



Brussels, 28.10.2014  
COM(2014) 669 final

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND  
THE COUNCIL**

**On the implementation of the European Energy Programme for Recovery**

# **REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL**

## **On the implementation of the European Energy Programme for Recovery**

### **I. PROGRESS IN PROGRAMME IMPLEMENTATION AND LESSONS LEARNED**

Energy infrastructure and innovation, the driving forces behind the European Energy Programme for Recovery (EEPR), remain as important now as they were in 2009 when the EEPR was set up. Both have a key role to play in improving security of supply, meeting current and future energy and climate change targets, and completing the internal market.

The recent political events in Ukraine and Russia have once again shown the importance of ensuring security of gas supply. The EEPR, through projects such as reverse gas flows, has already contributed to improving the EU's resilience, particularly when compared to the previous gas crisis in 2009. The EEPR's support for innovation in the offshore wind sector and in carbon capture and storage (CCS) has also contributed significantly to improving the EU's use of indigenous resources, such as wind or coal.

Information on all the EEPR projects state of play are available under the following link: [http://ec.europa.eu/energy/eepr/doc/cswd\\_project\\_2014.pdf](http://ec.europa.eu/energy/eepr/doc/cswd_project_2014.pdf)

In its recent Communication on the European Energy Security Strategy, adopted on 28 May 2014<sup>1</sup>, the Commission has reaffirmed the importance of developing critical infrastructure in view of reinforcing our energy security.

Infrastructure and innovation will be key to achieving the EU's climate and energy goals – whether they are the 20/20/20 targets for renewables, energy efficiency and greenhouse gas reduction that are currently in place, or the targets that the Commission has recently proposed for 2030. EEPR offshore wind projects are already generating electricity for the grid and thus contributing to the EU's renewables and greenhouse gas targets. Projects financed under the European Energy Efficiency Fund (EEE F) are contributing to energy efficiency. The EEPR's CCS projects are essential to timely demonstrate a technology needed for the cost efficient mitigation of greenhouse gas emissions and for the transition to a low carbon economy. Infrastructure and innovation are also key to completing the internal energy market and developing interconnections that put an end to any Member State being isolated from the European gas and electricity networks.

In March 2014, the European Council called for speeding up efforts in particular as regards implementation of all the measures to meet the target of achieving interconnection of at least 10 % of their installed electricity production capacity for all

---

<sup>1</sup> COM(2014) 330 final

Member States<sup>2</sup>. The EEPR projects have already contributed significantly to this aim.

The EEPR projects have already contributed significantly to the EU's objectives and the projects that are ongoing remain as relevant as ever to the newly proposed objectives. This report sets out, for each part of the EEPR, the progress made in implementing the projects and the EEF. It follows on from the report which was adopted in 2013<sup>3</sup>, covers the implementation of the projects between October 2013 and 31 August 2014 and the payments made between 1 July 2013 and 31 August 2014.

## **II. OVERALL PROJECT IMPLEMENTATION**

At the end of 2013, 30 projects out of 61 were already fully technically completed, and a total amount of €1,499,826,548 has been actually paid to the beneficiaries)

The rate of payments remains low but as can be seen in the CSWD (Commission Staff Working document) in the annex, most projects are completed and promoters will present the final payment request by the end of this year. This confirms the difficulties in the planning of such big and complex projects. Indeed, the complexity of the technologies involved, especially for the Off-Shore Wind Energy (OWE) integration in the grid and CCS, the difficulties for the public authorities both at government and regulatory level to offer a proper regulatory framework, the lack of public acceptance, as well as difficulties linked to environmental issues and public procurement have all constituted additional challenges for the projects promoters. Furthermore, the permit granting procedure has been on the basis of many of the delays.

At the moment, €42 million of unspent funds were recovered from the German CCS project. For the terminated electricity and gas infrastructure projects, €12 million were de-committed. This is partially explained by the fact that the final costs are below the initial estimated costs.

### **1. GAS AND ELECTRICITY INFRASTRUCTURE**

The EEPR infrastructure sub-programme supports 44 projects in three major areas of activities.

The projects are implemented by the transmission system operators (TSO) in each Member State or by project promoters. An amount of €2.268 billion has been committed, of which € 897,973,693 million, i.e. 40% has been disbursed to the beneficiaries by April 2014. Payments are subject to the firm commitment of the promoters to implement the project through a Financial Investment Decision.

Projects cover three areas:

- Gas infrastructure and storage projects: the infrastructure for transporting and trading gas across the EU needs to be further integrated by constructing the missing

---

<sup>2</sup> The European Energy Security Strategy puts forward to extend this target to 15% by 2030.

<sup>3</sup> COM (2013) 791 final

links between Member States. Further diversification of the EU's energy sources and routes should continue, including Liquefied Natural Gas (LNG).

- Gas reverse flow projects: During the 2009 gas supply crisis between Russia and Ukraine, most of the Central and Eastern European Member States were left without gas, not because of lack of gas in Europe, but because the existing infrastructure lacked the technical equipment and capabilities to reverse the gas flows from an East-West to a West-East direction. EEPR financing provided support to address this gap and reverse flows are now in place in Central and Eastern Europe. The most prominent examples of completed projects are the 4 projects in Austria which provide better access to the Austrian storage facilities in Baumgarten to all the neighbouring countries, two projects in Slovakia to ensure bi-directional gas flow between Slovakia and the Czech Republic, and between Slovakia and Austria and improved access to UGS in Slovakia; the 3 projects in the Czech Republic which increased the transmission capacity in the northwest-east direction and one project in Hungary which enables a safe west-east natural gas flow within Hungary to Romania

- Electricity infrastructure projects: The integration of an increasing amount of electricity from variable renewable energy sources require huge investments in new infrastructure. Furthermore, a number of Members States are still "energy islands", as they are poorly connected to their neighbours and the internal energy market.

## **1.1 PROGRESS TO DATE**

To date 27 out of the 44 infrastructure projects have been completed (as compared to 19 at the beginning of 2013). Moreover, the financial aid has been terminated for 4 projects. In the electricity sector, 7 projects are completed. The remaining 5 projects are progressing well, with some projects expected to be completed in the course of this year or at the latest by 2015. In the gas sector, 20 projects are completed; 8 are progressing according to schedule, and 4 are in the process of being terminated. Most (12 out of 14 projects) of the reverse flow and interconnections projects in Central and Eastern Europe have been completed. The EEPR funds helped the projects to secure their financing and therefore to become operable without delays. Hence, both the safety and reliability of the gas network have been improved, security of supply and diversification has been increased and critical bottlenecks were removed.

Several examples can be pointed out. The EEPR funds have secured and accelerated the increase of the gas cross-border capacities between France and Belgium. On the Belgium side, two new compression stations (Berneau and Winksele) were built and are already in operation. On the French side, the pipes for the sections Pitgam-Nedon and Cuvilly-Dierrey-Voisines were procured and construction works are on-going.

The EEPR funds helped the Danish transmission system to be extended and reinforced allowing for an increased delivery of gas to Sweden and import of gas from Germany through the interconnection point Ellund. In the future, this project may bring supplies of Norwegian gas to the consumers in Central Europe and in the Baltic region from possible routes from Norway through Denmark.

The completion of the two electricity interconnections in 2011 between Portugal and Spain, in the Douro and the Algarve regions, helped to connect renewable energy

sources. The EEPR funds significantly contributed to upgrade and extend the Portuguese network and as a result to increase cross-border capacities with Spain.

The EEPR funds also supported establishing the first electricity interconnection between Ireland and Great Britain. By contributing to increase electricity interconnection capacities and allowing possible integration of offshore wind energy, this interconnection has enhanced the security of supply and diversification of sources of energy for Ireland.

Three EEPR projects in the Baltic region aim at improving the functioning of the internal energy market and ensuring a level playing field. When completed, those projects will significantly contribute to enhancing the security of supply, enabling electricity trading and reducing the region's import needs. In this context, the EEPR funds accelerated the construction of the submarine electricity interconnection between Estonia and Finland (Estlink2) which entered into operation in March 2014. Estlink2 is an important link for the integration of the future power market between the Baltic Member States and Nord Pool Spot. In addition, Estlink2 will also increase the reliability of the Baltic power system while reducing its dependency on the Russian power supply.

However, despite some progress made, four projects in the gas sector faced major difficulties and will be terminated in 2014. This concerns Nabucco, Galsi, Poseidon and the reverse flow project in Romania. For the first 3 projects, the commercial negotiations for the gas supply did not conclude positively. In the case of the reverse flow project in Romania, the project could not be implemented due to technical reasons.

## **1.2 LESSONS LEARNED**

Substantial progress has been made for electricity and gas infrastructure projects. A large majority of the projects (40 out of 44) are either completed or progressing. For some projects, the final date of implementation has been extended (see CSWD).

The EEPR is concretely improving the way the internal market works, by providing interconnections between Western and Eastern parts of the EU, and increasing the security of supply of the country and regions concerned. Some major milestones have been achieved: the reverse flow gas projects are up and running and avoided a gas supply crisis during the February 2012 cold spell. The supported electricity projects are lending strong impetus to the completion of the internal market. The electricity network projects will contribute to absorbing the electricity produced from renewable sources. The completion of an EU-wide energy infrastructure system is progressing thanks to the clearing of bottlenecks and the progressive integration of "energy islands" such as the three Baltic States, the Iberian Peninsula, Ireland, Sicily and Malta.

To date, it is foreseen that the majority of the 13 still on-going projects should be completed during the years 2014 and 2015 whilst only a few projects will run until 2017.

The EEPR exercise showed that some of the projects were delayed due: mainly to permitting procedures, regulatory difficulties in the case of cross-border projects, and lacking commercial viability. In this context, EEPR supports the development of a European policy for energy infrastructure which constitutes a main priority of the energy policy. The guidelines for trans-European energy infrastructure<sup>4</sup> provide measures for the timely development of projects of common interest (PCIs) in eight identified priority corridors. In particular, PCIs are entitled to benefit from accelerated procedures (max. three and half years) to obtain their permits, regulatory incentives to facilitate the implementation of cross-border projects and may be eligible to receive funds from the Connecting Europe Facility (CEF)<sup>5</sup>.

## **2. OFFSHORE WIND ENERGY (OWE) PROJECTS**

### **2.1 PROGRESS TO DATE**

The EEPR sub-programme consisted of 9 projects giving €65 million of support split between two main types of activities:

- Large-scale testing, manufacturing and deployment of innovative turbines and offshore foundation structures (6 projects); and
- Development of module-based solutions for the grid integration of large amounts of wind electricity transmission (3 projects).

3 of these projects have been completed and 1 terminated prematurely. €226.981,500 has been paid to the projects.

### **2.2 PROGRESS TO DATE BY SECTOR**

#### **2.2.1 Progress with Innovative Turbines and Offshore Structures**

Since the last report, 2 further projects have been successfully completed, Bard I and Borkum West II. Together with the already completed Thornton Bank project, these three projects have resulted in additional 925 MW of wind capacity coming on stream thanks to the EEPR funding.

One further project, Nordsee Ost, is progressing according to plan and the wind farm should be commissioned by the end of 2014.

For the remaining two projects, Aberdeen Offshore Wind Farm – Wind Deployment Centre and Global Tech I, implementation remains subject to considerable difficulties. In Aberdeen, difficulties with obtaining planning consents have delayed the project and the best estimate for a final investment decision is the second quarter of 2015

---

<sup>4</sup> Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure , OJ L115 of 25.04.2013, p.39.

<sup>5</sup> Regulation (EU) No 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility, OJ L 348 of 20.12.2013, p. 129.

(with completion in 2018). For Global Tech the permits have been obtained, but the project needs a co-investor before it can make significant further progress. The Commission is continuing to monitor the situation closely and will terminate the projects if satisfactory progress is not made within the next 12 months.

### **2.2.2 Progress with Wind-Grid Integration**

One project, HVDC Hub has been terminated. The two remaining projects, Kriegers Flak and Cobra Cable, remain several years away from realisation.

For Kriegers Flak, the project developers received the offers for the tenders required to construct the project. Offers for some key technology components were considerably over the price that had been budgeted. This has forced the project developers to reassess the project design in order to reduce costs. This assessment is ongoing and the Commission is awaiting a proposal from the promoters to change the project, as well as its duration. It will check the proposal to see if it is compatible with the EEPR. Provided it is, the project will re-tender for some components before taking the final investment decision.

For Cobra Cable, there has been significant progress since the last report. The grant agreement has been amended and the action extended to December 2017. Following the conclusion of the amendment the project developers will apply for the necessary permits and issue the calls for tenders in order to take the final investment decision in the second quarter of 2016. The cable should be operational two years later.

## **3. CARBON CAPTURE AND STORAGE**

The EEPR sub-programme consisted of 6 projects giving €1 billion of support to projects that would aim at demonstrating the full carbon capture, transport and storage process.

As of 30 April 2014:

1 project has finished providing operational pilot plants for capture, transport and storage. 3 projects have been terminated prematurely. 2 projects are ongoing. €374,871,355 have been paid to these projects.

### **Progress with CCS projects**

The part of the Compostilla project covered by the EEPR grant was completed in October 2013 resulting in the successful construction of three pilot plants covering capture, transport and storage. The results of the tests made in the pilot plants and other preparatory work contributed to knowledge sharing in the CCS Project Network<sup>6</sup> which also published a report on the project. The project developer subsequently decided not to proceed with constructing the demonstration plant, which would not have been covered by the EEPR grant. The pilot plants will remain as very

---

<sup>6</sup> <http://ccsnetwork.eu/>

useful testing facilities which continue to be operational based on support by the Spanish government and also offer their services on the market<sup>7</sup>.

The remaining two projects, ROAD (in the Netherlands) and Don Valley (in the UK), continue to experience significant difficulties in obtaining the necessary funding for both construction and operation.

The Don Valley project has made significant progress in preparing for constructing the infrastructure for CO<sub>2</sub> transport and storage in a saline aquifer; nevertheless, the future of the Don Valley project is totally dependent on it obtaining operational support from the UK's Contract for Difference scheme. In August 2014 the UK Government published a policy scoping document outlining its next steps on CCS possible designs for a Contract for Difference scheme appropriate for CCS projects like Don Valley. The Commission will continue its discussions both with the project and the UK government on the timing and the prospect of the project for achieving a positive final investment decision.

For the ROAD project the financing gap, mainly caused by the low CO<sub>2</sub> price, means that additional funding will have to be found. The European Commission has invested considerable effort in trying to bring together the Member States concerned, who recognise the project's potential, the industrial partners concerned and Norway to find a solution. This has included proposing that all parties front-load the project financing and how Horizon 2020 funding could be used to leverage additional Member State funding for the operational phase of the project. A solution to the current funding gap of ROAD needs to be found before 31 December 2014, the current end date of its EEPR grant agreement.

### **III EUROPEAN ENERGY EFFICIENCY FUND (EEE F)**

The EEE F was established in July 2011 with an EU contribution of €146.3 million to provide support to energy efficiency projects. It includes a €125 million contribution to a Fund that has so far reached a total volume of €265 million<sup>8</sup>, supported by a Technical Assistance grant facility with a budget of €20 million and €1.3 million for awareness-raising activities

Since the mid-term evaluation report adopted in November 2013 as part of the last annual EEPR report, another 7 projects were approved. In total, the Fund has allocated €219 million to 13 projects, mostly in the energy efficiency sector.

The full EU contribution to the Fund (€125 million) has thus been successfully allocated to project investments by 31 March 2014 as required by the Regulation<sup>9</sup>.

---

<sup>7</sup> <http://www.ciuden.es/index.php/en/tecnologias/instalaciones>

<sup>8</sup> Additional investments have been made by: the European Investment Bank EUR 75 million, Cassa Depositi e Prestiti SpA (CDP) EUR 60 million and the Investment Manager Deutsche Bank (DB) EUR 5 million.

<sup>9</sup> Regulation (EU) No 1233/2010 of the European Parliament and of the Council of 15 December 2010 amending Regulation (EC) No 663/2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy, OJ L 346, 30.12.2010, p. 5.



## **1. PROGRESS TO DATE**

### **Fund**

At the end of 2013, the Fund signed its second equity investment in a Biomass combined heat and power plant in Rennes replicating a similar equity investment in Orléans (both in France). The EEE F also completed its first partnership with a financial institution: a green financing facility with the Romanian Bank “Banca Transilvania” to provide small loans to public authorities in Romania together with technical assistance support for energy efficiency projects. The full list of approved and signed projects is annexed to this report.

### **Technical Assistance**

The Technical Assistance (TA) envelope (€ 20 million) supported 20 projects in helping structuring them. Approximately € 2.2 million from the TA envelope will remain unallocated. This can be explained by the fact that most of the projects financed up to now did not need TA. Indeed, the first projects identified in the ramp-up phase of the Fund had a higher advancement stage/maturity level, in order to deal with the time constraint and recovery objective of the Regulation. The latest TA support provided in 2013 was to the public authorities of Ringkøbing-Skjern (Denmark) to develop a biomass project, Rhône-Alpes (France) to prepare a building retrofit programme in schools, Ore Valley Housing Association to develop a district heating system and Elche (Spain) to develop a public lighting and building retrofit programme.

### **Awareness Raising Activities**

EPEC<sup>10</sup> has finalised the awareness raising campaign focusing on 3 aspects: supporting the development of Energy Performance Contracting in the Member States, encouraging the optimal use of Structural and Cohesion Funds for energy efficiency and renewable energy and spreading information on recent policy changes and priorities for the Multiannual Financial Framework 2014-2020 (MFF). Based on the preparation of various fact sheets and country strategies, tailored workshops and follow-up activities were organised in various Member States.

## **2. MAIN CONCLUSIONS & OUTLOOK**

The Fund has successfully met its objective by allocating the full EU contribution by the end of the investment period set in the Regulation and providing innovative financing solutions to energy efficiency projects. The TA has proved to be also very useful to support public authorities in preparing their projects that will subsequently be financed by the Fund.

The EEE F will continue to look for a balanced investment approach and increase its geographical coverage to accommodate the various needs of European local and

---

<sup>10</sup> The European PPP Expertise Centre (EPEC) is a joint initiative of the EIB, the European Commission and EU Member States and candidate countries. EPEC helps strengthen the capacity of its public sector members to enter into Public Private Partnership (PPP) transactions. <http://www.eib.org/epec/>.

regional public authorities. By now, the Fund has progressively established a solid track record of profitable investments (net profit registered in 2013) and will now actively look for additional senior investors to leverage the EU contribution further.

#### **IV OVERALL CONCLUSIONS**

The EEPR has delivered good results. The majority of projects have been completed, particularly in the interconnectors parts of the programme. They increase the EU's resilience in the face of any security of supply crisis, as well as contribute to the EU's energy and climate change objectives.

The EEF has also been successful: a commercial fund was established that will continue to grow providing financing solutions and generating profits covering administrative expenses, shareholders' dividend and repayment of establishment costs.

The most problematic area is CCS. As already identified in previous reports, this reflects many different factors, the most important of which is the changed business case for the technology since the start of the EEPR programme. The Commission continues to make every political effort to further the development of the remaining two projects; nevertheless, their success will depend on the efforts of private investors and national governments.

While implementation of the programme has been slower than expected in some areas, this has generally been due to reasons beyond the Commission's direct control. Permitting issues (e.g. Aberdeen), problems with the cost of innovative technologies (e.g. Kriegers Flak), regulatory novelties at national level (e.g. Cobra Cable) and obtaining financing have all contributed to delays.

Nevertheless, notwithstanding these delays, the value of large-scale infrastructure, innovative technologies and innovative EU funding in achieving the EU's security of supply, internal market and climate change objectives remains high. This has been underlined by the Council and the European Parliament when they increased the EU funds for energy infrastructure and innovation in CEF, Horizon 2020 and the Structural Funds under the new financial framework. The completion of the remaining EEPR projects will complement these programmes, as well as provided valuable experience on which to build as they are being rolled out.