their home adequately warm. Available: <http://fuelpoverty.eu>

Challenge VI: Renewables and Energy Efficiency

- Physical vs Statistical Transfer under the EU Renewables Directive
- De-risking renewable energy investments
 - Political predictability

BUT ALSO

 - Simplifying permitting procedures and providing assistance with the drafting of business plans and financing proposal
 - Aggregating smaller energy efficiency and renewable energy projects to make them attractive and less risky for larger investors
(Luxembourg Declaration by MEP Claude Turmes)
- The cost of capital for renewable projects varies across Western Europe and CSEE:
 - between 3.5% in Germany and 12% in Greece ([DIA-CORE Project Policy Brief 3](#))

With Tesla batteries being barely competitive in the German market at 30 euro cents kwh innovations at these cost are not at all effective solutions for markets with regulated prices of below 8 cents kwh. Would market liberalisation change that? How to mitigate the negative impact on these nearly three-fold increase?

FOCUS ON

- The region in its entirety
- Potential synergies with existing initiatives
- Assess cost-effectiveness not just on national but regional level
- De-risking investments in energy efficiency measures and renewable energy
- A toolbox to eliminate market distortions
- A solution to social issues obstructing progress on market liberalisation – preventing “shock therapy”

CEPS Energy Climate House

Regional Energy Policy
Cooperation in
South East Europe

- <http://www.ceps-ech.eu/project/regionalisation-eu-energy-policies>
- Policy Proposal: <http://ech.dropsolid-sites.com/publication/effective-regional-energy-policy-cooperation-south-east-europe-proposal>
- Regional workshops
- Working Breakfasts with Brussels-based decision-makers

References

- Eurostat: **Inability to keep home adequately warm (source: SILC)[ilc_mdso1]**
Last update: 15-09-2015
- <http://ec.europa.eu/eurostat/documents/2995521/6734513/8-10032015-AP-EN.pdf/3a8c018d-3d9f-4f1d-95ad-832ed3a20a6b>
- http://csis.org/files/publication/100921_CSIS-EKEM_PolicyReport3.pdf
- https://www.energy-community.org/portal/page/portal/ENC_HOME/AREAS_OF_WORK/Obligations/Renewable_Energy