

## **Power System Flexibility Campaign & 3DEN**

### **Joint Expert Webinar – Strategies for Digitalisation of Electricity Systems**

**25th February 2021 - 14:00 – 17:00 CET**

#### **Background**

In the next 10 years, electricity demand is expected to nearly double from 18% to 30% of final energy consumption. At the same time, a growing number of net-zero targets and other high ambitions for clean energy transitions will accelerate this growth in electricity demand through the electrification of new energy end-uses, like transport and heating. Variable renewables are becoming an increasingly attractive option to meet this rising electricity demand, thanks to favourable policy frameworks and technological improvements that are reducing costs. To support this new electricity ecosystem, it is becoming more important than ever to ensure electricity security through power system flexibility.

Digitalisation is at the core of power system transitions. Digital technologies enable and compound the benefits of coordinated deployment of interconnected distributed energy resources. As new business models start to emerge for electric vehicles, demand-side flexibility and active network management, it is important for policymakers to understand the important role of long-term digitalisation strategies and policy priorities. Understanding the benefits and challenges of different digitalisation approaches, interoperability, and data access and sharing will be critical for ensuring that energy efficiency and power system flexibility are embedded in power system transformation.

This joint webinar, organised by the IEA's Digital Demand-Driven Electricity Networks (3DEN) Initiative<sup>1</sup>, with the generous support of the Italian Ministry for the Environment, and the CEM's Power System Flexibility Campaign, will compare the approaches taken in the development of emerging digitalisation strategies around the world and discuss key principles and practices for countries currently shaping their own.

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<sup>1</sup> 3DEN is a four-year cross-agency initiative, working to accelerate progress on power system modernisation and effective utilisation of distributed energy resources through policy, regulation, technology and investment guidance. More information can be found on [3DEN webpage](#).

14:00 CET	Opening Remarks
	<ul style="list-style-type: none"> <li>• <b>Brian Motherway, Head of Energy Efficiency Division, International Energy Agency</b></li> <li>• <b>Luciano Martini, Director, Transmission and Distribution Technologies Department, RSE</b></li> </ul>
Session 1	Emerging approaches to digitalisation strategies
14:10 CET	<p>Digitalisation strategies are an emerging policy-making concept that can be used to modernise the power system and enable a coherent ecosystem of new services. Rather than attempting to define best practices, this session will focus on the key considerations policy-makers, planners and regulators should keep in mind when setting the scope and purpose of their strategies. IEA Digitalisation Experts will outline various approaches to digitalisation and contextual elements that may differ from one country to another. This will be followed by presentations and a panel discussion illustrating the experiences of a selection of countries.</p> <p>Attendees should leave the session with an understanding of the different approaches to digitalisation, from cross-sectoral approaches to those that target specific power sector value chain segments, and key considerations to compare or evaluate different alternatives.</p> <p>Presentations:</p> <ul style="list-style-type: none"> <li>• <b>Alejandro Hernandez, Head of Renewable Integration and Secure Electricity Unit, International Energy Agency</b> – Scene-setting presentation</li> <li>• <b>Claudia Gibbard, Senior Policy Advisor, UK BEIS</b> - Journey towards the UK’s first Energy data &amp; digitalisation Strategy</li> <li>• <b>Matthias Böswetter, Senior Expert, German Energy Agency</b> – Security and Privacy by Design</li> <li>• <b>Carla Coronado, Policy Adviser, Ministry of Energy, Chile</b> – Envisioning a socio-technical transformation with people at the center - The experience of energy sector policy in Chile</li> <li>• <b>Sh. Arun Kumar Mishra, Director, National Smart Grid Mission Project Management Unit (NPMU), India</b> – Digitalization and Smart Grids in India’s Energy Transition</li> </ul> <p>Panel discussion (30 mins)</p> <p><b>Moderator: Enrique Gutierrez Tvarez, Energy Analyst, Renewable Integration and Secure Electricity Unit, International Energy Agency</b></p>

<b>Session 2</b>	<b>Getting down to business with digitalisation</b>
<b>15:30 CET</b>	<p>Speakers in this session will present a variety of approaches for deployment at various points of the power system, highlighting the links to other segments of the energy system, such as transport and heating. The session will open with a scene-setting presentation on how the Energy-Internet-of-Things will change the way energy systems are operated and new solutions are brought online. This will be followed by presentations from industry representatives highlighting experiences across various power systems.</p> <p>Presentations:</p> <ul style="list-style-type: none"> <li>• <b>Amro Farid, Associate Professor of Engineering, Dartmouth College</b> - Scene-setting: Energy Internet of Things and North American approaches</li> <li>• <b>Aleksandra Radwanska, International Business Development Manager, NEXT Kraftwerke</b> – Digitalisation and system integration: International perspectives on renewables, trading, VPPs and decentralisation.</li> <li>• <b>John Finney, Head of Strategic Marketing and Technology for Grid Automation, Hitachi ABB Power Grids</b> - Role of Digitalization in Energy Transition</li> <li>• <b>Yvonne Ruwaida, Business Strategist, Vattenfall Distribution</b> – Regional flexibility markets demonstrated in Sweden (sthlmflex and EU-financed Horizon 2020 project CoordiNet)</li> <li>• <b>David Sykes, Head of Data Science, Octopus Energy</b> – Data analytics and automated solutions for residential customers</li> </ul> <p>Panel discussion (25 mins)</p> <p><b>Moderator: Vida Rozite, Energy Analyst, Energy Efficiency Division, International Energy Agency</b></p>
<b>16:50 CET</b>	<p><b>Wrap-up and Concluding Remarks</b></p> <p><b>Moderator: Vida Rozite, Energy Analyst, Energy Efficiency Division, International Energy Agency</b></p>

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