



# Model Curriculum

**NOS Name: Conduct Electric Vehicle Charging and battery swapping activities at Retail Outlet (Fuel Station)**

**NOS Code: HYC/N3114**

**NOS Version: 1.0**

**NSQF Level: 3**

**Model Curriculum Version: 1.0**

Hydrocarbon Sector Skill Council  
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## Training Parameters

|   |   |
|---|---|
| <b>Sector</b>   | Hydrocarbon   |
| <b>Sub-Sector</b>                                       | Downstream  |
| <b>Occupation</b>                                       | Retail Outlet Operation   |
| <b>Country</b>  | India   |
| <b>NSQF Level</b>                                       | 3   |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                    | NCO/2015 5245.0101  |
| <b>Minimum Educational Qualification and Experience</b> | Grade 10 pass<br>OR<br>9th grade pass with 1 years of relevant experience<br>OR<br>8th grade pass with 2 years of relevant experience<br>OR<br>5th grade pass with 5 years of relevant experience<br>OR<br>Previous relevant Qualification of NSQF Level 2.5 with 1.5 years relevant experience |
| <b>Pre-Requisite License or Training</b>                | NA  |
| <b>Minimum Job Entry Age</b>                            | 18 years  |
| <b>Last Reviewed On</b>                                 | 31-08-2023  |
| <b>Next Review Date</b>                                 | 30-08-2026  |
| <b>NSQC Approval Date</b>                               | 31-08-2023  |
| <b>NOS Version</b>                                      | 1.0   |
| <b>Model Curriculum Creation Date</b>                   | 31-08-2023  |
| <b>Model Curriculum Valid Up to Date</b>                | 30-08-2026  |
| <b>Model Curriculum Version</b>                         | 1.0   |
| <b>Minimum Duration of the Course</b>                   | 120 Hours   |
| <b>Maximum Duration of the Course</b>                   | 120 Hours   |

## Program Overview

This section summarizes the end objectives of the program along with its duration.

### Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Carry out the vehicle movement to the designated island and manage the queue, confirm the charging type with the customer
- Carry out connector plug in/out while following the service norms and safety guidelines, process payment
- Ensure safe and secure working environment to avoid hazards and accidents, while charging, know about emergency procedures in case of fire
- Ensure cleanliness at the workplace and follow good personal hygiene habits and practices
- Engage with customers to understand their service requirements, attend customer requirements to achieve customer satisfaction, always adhere to service and safety guidelines

### Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details   | Theory Duration | Practical Duration | On-the-Job Training Duration | Total Duration |
|--|-----------------|--------------------|------------------------------|----------------|
| <b>HYC/N3114: Conduct Electric Vehicle Charging and battery swapping activities at Retail Outlet (Fuel Station)</b><br><b>NOS Version No. 1.0</b><br><b>NSQF Level – 3</b> | <b>30:00</b>    | <b>75:00</b>       | <b>15:00</b>                 | <b>120:00</b>  |
| Module 1: Introduction to Hydrocarbon sector and the job role of Retail Outlet Attendant for EV charging activities  | 06:00           | Nil                | 00:00                        | 06:00          |
| Module 2: Perform activities related to Electric Vehicle Charging and battery swapping at Retail Outlet  | 24:00           | 75:00              | 15:00                        | 114:00         |
| <b>Total Duration</b>  | <b>30:00</b>    | <b>75:00</b>       | <b>15:00</b>                 | <b>120:00</b>  |

## Module Details

### Module 1: Introduction to Hydrocarbon sector and the job role of Retail Outlet Attendant for EV charging

*Bridge Module Mapped to HYC/ N3114 v 1.0*

#### Terminal Outcomes:

- Discuss the Hydrocarbon Sector
- Discuss the job of a Retail Outlet Attendant for EV charging

| <b>Duration: 06:00</b>   | <b>Duration: 00:00</b>                   |
|--|--|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b> |
| <ul style="list-style-type: none"> <li>• Explain general discipline in the class room (Do's &amp; Don'ts)</li> <li>• Describe Oil &amp; Gas Sector/Sub-Sector</li> <li>• Describe the role of a Retail Outlet Attendant for EV charging</li> <li>• Explain how to learn and practice Basic skills of communication</li> <li>• Explain how to learn and practice Basic reading capabilities to enable reading of signs, notices and/or cautions at site.</li> </ul> |  |
| <b>Classroom Aids:</b>   |  |
| <ul style="list-style-type: none"> <li>• White / Black board and Projector</li> <li>• Digital Presentation</li> <li>• Computer/Laptop</li> <li>• Public Addressing System</li> </ul>   |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Pen, pencil, note pad and other training aids  |  |

## Module 2: Perform activities related to Electric Vehicle Charging and battery swapping at Retail Outlet

*Mapped to HYC/ N3114 v 1.0*

### Terminal Outcomes:

- Pre-Charging
- marshal vehicle to the designated island and manage the queue
- guide the customer to position the vehicle to achieve clear visibility of the charging unit display
- Charging
- confirm the charging type and timing with the customer
- Initiate charging following the service norms and safety guidelines
- Post-Charging

| <b>Duration: 24:00</b>   | <b>Duration: 75:00</b>  |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Explain the methods of monitoring of EV charging stations, cables, connectors, CPMS, transformers, distribution panels, circuit breakers, and energy management systems ensure safe and efficient charging operations</li> <li>• Describe how to address Electric vehicle users' charging needs, questions, and concerns effectively</li> <li>• Preparing necessary charging accessories, such as adapters or charging cards</li> <li>• Describe the customer about the multiple charging methodologies like Level 2 AC charging and DC fast charging at the retail outlet</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate how to monitor of EV charging stations, cables, connectors, CPMS, transformers, distribution panels, circuit breakers, and energy management systems ensure safe and efficient charging operations.</li> <li>• Demonstrate how to check for any physical damage or hazards include frayed cables, exposed wires, overheating components, and damaged connectors.</li> <li>• Demonstrate how to address Electric vehicle users' charging needs, questions, and concerns effectively.</li> <li>• Demonstrate how to preparing necessary charging accessories, such as adapters or charging cards.</li> <li>• Demonstrate how to inform the customer about the multiple charging methodologies like Level 2 AC charging and DC fast charging at the retail outlet.</li> <li>• Demonstrate how to inform the customer about the process of charging the vehicle starting from Plugging in charger to fully charged along with the methodology followed during the process.</li> <li>• Demonstrate how to confirm the customer order by repeating the charging type and quantity</li> </ul> |

|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>• Demonstrate how to welcome and Assist Customers with Electric vehicle Charging need.</li> <li>• Demonstrate how to plug the connectors such as 2 (AC charging) and CCS Combo (AC/DC charging) for fast charging as per customer's order and set up the timer to the scheduled charging time and inform the customer.</li> <li>• Demonstrate how to continuous checking on the charging point during the charging time.</li> <li>• Demonstrate how to ask customer to wait in the waiting area till the end of scheduled charging time.</li> <li>• Demonstrate how to monitor timer and release locked latch upon scheduled vehicle charging completion.</li> <li>• Demonstrate how to remove the connector from the vehicle.</li> <li>• Demonstrate how to show final timer reading and sales amount to the customer.</li> <li>• Demonstrate how to provide automated/manual bill to the customer as requested.</li> <li>• Demonstrate how to provide hard pad for signing the merchant copy in case of card payment.</li> <li>• Demonstrate how to remind the buyer to check the air in their car's tyres.</li> <li>• Demonstrate how to remind the client if they require any lubricants, coolants, brake fluid, etc.</li> <li>• service improvement, get consumer feedback.</li> </ul> |
|--|--|

**Classroom Aids:**

- White / Black board, Projector, Laptop and Speakers
- Digital Presentation
- Computer/Laptop
- Public Addressing System

**Tools, Equipment and Other Requirements**

- Sample promotional material
- Sample leaflet/broachers
- Sample presentation
- Nos.1 densitometers with calibration certificate
- Nos.1 thermometers with calibration certificate
- Wrenches
- Screwdrivers

- Pliers
- Calibrated 5 litre jar (for checking quantity along with calibration certificate)
- Whatman Filter Paper
- Flip chart- Power Distribution Diagrams, Circuit Diagram etc
- Sample job card
- EV Charging Stations (AC and DC)
- Charging Station Manufacturer's Manuals
- Multimeter
- Connector Adapters
- Stainless steel traffic guiding signs in place
- Electrical room
- One Air Tower with calibration chart
- Sales building with Charging types & Other information display, furniture, office equipment
- Shop floor with basic equipment
- Sample SOP

# Annexure

## Trainer Requirements

| Trainer Prerequisites             |                |                              |                   |                     |                |         |
|-----------------------------------|----------------|------------------------------|-------------------|---------------------|----------------|---------|
| Minimum Educational Qualification | Specialization | Relevant Industry Experience |                   | Training Experience |                | Remarks |
|                                   |                | Years                        | Specialization    | Years               | Specialization |         |
| 12 <sup>th</sup> Class Pass       | -              | 5                            | In relevant Field | 1                   | -              |         |
| or ITI pass                       | -              | 5                            | In relevant Field | 1                   | -              |         |

| Trainer Certification   |  |
|---|--|
| Domain Certification  | Platform Certification   |
| <p>Certified for the NOS: “<b>Conduct Electric Vehicle Charging and battery swapping activities at Retail Outlet (Fuel Station)</b>”, NOS: “HYC/N3114, v1.0” mapped to QP: “HYC/Q3101, v3.0”.<br/>Minimum accepted score is 80%</p> | <p>Certified for the Job Role: “Trainer (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, v2.0”. Minimum accepted score is 80%.</p> |

## Assessor Requirements

| Assessor Prerequisites                |                |                              |                   |                                |                |         |
|---------------------------------------|----------------|------------------------------|-------------------|--------------------------------|----------------|---------|
| Minimum Educational Qualification     | Specialization | Relevant Industry Experience |                   | Training/Assessment Experience |                | Remarks |
|                                       |                | Years                        | Specialization    | Years                          | Specialization |         |
| 12 <sup>th</sup> Class Pass/ ITI Pass | -              | 5                            | In relevant Field | 1                              | -              |         |
| or ITI pass                           | -              | 5                            | In relevant Field | 1                              | -              |         |

| Assessor Certification  |  |
|---|--|
| Domain Certification  | Platform Certification   |
| Certified for the NOS: <b>“Conduct Electric Vehicle Charging and battery swapping activities at Retail Outlet (Fuel Station)”</b> , NOS: “HYC/Q3114, v1.0” mapped to QP: “HYC/Q3101, v3.0”. Minimum accepted score is 80% | Certified for the Job Role: “Assessor (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, v2.0”. Minimum accepted score is 80%. |

## Assessment Strategy

The assessment of candidates/trainees will be on the basis on assessment outcome/assessment criteria of the Qualification. In the assessment criteria for each NOS marks have been defined for theoretical and practical skills, on which the candidate will be assessed. The emphasis is on 'learning-by-doing' and performance criteria is based on the practical demonstration of skills and knowledge.

**Theory/Knowledge test**- This section will test the trainee on his/her knowledge on the subject/trade. The test will be carried out online/offline with a set of random Question paper. that include multiple choice questions in multilingual, True/False Statement, audio-video question etc.

The Question Bank will be developed by Subject Matter Experts (SME) of the hydrocarbon sector and these questions again be vetted by the Industry Experts, each performance criteria have its marks for theory based on the level of question i.e., easy, medium and difficult.

**Practical/Demonstration Test**- This stage involves the face-to-face interaction between Assessor and each trainee. The practical knowledge will be tested through trade test which demonstrates the skill required for the job, by which assessor would be able to evaluate the trainee for his/her practical knowledge on respective NOS /Qualification.

To ensure the maximum possible consistency in the assessment by different assessors at different locations, orientation of the assessors is also required about the stages involved in the assessment and the assessor role in the assessment process. The assessor must have knowledge of the following concepts before assessment:

- Qualification Pack/ NOS Structure
- Guidance for the assessor to conduct theory and practical assessments
- Guidance for trainees to be given by assessor before the start of the assessments.
- Guidance on assessments process, practical brief with steps of operations practical observation checklist
- Practical/Demonstration Test guidance for uniformity and consistency.
- Guidance on assessment evidence collection (signed attendance copy, verification of the authenticity of the candidate by checking the photo ID card, Photographs-while assessment undergoing etc.)

The empanelled assessment agencies will be instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments. The assessment agencies are instructed to ideally have assessor with sufficient amount of relevant industry experience related to Qualification. The assessors will also have scrutinized and have to undergo orientation of assessment framework, competency-based assessments etc.

### Recognition of Prior Learning (RPL)

Under the Recognition of Prior Learning (RPL), the candidates enrolled and the assessment will be carried out as per the assessment criteria and assessment outcome of the full Qualification and the process of assessment will be carry out by the body/bodies empanelled by Hydrocarbon Sector Skill Council

In RPL, the candidate already has the skills and knowledge while working on the job from long, the learners only require to undergo a brief orientation training and the subsequent assessment process and

certification is awarded to those candidates who successfully clears the assessment. The tentative process of RPL would include the following stages:

- 1 Cluster Mapping and Mobilization of the candidates
- 2 Counselling & Pre-Screening
- 4 Candidate registration, batch creation and enrolment
- 5 Conduction of an orientation program for candidates before assessment
- 7 Assessment by HSSC
- 8 Evaluation of Assessment Result
- 9 Issuance of the Certificate to successful candidates

#### Assessment Strategy:

- For each NOS assessment criteria has been developed, which describe the weightage for each NOS/Performance criteria (PC) and assigned marks based on each NOS separately for theoretical and practical skills
- The question bank will be developed by the subject matter experts to assess the theoretical and practical knowledge.
- The accredited assessment agency will carry out the assessment process on the date proposed after completion of the training. The assessment will be carried out on the basis of the two parameters i.e., Theoretical test and Practical test.
- The result of the assessment will be shared by assessment body to the HSSC for review and compliance, after that result will be processed and certificates will be generated
- Assessments shall be conducted in the regional languages in case of any specific requirement from the concerned Training Provider.
- For ensuring the impartial assessment it will be ensured that the Assessment Bodies (AB) are not involved in any type of training delivery with respect to this project.

#### Assessment Guidelines

1. Criteria for assessment for each NOS will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the NOS assessment, every trainee should score a minimum of 50% of % aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the NOS.

**Recommended Pass % aggregate for QP: 50%**

## References

### Glossary

| Term   | Description  |
|--|--|
| <b>Sector</b>                                | Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.  |
| <b>Sub-sector</b>                            | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.   |
| <b>Occupation</b>                            | Occupation is set of job roles, which perform similar set of functions in an industry.   |
| <b>Job role</b>                              | Job role defines a unique set of functions that together form a unique employment opportunity in an organization.  |
| <b>Occupational Standards (OS)</b>           | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.   |
| <b>Performance Criteria (PC)</b>             | Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.  |
| <b>National Occupational Standards (NOS)</b> | NOS are occupational standards which apply uniquely in the Indian context.   |
| <b>Qualifications Pack (QP)</b>              | QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.   |
| <b>Unit Code</b>                             | Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'  |
| <b>Unit Title</b>                            | Unit title gives a clear overall statement about what the incumbent should be able to do.  |
| <b>Description</b>                           | Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.   |
| <b>Scope</b>                                 | Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.  |
| <b>Knowledge and Understanding (KU)</b>      | Knowledge and Understanding (KU) are statements that together specify the technical, generic, professional and organizational specific knowledge that an individual need in order to perform to the required standard.   |
| <b>Organizational Context</b>                | Organizational context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.   |
| <b>Technical Knowledge</b>                   | Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.   |
| <b>Core Skills/Generic Skills (GS)</b>       | Core skills or Generic Skills (GS) are a group of skills that are key to learning and working in today's world. These skills are typically need in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication-related skills that are applicable to most job roles. |
| <b>Electives</b>                             | Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.  |

|                |   |
|----------------|---|
| <b>Options</b> | Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options. |
|----------------|---|

## Acronyms and Abbreviations

| Term        | Description                                     |
|-------------|---|
| <b>NOS</b>  | National Occupational Standard(s)               |
| <b>NSQF</b> | National Skills Qualifications Framework        |
| <b>QP</b>   | Qualifications Pack                             |
| <b>TVET</b> | Technical and Vocational Education and Training |
| <b>OS</b>   | Occupational Standard(s)                        |
| <b>QP</b>   | Qualifications Pack                             |
| <b>KU</b>   | Knowledge and understanding                     |
| <b>GS</b>   | Generic Skills                                  |
| <b>ROA</b>  | Retail Outlet Attendant                         |
| <b>FAQ</b>  | Frequently Asked Questions                      |
| <b>BP</b>   | Business Partner                                |
| <b>KYC</b>  | Know Your Consumer                              |
| <b>FAB</b>  | Feature Advantage Benefit                       |