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REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

On the implementation of the European Energy Programme for Recovery and the European Energy Efficiency Fund

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A resilient infrastructure is the backbone of the Energy Union. Last year, important interconnection projects were put in operation and regional cooperation was considerably strengthened**.**

In that context the EEPR played a key role in the financial support to major infrastructures of common interest for the integration of the electricity and gas markets and the reinforcement of the security of supply.

I. PROGRESS IN PROGRAMME IMPLEMENTATION

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.

This report sets out, for each part of the EEPR, the progress made in implementing the projects and the European Energy Efficiency Fund (EEEF). It follows the report adopted in 2016[1]. It covers the implementation of the projects between 31 August 2016 and 30 June 2017 and the payments made during that period.

II. OVERALL PROJECT IMPLEMENTATION

By the end of June 2017, 37 projects out of 59 have been completed and a total amount of € 2,279,701,215 (after deduction of the recovery orders for an amount of € 159,202,466) has been paid to the beneficiaries.

The situation for the gas and electricty infrastructures is as follows : five projects are on track with one currently being under discussion. Most of the projects are completed and promoters are expected to present the final payment request by the end of this year.

Substantial progress was made by the promoters for the Off-Shore Wind Energy (OWE) integration in the grid whilst the project promoters of the last remaining CCS project decided to stop their financial support to the project.

The Commission has opted for maintaining its financial support to the investors as long as it remains clear that a Final Investment Decision (FID) is possible.

1. GAS AND ELECTRICITY INFRASTRUCTURE

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

[1] Report 2016 adopted on , 28.11.2016 COM(2016) 743 final

A total amount of € 2,267,574,462 has been committed, of which € 1,483,712,280 has been disbursed to the beneficiaries by 30 June 2017. Payments are subject to the beneficiaries' firm commitment to implement the project through a Final Investment Decision.

1.1. PROGRESS TO DATE

To date, 35 out of the 44 infrastructure projects have been completed, four projects are on-going and one is in under discussion.

In the electricity sector, 10 out of 12 projects have been completed. The 2 remaining projects are progressing well and are expected to be completed by the end 2017.

In the gas sector, 25 out of 32 projects have been completed; two are progressing according to schedule, one is currently under discussion and four have been terminated. All of the reverse flow and interconnections projects in Central and Eastern Europe have been completed, except the reverse flow project in Romania that was terminated by the Commission in September 2014.

Important progress has been made for electricity and gas infrastructure projects since the last 2016 EEPR implementation report.

For instance, the reinforcement of French gas network on the Africa-Spain-France axis is on track. The project will develop the gas network in France in order to reinforce the Africa-Spain-France axis (Saint-martin de Crau-Saint Avit and Lacal-Lussagnet). The project will increase security of supply and market competition in the region. The EEPR funds have secured the development of the project notably on the Eastern axis by encouraging the beneficiaries to take their investment decision.

The Bulgarian – Romanian interconnection has been implemented successfully end 2016. The completion of this project allows a better integration of the gas market in the region and increase the Bulgarian security of supply, as well as support the opening of the Southern Gas Corridor.

The electricity project Halle/Saale – Schweinfurt links the North-Eastern part to the South-Eastern part of Germany facilitating the transport of electricity from renewable energy sources produced in North Germany and in the North Sea region to the rest of the German grid. The interconnector was completed end of September 2017.

The Nordbalt 1 project consisted of the construction of the Swedish - Lithuanian electricity transmission systems' interconnection by a High Voltage Direct Current (HVDC) submarine cable with a capacity of 700 MW. The project aims at further removing the Baltic States isolation from the internal energy market. All works have been completed.

To date, it is foreseen that out of the 5 on-going projects, 3 should be completed in 2017, with 1 in 2018 and one under discussion.

2. OFFSHORE WIND ENERGY (OWE) PROJECTS

2.1 PROGRESS TO DATE

The Offshore Wind sub-programme consisted of 9 projects giving € 565 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).

4 of 9 projects have been completed and 2 terminated prematurely. € 255,744,668 (after deduction of recovery orders) has been paid to the projects. The three remaining projects are on-going .

2.2 PROGRESS TO DATE BY SECTOR

2.2.1 Progress with Innovative Turbines and Offshore Structures

For Aberdeen Offshore Wind Farm, a positive FID was taken in July 2016. The challenges related to obtain both the offshore and onshore consents have delayed the project and the estimate for the construction commencement is now the fourth quarter of 2017 (with commissioning mid 2019).

The Noordsee Oost Offshore Wind Farm project was successfully completed in May 2016.

The Global Tech I project did not find a co-investor. Therefore the Commission confirmed in April 2015 the project termination retroactively as of 1 January 2014.

2.2.2 Progress with Wind-Grid Integration

One project, HVDC Hub, has been terminated.

In general the execution of the two remaining projects, Kriegers Flak and Cobra Cable, progressed as expected. For Kriegers Flak, in September 2015, the amendment of the Grant Agreement for the new technical solution was approved by European Commission. The beneficiaries 50Hertz and Energinet.dk have made the Final Construction Decision (FCD).

The EU tendering for main equipment to the infrastructure is close to be finalized. According to the plan, beneficiaries have awarded nearly all contracts and the construction is in progress. The permission process for Germany and Denmark is progressing as foreseen.The offshore interconnector Kriegers Flak CGS is planned to be commissioned by end of 2018.

For Cobra Cable, following the Final Investment Decision taken in December 2015, the project is on track for many of the deliverables except for two, namely the production and test of the converters and the cable. Therefore, a 12 months extension of the contract will be needed to maintain the finalisation of the activities and submission of the deliverables within the contract duration. The construction and testing of the interconnector is scheduled for 2018 in order to start operation in 2019. The high level study is on-going and aims at identifying and describing the important design issues to be taken into account to make the HVDC link prepared for future operation as part of multi-terminal network.

3. CARBON CAPTURE AND STORAGE

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

One project was finished providing operational pilot plants for capture, transport and storage. Three projects have been terminated prematurely due to the decision of the project promoter not to invest, one project ended without completion and ROAD was the last remaining project. € 424,040,501 has been paid to these projects.

Progress with CCS projects

In November 2016 the Commission and the ROAD project promoters agreed an extension of the grant agreement until 31 December 2019 following progress in discussions on additional sources of funding, restructuring of the project and change to a less costly storage site. However, in June 2017 the project promoters informed the Commission that the joint venture partners Engie and Uniper decided to stop their financial support for the project and later on confirmed that they withdraw the request for the grant agreement. Consequently the grant agreement is in the process of being terminated. Nevertheless, a new project is in preparation under the leadership of the Port of Rotterdam that could possibly use other Community funds, if successful.

III. EUROPEAN ENERGY EFFICIENCY FUND (EEEF)

In December 2010, € 146.3 million from the European Energy Programme for Recovery (EEPR) were allocated to a financial facility for sustainable energy projects[2]. € 125 million were used as the EU contribution to the European Energy Efficiency Fund (EEEF), created in July 2011 and which has reached a total volume of € 265 million[3], supported by a Technical Assistance grant facility with a budget of € 20 million and € 1.3 million for awareness-raising activities.

The EEEF provides tailored financing (both debt and equity instruments) for energy efficiency, renewable energy and clean urban transport projects. Beneficiaries are local or regional public authorities or private entities acting on their behalf.

PROGRESS TO DATE

In 2016, a new transaction was added to the Fund's portfolio. Ore Valley Housing Association (OVHA) has reached financial close with EEEF on a project worth £4.6 million. The money will fund the development of wind turbine sites in Fife-Scotland, plus an innovative funding scheme replacing 200 heating systems for OVHA homes. This was EEEF's first community based transaction within the UK, and is the result of a four-year long co-operative effort between EEEF and OVHA.

From its creation to 31st December 2016, the EEEF has signed contracts with 11 projects for €121 million, which have generated €224 million of final investments.

Based on the EEEF's project assessment and reporting framework on CO2 equivalent and primary energy savings, as of the end of 2016, its investments have achieved savings of close to 249 000 tons of CO2 and Primary Energy Savings[4] of 308 802 MWh.

European Commission Technical Assistance facility

2 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.

3 Additional investments to those of the European Commission 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.

4 Cumulative primary energy savings are presented only for Energy Efficiency and Clean Urban Transport technologies; they include calculations from financial close to loan maturity, based on estimations for projects under construction and less than one year of operations and actual data for projects which have been in operation for over one year. Savings are for total project investment volume (i.e. EEEF and non-EEEF investments).

In 2016, no additional funds were allocated to finance project development activities.

In total, the Technical Assistance facility funded by the Commission will have supported the structuring of 16 projects for a total allocated amount of € 16 million (out of the €20 million budget). Several factors can explain the reasons for the unallocated funds. First, the projects identified in the ramp-up phase of the Fund had a higher advancement stage/maturity level and therefore did not need technical assistance. Moreover, the experience of the Technical assistance facility has shown that financing energy efficiency projects faces many challenges, such as a lower level of preparation of requests than initially estimated at the inception of the EEEF (few of the technical assistance requests received were ready for submission), changes in projects following political changes in governments, or necessary adaptations after the first set of feasibility studies.

EEEF Technical Assistance facility

In November 2016, the European Energy Efficiency Fund launched a new facility for Technical Assistance (TA). Following on from the European Commission's TA facility, managed by EEEF, the Fund has set up a new tool to support ambitious public beneficiaries with bankable sustainable energy investment projects. Such projects shall relate to the energy efficiency sector, small-scale renewable energy and/or public transport initiatives. EEEF is supporting beneficiaries – regions, city councils, universities, public hospitals and other public entities located in the 28 EU Member States – by way of allocating consultancy services to the planned investments, for instance performing feasibility studies, energy audits, legal services and analysis of economic viability. EEEF TA Facility has received funding from the ELENA facility under the Horizon 2020 Programme of the European Union.

Main Conclusions & outlook

The EEEF has progressively established a solid track record of profitable investments and will actively look for additional senior investors to leverage the EU contribution further.

For 2017, the project pipeline contains 17 projects with a total volume of EUR 337 million for which the envisaged EEEF share is EUR 142 million. The EEEF will continue to seek to broaden its geographical coverage, where project and market conditions permit.

IV. OVERALL CONCLUSIONS

The EEPR has delivered good results. The majority of projects have been completed, particularly regarding gas and electricity infrastructures. The strict control exercised by the European Commission in project implementation and monitoring has helped to increase the efficiency of the instrument.

Despite the fact that Off-Shore Wind projects appeared to be more complex than expected, the promoters and the constructors have managed to find solutions and the technological knowledge has been gained over the five years.

Although the financial support of EEPR was not sufficient to prompt companies to realise commercial-scale CCS demonstration projects, the Commission still considers CCS important for decarbonisation. Future CCS demonstration efforts in Europe are expected to focus on energy- and carbon intensive industries.

The EEEF invested in several energy efficiency projects and will continue to expand its portfolio, providing financing solutions and generating profits covering administrative

expenses, shareholders' dividend and repayment of establishment costs. The EEEF also serves as a role model for innovative financial instruments investing in cost-effective and mature sustainable energy projects (with payback periods of up to 18 years) that can attract private capital while demonstrating the business case behind these investments and creating a credible track record.