

Conference Program			
8:00 - 16:00 Registration (Daily)			
Time	Activity	Details / Location	
Tuesday — 10 November, 2026			
09:00	Opening ceremony		
09:45	Plenary Session		
10:30	Coffee Break / Posters		
11:00	Parallel Sessions		
13:00	Lunch		
14:20 - 16:00	Parallel Sessions		
20:00	Welcome Dinner		
Wednesday — 11 November, 2026			
09:00	Plenary Session. Prof. Mario García Sanz Director of ARPA-E programs (U.S. Department of Energy, 2018-2026) and Professor at CWRU. Title: Reimagining Energy: The Most Substantial Transformation in Recent History.		
09:45	Renewable Energies in Biosphere Reserves: Balancing Clean Power and Conservation		
10:30	Coffee Break / Posters		
11:00	Parallel Sessions	Special Session: Shallow Geothermal Energy in a Warming Climate: Cooling Demand, Urban Aquifers and the Energy Transition in Island Contexts Roundtable: Peter Bayer – Martin Luther University Halle-Wittenbergç Jannis Epting – University of Basel Joaquín Jiménez-Martínez – Eawag / ETH Zürich Alejandro García-Gil – IGME-CSIC	
13:00	Lunch		
14:20	Parallel Sessions		
16:00	Coffee Break / Posters		
16:30-18:00	Parallel Sessions		
20:00	Special Event		
Thursday — 12 November, 2026			
09:00	Special Session: Control systems in renewable energy Keynote: Prof. José Manuel Andújar (Uiversity of Huelva,Spain) Roundtable: Prof. Sebastián Dormido (UNED, Spain) (Moderator) Prof. Mario García (Program Director at ARPA-E and Professor at Case Westen Reverse University, USA) Prof. Agustín Jiménez (UPM, Spain)	Special Session: Maintenance Keynote: Prof. Janusz Szpytko (Director of the UNESCO AGH Chair. AGH University of Krakow, Poland.) Roundtable: Prof. Cristina Catejón (Deputy Vice-president for Research and Transfer, University of Carlos III de Madrid, Spain). (Moderator) Prof. Adam Weintrit (Rector of Gdynia Maritime University, Poland) Prof. María Llano Tobarra (Senior Member of the IEEE and Executive Board Member of the IEEE Spain Section)	Special Session: Nexus Energy-Water Keynote: Prof. José Gregorio Iglesias (University College Cork, Ireland) Roundtable: Director of ITC. Gonzalo Piernavieja (Moderator) Dr. Baltasar Peñate (ITC, Spain) Prof. Zsuzsanna László. (University of Szeged, Hungary)
10:30	Coffee Break / Posters		
11:00	Parallel Sessions		
13:00	Lunch		
14:20	Parallel Sessions		
16:00	Coffee Break / Posters		
16:30-18:00	Parallel Sessions		
20:00	Special Events		
Friday — 13 November, 2026			
09:30	Tech & Tourist Tour		
10:00	Arrival at Gorona del Viento		
10:00	Guided tour		
12:30	CLOSING CEREMONY	Cabildo Assembly Hall	
13:30	Farewell cocktail	Near Cabildo Assembly Hall	

Saturday — 14 November, 2026

09:30

Discover El Hierro

Courtesy of the Cabildo of El Hierro. Explore the island's spectacular landscapes, unique natural environment and cultural heritage through a guided tour of some of its most emblematic locations.

14:00

End of tour

PROGRAMA — PARALLEL SESSIONS · ICEREH 2026

Franja	Sala 1	Sala 2	Sala 3
Tuesday 10 November 2026			
11:00	N1 — Island and Isolated Power Systems: Renewable Integration, Operation and Stability 3704 · The PLOCAN Offshore Platform as a Validation Benchmark for Isolated Energy Systems: a Preliminary Assessment for the Brain2Power Project 4640 · To Co-locate or Not? The Value of PV-BESS Hybridisation for Renewable Generators in Island Power Systems 5474 · Impact on Stability and Damping in a Microgrid with Grid-Forming Inverters Based on its Control Techniques 6722 · Impact of Grid-Scale Grid-Following and Grid-Forming Battery Energy Storage Systems on Small Isolated Power Systems with High Renewable Energy Penetration: The Lanzarote–Fuerteventura Power System as a Case Study 7469 · Analysis of the Cost of Ensuring Frequency Stability in Isolated Grids Under Different Renewable Shares: Application to the Gran Canaria Power System 1303 · Green Hydrogen Microgrid Design and Sizing for an Agro-Livestock Installation	S7 — Geothermal Energy and the Role of the Subsurface in the Sustainable Energy Transition 80 · Biogeochemical effects of shallow geothermal energy on microbial activity and the prevalence of emerging contaminants: the case of the Zaragoza urban aquifer 1300 · Integrated Carbon Storage and Geothermal Energy Recovery from Mature Oil Fields: A Multi-Criteria Screening Methodology for Repurposing Hydrocarbon Assets 1425 · Integrating Geothermal Energy into Constrained Isolated Power Systems: Operational Complexities and Adaptive Solutions 2077 · Coupling Thermo-Hydraulic Numerical Modelling With Multicomponent Geothermometry For Geothermal Resource Assessment: Insights From La Palma (Canary Islands) And Mallorca (Balearic Islands) Geothermal Systems 7343 · Deep learning-based 60-day forecasting of production temperature in an urban open-loop geothermal network 7765 · From operational monitoring to geothermal resource management: volume- and energy-weighted polar diagnostics for dense urban GWHP networks	N2 — Wind and Solar Energy: Resource Assessment, Technologies and Performance · Wind: resources, aerodynamics and forecasting 2175 · Characterization of Turbulence Intensity and Wind Shear in Offshore Southeast of Gran Canaria: Implications for Future Offshore Wind Farm Performance 5366 · MEGA4Wind: Site Optimisation and Resource Assessment for High-Density Floating Vertical Axis Wind Turbine Arrays in the Celtic Sea 8245 · Spatio-Temporal Assessment of Renewable Energy Potential in the Iberian Peninsula 4966 · Numerical Optimization of a Hybrid Darrieus-Savonius Vertical-Axis Wind Turbine Using ANSYS optiSLang and CFX 9768 · Aerodynamic Optimization and Experimental Validation of a Horizontal-Axis Wind Turbine Blade Design 7743 · Explainable AI Framework for Very Short-Term Wind Power Forecasting Based on Robust Preprocessing and a Hybrid Deep Learning Architecture
14:20	N1 — Island and Isolated Power Systems: Renewable Integration, Operation and Stability 4269 · MILP-Based Network-Constrained Unit Commitment with AC Validation and Iterative Feasibility Restoration: A Case Study of the Tenerife Island Power System 4925 · Analysis of the Influence of Renewable Generation on the Start-up Costs of Thermal Power Plants in Isolated Grids: Application to the Fuerteventura-Lanzarote Power System 7821 · Retrofitting and Electrification of a Pilot Boat for Sustainable Maritime Mobility: A Case Study in the Port of Santa Cruz de Tenerife 9477 · Evaluating OPS as an Enabler for Renewable Energy Penetration in Island Power Systems	S7 — Geothermal Energy and the Role of the Subsurface in the Sustainable Energy Transition 8318 · Thermal Management of Urban Groundwater Resources: Monitoring, Modelling, and Geothermal Potential 8411 · Development of a 3D geological model of the island of El Hierro (Canary Islands, Spain) to investigate its geothermal potential 8445 · Understanding aquifer reaction to underground energy storage: a key towards a sustainable energy transition 8465 · 3D thermo-hydraulic modelling of the Zuera Muschelkalk III reservoir for deep geothermal direct-use assessment in the Spanish Ebro Basin 8669 · Long-Term Experimental Evaluation of a Low-Cost Capacitive Soil Moisture Sensing System for Sustainable Agriculture Applications	N3 — Energy Management and Efficiency in Buildings and Campuses 2975 · Showcasing the flexibility of a distributed energy management system for intelligent cooperation between buildings in microgrids 7807 · Beyond LED Replacement: Energy, Lighting-Performance, and Economic Trade-offs in Vulnerable-Housing Retrofits 8105 · Adaptive Lighting Control in Office Buildings Using Artificial Neural Networks: Experimental Validation and Long-Term Performance Evaluation 8852 · Campus Energy Optimization Using Ward Hierarchical Clustering and Validation with an Electrical Digital Twin for Load Balancing through Physical Reassignment 9321 · Optimal Sizing of a Battery Energy Storage System for Enhanced Photovoltaic Self-Sufficiency on a University Campus

16:30

Wednesday 11 November 2026

11:00	S4 — Technical, Regulatory, and Social Frameworks for Energy Communities 1899 · Towards Reinforcement Learning-Based Photovoltaic Allocation in Energy Communities 2681 · Multi-Objective Management of Collective Self-Consumption Energy Communities: Energy, Economic, and Environmental Trade-Offs 6347 · A MATLAB-CityLearn Framework for Synthetic Photovoltaic and Load Data Generation 6768 · An Approach to Economic Management for Collective Self-Consumption in Energy Communities 7193 · Regulatory and Socioeconomic Framework applicable to Energy Communities in the Islands 9191 · Energy Communities Implementation in Europe: Socio-Economic and Contextual Drivers Across Five Pilot Projects	S2 — Control Applied to Wind Energy Systems 2607 · Modelling the Power Curve of a Wind Turbine Based on GPR with A Priori Adjustment of the Mean: a first approach 5645 · Provision of primary frequency control by wind generators 6118 · Intelligent MPPT Control with Mechanical Vibration Mitigation in Wind Turbines Using GA-Optimized Neuro-Fuzzy Logic 6196 · Comparative Study of GA-Optimized PID and Adaptive Fuzzy-PID Pitch Control for a 15 MW Wind Turbine 8575 · NMPC-Based Active Tuned Mass Damper for Vibration Mitigation of Spar Floating Offshore Wind Turbines	N4 — Circular Economy and Resource Recovery for the Energy Transition 494 · Life Cycle Assessment of Biochar as a Partial Bitumen Replacement in Asphalt Mixtures 1111 · Bridging the Gap: ReBoat's Exploitation Approach to Sustainable Waste Management in Tourism-intensive Islands 1205 · Sustainable Recovery of Lithium from Ecuadorian Brines Using a Green Magnetic Manganese Ion-Sieve Composite toward Water–Energy Nexus Applications 3235 · Repair and Remanufacturing of Renewable Energy Components Using Directed Energy Deposition Processes 8676 · Biomass as an Energy Resource in the Canary Islands: Characterization of Organic Waste and Biogas Generation Potential 9607 · Ammonium Recovery from Biogas Wastewater Using Plant-Based Biochar
14:20	S1 — Dynamics and Control for Offshore Renewable Energy Systems 713 · Dynamic Reconfiguration of a Floating Vertical Axis Wind Turbine Driven by Progressive Mooring Stiffness Degradation 1421 · Reconstructive Autoencoders versus Latent-Space Diffusion for Early Fault Detection in Offshore Wind Turbines 3841 · Sensor Virtualization in a Hywind Scotland Floating Wind Turbine using Limited Field Measurements 4281 · Mitigating Platform Oscillations in Floating Offshore Wind Turbines Using PID-Controlled OWC Systems 6649 · Biophysical Modelling of Jellyfish Transport to Support Risk-Informed Co-location of Wave Energy with Offshore Aquaculture	S3 — Governance for a sustainable energy transition 3188 · Renewable Energy Policy Development in Croatia 6108 · A Software Architecture Framework for Wildfire Vulnerability Assessment of Renewable Energy Infrastructure: A Chilean Case Study 6697 · Dynamic Assessment of Carbon Emission, Sequestration, and Deforestation Impacts on Malaysia’s Net Zero Carbon Goals 6866 · An Integrated Multi-Domain Framework for Climate-Neutral Rural Islands: Insights from the Horizon Europe ICONIC Project 7792 · Paper: Navigating obstacles	N2 — Wind and Solar Energy: Resource Assessment, Technologies and Performance · Renewable Energy Systems: Deployment, Performance and Grid Integration 5382 · Instantaneous, Component-Resolved Performance Ratio for Diagnostics of Photovoltaic Plants in Isolated Island Grids 5540 · Photovoltaic Potential Assessment of Anthropized Surfaces in a Complex Orographic Environment: The Arguineguín Ravine Case 6005 · Assessing the Potential of Agrivoltaics for Energy Transition in Island Regions: A Case Study in Gran Canaria 4402 · Assessment of Power Quality Issues Associated with Electrolyser Operation

16:30	S1 — Dynamics and Control for Offshore Renewable Energy Systems 8511 · Dynamic Interactions of a 66kV, 100MW Floating Wind Farm of Twin-Turbines under Grid Faults 8623 · AMSFLOW: Metocean Extremes, Wave Slamming and Survivability Assessment for Floating Offshore Wind Mooring Systems in the Irish Atlantic 9217 · WEDUSEA: Structural Health Monitoring and Digital Condition Assessment of a Utility-Scale Wave Energy Converter	S3 — Governance for a sustainable energy transition 3079 · Dynamic Grid Voltage Control: Opportunities for Renewable Energies Based on the New Spanish Regulatory Framework 8174 · Data Spaces as Enablers of Energy Management and Sustainable Mobility: The Case of the NEXMO Datahub 9147 · Evaluating Local Electricity Markets in Non-Interconnected Power Systems: Framework and Application to Tenerife (Canary Islands, Spain) 9250 · Renewable Energy Pathways for Isolated Canary Island Power Systems by 2030: El Hierro and Tenerife Case Study	S8 — HYCELTEC. Hydrogen, Fuel Cells and Advanced Batteries · Electrochemical and biological resource conversion 1172 · Design of NiMoCu/TiO ₂ Electrocatalysts for Electrochemical Nitrate Reduction toward Ammonium 8312 · Phosphorus-Controlled CO ₂ Electroreduction over Atomically Dispersed Cu in N,P-Codoped Carbon 9231 · Quantifying CO efficiency in CO ₂ reduction over FeZIF-8-derived iron carbide 5832 · Sustainable Harvesting of Low-Temperature Waste Heat Using Aqueous Carbon-Based Supercapacitors
-------	--	--	--

Thursday 12 November 2026

11:00	N5 — Sustainable Water Treatment and Desalination: Energy Efficiency and Resource Recovery 1465 · Validation of ODEMAR as a decision-support tool for the techno-economic design and optimization of renewable energy-powered SWRO desalination plants 2538 · A Detailed Energy Performance Assessment of the DESALRO 2.0® Seawater Reverse Osmosis Concept 2591 · Flywheel Energy Storage Modelling for Pilot-Scale Wind-Desalination Systems 3162 · Hypersaline-Driven Multi-Stage Pressure-Retarded Osmosis: Performance Assessment for Renewable Energy Production 3858 · Nanofiltration integrated with solar-powered membrane distillation for high water recovery from reverse osmosis brine 6620 · 20 years of operation of the isolated PV-powered BWRO desalination plant of Ksar Ghilène (Tunisia)	S5 — Intelligent Control of Energy Systems 5 · Electricity Price Forecasting Under Renewable Energy Penetration in the Spanish Market: A Deep Learning Approach With Spatial-Meteorological Feature Engineering 2744 · Price-Adaptive MPC-MILP Energy Management for Residential EV Charging Using Slovak Day Ahead Prices 3505 · Impact of Rule-Based EV Charging Management on Transformer Loading and Consumer Energy Delivery in Low-Voltage Distribution Networks 4338 · Performance evaluation of secondary frequency control in electrical grids under event-triggered sampling	S8 — HYCELTEC. Hydrogen, Fuel Cells and Advanced Batteries · Electrocatalysts for fuel cells and hydrogen 517 · Optimizing Pt/C Electrocatalysts for PEMFCs: Polyol vs. Sulphite Complex Synthesis 3283 · Tailoring Pyridinium-Based Ionic Liquid Structure to Enhance Oxygen Reduction Reaction 5159 · Development and optimization of a sustainable Fe-Ni oxyhydroxide catalyst supported on coffee husk-derived activated carbon for oxygen reduction in direct alcohol fuel cells 9460 · Ni catalysts supported on biomass-derived carbons as anodes in alkaline direct ethanol/bioethanol fuel cells 5910 · Hierarchical CuONW/NiFe-LDH electrocatalyst on recycled aluminium towards the alkaline HER 9703 · Bifunctional Layered Double Hydroxide Nanosheets on Iron Foam for Green Hydrogen Production
-------	--	---	---

14:20	S6 — Energy optimisation in wastewater treatment and regeneration processes 3770 · Advancing the Water-Energy Nexus: Renewable Energy Integration in a Resource-Recovering UASB-MPBR System 6008 · Impact of TiO₂ blending and grafting on PVDF membrane performance and treatment costs for the membrane separation of oil emulsions 1580 · Numerical Evaluation of Permeability in Gyroid Structures for Their Preselection as Deep-Bed Filtration Media in Wastewater Treatment 3733 · Electrical power demand analysis of nanofiltration (NF) as a pre-treatment step in brine valorisation: a pilot-scale perspective	S5 — Intelligent Control of Energy Systems 4678 · Model Predictive Control based Droop Technique for AC Microgrid Environment 4844 · AI-Based Fault Detection for Protection Schemes in Isolated-Grounded Power Systems 6828 · Comparative Analysis and Optimization of Core Materials for Low-Frequency Power Transformers Using 3D Electromagnetic Simulation 8146 · Digital Twin-Based Neuro-Fuzzy Approach for Detection and Isolation of FDI Cyber-Attacks in PEM Electrolyser Temperature Control	S8 — HYCELTEC. Hydrogen, Fuel Cells and Advanced Batteries · Fuel-cell systems, characterization and hybrid storage 1545 · A Methodology for Automated Electrochemical Characterization of PEM Fuel Cells using Electrochemical Impedance Spectroscopy 6473 · Electrochemical Performance Assessment of Nb/a-C-Coated Stainless Steel Bipolar Plates for PEM Fuel Cells Using Polarization Curves and Electrochemical Impedance Spectroscopy 3776 · System-Level Evaluation of Hybrid Fuel Cell Powertrain Architectures for Electric Aircraft 6137 · Green Hydrogen as a Flexibility Resource for Renewable-Dominated Island Energy Systems: Lessons from the Gran Canaria Case Study
16:30	N5 — Sustainable Water Treatment and Desalination: Energy Efficiency and Resource Recovery 6300 · Exergy Analysis of a Membrane Distillation Desalination System Integrated with Solar Thermal Energy 6508 · AI-Based Irrigation Optimization for Water–Energy Nexus Management in Agriculture 9507 · Simulation of Power and Efficiency Characteristics of High-Pressure Pump in Reverse Osmosis Desalination System 5478 · Maximising Recovery In Seawater Desalination Based On Reverse Osmosis: Energy Assessment	S5 — Intelligent Control of Energy Systems 8263 · Machine Learning-Based Soft Sensors for a Variable Estimation In A Desalination Plant 8343 · Optimal Real-Time Reactive Power Management of Distributed Renewable Generation in Low-Voltage Grids 9359 · Design and Implementation of a LabVIEW-Based SCADA System for Green Hydrogen-Driven Microgrid Pilot Plant 9466 · From Energy Arbitrage to Congestion Management: The Shifting Value of Battery Storage in PV-Rich Distribution Networks	N1 — Island and Isolated Power Systems: Renewable Integration, Operation and Stability 8789 · Risk-based Integrated Maintenance Scheduling for Isolated Power Systems under Renewable Resource Constraints 9379 · A Forecast-driven Optimization Framework for the Operation of Isolated and Weakly Interconnected Power Systems: A Mauritanian case study 9494 · Systematic Tuning of UFLS Schemes Based on Frequency Stability Margin 9693 · Resilient Day-ahead Scheduling of Island Grids Against Separation-Driven Under-Frequency Events