InnoEnergy Skills Institute

Battery Storage Applications

Decarbonisation is set to reach every sector of society, and industry will have to adapt and follow this trend. Batteries are a key technology for the deployment of decarbonisation. They have the potential to drive efficient, cost-effective, and sustainable solutions at all points of the electricity value chain, including transmission, distribution, and the consumer.

This certification focuses on battery storage applications that will contribute to achieving in practice a low-emission, sustainable future. It gives you a deep understanding of such applications across the electric grid, behind-the-meter, storage for electrical mobility, and for industrial applications.

Learning outcomes

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

- Summarise the main applications for batteries in energy storage systems
- Discuss the main role of energy storage systems in different applications/levels (grid, behind the meter, industry)
- Analyse the challenges of battery storage systems implementation in each application studied

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: Battery Energy Storage for the Electric Grid: Grid-Scale

- Explore different examples of how battery storage systems can be integrated at the electric grid level (in front of the meter) and behind-the-meter level.

Course 2: Battery Energy Storage for the Electric Grid: Behind the Meter

- Understand how using batteries allows for an increase of renewable integration in the grid and brings environmental and financial benefits to customers.

Course 3: Battery Energy Storage for Electrical Mobility

- Explore the emergent market of electric mobility and give you get an insight into current trends, the role of battery technology in this evolution, and how this change will affect the overall energy system.

Course 4: Battery Energy Storage for Industrial Applications

- Understand a pioneering example of electrification within the mining industry.

Instructors

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

Björn Jernström

CTO of Ferroamp and inventor of four different patents related to ACE technology that enables savings on grid fees and faster EV charging. He has previously founded two successful startups in the electric power industry.

Bo Normark

Industrial Strategy Executive and former Thematic Leader for Smart Grids and Energy Storage at EIT InnoEnergy. He has more than 35 years of industrial experience in ABB in development, design, project management, and global management of the Power Systems business.

Erik Svedlund

The Global Marketing Manager – Electrification at Epiroc. He held several positions over the years, at Atlas Copco. Erik is an innovative and visionary leader committed to electrifying the mining world.

Filipe Guerra

Electrical Engineer and Project Manager at EDP, he has been working (design, testing, EPC management, project management) the last 5 years in Innovation and Industrial Energy Storage and Energy Management projects from residential to utility-scale applications.

Jan Verveckken

Worked in the quality control department of Audi Brussels. He recently was working under EBA Academy at EIT InnoEnergy. Currently, a professor of electrochemical engineering, energy transition and power at the Rotterdam University of Applied Sciences.

Johan Driesen

Full professor at the Faculty of Engineering and Science head of Subdivisie EnergyVille Electa, Driesen with years of experience in distributed generation of electricity, renewable energy, power electronics, electrical drives, electric vehicles, and smart grids.

Oliver Koch

Managing Director and COO of sonnen, with overseas operations for the company such as worldwide procurement and manufacturing.

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: 12 Hours

Is it right for you?

This certification is beneficial for anyone interested in developing their knowledge of existing battery storage applications as well as relevant opportunities from a business perspective.
Prerequisites: In order to be able to follow and benefit from the Battery Storage Applications certification learners would need to have a basic understanding of the electricity 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.**

Co-funded by the European Union

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