NOCN Level 5
Introduction to Solar PV Systems
Short Course

Introduction

NOCN is a market-leading awarding organisation that has been providing qualifications, assured short courses, various courses for a wide range of centres, including FE colleges and training providers, for 30 years both in the UK and internationally.

We work with centres to deliver a high quality and flexible service for learners to underpin our passionate belief in the power of education and its impact on communities and individuals.

We offer all the advantages of being with a national awarding organisation with a diverse portfolio of qualifications, alongside providing a personalised, bespoke, service to our centres and learners.

As an accredited Leader in Diversity, we are proud of our reputation as a provider of fully accessible, trusted, and flexible qualifications.

About NOCN Group

NOCN is part of NOCN Group, a progressive educational charity whose core aims are to help learners reach their potential and organisations thrive. The group includes business units specialising in regulated UK and international qualifications, end point assessment, endorsed programmes and assured short courses, Smart job cards, assessment services, consultancy, and research.

NOCN Group shares a joint purpose to offer learners, training providers, employers, and FE Colleges a fully integrated range of learning and skills development products and services.

Information about all our courses and qualifications is available from our website: www.nocn.org.uk/

Course Specification

NOCN Group have produced this Short Course to provide a fundamental understanding of solar technology, its applications, and the principles behind efficient solar energy generation.

The course aims to provide individuals with knowledge and understanding of solar energy, including different types of solar panels, their operation, and the materials used in their construction. It explores the components and installation principles for both domestic and large-scale solar farm systems, as well as the factors affecting solar panel efficiency. The course also covers the storage of electricity produced from solar panels and introduces key government regulations and legislation related to solar installations.

This course is suitable for individuals looking to develop a foundational understanding of solar technology, whether they are new to the industry or expanding their knowledge of renewable energy solutions.

The outline, structure, and content of this course are assured by NOCN Group, with input from industry experts to ensure alignment with current industry knowledge and best practices.

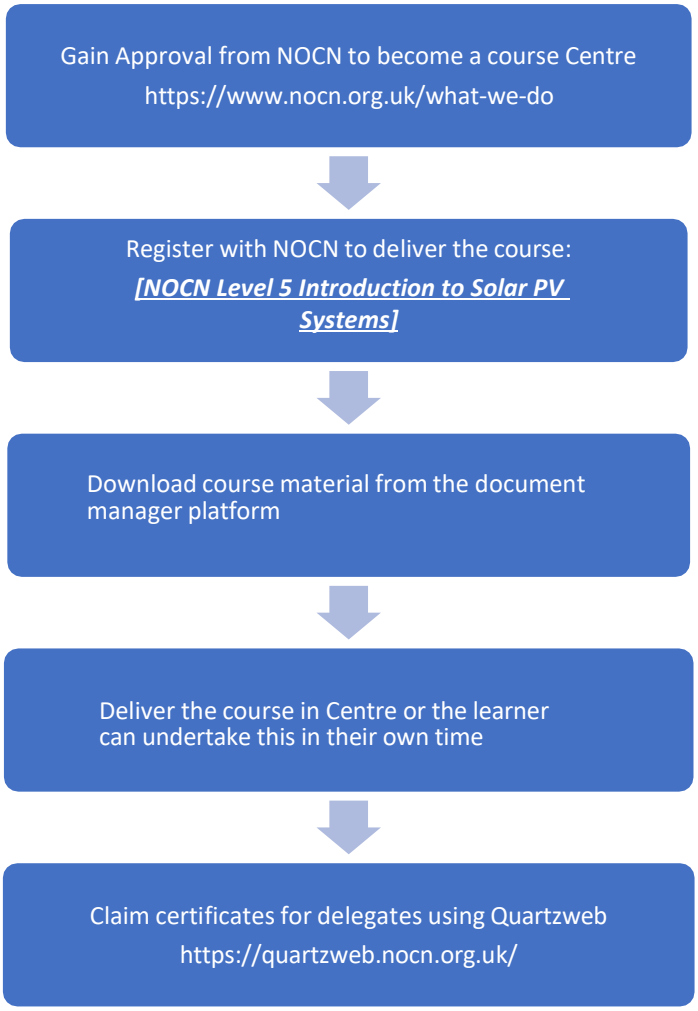
Course Content / Objectives

- Describe the different types of solar panels and the principles of the function of first-generation silicon solar cells.
- Describe the components and installation principles for both domestic installations, and larger solar farm type installations.
- Identify factors which affect the efficiency of a solar cells.
- Describe how and why electricity produced from solar panels is stored.
- Describe how government regulations and legislations apply to solar installations.

Course Approval

Prior to advertising or delivering this Assured Course, organisations must first gain Centre Approval from NOCN as well as gaining approval for each individual Assured Course. For further information regarding gaining approval, please contact the NOCN Onboarding Team at onboarding@nocn.org.uk.

Approval, Readiness, Deliver and Certification Process



Trainer Requirements

Online Version
The course structure is entirely self-contained within the online platform, with no tutor-led sessions required. Learners will engage with interactive content, including written explanations, interactive information, and knowledge checks to reinforce understanding. At the end of the course, a final knowledge assessment must be completed to confirm learning.

Face to face session (once developed)
A trainer is required to deliver this course. A trainer includes anyone within your Centre who is facilitating the training to learners in any environment e.g. tutor, trainer, teacher, coach, facilitator. That individual can also perform the role of Assessor for this course.

All trainers and assessors must:

- Hold verifiable knowledge of the occupational standards at or above the level being taught.
- It is recommended but not mandatory that they hold or be working towards a recognised teaching/training or assessor qualification (dependent on their role), examples of what NOCN will accept are detailed within the Quality Assurance Manual.
- Keep up to date with industry best practice for the duration of their role.
- Maintain a record of Continuous Personal Development (CPD).
- Hold an up-to-date CV.

Please refer to the Assured Course Quality Manual, available on the NOCN website for further tutor requirements.

Resource and Equipment Requirements

In order to deliver the course, the Centre must have access to and make use of the following resources and equipment:

Requirement	Detail
Training Environment	**Online learning through self-study, PowerPoint session will be available to be taught in a classroom**
Tools/Equipment	**Learner needs access to the NOCN course on our document manager system.** **Tutor needs access to powerpoint and quiz if being taught in class**
Delivery	**Online course (Will also be available as a powerpoint to be taught, at a later date)**
Testing	**MCQ to be taken at the end of the course**

Course Structure

Online Version
This short course is delivered entirely online and is designed to provide a structured introduction to Solar PV Systems, covering key theoretical aspects. The course is divided into five overarching learning objectives:

- Describe the different types of solar panels and the principles of the function of first-generation silicon solar cells.
- Describe the components and installation principles for both domestic installations, and larger solar farm type installations.
- Identify factors which affect the efficiency of a solar cells.
- Describe how and why electricity produced from solar panels is stored.
- Describe how government regulations and legislations apply to solar installations.

Each learning objective is covered through interactive online training materials, which include written content, interactive information, and knowledge check activities to reinforce understanding.

Learners will progress through the course at their own pace, with assessments embedded throughout to check comprehension.

Upon completion of all learning objectives, learners will complete a final knowledge assessment to demonstrate their understanding. Successful completion of this assessment will confirm achievement of the course outcomes.

Classroom Version
A classroom version will follow with a powerpoint that a tutor can deliver in a classroom and a quiz that they can administer at the end. The classroom sizes should be up to 30 and should take roughly 4 - 6 hours but can be longer as needed.

Course Delivery

The course is delivered fully online through a self-paced learning platform, allowing candidates to complete the content in their own time. As there are no set delegate numbers, learners can access the course individually, with completion typically taking between 4 to 6 hours. However, this is a guideline, and learners should take the time needed to ensure they fully understand the material before progressing.

The NOCN assured training course must be used to deliver the information. To ensure that the most up to date materials are used, learners must access the course directly through the NOCN platform each time they begin. Centres or individuals should not retain or reuse training materials offline to ensure content remains current and aligned with industry developments.

The course structure is entirely self-contained within the online platform, with no tutor-led sessions required. Learners will engage with interactive content, including written explanations, interactive information, and knowledge checks to reinforce understanding. At the end of the course, a final knowledge assessment must be completed to confirm learning.

A classroom version will follow.

Assessment

This course is assessed through an online quiz, which covers all the key knowledge areas from the learning materials. The quiz is hosted on the NOCN platform and must be completed once the learner has finished the online course content.

Learners can attempt the quiz at their own pace after engaging with all course materials. The assessment is designed to confirm understanding of different types of solar panels, their function, installation principles for both domestic and large-scale systems, factors affecting efficiency, electricity storage methods, and relevant government regulations and legislation.

Successful completion of the quiz is required to achieve certification. Once the learner has passed the assessment, their achievement will be recorded, and certification will be issued automatically through the NOCN platform.

If this is being taught in the classroom, a version of the quiz can be downloaded and marked by the tutor.

Results will then need to be claimed on Quartzweb.

Quality Assurance

The Quality Assurance requirements of Assured Course delivery can be found within the Assured Course Quality Manual, available on the NOCN website.

You will be allocated an NOCN EQA who will visit the centre in line with our quality policy.

All centres must keep evidence of the assessments for a minimum of 3 years for review.

Progression

Learners who complete this course may choose to progress to further training in Solar PV Systems such as the design, site assessment, installation and maintenance procedures.

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