



# The Regional Initiatives – a major step towards integrating Europe's national energy markets



This Fact Sheet outlines some of the main achievements that have been facilitated by the European energy regulators' Regional Initiatives. It is a tribute to the many stakeholders who have, since 2006, willingly dedicated huge efforts in the pursuit of

enhancing regional energy market integration in Europe.

# **About the CEER and ERGEG**

The Council of European Energy Regulators (CEER) and the European Regulators' Group for Electricity and Gas (ERGEG) are two organisations established for the cooperation of the independent energy regulators of Europe. Both organisations pursue the same overall aim of facilitating the creation of a single, competitive, efficient and sustainable internal market for gas and electricity in Europe.

CEER and the ERGEG share similar objectives and the work and achievements of the CEER and ERGEG are intrinsically linked. Yet there is one main difference in the role of the organisations in relation to the EU and the other stakeholders of the energy sector in Europe. Cooperation in the framework of the CEER is based on a voluntary agreement among the regulators themselves, while ERGEG was founded by the European Commission in 2003 as its official advisory group on energy issues.

# Aim of the Regional Initiatives

The Regional Initiatives (RIs) are aimed at speeding up the integration of Europe's national energy markets in an innovative "bottom-up" approach.

#### **Background**

The Regional Initiatives project, launched by ERGEG in spring 2006, set up three gas and seven electricity regions in Europe as an interim step to realising the single European electricity and gas markets.

#### Working method

Based on the voluntary cooperation of stakeholders and led by regulators, specific barriers to trade and competition (such as lack of transparency or incompatible market arrangements) are identified and solutions found at a regional level so as to improve market integration. The aim of market integration was ambitious given that national regulators did not have any legal or political mandate to look beyond their national borders.

# Delivering, first, regional market integration

There are many challenges to the achievement of market integration for which, ultimately, legislation has been introduced to overcome. Despite these challenges, each of the regions has been successful in taking practical steps towards integration in areas such as cross-border electricity trading, transparency of information and much needed coordinated regional infrastructure investment (see Status Review on the ERGEG Regional Initiatives 2010, Ref. E10-RIG-11-03, Nov. 2010).

The development of regional electricity and gas markets is an important step and practical bridge towards the ultimate goal of a single competitive EU market.

#### Coherence and convergence

Progress is carefully monitored by ERGEG at EU level and reported to the European Commission so as to ensure coherence and convergence towards a single EU market in electricity and gas.

# Setting the scene for the future



#### From regional markets to a single EU market

The next step is creating a single European market from the seven electricity and three gas regions. ERGEG has advocated (Conclusions Paper, June 2010) that for the Regional Initiatives to achieve their true potential it is necessary to have a strategic vision towards a single market.

The European Commission's Communication on the Regional Initiatives (December 2010) assesses the way forward given the EU's 3<sup>rd</sup> Package changes completely the context within which the Regional Initiatives operate.

# How the Regional Initiatives fit in with the Infrastructure Package

The European Commission's Infrastructure Package (November 2010) emphasises the strategic importance of investing in infrastructure so as to meet the EU's energy and climate change objectives.

The Regional Initiatives are a key complement to the Infrastructure Package in delivering, on the ground, concrete results - e.g. methods for maximising the use of existing infrastructure and increasing physical capacity based on coordinated investment decisions involving several Member States.

# **Regional Initiatives under ACER**

The Regional Initiatives, under the EU's Agency for the Cooperation of Energy Regulators (ACER), could be used in a new role to help accelerate progress by co-ordinating the implementation of the 3rd Package cross-border instruments, and to assist the work of ACER in monitoring progress towards a single EU market in electricity and gas (see Strategy for delivering a more integrated European energy market: The role of the ERGEG Regional Initiatives. An ERGEG Conclusions Paper, Ref. E10-RIG-10-04, June 2010).

# The Gas Regional Initiatives - achievements

The three Gas Regional Initiatives (GRIs) are the North-West (NW); South (S); and South-South East (SSE) regions. Each of the three gas regions has succeeded in remarkable projects, some of which are presented here.

## Capacity building and security of supply

Facilitating cross-border gas shipping through capacity building has been a key feature of gas regional market integration.

- Coordinated open seasons were used to promote investment and increase interconnection capacity in the S and NW regions.
- In the South region, two open seasons are leading to a significant increase of the cross-border capacity between France and Spain and facilitate important investments.



- The NW region has developed a simulation (virtual test) for cross-border pipeline development and has produced regional "policy advice" on how to improve the investment climate.
- Hit hardest by the 2009 Ukraine-Russia gas supply crisis, the SSE region has focused on improving security of supply by creating reverse-flow capabilities on unidirectional gas pipelines (with an Open Season on the TAG pipeline – connecting the Baumgarten Hub to the Italian network via Austria). The SSE has further agreed on and issued a common position on costs allocation of reverse flow investments.
- In the S region there has been significant effort in paving the way for an Iberian gas market (MIBGAS).

#### Interoperability and hub development

Interconnection Point Agreements (IPAs) and Operational Balancing Agreements (OBAs) have been successfully implemented in part of the SSE region. There are new gas exchanges connected to existing hubs (CEHG at the Baumgarten gas hub, Austria and P-Gas at the PSV hub, Italy). These achievements will foster integration and will create the possibility to access balancing energy right at the centre of the SSE transmission system. In December 2010, a futures exchange was launched (at CEHG, Baumgarten).

# **Transparency**

Transparency has been enhanced through voluntary commitments by Transmission System Operators (TSOs) to release new data on the availability and use of transmission infrastructure in all three regions.

- A flagship project in the NW region in 2009 requires TSOs to publish daily data on transmission capacity and flows. In the S region a new obligation was placed on TSOs requiring the publication of regular updates on the status of new interconnection capacities
- This transparency work has enabled the speedy introduction of a binding guideline.

# <u>Capacity allocation and congestion</u> <u>management</u>

- The NW region has strengthened primary and secondary capacity including implementation of interruptible products, the development of a secondary market and new capacity products.
- SSE now offers physical reverse-flow capacity on a firm basis on some interconnectors.
- Regional work on capacity allocation has been a significant input to the development of ERGEG's draft Framework Guideline on gas capacity allocation.

# **Future Prospects for the Gas Regional Initiatives**

The Gas Regional Initiatives (GRIs) will focus on implementing the new harmonised rules (e.g. Framework Guidelines and resulting Network Codes in capacity allocation and gas balancing), which are currently being developed.

# The Electricity Regional Initiatives - achievements

The seven Electricity Regional Initiatives (ERIs) are the Baltic; Central-East (CEE); Central-South (CSE); Central-West (CWE); Northern; South-West (SWE); and France-UK-Ireland (FUI) regions. Each of the seven electricity regions has succeeded in remarkable projects, some of which are presented here.

#### **Capacity calculation**

 TSOs in CWE (as a part of the price coupling initiative) and CEE (related to their explicit auctions procedures) have put in place coordinated capacity calculation verification and data exchanges.

#### **Transparency**

The ERIs have achieved a more harmonised level of transparency both within and across regions.

- Six regions have adopted "Regional Transparency Reports" which stipulate detailed transparency requirements, mainly on fundamental/infrastructure data. These regional transparency initiatives have served as the central basis for preparing the European energy regulators' advice to the European Commission on a new legally binding framework (via comitology procedure) concerning electricity fundamental data transparency.
- Monitoring of compliance is necessary as there are gaps between the requirements of the regional transparency reports and the actual publication of data.

#### **Balancing**

The TSO-TSO balancing model is confirmed as the preferred approach in the seven regions.

- Cross-border balancing markets currently exist in the Nordic and SW regions (within MIBEL) and on some of the French interconnections.
- An interim solution for cross-border balancing exchanges is applied on the France-UK interconnector since March 2009. It enables TSOs to exchange balancing offers in a reciprocal and efficient way, and to integrate them in their merit order.
- The Baltic region is working on harmonised reserves and balancing power market by 2013.

# <u>Capacity allocation and congestion</u> management

- There are single regional auction offices in two regions (CEE and CWE). The MoU signed in May 2010 for the CWE auction office (called CASC) to also operate the CSE region and Swiss borders, is a major step forward. Sharing the same auction office will foster the harmonisation of longterm auction rules between CWE and CSE together with Switzerland (foreseen for 2012).
- Regional reports on interconnection use and management in four electricity regions (SW, CWE, FUI and CSE) were published in 2010.
- Market coupling projects in several regions (see example three at end of this Fact Sheet) including the first inter-regional coupling (CWE-North-Baltic regions). These are important steps towards pan-European price coupling by 2014.
- In April 2010, Baltic TSOs signed a Memorandum of Understanding (MoU) on a capacity allocation mechanism.
- Physical transmission rights (PTRs) with Use It or Sell It (UIOSI) are allocated on most borders. Further harmonisation of auction rules, facilitated by auction platforms, is expected in the coming years as well as a possible evolution from PTRs towards financial transmission rights (FTRs) when necessary prerequisites are met.

#### **Future Prospects for the Electricity Regional Initiatives**

The Electricity Regional Initiatives (ERIs) will focus on implementing the new harmonised rules (e.g. Framework Guidelines and resulting Network Codes in electricity capacity allocation and congestion management; or the Comitology Guideline on transparency) currently being developed.

# The new role of the Regional Initiatives

- The Regional Initiatives will be coordinated by ACER.
- The Regional Initiatives will become the main vehicle for coordinating the practical implementation
  of the new European cross-border regulatory framework; the Regional Initiatives will be a key
  mechanism for the coordination of monitoring activity.
- ACER will publish an annual status review of the Regional Initiatives, which will particularly focus on the implementation of Network Codes and related binding rules (see ACER Work Programme 2011).

#### 1. Best Practices

The usefulness of the RIs in testing practical solutions on the ground and spreading best practice has already been proven several times (see some best practice examples on the last page of this Fact Sheet).

# 2. Pilot testing to harmonise EU-standards

In a new role, the RIs could be used to provide practical feedback from the regions to ACER in terms of the solutions/framework being developed at EU level that will significantly improve market integration

 The South gas region announced its plans to (1) test the ERGEG Framework Guidelines on Capacity Allocation Mechanism for short term capacities at the

> borders; and (2) to test ERGEG's recommendations for Congestion Management Procedures (CMPs) comitology guidelines at the borders.



<sub>Implementation</sub>

#### 4. Monitoring

RIs could serve as a platform for *monitoring compliance* with EU Directives, Regulation and Network Codes.

Through the RIs (and ERGEG's monitoring activities) regulators have gained experience on where the difficulties and ambiguities impeded the implementation of the current rules (e.g. transparency aspects of the Gas Regulation).

 Following two in-depth monitoring reports on its regional transparency rules, the South-West electricity region plans in the future to assess compliance with the new Transparency Comitology Guidelines.

#### 3. Implementation

The Regional Initiatives provide a key vehicle for stakeholders to come together.

Such enhanced coordination should be channelled into *striving for the early implementation of the EU Network Codes* once their contents are sufficiently developed.

Meanwhile, the regions should trial proposed solutions, and once the codes are ready, implement the agreed model

 In the NW Road Map, published in June 2010, there is new regional focus on 3rd Package implementation work (as distinct from proactive work the region has undertaken in the past).

These are some examples of the projects underway in the regions. They seek to illustrate how the Regional Initiatives can be used going forward.

Example 1 – Contributing to better security of supply and creating a climate for regional gas infrastructure projects

#### **Problems**

A lack of regional cooperation and network investment planning results in insufficient gas interconnection. Gas infrastructure design is one-directional and there is a lack of efficient capacity use.

# Regional Solutions (Coordinating regional investment in new gas infrastructure and improving use of existing capacity)

- The GRIs have played a central role in strengthening existing and new cross-border infrastructure, thus improving security of supply.
- In all three gas regions, investments have been evaluated based on the actual needs of the market (e.g. coordinated open seasons have been used in NW and S to assess the need for capacity and to secure project financing) and regional investment plans are being developed.
- After conducting a virtual investment test case for a 10-20 bcm pipeline (from France to Germany, via the Netherlands and Belgium), NW has produced policy advice on how to improve the investment climate at regional level.
- In the S region, two common open seasons between France and Spain are leading to a significant increase in cross-border capacity between the two markets and facilitate important investments. This is an important success in terms of regulatory coordination and joint work of four TSOs (in four different balancing zones, simultaneously, selling capacity at three interconnection points, in both directions).
- SSE is coordinating regional investment in new infrastructure with possible plans to build an interconnector between Hungary and Slovakia. Hit hardest by the gas crisis at the beginning of 2009, the region places renewed focus on the issue of security of supply and possible measures to mitigate the impact of possible future cuts in gas supplies to the region.
- Regions are also optimising the use of existing capacity through improved capacity
  allocation and congestion management procedures. SSE now offers physical
  reverse-flow capacity on a firm basis on some interconnectors. A common capacity
  allocation procedure (based on a pro-rata principle) is used in the South region.
  Capacity has been significantly strengthened in the NW region including the
  implementation of interruptible products, and since 2008 there has been day-ahead
  secondary trading of firm products.

# Relevance to work at EU level

#### Framework Guideline on gas capacity allocation

 Regulators in the South region are planning a pilot project to test ERGEG's Framework Guidelines on (Gas) Capacity Allocation for short-term capacity at the borders.

### Framework Guideline on gas congestion management procedure

 The South region also foresees the development of a common congestion management procedure (CMP) on interconnectors, which will complement the common capacity allocation mechanisms that are already applied. This aims to implement the principles laid down in the ERGEG CMP Comitology Guideline advice to the European Commission (2010).

#### Example 2 – Improving use of existing electricity infrastructure capacity

#### **Problem**

Lack of available interconnection capacity is a key impediment to cross-border trade.

# Regional Solutions (Regional auction offices, coordinated capacity allocation, and market coupling)

- Considerable progress has been made in all seven regions in maximising the amount and use of cross-border capacity.
- A flow-based approach to capacity calculation is an objective in CEE and CWE regions. A Memorandum of Understanding (MoU) on the capacity allocation mechanism was signed by the Baltic TSOs in April 2010.
- In terms of long-term capacity allocation, some regions have put in place single regional auction offices (e.g. in CWE and CEE) and others are moving in that direction (e.g. extension of the CWE auction office to the CSE region and Switzerland with the final goal of harmonising long-term auction rules).
- Four of the seven electricity regions (SWE, CWE, FUI and CSE) published regional reports on interconnection use and management in 2010. The reports evaluate the economic efficiency of the congestion management methods at regional level.
- Related to firmness, the SW region's experience shows that curtailment compensation at day-ahead market spread can be applied with successful results.
- For day-ahead allocation of interconnection capacity, many projects are underway for the implementation of market coupling (see example 3 in this Fact Sheet).

# Relevance to work at EU level

#### Framework Guideline on electricity capacity allocation and congestion management

 At the request of the European Commission, ERGEG prepared draft Framework Guidelines for Capacity Allocation and Congestion Management for electricity. The aim is to make sure existing capacity is fully and efficiently used.

#### EU-wide target model on coordinated congestion management

- The ERI has greatly facilitated progress towards not only regional but also an interregional and then EU-wide coordinated congestion management. A major achievement stemming from the experiences developed in the framework of the ERIs is the EU-wide consensus on a target model for congestion management (developed jointly by stakeholders under the leadership of regulators for the December 2009 Florence Forum). It covers forward, day-ahead, intraday and balancing markets as well as capacity calculation and governance issues.
- Implementation of this target congestion management model will allow electricity interconnectors across Europe to be used more effectively. Work has already started in some regions.

# Long-term capacity allocation

 ERGEG's Benchmarking Report on Medium and Long-term Electricity Transmission Capacity Allocation Rules (2010) identifies best practices and seeks to further improve the level of harmonisation of long-term products. This work could be a step towards the elaboration of a single European set of auction rules. Example 3 – Market coupling improves the use of existing interconnectors and is important in integrating regional electricity markets

#### **Problem**

 Existing cross-border capacity is not used efficiently and regional electricity markets are not integrated.

# Regional Solutions (regional and inter-regional market coupling in practice)

- With market coupling proving an efficient way to ensure a correct market-driven flow of power across borders, several regions are working towards market coupling solutions.
- Tri-lateral market coupling ("TLC"), launched in November 2006 and involving three
  power exchanges across three countries, was hugely successful in establishing
  price convergence for power across France, Belgium and the Netherlands. The
  result was that electricity always flowed from the cheaper to the more expensive
  markets and cross-border capacity was used in an optimal way.
- In 2010 the Estonian market was integrated with the Nordic one through market splitting on the day-ahead market and implicit continuous allocation for intraday market.
- The Danish-German market has been volume-coupled through EMCC since 2009.
- On 9 November 2010 price coupling was extended to the CWE region (linking Germany and Luxembourg to the other three countries) and simultaneously interregional market coupling took place with interim tight volume coupling (ITVC) between the CWE, Nordic and Baltic markets.
- These first inter-regional market couplings are important steps towards pan-European price coupling by 2014.
- More market coupling is foreseen (see table), including the announcement (March 2010) by six power exchanges of single Price Coupling of the Regions (PCR). It aims to link 80% of the European electricity market across Northern, Western and Southern regions.

# Relevance to work at EU level

# Framework Guideline on electricity capacity allocation and congestion management

 ERGEG supports EU-wide or cross-regional projects and has called for deeper collaboration between TSOs and power exchanges (PXs) so as to realise the target model outlined in ERGEG's draft Framework Guidelines on Capacity Allocation and Congestion Management for electricity.

# What difference will market coupling make to regional market integration?

- Market coupling should lead to price convergence (as has happened two-thirds of the time with TLC). There should be less volatility in prices and market liquidity will improve.
- In terms of flows, electricity will flow in the right direction from the cheaper to the more expensive market.
- Market coupling leads to more efficient use of existing cross-border capacity.

# **Market Coupling projects in Europe**

ERI	Market coupling projects	Brief description	Geographical scope
Baltic	Inter-regional market coupling of Estonian and Nordic markets	Implicit day-ahead auctions (market splitting, 1 PX), from 1 April 2010, complemented with intraday trading using continuous implicit allocation (October 2011). The inter-regional coupling between the Northern and Baltic region paved the way for further integration of these regions.	Estonian and Nordic market
CSE	Market coupling IT –SLO	Price coupling for daily capacity allocation (January 2011)	Italian-Slovenian border
FUI	Market coupling between FUI and CWE as key priority in the 2010-2012 FUI action plan	<ol> <li>Price coupling Britned-CWE (2011)</li> <li>Price coupling GB (IFA-BritNed) - CWE and Nordic region by 2012.</li> <li>FUI-CWE-Nordic region coupling, time plan depending on changes needed to Single Energy Market (of the island of Ireland) design</li> </ol>	GB-Dutch border GB-France border GB-Irish border  CWE is composed of Belgium, France, Germany, Luxembourg and the Netherlands.  Nordic region is composed of Finland, Denmark, Norway and Sweden.
SWE	Inter-regional market coupling MIBEL-CWE	<ol> <li>Market splitting on the Iberian (MIBEL) market (2007)</li> <li>Day-ahead price coupling between MIBEL and CWE is expected to be implemented 18 months after the launch of ATC-based market coupling within CWE (and depending on ongoing governance work led by the European Commission). Power Exchanges (PXs) are doing preparatory work in the context of the Price Coupling of Regions (PCR).</li> </ol>	MIBEL: Spain -Portugal whole SWE region (interaction with CWE region)
CWE	Price coupling	<ol> <li>Tri-lateral price coupling TLC (November 2006) - 3 PXs</li> <li>Price coupling of the whole CWE region (November 2010) with ITVC (Interim Tight Volume Coupling) connecting the CWE region to the Nordic and Baltic countries</li> <li>Next phase of this project is to introduce price coupling on NorNed – the DC interconnector between Norway and the Netherlands (December 2010)</li> </ol>	TLC: France, Belgium and the Netherlands CWE: France, Germany and the Benelux NorNed: Norwegian-Dutch border BritNed: GB-Dutch border
Northern	Inter-regional market coupling Nordic-German market coupling, Nordic-CWE	<ol> <li>Nordic market splitting (1996)</li> <li>Linked Germany via Kontek cable (2005)</li> <li>Launch of EMCC (November 2009) and inclusion of Baltic cable to the Nordic market splitting system (May 2010)</li> <li>ITVC coupling with CWE (November 2010)</li> <li>Work is ongoing in order to launch market coupling on SwePol Link before the end of 2010</li> </ol>	Nordpool (NO-Swedish border, joined by Finland in 1998 and Denmark in 1999) Nordic-German market coupling Interim Tight Volume Coupling (ITVC) linking Nordic volume and CWE price coupling

#### **Key features of the Regional Initiatives**

- The Regional Initiatives focus on solutions to real problems in the regions.
- The Regional Initiatives are a voluntary process. Hence their success has critically depended on the voluntary commitment of stakeholders to implement agreed solutions.
- A major achievement of the Regional Initiatives is that they have fostered a genuine spirit of regional cooperation among energy stakeholders.
- The Regional Initiatives are acknowledged by all major energy stakeholders, and supported by the European Commission, as the main driving force on the ground for an integrated EU energy market.
- The most successful regions are those where political support for integration is strongest.
- The Regional Initiatives provide an umbrella framework for progress towards a single EU energy market, through the coordination of interregional projects.
- ERGEG has ensured that safeguards are in place so that solutions found within one region do not frustrate the ultimate goal of a single EU market.
- Each of the ten regions of the Regional Initiatives has produced results, providing evidence of better regional market integration and paving the way for a single EU energy market. Without the Regional Initiatives there would have been significantly less progress.
- The EU's 3rd Package and ACER change the context within which the Regional Initiatives operate (from voluntary to potentially binding and enforceable).

#### Best practice examples of regional coordination

- The success of tri-lateral coupling between France, Belgium and the Netherlands paved the way for roll-out in other regions;
- The first inter-regional coupling (CWE-Northern-Baltic regions) is an important step towards pan-European price coupling by 2014 and paves the way for further integration between regions;
- The development of single regional auction offices (in CWE and CEE);
- The Regional Transparency Report developed first in the Northern electricity region led to harmonised Regional Transparency Reports (in six electricity regions);
- The North-West gas region has significantly improved gas transparency and serves as an example for other regions to follow. It has helped shape EU gas transparency comitology guidelines;
- Regional reports on interconnection use and management (in four electricity regions);
- A memorandum of understanding (MoU) between regulators in the NW gas region and subsequent roll-out to the SSE gas region;
- Coordinated open seasons to promote investment and increase interconnection capacity for gas in the S and NW regions;
- MoU signed (17 June 2009) by 8 Baltic States and European Commission President - the Baltic Energy Market Interconnection Plan (BEMIP) - is helping TSO, regulators and Ministries to better connect Lithuania, Latvia and Estonia to the wider EU energy networks; and
- Following the BEMIP example, a MoU was signed (3 December 2010) by the Ministers of the 10 countries of the North Seas Countries' Offshore Grid Initiative and the EU Commissioner for Energy (and supported by ACER Director, the 10 energy regulators concerned and ENSTO-E) in an effort to improve energy infrastructure development opportunities in the North Seas.

# Success stories are an important motivator

It is particularly important in a voluntary process to celebrate the achievements and work of the many stakeholders (European Commission, Ministries, Transmission System Operators, Power Exchanges, industry actors and regulators) who make it happen so as to maintain momentum and motivate reaching further heights. The examples in this Fact Sheet shed light on (some) of the work being done. If you are interested in learning more about them, contact the CEER Secretariat.

#### **Further information**

Please consult the Regional Initiatives section of the website (<u>www.energy-regulators.eu</u>) for detailed information on meetings, and achievements in each region.