NEWSLETTER

June 2026

Co-funded by the European Commission's Horizon Europe programme, "Enabling interoperability of multi-vendor high-voltage direct current (HVDC) grids" (InterOPERA) brings 21 European partners together to unlock the potential of HVDC grids and to enable the large-scale transition of the European energy sector.

Updates from Work Packages

Work Package 1 "Development of standardised interaction study processes and interfaces"

The offline model work reached a major milestone in early 2026, with the finalisation of the dry-run tests for all vendors using both Electromagnetic Transient Tools (EMT), PSCAD and EMTP, bringing the entire offline simulation phase to an end. With this step finished, laboratories now shift their main focus to the real-time demonstrator.

In the real-time environment, laboratories also carried out additional dry-run tests in RTDS and HYPERSIM for several vendors. The move to integration tests began smoothly, supported by the first replica updates. Over the coming months, dry-run activities and demonstrator preparation will run in parallel until the real-time dry-run tests are completed.

The process of harvesting and gathering experience from InterOPERA interaction studies continues, with the aim of compiling all relevant knowledge and experience in the task "Lessons Learned and Recommendations for Multi-Vendor HVDC System Interaction Studies". The expert group led by Equinor and RTE began by describing the state of the art and its application to the InterOPERA project. Many important findings from the completed offline dry-run tests are now under documentation and consolidation for the report. The proposed project extension gives the activity enough time to assess the learning thoroughly, without pressure from competing deadlines.

Lastly, on 16 March 2026, the interaction-studies group held its second physical workshop at Hitachi Energy's premises. The meeting took place alongside the General Assembly, allowing for strong participation, with 20 people attending in person. The workshop was a chance for in-depth discussions on several complex topics: options for providing power park module models (in terms of content and responsibilities), key aspects to consider when assessing Hardware-in-the-Loop and Software-in-the-Loop

solutions in real time, and the long-term need for model maintenance throughout the lifetime of an HVDC asset.

Work Package 5 “Procurement Strategy and Future Projects Preparation”

Our InterOPERA team advanced procurement for future multi-terminal, multi-vendor high-voltage direct current projects during this quarter too.

After the General Assembly in Ludvika, the team working on the legal basis for procurement procedures planned to launch a new review round to assess the robustness and completeness of their outputs so far. Workshops are now being launched to identify any remaining gaps, with the specific goal of finalising the deliverable on how procurement integrates with the Multi-party Cooperation Framework. The remaining time will focus on refining and updating the results.

The development of technical specifications that future Multi-terminal, Multi-vendor HVDC projects can use as a reference has progressed steadily. And now, each individual chapter of specifications is being filled with the requirements drawn from InterOPERA’s technical deliverables.

Based on partner feedback, the activity shifted the main source of requirements from the general functional document to the more detailed demonstrator specifications. This keeps the requirements generic enough for future projects while adding concrete examples of how they were realised in InterOPERA. In parallel, each requirement now links directly to the verification tests defined in the project and to the subsystems it affects. The internal schedule has been adjusted to reflect the effort needed for this more thorough, example-based and verification-oriented approach.

For the coordination of interoperability studies in the (pre-)tender phase, the team has identified risks and grouped them into clear categories. They designed coordination processes that show how all actors should work together to reduce these risks, for example via contractual mechanisms. Next, the team will develop a procurement approach that includes the risk-mitigation, helping future offshore HVDC projects avoid costly problems later on.

Get in touch with us:

Want to learn more about InterOPERA? Or have any questions about our work?
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