

InnoEnergy Skills Institute

Energy Systems Transformation

Last revised: 2023 March

Globally the focus is shifting from centralised large-scale power production to local renewable energy generation, storage and consumption. Staying up to speed with how this fundamental transformation will impact the entire energy value chain means looking at energy sources themselves and exploring new and emerging business models and technologies.

This certification exposes you to a concrete understanding of local energy systems, consumer demand management, user interaction, behind-the-meter activities, and the possibilities of new business models to diversify businesses. You will get an in-depth understanding of the implications and how they can contribute to the transformation of the energy system, from centralised, large-scale power production to local generation and storage and flexible consumption.

Learning outcomes

Upon completion of the certification, learners will be able to:

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- Describe the transformation from centralised to local energy systems
 - Explain current developments and future innovation in the transformation of the energy system
 - Identify trends and opportunities in energy transformation
 - Explain relevant legislative implications
 - Anticipate market dynamics and future challenges
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Certification structure

The certification is delivered fully online and is self-paced, making it easy for participants to learn without having to take time off work.

The certification consists of four courses and is structured as follows:

Course 1: Introduction to Energy System Transformation

- Examine current and future energy systems, the crucial role of consumers and prosumers in the new energy system, and the importance of increasing their understanding and involvement

Course 2: Integration of Local Energy Sources and Coupling to Upstream Grid Markets

- Explore the integration of local energy sources in the energy system and how local systems can be coupled to upstream grid markets

Course 3: Energy Digitalisation

- Get insights into the digitalisation of the energy sector

Course 4: Investment Scenarios, Business Models and Relevant Policy Frameworks

- Understand relevant business aspects of the energy system transformation
- Get an overview of the European legislation and policy and how it can affect businesses related to the energy transition

Instructors

The certification is led by experts from the EIT InnoEnergy ecosystem. Instructors on this certification are:

Céline Jullien

Works on strategic initiatives to strengthen the implication of industry. She leads Societal Appropriation, a people-centered approach to engage consumers and citizens in the energy transition.

Erik Ringdahl

The Product Director at Foreseeti. Erik has a master's degree in Computer Science with a specialisation in IT-Management and Enterprise Architecture from KTH Royal Institute of Technology.

Gaëtan Masson

Director and co-founder of the Becquerel Institute. He is the Operating Agent of Task 1 of the IEA PV programme, vice-chairman of the European PV technology Platform and manages the strategy and content of SolarUNITED.

Henrique Pombeiro

Co-founder and COO of Watt-is, has a strong background in entrepreneurship and management. He also has strong technical and research competences in energy systems, modelling and consumption behaviour.

Kai Heussen

An Assistant Professor at Technical University of Denmark, Department of Electrical Engineering. He has expertise on demand side management in distribution networks, and control systems architecture.

Magnus Lindén

Senior Consultant at Sweco Energy Markets group, has extensive experience of the Nordic electricity market. Areas of expertise include energy statistics, market design, regulation and renewable energy issues.

Robert Lagerström

Professor in Network and Systems Engineering at KTH Royal Institute of Technology and co-founder of foreseeti, with strong competences in cybersecurity, threat modelling and IT architecture.

Thomas Pellerin-Carlin

Research fellow at Jacques Delors Institute, working on the European energy policy. Main fields of interest are energy policy, climate policy and European defence policy.

Tomas Kåberger

Professor of Industrial Energy Policy at Chalmers University of Technology, with several years of experience from the energy sector, serves as chairman\advisor of several companies and organisations.

How will you learn?

This is an online certification and can be taken at your usual study location. The certification consists of four courses and is self-paced.

Duration: 10 Hours

Is it right for you?

This certification has been designed for professionals and postgraduate academics with energy, business, financial, economic, and engineering backgrounds, but anyone interested in developing their knowledge of energy transformation and enhancing their professional development (from policymakers to management consultants) might find it useful.

Prerequisites: Basic understanding of the energy system.

Certificates of Achievement

We offer two pathways for issuing of certificates, **InnoEnergy Skills Institute Certificate** and **EDC (European Digital Credentials)**, each with its own unique set of benefits, allowing your organization to choose the one that best suits the objectives. **The Achievement recognition will be awarded at a >75% course assessment pass rate.**

InnoEnergy Skills Institute Certificates

What is it?

The InnoEnergy Skills Institute serves as the certificate issuer, verifying learners' progress and achievements with the course material.

What are the benefits?

InnoEnergy Skills Institute certificates are highly adaptable for recognizing various learning levels and achievements. We offer Participation, Completion, and Achievement certificates for learners who complete online courses through the Skills Institute platform.

What that means for you?

You will receive a digital credential that you can store in your personal digital credential wallet. You can also add and share these credentials on your social media platforms. The authenticity of the credentials can be verified online by anyone seeking credential verification.

European Digital Credentials (europass)

What is it?

European Digital Credentials provide an online record of an individual's personal achievements and qualifications. Recognized by employers across the continent, InnoEnergy Skills Institute can issue European Digital Credentials, which learners can add to their European Digital Credentials wallet. For this type of credentials, we only offer Achievement certificates, awarded at a >75% course assessment pass rate.

What are the benefits?

It allows learners to signal their skills and qualifications using the European Learning Model — a semantic standard that helps the recognition of qualifications and digital credentials across Europe. It also combats fraud, and greatly reduces administrative costs.

What that means for you?

You can be confident in the authenticity of your credentials and showcase your skills in a way that is understood in the context of the European Learning Model. You'll also be able to access everything quickly and easily via your online European Digital Credentials wallet.

Versioning

#	Version	Summary of Changes	Date
1	v1.1	Updated the formatting as per InnoEnergy Colour and Font styles	09-Dec-24