

# Evaluating the impacts of energy innovation policies

An IEA CERT-EGRD thematic discussion

Virtual meeting on 29 October (13h00-16h00)

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# Evaluating the impacts of energy innovation policies

## Context

There is a growing recognition of the need to accelerate the development and improvement of clean energy technologies globally to enhance our ability to follow net-zero emission pathways. Initiatives like Mission Innovation have helped to grow public R&D funding for clean energy in many countries, and they take a variety of policy approaches to supporting researchers and entrepreneurs. Evidence about which support mechanisms most effectively drive clean energy innovations, and under which conditions, could help governments to adopt best practice in innovation policy design to meet clean energy goals.

Structured and comparable evaluations can contribute to the policy-making process in different ways: it facilitates learning about the impact of policy options nationally and internationally; it supports accountability for public spending; and it establishes the legitimacy of proposed new interventions. For each purpose, governments are looking to ensure that they have the best understanding and metrics to assess the efficiency, effectiveness and relevance of innovation policies, and are developing frameworks for evaluation approaches and data collection.

## Objectives

The CERT-EGRD thematic discussion's main goal is to bring together practitioners from governments with distinguished international scholars to exchange experiences and recommendations about how to design and implement evaluations clean energy innovation policies effectiveness, from R&D funding programmes to broader support for the energy innovation ecosystem, as well as how to use these findings to improve policy design.

## Focus discussion

The virtual workshop will facilitate discussion around a number of key questions that face policy makers and could initiate a forum for ongoing exchanges of experiences with embedding evaluation in policy design.

- What are the overarching energy policy objectives to be measured? Can they be quantified with accuracy or are there ways to use qualitative tracking?
- Over what time horizons should performance against different policy objectives be evaluated?
- Can ex-ante impact assessments and ex-post evaluations use a common set of metrics, i.e. embedding evaluation and data collection in programme design from the outset?



- Do different types of interventions (R&D grants, demonstration co-funding, support to entrepreneurs, knowledge networks) need different quantitative metrics, or is there a unified set of metrics that can be used for comparisons?
- How can counterfactuals or control groups be introduced to indicate what might have happened without the policy intervention? Are any countries using such methods for energy innovation policy evaluation?
- Are there examples of existing government processes to learn from evaluation and ensure that the findings feed into policy making?
- How can governments share the findings from their evaluations internationally in a timely manner?

## Expected outputs and outcomes

A public summary report on the IEA website of the main discussion points, challenges and recommendations. Possible follow-up workshops on topics of interest to the participants, depending on interest. In the longer term, a forum for regular exchange of experiences and findings between governments and experts could be supported.

## Organisation

The preparation of this CERT/EGRD thematic discussion is led by the the Experts' Group on R&D Priority-Setting and Evaluation (EGRD) with support from the IEA Secretariat. The CERT co-ordinates and promotes the development, demonstration and deployment of technologies to meet challenges in the energy sector. EGRD is an informal advisory group under CERT with the role of supporting CERT delegates with advice on R&D priority-setting and the linkage to governmental policy objectives, methods and approaches for evaluation of R&D activities, and understanding of emerging and systematic R&D topics.

## Preliminary Programme

<b>Friday 29 October</b>	
<b>13h00</b>	<b>Opening and scene-setting remarks</b>
<b>13h15</b>	<p><b>Session 1: Why is it important to improve the evaluation of the impacts of energy innovation programmes and policies?</b></p> <p>This session focuses on providing the state-of-the-art on the evaluation of energy innovation policies and their different form. It aims to understand the growing importance, especially considering the needs to understand what makes a particular policy or programme successful in order to increase the pace of innovation towards carbon neutrality by 2050, while increasing accountability and transparency in policy.</p>
<b>14h10</b>	<p><b>Session 2: Best Practices on evaluating the impacts of energy innovation</b></p> <p>This session will introduce examples of recent practices for evaluation of the impacts of energy innovation programmes and policies, including how they have been used to set priorities and improve policy over time.</p> <p>Presenters will include practitioners from selected governments, researchers or international organisations with recent experience. Examples could include evaluations of R&amp;D or demonstration programmes, support to innovative entrepreneurs or other measures designed to enhance the rate of improvement of technologies, notably in clean energy. They will cover a range of approaches to quantifying performance, attributing impacts and assessing outcomes of policy choices.</p>
<b>15h05</b>	<p><b>Session 3: Round table discussion</b></p> <p>This session aims to host a moderated dialogue, especially about the main challenges that countries want/need to overcome when they implement a new framework for the evaluation of their energy innovation programmes and policies, or improve their existing ones. The session will feature four/five four-minute interventions (without slides) from some countries, followed by the participation of other countries wishing to share their thoughts.</p>
<b>16h00</b>	<b>Concluding remarks</b>



## **Presentation speakers and moderators**

**Dr. Birte Holst Jørgensen**, Technical University of Denmark, is Chair of the IEA EGRD. She is an experienced researcher and practitioner in the field of new energy technologies and systems, where she has specialized in energy R&D strategies and technology policies at the national, European and international levels. She is responsible for scientific advice at DTU Wind Energy, including technical assistance to the Danish Energy Agency's Global Cooperation programme (offshore wind and RE integration). She is also Principal Coordinator of sustainable energy at the Sino-Danish Centre for Research and Education. Birte holds a PhD in Political Science (University of Copenhagen) and an MSc in Business Economics (Copenhagen Business School).