The Energy Community Regional Strategy - development of projects of regional interest

INO GATE Country Coordinators and Working Group Members Meeting
29 November 2012, Brussels

Energy Community Secretariat
Predrag Grujicic, Head of Gas Unit
Energy Community Strategy – beginning

- MC invited ECS to *develop a more concrete proposal on Regional Energy strategy for consideration* (late 2010)

- regional coordination recognised as the only feasible solution for gaining synergy effects for the small and only partially connected emerging energy markets (esp. for attracting investments)

- Initiative came from a Contracting Party (Serbia)

- The strategy paper was developed (June 2011)

- MC asked a further evolution (common projects to be identified and listed) in 2011

- A Task Force established and mandated Dec 2011
Energy Community Strategy – status quo

- The Strategy was developed by a Task Force with a large representation basis, benefitting from the technical assistance sponsored by USAID
- Two phases:
  - Phase 1: A Strategy paper, endorsed by the MC in October 2012
  - Phase 2: Identification of Projects of Energy Community Interest (PECIs), and associated policy measures to promote these, October 2012 – October 2013

- The strategy paper has set three important objective and a large number of actions:
  - Objective 1: Creating a competitive integrated Regional Energy Market
  - Objective 2: Attracting investments in the energy sector
  - Objective 3: Providing secure and sustainable energy supply to customers
Overview of the energy sectors in the Energy Community

- Small and fragmented markets, except Ukraine
- Dependent on domestic fossil fuel (coal/lignite) or imported gas and oil
- High potential for renewable energy
- Urgent need for major retrofit, and new power plants
- Power generation exceeding their life span, high reliability and environmental concerns

Power generation - 271 TWh (with UA) gas represented only 8%
Current situation and trends

New (planned) installed capacity

The forecasted new power generation capacity: 20 GW, between 2012 and 2020/2021 in total, of which, in Ukraine approx 8.1 GW (2009-2020)
This represents a total 30% increase, or 60.9% in WBs and Moldova

This power needs transmission lines
Energy demand scenarios and investment costs

The Task Force decided that a scenario analysis should be used, as a way to understand the regional energy outlook and potential value of a regional energy strategy.

Three scenarios were selected:

– ‘Current trends’ – if current trends in development of the energy sector continue, what the implications are

– ‘Minimal investment cost’ – what are the minimal costs required to ensure that there is adequate supply of electricity to meet demand?
  → meeting the energy efficiency and RE energy targets only partially, and will not meet the Large Combustion Plants Directive

– ‘Low Emissions Development/Sustainability’ - if more aggressive promotion of EE and RE was pursued, what might be the implications?
  → all targets will be met as well as the requirements of the Large Combustion Plants Directive
A few highlights:

✓ The scenario analysis demonstrates the potential for severe electricity shortages if current trends continue unabated.

✓ It also demonstrated a very large investment gap, with CP reported plans already at 28.8 billion Euros through 2020 (Western Balkans and Moldova) – it is even higher when considering the viewpoint of other regional energy experts or when the analysis extends to include plant in the 2021 to 2030 timeframe.

✓ The scenarios indicate the potentially large investment needs required for the region to meet supply adequacy. Between 2012-2020, an estimated 39.1 billion euros of investments are needed under the scenario that focuses on minimum supply adequacy.

✓ It is evident that there are projects of regional significance that can benefit from a coherent EnC energy strategy (for example – the Gas Ring).

EnC strategy supported by a framework for project support should help mobilize financing.
### Results for 2020, 2025, 2030

<table>
<thead>
<tr>
<th>Scenarios and Key Results.</th>
<th>Unmet Demand (TWh)</th>
<th>Total Annualized Investment Costs (Billion euro)</th>
<th>Annual Fuel and O&amp;M Costs</th>
<th>Total Annual Costs</th>
<th>CO (Gt)</th>
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</table>

- Prepared by ECS -
Development of projects of Energy Community Interest - PECI

**Power generation:**
- New generation capacities (including adding new units to existing facilities)
- Modernization, retrofitting of existing power plants, allowing for more efficient and environmentally safe production

**Electricity transmission:**
- High-voltage lines: OHL and underground and submarine transmission cables
- Electricity storage facilities
- Smart meters and ancillary equipment
- Equipment for the safe, secure and efficient operation of the system

**Gas infrastructure:**
- Gas transmission pipelines (bi-directional capacity)
- Underground storage facilities
- LNG and CNG terminals
- Equipment for the safe, secure and efficient operation of the system

**Oil:**
- Refinery improvements for facilitating improved fuel quality
- Storage facilities to contribute to the security stockholding obligations
- Pipelines used to transport crude oil
Going forward into the next phase, it is important to focus on identifying those projects of regional importance that would benefit from additional interventions such as:

- Policy and regulatory instruments
- Technical assistance
- Financing mechanisms.

This is NOT intended to replace or supplant each CP’s own strategy or project development priorities, but is focused on projects of regional significance that would benefit from additional support.

The Gas Ring is an ideal project for demonstrating the importance of an EnC energy strategy. It requires coordinated action among multiple CPs and cannot be developed in isolation.

*This is the challenge for this second phase of work.*
PECI – identification in progress

- ECS on behalf of the Energy Strategy Task Force has launched the request for project proposals for identification of PECIs in electricity, gas and oil sectors

- Project promoters (TSOs, investors) invited to submit information on their projects - the deadline for submissions is 10 December 2012.

- Task Force will prepare a draft list of PECI for each sector

- The methodology will be developed by an independent Consultant and agreed with the Task Force (tender on-going)
PECI identification process (2)

- Project promoters (incumbent companies, private investors, TSOs, project developers, etc)

Basis for PECI candidate & data/ CBA

October - December 2012

Task Force*
- Determine additional data needed for application of criteria (complementary to TYNDP)
  *Assisted by Consultants

Project promoters/ TSOs
- Submit additional data for PECI candidates

Task Force*
- Evaluate submitted projects according to criteria,
- Group projects
- Propose (draft) PECI list
  *Assisted by Consultants

January 2013
February 2013
May 2013
October 2013

2013 – Entry into force of the regulation

PHLG/MC agree on Energy Community PECI; policy measures adopted

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Criteria categories

- **Contribution to the implementation of Regional Energy Strategy’s objectives**
  - Min. 2 CPs, or a CP and an EU MS
  - Cross-border infrastructure (electricity, gas, oil)
  - Significant cross-border impact

- **Contribution to regional market integration, and enhanced competition**
  - Enhancement of cross-border capacity (in both directions)
  - New links between markets
  - Reduction of market concentration and facilitating access for new market entrants

- **Security of supply**
  - Diversification of supply sources, supplying counterparts and routes (mainly for gas),
  - Lowest cost of available resources, while taking into account all externalities (mainly for generation projects)
PECIs selection criteria (2)

- Contribution to sustainable energy development
  - Development of renewable energy sources
  - Replacing old and low efficient technologies
  - Facilitation of reaching national carbon targets and reducing GHG emissions
  - Improving efficiency in primary energy transformation and in energy use
  - Economic, social and environmental viability
  - Socio-economic benefit

- Maturity of the project
  - Progress in realisation (feasibility study, EIA, FID, permits and licenses)
  - Length of project realisation
  - Support from governments / local communities
  - Experience of project promoter
Overcoming identified obstacles

- public funding constrained (in case of funds contribution or sovereign guarantee requested)
- decision about investment reversed
- public opposition to the project (environmental constraints)
- lengthy negotiation procedure with the IFI concerned
- company’s creditworthiness declining
- lengthy and cumbersome permitting process land acquisition: cost and time
- investment climate: unsecure regulatory climate
- end use energy prices, too low to incentivise investments
Regional Initiatives

Gas-to-Power Initiative, launched in late 2011:

– Concept originally proposed by the World Bank, the Commission backed the Initiative;

– Develop a regional Gas Ring when developing gas infrastructure for gas power plants

– Regional action by the Energy Community

– Contracting Parties supported the idea

– Workshops organised in several Contracting Parties; the Initiative was promoted in the regional events

– Part of the strategy approach
A possible “new” approach allows sharing risks among several investors and participating countries/state utilities

– Several investors in a consortium: Countries/State utilities can join the consortium and/or contract power in addition to opening their electricity markets to enable the members of the consortium to sell to eligible consumers

– A regional study (approx. 1 Million Euro) is under preparation, funded by WBIF

– It will be managed and implemented by the WB; ECS will provide its support
Consortium for Implementing Gas to Power

Energy Community (cooperation & coordination)

Consortium

Electricity Traders ↔ Power Generation Companies ↔ Gas Companies ↔ Other investors

Public Private Partnerships

Contracting Parties in SEE

National PPP Companies

Anchor Loads and Gas Pipeline
Feasibility studies (FS) funded by EU

Bulgaria-Serbia Interconnector
FS Annex finalised (Ser)
FS on going (Bul)

Ionian-Adriatic Pipeline
FS & ESIA ongoing

LNG Krk + evacuation pipeline
FS & ESIA started

South BiH – Croatia
Team established

fYR of Macedonia
Gasification
Moldova and Ukraine – the newcomers

**Moldova**
- Interconnector with Romania; FS done;

**Ukraine**
- Modernisation & Reconstruction GTS - Consultancy services
- Urengoy – Pomary – Uzhgorod 1st stage 539 mil $ / 230 mil $
- LNG terminal 10 Bcm/ FS 2011; design 2012; operation 2015
- Imports from the West