



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 cooperating on a **4-year initiative** focusing on the **policy, regulatory, technology and investment** context needed to accelerate progress on **power system decarbonisation, digitalisation, and effective utilisation of demand side resources**, such as energy efficiency, demand response, EVs, building-level energy storage and distributed solar PVs. The initiative has a global focus, with initial country priorities being Brazil, Colombia, Morocco, Tunisia, India, Indonesia, South Africa, and the regions of Latin America, Africa and ASEAN.

The **Italian Government** is also supporting the implementation of **pilot projects** to test new approaches, managed by the **UN Environment Programme (UNEP)**, and launched during the Pre-Cop 26 in Milan in 2021. Learnings from pilot projects will feed into the 3DEN initiative.

Building on analysis, case studies and experiences from around the world, the IEA will develop tools and guidance and disseminate learnings that are relevant for emerging economies.



Policies and regulation

including latest innovations in policy making and measures to leverage digitalisation and demand side resources opportunities.



Finance and investment

including how to scale up investment in power infrastructure, innovative business models and financing.



Technology and potentials

including how and where digital infrastructure plays a key role in optimising supply and demand, a quantification of the associated benefits, including affordability and increased resilience.



People-centric and just transition

including people-centric power systems, energy access through digitalisation, capacity building.



The IEA and partners are creating opportunities for engagement by bringing together stakeholders to foster dialogue and experience sharing, and initiate collaborative projects. The initiative draws upon analysis from across the IEA and contributes to the IEA Clean Energy Transitions Programme, which leverages the IEA energy expertise across all fuels and technologies to support policy makers, particularly in major emerging economies.

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, including 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.

Current activities



Tracking of deployment of enabling digital technologies and assessment of flexibility potential.



Analysis of the existing frameworks and latest innovations in policy making and measures to leverage digitalisation and demand side resources opportunities.



Analysis on interoperability, efficient data sharing and data management systems, data privacy and cyber-resilience.



Analysis on pathways to implementation, including stakeholder engagement and how to ensure the scalability and replicability of pilot projects.

How to engage

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

For more information on activities, visit 3DEN webpage: <https://www.iea.org/programmes/digital-demand-driven-electricity-networks-initiative>

For more details on the pilot projects supported by the Government of Italy, visit UNEP webpage: <https://www.unep.org/explore-topics/energy/what-we-do/digitalisation-energy>

