

Day 1 – 16.06.2026

Time		
8:00 am – 9:00 am	Continental Breakfast and Registration	Salle du Foyer, Jarry-Joyce <i>Le Centre Sheraton Montreal</i> <i>1201 Boul. René-Lévesque O. Montreal</i>
9:00 am – 10:00 am	Welcome and Updates from the Organization Institutes	1) Welcome and Introduction into the Workshop Vahan Gevorgian (NLR), Sylvain Nadeau (IREQ) 2) Update NLR Vahan Gevorgian 3) Update Fraunhofer IWES Gesa Quistorf 4) Update Hydro-Québec, IREQ Annie Bissonnette
10:00 am – 10:25 am	Coffee Break	Salle du Foyer, Jarry-Joyce <i>Le Centre Sheraton Montreal</i> <i>1201 Boul. René-Lévesque O. Montreal</i>
10:25 am – 12:15 pm	Grid Emulator-Based Testing for Modern Power Systems and Data Center Applications	5) Shunt Fault Injection using Grid Simulator: A Digital Twin and Real-Hardware Verification Approach Jae Hoon Choi (NLR) 6) From Requirements to Reality: Early Insights into Islanding Testing at Fraunhofer IWES Florian Hans (Fraunhofer IWES) 7) Island testing with Grid Simulator John Eckerle (ABB) 8) Characterization of Mega-Watt Scale Solid State Transformer (SST) for Data Center Application using PHIL Karl Schoder (FSU-CAPS) 9) NLR's 20MW AI Load Emulation for Data Center Power Systems Validation Przemyslaw Koralewicz (NLR)
12:15 pm – 13:15 pm	Lunch	Salon 4-5 <i>Le Centre Sheraton Montreal</i> <i>1201 Boul. René-Lévesque O. Montreal</i>
13:15 pm – 15:10 pm	Wind Integration and Nacelle Testing: Enabling Reliable Grid Performance	10) From Utility to Developer: Simulator-Based Testing Needs Driven by Hydro-Québec's Emerging Wind Developer Role Maxime Beaulieu and Julie Lacroix (Hydro-Québec)

		11) Why Nacelle Test Benches Matter: Enabling Reliable Models for Wind Turbine Testing Matthias Huttner (Renk Test System GmbH) 12) Grid-Friendly Nacelle Test Bench John Eckerle and Kai Pietiläinen (ABB) 13) Use of Advanced Test Benches for Wind Turbine Testing Javier Guembe (Nordex Group) 14) High Penetration of Wind Generation in Remote Power Systems- Part I: Off-Grid Integration of Renewable Energy at Hydro-Québec, Part II: PHIL Testing a Grid-Forming Battery Energy Storage System Jonathan Brisebois and Jean-François Haché (Hydro-Québec)
15:10 pm – 15:40 pm	Coffee Break	Salle du Foyer, Jarry-Joyce <i>Le Centre Sheraton Montreal</i> 1201 Boul. René-Lévesque O. Montreal
15:40 pm – 17:30 pm	Advanced PHIL/HIL Testing for Power-Electronics-Dominated Grids	15) A PHIL-Based Platform for Emulation of Grid-Forming and Grid-Following Inverters and Automated IEEE 1547.1 Testing Amitkumar Kortagere Sashidhar (OPAL-RT) 16) Protection Challenges in Power-Electronics-Dominated Grids Saeed Sanati (GE Vernova) 17) Planned Power Emulator Test Equipment for Risø Hybrid Power Plant (HPP) Poul Sørensen (Technical University of Denmark (DTU)) 18) Leveraging a HIL Grid Simulator Testbed to Bridge EMT Frequency Scans from Offline Models to Real-World Inverter Behavior Ilhan Kocar (Polytechnique Montréal) 19) Power Hardware-in-the-Loop Emulation of Megawatt-Scale Medium-Voltage Motor Drives for Grid-Interactive Applications Nasir Ali (Polytechnique Montréal)
17:45 pm:	Happy Hour / Dinner	Restaurant chez Lionel 1250 Boul. René-Lévesque Ouest, Montréal



Day 2 – 17.06.2026

Time		
8:00 am – 9:00 am	Transfer to Hydro-Québec Research Center (IREQ)	Departure from Le Centre Sheraton Montreal to Hydro-Québec Research Center (IREQ) 1800, Boul Lionel-Boulet, Varennes, Québec
9:00 am – 9:30 am	Continental Breakfast	Salle Amphithéâtre Hydro-Québec Research Center (IREQ) 1800, Boul Lionel-Boulet, Varennes, Québec
9:30 am – 11:00 am:	Pushing the Boundaries of PHIL: Scalable and High-Power Platforms for Grid Emulation	1) IREQ PHIL System Handy Fortin Blanchette and Olivier Trembaly (Hydro-Québec) 2) Multi-Megawatt Power-Electronics DC Grid Simulator for Large-Scale PHIL Testing Piotr Sobanski (ABB Corporate Technology Center) 3) The High Power Grid Lab: A novel PHIL Research Infrastructure for Medium-Voltage Power Electronics Michael R. Suriyah (Karlsruhe Institute of Technology) 4) PHILAS: A Scalable Power System Interface for Decentralized PHIL Grid Emulation Thomas Sageder (Hochschule München (HM) University of Applied Sciences)
11:00 am – 11:20	Short Coffee Break	Hydro-Québec Research Center (IREQ) 1800, Boul Lionel-Boulet, Varennes, Québec
11:20 am – 12:05 pm	Modern Control Synthesis for Stable and Precise PHIL Interface Design	5) Design of Stable and Precise Closed-Loop Interfaces for PHIL Applications: Systematic Approaches Dmitry Rimorov (Hydro-Québec) 6) Improving Power Hardware-in-the-loop Interfaces via Optimal Control Jonathan Eid and Ashley Meagher (McGill University)
12:05 pm – 12:15 pm	Closing Session (HQ/NLR)	
12:15 pm – 13:15 pm:	Lunch	Salle Collaborative Hydro-Québec Research Center (IREQ) 1800, Boul Lionel-Boulet, Varennes, Québec

Agenda – 8th international workshop on Grid Simulator Testing of Energy Systems and Inverter-Based Resources



13:15 pm – 16:45 pm	IREQ's Laboratories Tour	7) Simulation Laboratory 8) Distribution Test Line 9) PHIL Laboratory (High Power Lab) 10) High Voltage Laboratory
16:45 pm – 17:30 pm	Refreshments break and closing session	
17:30	Transfer back to Downtown Montréal	