

Digital Demand-Driven Electricity Networks Initiative (3DEN)



The **Italian Ministry for Ecological Transition**, in coordination with the **Italian Ministry of Foreign Affairs and International Cooperation**, and the **International Energy Agency** are working together on a **4-year initiative** focusing on the **policy, regulatory, technology and investment** context needed to accelerate progress on **power system modernisation, digitalisation, and effective utilisation of demand side resources**. The initiative was launched by Italy at the **Climate Action Summit in 2019**, with a view to step up global action for clean energy and to combat climate change.

The Initiative

Building on analysis, case studies and experiences from around the world, IEA is developing tools and guidance and disseminating learnings. This includes analysis on:

1. How and where smarter and digital infrastructure plays a key role in optimising the interaction between supply and demand (e.g. end-use energy efficiency, demand side response, electric vehicle).
2. How to quantify benefits associated with smarter grids, including environmental benefits, affordability, and facilitating access to electricity.
3. How to ensure project scalability and replicability. Italy will also support pilot projects that can be rapidly up-scaled or reproduced.
4. What are the latest innovation in policy making and measures to enable utilisation of the opportunities that digitalisation and demand side resources offer. Mapping of new technologies and business models including innovative forms of financing and the role of cutting-edge solutions.



The initiative draws upon analysis from **across the IEA** and **engage with relevant organisations**, bringing together **stakeholders to foster dialogue and experience sharing**. The Italian Government is, moreover, launching an implementation phase, managed by the UN Environment Programme (UNEP), which will be used to test new approaches via **pilot initiative deployment**. The call will be launched during the Pre-Cop 26 in Milan.

The initiative is informing and contributing to the IEA **Clean Energy Transitions Programme** in order to **maximise synergies** with other activities and country engagements. The IEA has, together with the Government of Italy, set up **a broad Consultative Group** to advise on technical issues, provide inputs to the initiative deliverables and support dissemination activities. As of today, the Consultative Group is composed of 37 organisations from 14 countries, representing

governments, private sector and research. The IEA is also working closely with a broader growing community of practice, bringing together stakeholders to foster dialogue and share experiences, and initiate collaborative projects. The IEA is working closely with its network of technology collaboration programmes such as the **International Smart Grid Action Network (ISGAN)**, **User-Centred Energy Systems (USERS TCP)**, **Energy in Buildings and Communities (EBC TCP)**, and the **Energy Efficient End-Use Equipment (4E)**. The IEA is also engaging with key international initiatives and platforms such as the **Clean Energy Ministerial** and **Mission Innovation**.

The initiative has a **global focus** with initial **geographic priorities** being Brazil, Colombia, Morocco, Tunisia, India, Indonesia, South Africa, and regions - Latin America, Africa and ASEAN.

Current Activities

The IEA has organised a series of high level consultations, webinars, stakeholders engagement and dialogue. Ongoing analytical work includes:

1. The stimulus and economic recovery dimension of power system modernisation and increased use of demand side resources.

2. Smart cities as drivers of the net-zero energy transition.
3. New innovative business model for digitally enabled energy transition.
4. Making power system more consumer centric.

How to Engage

The IEA and the Italian Government would welcome further countries and organisations joining the initiative and actively contributing to the development of analysis, tools, engagement, and guidance to accelerate progress on power system modernisation in support of clean energy transition around the world.

For more information on the upcoming and past events or activities under 3DEN, visit 3DEN webpage: www.iea.org/programmes/digital-demand-driven-electricity-networks-initiative

Contact: 3den@iea.org