



Certification of EVs and Heat Pumps
ESC GC - 27 June 2024

Recap

- The new opportunities and challenges of the mandatory certification of EVs and heat pumps was discussed at the March 2024 ESC GC.
- At the meeting there seemed common consent that an Expert Group would be valuable to assist all stakeholders in understanding the implications of the new regime, and their part in it.
- Whilst this work was seen as useful, it was important to check that it is not already being undertaken elsewhere, and it was also noted that it was something that did not need to be fully complete by entry into force of the NC RfG and DC.
- There was an action on the EU DSO Entity to create the first draft of ToRs for such an expert group.

Draft ToR – Problem Statement - 1

- The technical specifications and compliance requirements for EVs/EVSEs and heat pumps are not mature, or even complete in some cases.
- Only a minority of existing member states have existing compliance schemes which mandate equipment certificates.
- There are a large number of stakeholders:
 - Manufacturers
 - Testing laboratories
 - Authorised Certifiers
 - DSOs/TSOs
- All stakeholders will need to understand the new requirements, and in some cases develop new processes etc in good time for the certification becoming mandatory 3 years after entry into force.

Draft ToR – Problem Statement - 2

- Heat pumps and EVs/EVSEs are mass market products and therefore the certification process needs to be as simple as possible for manufacturers, certifiers and DSOs; and well understood before implementation.
- The overhead on end customers should be minimized, or even eliminated by the certification process.
- In addition to the RfG requirements, individual Member States have separate interface protection requirements, which although not required by the RfG, should be considered alongside the requirements in the interests of efficiency.

Draft ToR – EG Objectives

- Understand the relevant international landscape for standards on technical requirements.
- Identify legitimate relevant associated technical requirements which are specified nationally.
- Understand the existing state of compliance schemes and certification nationally and internationally.
- Identify gaps in compliance schemes and relevant international standards.
- Recommend how identified gaps can be closed by appropriate additional specification, and by appropriate evaluation measures (testing, modelling, manufactures' data) including by specific advice from, or actions by, this Expert Group.
- Recommend steps to be taken by standards bodies, manufacturers, certifiers and DSOs to close the remaining gaps.
- Ensure relevant briefing material etc is available to all those parties who have future responsibilities for the operation of compliance certification for EVs and heat pumps.

Draft ToR - Tasks

- Review RfG and DC 2.0 requirements and cf existing national grid code requirements in member states.
- Define the gaps in compliance schemes and standards – particularly DSO interface protection requirements which are not within RfG 2.0 and not within EN 50549-x
- Determine what is required to create (or update) compliance schemes for EVs and for heat pumps in each member state, noting the need for consistency between member states.
- Create pro-formal compliance schemes requiring certification which can be adapted by DSOs for national implementation.
- Propose how gaps in standards can be closed.
- Create appropriate and comprehensive briefing material for all stakeholders.
- It will be important for the EG to recognize the boundaries of other legitimate activities

Deliverables

1. A comprehensive report on the work, findings and recommendations of the Expert Group.
2. Outline additional technical requirements resulting from national grid code survey that can be provided as requirements to international standardization committee work.
3. A set of recommendations for standards bodies, manufacturers, prospective certifiers and DSOs
4. A pro-forma or example compliance and certification scheme that can be adopted by DSOs as appropriate for their existing local or national arrangements, and which is intended to achieve the maximum uniformity of approach.
5. In addition, briefing material on (3) for use with affected parties in advance of the compliance deadline.

It is proposed that the EG should provide these deliverables by [March 2025].

Next steps

- Seek comments on the draft
- Circulate to other key stakeholders
- Seek volunteers to form the EG
- Seek a chair and co-chairs