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

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

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

A resilient infrastructure is the backbone of the Energy Union. Last year, in 2021, 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 2021<sup>1</sup>. It covers the implementation of the projects between 1<sup>st</sup> January 2021 and 31 December 2021 and the payments made during that period.

### II. OVERALL PROJECT IMPLEMENTATION (EEPR)

By the end of December 2021, 57 projects out of 59 have been closed (completed or terminated) and a total amount of  $\in$  2,615,657,214 (after deduction of the recovery orders for an amount of  $\in$  203,322,313) has been paid to the beneficiaries (see Annex).

The situation for the gas and electricty infrastructures is as follows: most of the projects are completed and two projects are on going.

Substantial progress was made by the promoters for the Offshore Wind Energy (OWE) integration in the grid whilst the project promoters of the last remaining Carbon Capture and Storage (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 and the project continues to provide substantial value for society.

<sup>&</sup>lt;sup>1</sup> Report 2020 adopted on 26.11.2021 COM(2021) 670 final

#### 1. GAS AND ELECTRICITY INFRASTRUCTURE

The EEPR infrastructure sub-programme has supported 44 projects in three major areas of activities (Gas interconnectors, Gas reverse flow and Electricity).

A total amount of € 2,267,574,462 has been committed, of which € 1,692,273,968 has been disbursed to the beneficiaries by 31 December 2021. Payments are subject to the beneficiaries' firm commitment to implement the project through a Final Investment Decision.

#### 1.1.PROGRESS TO DATE

To date, 42 out of the 44 infrastructure projects have been completed, four were terminated and two projects are on-going.

In the electricity sector, all the 12 projects have been completed.

In the gas interconnectors area, 13 out of 18 projects have been completed; two are progressing according to new rescheduling, and three have been terminated.

In the area of reverse flow and interconnection projects in Central and Eastern Europe, 13 projects have been completed, and one project in Romania was terminated by the Commission in September 2014.

Since the last EEPR implementation report, the following progress can be highlighted in particular:

- The Interconnector Greece-Bulgaria (IGB) is a key route to carry gas from TAP and Greek LNG to the north and is an important project for the diversification of gas supply in the South-East European region. It is a project of common interest (PCI 6.8.1) and a Central and South Eastern Europe energy connectivity (CESEC) priority project. The Commission has provided political and financial support to the project since the beginning. The project has received €45 million from the European Energy Programme for Recovery and €39 million from the European Regional Development Fund. Project construction has been completed in July 2022 and is foreseen to be operational in October 2022.
- In the Republic of Cyprus, the Ministry of Energy, Commerce and Industry is preparing the implementation of a natural gas receiving terminal, which will contribute to the diversification of the Cypriot energy mix and contribute to ending the energy isolation of the island, as well as facilitate competition in gas fueled power generation from independent producers. According to information provided by the project promoter, the LNG facility is scheduled to be commissioned next year.

As concerns the gas pipelines in Cyprus, according to the Technical Implementation Summary 2021 from the promoter, the project will be completed by 2026. With regards to these gas pipelines needed to bring gas from LNG to its destination, the authorities reconsider their views as to the sites that natural gas generation plants will be constructed and concequently the respective routing of the pipelines has changed, as well as the timeline.

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

#### 2.1 PROGRESS TO DATE

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

7 of 9 projects have been completed and 2 were terminated prematurely. € 427,190,976 (after deduction of recovery orders) were paid to the projects.

#### 2.2 PROGRESS TO DATE BY SECTOR

## 2.2.1 Progress with Innovative Turbines and Offshore Structures

For the Aberdeen Offshore Wind Farm, the eleven wind turbines with the world's largest capacity (8,8 MW per turbine at that time, today there are turbines with a power rating of 12 MW) started operations at Vattenfall's offshore wind farm 'Aberdeen Bay' on 1 July 2018. In September 2018 the official opening of the European Offshore Wind Deployment Centre (Aberdeen Offshore Wind Farm) took place. The last reporting for the project has been submitted and approved in July 2020.

### 2.2.2 Progress with Wind-Grid Integration

In general, the execution of the two remaining projects, Kriegers Flak and COBRAcable, progressed as expected.

In September 2019, the interconnector COBRAcable between Denmark and the Netherlands was commissioned. The project COBRAcable ended in December 2019. The final report submitted in March 2020 has been approved and the project has been closed.

Kriegers Flak - the Combined Grid Solution - became operational in December 2020, which was also the project end date. The final report, submitted in March 2021, has been approved and the final reporting of the project has been closed.

## 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 (Compostilla in Spain) was finished providing operational pilot plants for capture, transport and storage. Four projects have been terminated prematurely due to the decision of the project promoters not to invest, one project ended without being completed.  $\in$  387,099,179 (after deduction of recovery orders for a total amount of  $\in$  145,294,400) were paid to these projects.

#### III. EUROPEAN ENERGY EFFICIENCY FUND (EEEF)

In December 2010,  $\in$  146.3 million from the European Energy Programme for Recovery (EEPR) were allocated to a financial facility for sustainable energy projects<sup>2</sup>.  $\in$  125 million were initially committed as the EU contribution to the European Energy Efficiency Fund (EEEF). The EEEF was created in July 2011 and reached a total volume of  $\in$  265 million<sup>3</sup>, supported by a Technical Assistance Grant Facility with a budget of  $\in$  20 million and  $\in$  1.3 million for awareness-raising activities.

The Technical Assistance Grant Facility allowed supporting investments<sup>4</sup> helping to reach the ambitious EU climate targets in several Member States including Spain, Portugal, France, Denmark, UK, Ireland, the Netherlands and Belgium. Following the expiry of the deadline for allocating the Technical Assistance Grant Facility, in 2020 the Commission recovered back to the EU budget an amount of EUR 4,498,415 of the intital allocation (see Annex). 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.

#### 1. PROGRESS TO DATE

In 2021, one new transaction was added to the Fund's portfolio:

- The EEEF in cooperation with VIPA – the Lithuanian Public Investment Development Agency set up a "Sustainable Resources Development" platform $^5$ . It finances investments contributing to climate change mitigation. For the set up of the platform the EEEF together with VIPA provided € 12 million. This financing is expected to generate energy efficiency and renewable energy loans for more than € 37 million, targeting investments in both public an private sector .

From its creation and until 30 September 2021, the EEEF signed contracts with 17 projects worth €176 million, it generated an estimated € 324 million of final investment.

Based on the EEEF's project assessment and reporting framework  $^6$  on  $CO_2$  equivalent and primary energy savings, by September 2021, its investments have achieved savings of close to 584,235 tons of  $CO_2$  and Primary Energy Savings  $^7$  of 769,801 MWh.

<sup>2</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.

<sup>3</sup> 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, and in 2020 Deutsche Bundesstiftung Umwelt (DBU) EUR 10 million.

<sup>&</sup>lt;sup>4</sup> More detailed information about these investments can be obtained via the following source: https://www.eeef.lu/european-commission-ta-facility.html

<sup>&</sup>lt;sup>5</sup> Details available at https://www.eeef.lu/news-detail/vipa-and-eeef-join-forces-to-invest-in-sustainable-projects-in-lithuania.html

<sup>&</sup>lt;sup>6</sup> EEEF Quarterly Report Q3 2021, page 5, available at: <a href="https://www.eeef.lu/quarterly-reports.html?file=files/downloads/Quarterly-Reports/2021/eeef-Quarterly-Report-2021-Q3.pdf">https://www.eeef.lu/quarterly-reports.html?file=files/downloads/Quarterly-Reports/2021/eeef-Quarterly-Report-2021-Q3.pdf</a>

#### 2. 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 Technical Assistance facility, managed by EEEF, the Fund has set up a new tool to support ambitious public entities 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 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 (European Local Energy Assistance) facility under the Horizon 2020 Programme of the European Union. By December 2021, it already was supporting 8 beneficiaries in Italy, Spain and Lithuania.

#### 3. Main Conclusions & outlook

The EEEF has progressively established a solid track record of profitable investments and after 10 years of functioning has already supported 17 highly distinctive projects<sup>8</sup> (2 of which have already been repaid with the proceeds reinvested into the fund) in various technologies in 8 different Member States and in the UK.

## IV. OVERALL CONCLUSIONS

The EEPR has delivered good results. All the 12 electricity and the majority of gas projects infrastructure have been completed; whilst two gas projects are on-going with completion expected in 2022 and 2026. The strict control exercised by the European Commission in project implementation and monitoring has helped to increase the efficiency of the instrument.

The Offshore Wind projects were more complex than expected but promoters and constructors managed to find solutions to bring them to finalisation – sometimes extending contracts' duration. Over the 12 years duration of the programme, the EEPR helped to acquire technological knowledge and contributed to the development of the offshore wind interconnection technologies.

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 (only reliable technology for long term storage of carbon dioxide), for EU in general, and for energy and carbon intensive industries in particular.

The EEEF invested in several energy efficiency projects and will continue to expand its portfolio, providing financing solutions and generating profits for its shareholders. The EEEF also serves as a model for innovative financial instruments investing in cost-effective and

<sup>7</sup> 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).

<sup>&</sup>lt;sup>8</sup> EEEF Quarterly Report Q3 2021, pages 10-15, available at: <a href="https://www.eeef.lu/quarterly-reports.html?file=files/downloads/Quarterly-Reports/2021/eeef-Quarterly-Report-2021-Q3.pdf">https://www.eeef.lu/quarterly-reports.html?file=files/downloads/Quarterly-Reports/2021/eeef-Quarterly-Report-2021-Q3.pdf</a>

mature sustainable energy projects that can attract private capital while demonstrating the business case behind these investments and creating a credible track record.