

Mission Innovation Green Powered Future Mission: National pilot projects for net zero power systems

*Organised by the Green Powered Future Mission
with the support of the Italian Ministry of Environment and Energy Security*

Monday, 4 December 2023, 11:30–13:00, Italian Pavilion and livestreamed

► **Background**

Emissions from the power sector need to fall dramatically in the next decade to achieve **global climate goals**. This leads power systems worldwide to face unprecedented challenges, including how to achieve mass-scale integration of **variable renewable energies** (VRE), such as wind and solar. Despite being the lowest cost form of generation in many regions, VRE currently still meets a small fraction of current global energy demand. In part, this is due to challenges caused by their intermittent nature, which can jeopardise the security and reliability of power systems with the present level of flexibility. These challenges need to be overcome, since without a major acceleration in clean electricity innovation, we will not meet the **net zero target by 2050**.

Mission Innovation **Green Powered Future Mission** (GPFM) is a public-private partnership with **28 members** from MI countries, private sector companies and international organisations. The Mission has already made important steps in order to demonstrate that by 2030, power systems in different geographies and climates can effectively **integrate up to 100% variable renewable energies**, like wind and solar, in their generation mix, and maintain a cost-efficient, secure and resilient system. The GPFM is a **10-year endeavour** launched in June 2021 which will accelerate innovation in clean energy, system flexibility and digitalization by demonstrating innovative solutions to transform the present power system.

The GPFM is actively committed to establish fruitful **international collaborations** with other selected global initiatives active in the **energy sector** dealing with the clean energy innovation. In particular, the GPFM launched effective collaborations with the [Digital Demand-Driven Electricity Networks \(3DEN\)](#) and the [International Smart Grid Action Network \(ISGAN\)](#), to ensure that **knowledge and best practices** are shared widely and thus making the transition more affordable and efficient for all countries.

► **About the side event**

This event will represent a great opportunity for the GPFM to showcase the Mission activities, progress and initial outcomes of the Flagship Project FPI “**5 demos in five continents**” launched in September 2022 at the GCEAF (CEM13/MI-7) in Pittsburgh.

In particular, the Mission will present detailed information collected in the “**National Pilots Report**”, which has been released in July at CEM14/MI-8 in Goa, and that collects relevant information about 80 ongoing or planned national pilot projects fully aligned with the Mission’s scope and priorities as identified by GPFM members.

Moreover, the GPFM will make the announcement about the launching of the GPFM demo version of the internet-based knowledge-sharing Platform/**GPFM Toolbox** supporting the dissemination activities of the Mission and will release the **GPFM Annual Report 2023**.

The event will also feature a **roundtable** with the participation of Italian and International GPFM experts from governments, industry, and RTOs, who will gather in an open environment to showcase key innovation programmes and to discuss about the first launched R&I pilots and demos and future steps.



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Event Agenda

11:30	<p>Opening Remarks</p> <ul style="list-style-type: none"> • Francesco Corvaro, Special Envoy for Climate Change, Italian Ministry of Environment and Energy Security (MASE), Italian Ministry of Foreign Affairs and International Cooperation (MAECI) • Rosalinde van der Vlies, MI Steering Committee Vice Chair; Director, Clean Planet Directorate, DG Research and Innovation (European Commission)
11:40	<p>Keynote speech on electricity grids and secure energy transitions <i>IEA (TBD)</i></p>
11:50	<p>GPFM introduction and main outcomes: National Pilots Report and mission's next steps <i>Luciano Martini</i>, GPFM Director, RSE (Italy)</p>
12:00	<p>Launching of the GPFM knowledge sharing toolbox: Introduction of main functionalities <i>Yibo Wang</i>, GPFM Pillar 1 Lead, IEE CAS (China)</p> <p>Release of the GPFM Annual Report 2023 <i>Lee McDonough</i>, Director General, Dept. of Energy Security and Net Zero (UK)</p>
12:15	<p>Roundtable with Italian and international pilot projects' main actors</p> <p>Roundtable discussion on modern power systems: initial results of key Italian and international pilots and demonstrators</p> <p><u>Moderator:</u> <i>Luciano Martini</i></p> <ul style="list-style-type: none"> • Miriam Hinojosa, 3DEN/ Head of Unit, Global Climate Action, UNEP • Viviana Vitto, Head of Market Strategy and Regulatory Analysis, Enel Grids and Innovability, Enel Group (Italy) • Yibo Wang, GPFM Pillar 1 Lead, IEE CAS (China) • Peta Olesen, AU MISC Delegate/ Director, Net Zero Innovation, International Climate & Energy, Dept. of Climate Change, Energy, the Environment and Water (Australia) • Luiz Carlos Ciocchi, CEO, Operador Nacional do Sistema Elétrico/ONS (Brazil)
12:55	<p>Closing remarks and the way forward</p> <ul style="list-style-type: none"> • Carloalberto Giusti, President, RSE (Italy) • Luciano Martini, GPFM Director, RSE (Italy)
13:00	<p>End of the event</p>

