

# CONFERENCE PROGRAMME

## 5th International Conference on Solar Technologies & Hybrid Mini Grids to Improve Energy Access

September 4 – 6, 2024

[www.energy-access-conferences.com](http://www.energy-access-conferences.com)



## WEDNESDAY SEPTEMBER 4

### SIDE EVENT 1 [Parallel Side Event]

#### Energy Access Innovation Lab Session

**When:** Wednesday September 4, 09:00 - 12:30

**Hosted By:** Waterloo Institute for Sustainable Energy/  
Affordable Energy for Humanity (AE4H) Program (Canada)  
& Reiner Lemoine Institute (Germany)

**Where:** AB03



*The goal of the 'Innovation Lab' is to develop and stress test a specific set of solutions for rapid implementation in the context of energy access in a disadvantaged community. We will rely on the diverse, but, deep expertise that each participant brings to the lab. It is a dynamic learning platform that relies on a multi-disciplinary approach to provision of energy services for the very poor.*

*The objective of this half day session is to kick-off the S-@ccess conference with an engaging set of in-depth discussions on 'what you want to do next' in the field of energy access. This contrasts with the primary mode of traditional conferences, which asks 'what you have done before'. The goal is to provide open space for new collaborations and project ideas to emerge, which can then be discussed informally throughout the rest of the conference and pursued thereafter.*

### SIDE EVENT 2 [Parallel Side Event]

#### An Interactive Workshop on Sustainable Cooling to Unlock Food Security

**When:** Wednesday September 4, 09:00 - 12:30

**Hosted By:** Efficiency for Access (United Kingdom)


**Where:** Sala d'Actes




*Efficiency for Access is a global coalition working to promote high-performing appliances that enable access to clean energy for the world's poorest people. The Low Energy Inclusive Appliances (LEIA) programme is Efficiency for Access' flagship initiative. LEIA is funded by UK aid, from the UK government via the Transforming Energy Access platform and the IKEA Foundation.'*

*The objective of this half day workshop is to facilitate an interactive learning experience where participants improve their understanding of solar cooling technologies. During this workshop, participants will engage in a basic training on solar cooling systems, hear about real-world examples of value chains and business models, and take part in interactive discussions.*

*By participating in breakout group sessions and exchanging insights, participants will have the opportunity to share innovative ideas and gain a deeper understanding of the varying perspectives of different stakeholders. This workshop will not only provide a platform for learning but also facilitate the establishment of new connections.*

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| 13:15            | <b>REGISTRATION OPEN</b>  |
| 14:00 –<br>14:30 | <p style="text-align: center;"><b>OPENING SESSION</b><br/> <b>SALA D'ACTES</b></p> <p><b>Opening Address</b><br/> <b>Dr. Andreu Moià</b>, UIB - University of the Balearic Islands (Spain)<br/> <b>Xavier Vallvé</b>, TTA - Trama TecnoAmbiental (Spain)<br/> <b>Werner Weiss</b>, AEE-INTEC - Institute for Sustainable Technologies (Austria)<br/> <b>Diego Viu Domínguez</b>, Director General of Circular Economy, Transition and Climate Change, Balearic Islands (Spain)<br/> <b>Dr. Jaume Carot</b>, Rector of UIB - University of the Balearic Islands (Spain)</p> |

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| <p><b>SESSION 1: PROGRESS AND CHALLENGES IN ACHIEVING SDG 7</b><br/> <b>SALA D'ACTES</b></p> <p><b>Chairs:</b><br/> <b>Daniel Zimmerle</b>, Colorado State University, (USA)<br/> <b>Werner Weiss</b>, AEE-INTEC - Institute for Sustainable Technologies (Austria)</p> |  |
| 14:30 –<br>14:45  | <p><b>What is the Real Competition to Solar Mini-grids?</b><br/>Peter Lilienthal, University of Colorado/ EarthSpark International (USA)</p>   |
| 14:45 –<br>15:00  | <p><b>Solar Electric Cooking: Addressing Upfront Costs Through Innovative Carbon Finance Methodologies</b><br/>Richard Sieff, MECS - Modern Energy Cooking Services (United Kingdom)</p> |
| 15:00 –<br>15:15  | <p><b>Health and Safety Support Service Design Phase</b><br/>Gabrielle Coeuille, Carbon Trust (United Kingdom)</p>   |
| 15:15 –<br>15:30  | <p><b>Discussion</b></p>   |
| 15:30 –<br>15:45  | <p><b>Reaching 100% Electrification in LAC</b><br/>Roberto Estevez, GEAPP - Global Energy Alliance for People and Planet (USA)</p>   |
| 15:45 –<br>16:00  | <p><b>Co-Producing Community Sustainability: Introducing the Let Communities Lead Knowledge Repository</b><br/>Saurabh Biswas, University of Saskatchewan (Canada)</p>                   |
| 16:00 –<br>16:15  | <p><b>Reframing Decentralized Energy Space to Unlock Mini-Grids Development</b><br/>Randa Mrabat, ENGIE Energy Access (France)</p>   |
| 16:15 –<br>16:30  | <p><b>Discussion</b></p>   |


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| 16:30 –<br>17:00 | <p><b>COFFEE BREAK</b><br/> <b>EXHIBITION AREA – ES MERCAT</b></p> |
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| <b>INDUSTRY FORUM</b><br><b>INNOVATIVE SYSTEMS AND PRODUCT PITCHES</b><br><br><b>Session Organizer:</b><br><b>Ingo Vosseler, S-@ccess Conference Manager (Spain)</b> |   |
| 17:00 –<br>17:15  | <b>CEGASA</b> (Spain)<br><b>ComAP</b> (Czech Republic)<br><b>SMA</b> (Germany)<br><b>ENGIE</b> (France) |



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| 17:15 –<br>18:30 | <b>SESSION 2: POSTERS PITCH</b><br><br><b>Chairs:</b><br><b>Samson Mhlanga, National University of Science and Technology, (Zimbabwe)</b><br><b>Ingo Vosseler, S-@ccess Conference Manager (Spain)</b> |
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| <b>Block A</b> | <b>Increase of Flexibility for Off-Grids by Using AC-Coupling</b><br>Sebastian Seidl, SMA Solar Technology AG (Germany)   |
|                | <b>2024 Mini-Grid Global Market: The Data Collection Challenge</b><br>Irene Calvé Saborit, SEforALL - Sustainable Energy for All (Austria)  |
|                | <b>Design of a Low-Cost Solar Tracker</b><br>Tovondahiniriko Fanjirindratovo, University of Toliara (Madagascar)  |
|                | <b>Techno-Economic Analysis of Wastewater Heat Recovery for a Domestic Laundry Washing Machine</b><br>Kago Rabasoma, University of Botswana (Botswana)  |
|                | <b>Digital Transformation in Buildings</b><br>Bhekani Ntuli, SANEDI - South African National Energy Development Institute (South Africa)  |
| <b>Block B</b> | <b>Onset-MG: A Python-Based Tool for Automated Techno-Economic Optimization and Spatial Distribution Design for Mini-Grids</b><br>Andreas Sahlberg, SEforALL (Austria)  |
|                | <b>Exploiting Flexibility Under Regulatory Constraints in a Microgrid with Highly Variable Power Profiles</b><br>Radu Plamanescu, Politehnica Bucharest, (Romania)  |
|                | <b>Methods to Host Randomly Distributed Large Stochastic Active Loads in Weak Low Voltage Distribution Grid with Localized Voltage Control System</b><br>Daniel Boateng, Colorado State University (USA)  |
|                | <b>Knowledge Exchange on Microgrids and Joint Development of an Energy Management System to Strengthen Energy Supply in Rural Areas in Morocco Based on Renewable Energy</b><br>Carlo Mol, VITO - Flemish Institute for Technological Research NV (Belgium) |
|                | <b>Design and Simulation of a Hybrid Renewable Energy System for the Kahroxas Farm Community</b><br>James Katende, NUST - Namibia University of Science and Technology (Namibia)  |

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| <b>Block C</b> | <b>Comparative Study of Two Rural Electrification Communities in Madagascar</b><br>Rakotomahevitra Andrianelison, Institut pour la Maîtrise de l'Energie (Madagascar)                     |
|                | <b>Soltrain Solar Water Heating Systems (SWHS) in Bhutan Sustainability, Capacity Building and Monitoring Results</b><br>Moschik Rudolf, AEE INTEC (Austria)                              |
|                | <b>Energy Communities in Colombia Offer a New Approach to Providing Sustainability for Rural Electrification Projects</b><br>Dario Mayorga, Global Green Growth Institute (Colombia)      |
|                | <b>Solar Cooking Experiences and Practical Aspect to be Investigated</b><br>Celestino Ruivo, University of Algarve (Portugal)   |
| <b>Block D</b> | <b>Earth Observation – The Chance to Better Understand the Environment</b><br>Elke Kraetzschmar, IABG (Germany)   |
|                | <b>Power Systems Expansion Planning Through an Efficient Methodology</b><br>Josep Fanals i Batllori, eRoots Analytics (Spain)   |
|                | <b>Market Growth of Solar Thermal in Zimbabwe</b><br>Gilbert Munhuwamambo, National University of Science and Technology (Zimbabwe)   |
|                | <b>Assessing the Viability of Mini-Grids in Rural Electrification: Overcoming Challenges and Exploring Sustainable Business Models</b><br>Ayodeji Adekanbi, Energy Gist Limited (Nigeria) |
|                | <b>Implementation of Tokenization for Collaborations within the Energy Sector</b><br>Andreu Moià-Pol, UIB (Spain)   |

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| <b>Block E</b> | <b>From Fossil Fuels to Solar Power: A Case Study of Five Haitian Hospitals</b><br>Léonidas P. Davoust, Energy Cell of MTPTC/UNOPS (Haiti)  |
|                | <b>Gender Mainstreaming: Contributing to the South African Energy Sector</b><br>Bhekani Ntuli, South African National Energy Development Institute – SANEDI (South Africa)  |
|                | <b>Open Source for Energy Access: Opportunities and Challenges</b><br>Clara Donadello, EnAccess Foundation (Netherlands)  |
|                | <b>Creation of Solar Lab as an Opportunity to Develop Energy Access</b><br>Heriarivelo Risite, Physics and Environment Laboratory - University of Toliara Madagascar (Madagascar)   |
|                | <b>Empowering Diversity: Insights from the SOLTRAIN Solar Thermal Course and Gender Mainstreaming Initiatives</b><br>Bhekani Ntuli, South African National Energy Development Institute (South Africa)  |
| <b>Block F</b> | <b>Enhancing Capacity: Exploring Field Experiences in Solar Cold Storage for Tomatoes in Nigeria</b><br>Ana Salvatierra, Solar Cooling Engineering GmbH (Germany)   |
|                | <b>Small-scale Solar PV Renewable Energy Certificate Trading as a Secondary Revenue Stream for Remote Area Solar PV Mini-Grid to Increase Profitability and Financial Sustainability</b><br>Andre Susanto, Inovasi Dinamika Pratama (Indonesia) |
|                | <b>Agrovoltatics for Multi Usage in Georgia</b><br>Dr. Kakha NADIRADZE, Association for Farmers Rights Defense, AFRD (Georgia)  |
|                | <b>Comparing Practical Lessons from Mature Access Programmes: Can Countries with Low Access Rates Learn from those Targeting the Last Few Percent?</b><br>Kilian Reiche, iidev (Germany)  |
|                | <b>Capacity Building Initiatives at Alliance for Rural Electrification</b><br>Deepak Mohapatra, ARE - Alliance for Rural Electrification (Belgium)  |
| 18:30 – 20:00  | <b>WELCOME RECEPTION</b><br> <b>EXHIBITION AREA – ES MERCAT</b>  |

## THURSDAY SEPTEMBER 5


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| <b>SESSION 3: EMPOWERING VILLAGES THROUGH ENERGY ENGAGEMENT</b><br><br><b>Chairs:</b><br><b>Jessica Berneiser</b> , ISE - Fraunhofer Institute for Solar Energy Systems (Germany)<br><b>Saurabh Biswas</b> , University of Saskatchewan (Canada) |  |
| 9:00 –<br>9:15  | <b>Empowering Communities for Sustainable Energy Transition in Nigeria</b><br>Paula Preuß, Reiner Lemoine Institut GmbH (Germany)  |
| 9:15 –<br>9:30  | <b>SURINAME - Bio-Economy Empowerment in Suriname Indigenous Communities Through Access to Water, Energy, and Telecommunications (Bio-SWEET)</b><br>Sergio Enrique Ballon, IDB-BID, Interamerican Development Bank (LATAM) |
| 9:30 –<br>9:45  | <b>It Starts with Power: Zambia's First Rural Electric Cooperatives</b><br>Frank Bergh, NRECA International (USA)  |
| 9:45 –<br>10:00   | <b>Resilient Appliances – Delivering Rural Economic Growth &amp; Emissions Reductions</b><br>Sumedha Awasthy, CLASP (India)  |
| 10:00 –<br>10:15  | <b>Discussion</b>  |
| 10:15 –<br>11:00  | <b>COFFEE BREAK AND VISIT TO INDUSTRY AND POSTER EXHIBITION:<br/>           Posters Blocks A, B, C</b><br>                              |

| <b>SESSION 4A - PARALLEL SESSION: POLICY, REGULATIONS AND ENABLING FACTORS</b><br><br><b>Chairs:</b><br><b>Ashish Shrestha</b> , ESMAP – Energy Sector Management Assistance Program, World Bank Group (USA)<br><b>Kilian Reiche</b> , iiDevelopment GmbH (Germany) |  |
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| 11:00 – 11:10  | <b>Planning Framework to Support Vanuatu’s National Energy Road Map for Achieving 100% Renewable Energy to the Grid</b><br>Janendra Prasad, University of New South Wales (Australia)  |
| 11:10 – 11:20  | <b>The Impacts of SOLTRAIN Project in the Namibian Solar Thermal Sector</b><br>Helvi Ileka, Namibia Energy Institute-Namibia University of Science and Technology (Namibia)            |
| 11:20 – 11:30  | <b>Towards a More Justice Oriented Indicator for Access to Electricity in Rural Communities of Latin America: The Guatemalan Case</b><br>Alonso Alegre-Bravo, Cornell University (USA) |
| 11:30 – 11:40  | <b>The Role of Policy and Regulation in Improving Off Grid Sustainable Energy Access - Mozambique</b><br>Laura Nhancale, Regulatory Authority of Mozambique (Mozambique)               |
| 11:40 – 12:00  | <b>Discussion</b>  |
| 12:00 – 12:10  | <b>Building a “Mini Grid” Policy Eco-System to Transition to a Distributed Clean Energy Future</b><br>Larisa Dobriansky, General MicroGrids (USA)                                      |
| 12:10 – 12:20  | <b>Quantifying the Electric and Electronic Waste from Solar PV Technologies in the UEMOA Region</b><br>Georgios Xenakis, TTA (Spain)   |
| 12:20 – 12:30  | <b>The Case for Renewable Energy Microfinance Models in Africa</b><br>James Kakeeto, WWF - World Wildlife Fund for Nature (Uganda)   |
| 12:30 – 12:40  | <b>BOAT: A New PPP Modality Designed for a Haiti World Bank Project Allows Fast PV Scale-Up Despite Incomplete Information</b><br>Kilian Reiche, iidev (Germany)                       |
| 12:40 – 13:00  | <b>Discussion</b>  |
| 13:00 – 14:00  | <b>LUNCH, NETWORKING AND VISIT TO INDUSTRY AND POSTER EXHIBITION</b><br>                            |

| <b>SESSION 4B - PARALLEL SESSION: DESIGN ASPECTS &amp; TECHNOLOGY</b><br> <b>AB03</b><br><b>Chairs:</b><br><b>Werner Weiss, AEE-INTEC - Institute for Sustainable Technologies (Austria)</b><br><b>Andreu Moià, UIB (Spain)</b> |  |
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| 11:00 –<br>11:10   | <b>Monitoring Results of a Pumped Solar Water Heating System at Katutura Hospital Maternity Ward, Namibia</b><br>Joseph Shigwedha, NEI - Namibia Energy Institute, NUST - Namibia University of Science and Technology (Namibia) |
| 11:10 –<br>11:20   | <b>Enhancing Energy Efficiency in Vegetable Dehydration: Active Air Ventilation Leveraging Solar Thermal and PV Technologies</b><br>João Garcia, Lisbon Superior Institute of Engineering (Portugal)                             |
| 11:20 –<br>11:30   | <b>Understanding Financial Capacity of Mini-Grids Customers through Community Engagement</b><br>Mirko Sowa, Community Energy Toolkit – COMET (Malaysia)  |
| 11:30 –<br>11:40   | <b>Best Practices for Sustainable Cold Rooms Powered by Solar</b><br>Victor Torres, Solar Cooling Engineering GmbH (Germany)   |
| 11:40 –<br>12:00   | <b>Discussion</b>  |
| 12:00 –<br>12:10   | <b>Industrialization of Mini-grids Construction</b><br>Fabien Leterrier, ENGIE Energy Access (France)  |
| 12:10 –<br>12:20   | <b>Stabilizing Weak Grids through Machine Learning in End of Line Communities in North Africa: An Overview of the SWITCH Project</b><br>Kedar Mehta, Institute of new Energy Systems, Technische Hochschule Ingolstadt (Germany) |
| 12:20 –<br>12:30   | <b>Productive Use of Renewable Energy (PURE) as Driver for a Green Development</b><br>Stefan Trittler, Asantys Systems GmbH (Germany)  |
| 12:30 –<br>12:40   | <b>OptiMG: Optimizing Integrated Mini-Grids for Water-Energy-Food</b><br>Simone Paolacci, EnGreen / Reiner Lemoine Institut (Italy/ Germany)   |
| 12:40 –<br>13:00   | <b>Discussion</b>  |
| 13:00 –<br>14:00   | <b>LUNCH, NETWORKING AND VISIT TO INDUSTRY AND POSTER EXHIBITION</b><br> <b>EXHIBITION AREA – ES MERCAT</b>                                   |

| <b>SESSION 4C - PARALLEL SESSION: CAPACITY BUILDING</b><br> <b>SALA DE GRAUS B</b><br><b>Chairs:</b><br><b>Boaventura Cuamba</b> , Eduardo Mondlane University (Mozambique)<br><b>Tjut S. Devi</b> , Retraceindo Energi Persada (Indonesia) |  |
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| 11:00 –<br>11:10   | <b>Presentation of the IEA PVPS Task18 Working Group</b><br>Michael Müller, IEA - International Energy Agency, PVPS TCP Task18   |
| 11:10 –<br>11:20   | <b>Empowering Sub-Saharan Africa with Clean Energy: The Role of Open Access Resources</b><br>Luca Battistella, JRC - Joint Research Centre - European Commission (Europe)                      |
| 11:20 –<br>11:30   | <b>Energizing Tomorrow: Scaling up Energy Access with Digital Solutions</b><br>Avia Linke, Reiner Lemoine Institut (Germany)   |
| 11:30 –<br>11:40   | <b>Capacity-Building for Agrivoltaics in Namibia: An Evaluation of a Training Program</b><br>Jessica Berneiser, Fraunhofer Institute for Solar Energy Systems ISE (Germany)                    |
| 11:40 –<br>12:00   | <b>Discussion</b>  |
| 12:00 –<br>12:10   | <b>Measuring the Multiplication of Women in the SOLTRAIN+ Project</b><br>Karen Gibson, So Solar (Pty) Ltd (United Kingdom)   |
| 12:10 –<br>12:20   | <b>Walk-In Cold Rooms, a Practitioner’s Technical Guide</b><br>Jakub Vrba, Efficiency for Access / Energy Saving Trust (United Kingdom)  |
| 12:20 –<br>12:30   | <b>Global Knowledge Sharing on Energy Access and Renewables</b><br>Lisa Feldmann, Energypedia (Germany)  |
| 12:30 –<br>12:40   | <b>Enhancing Security of Supply Through Grid-Connected Rooftop Solar PV Systems</b><br>Prof. Imad Ibrik, Energy Research Centre, An Najah National University (Palestine)                      |
| 12:40 –<br>13:00   | <b>Discussion</b>  |
| 13:00 –<br>14:00   | <b>LUNCH, NETWORKING AND VISIT TO INDUSTRY AND POSTER EXHIBITION</b><br> <b>EXHIBITION AREA – ES MERCAT</b> |

| <b>SESSION 5: PRACTITIONERS ROUND TABLES</b><br> <b>DIFFERENT ROOMS</b> (Refer to conference Info Desk)<br><b>Chair: Dan Zimmerle, Colorado State University (USA)</b> |    |   |
|---|----|---|
| 14:00 – 15:10   | 1. | <b>Topic:</b> LV Microgrids, ELV Meshgrids and Resilient Appliances (SHS): Competing or Complementary Technologies?<br><b>Moderator:</b> Roberto Estevez, GEAPP - Global Energy Alliance for People and Planet (USA)<br><b>Rapporteur:</b> Peter Lilienthal, University of Colorado (USA) |
|   | 2. | <b>Topic:</b> Digital O&M Tools for Operators: Practical Benefits or Theoretical Barriers?<br><b>Moderator:</b> Fabien Leterrier, ENGIE Energy Access (France)<br><b>Rapporteur:</b> Magda Moner-Girona, Scientific Consultant JRC (Italy)  |
|   | 3. | <b>Topic:</b> Food-Water-Energy Nexus Integrated Approach: Feasibility and Practical Considerations<br><b>Moderator:</b> Jatin Nathwani, WISE - University of Waterloo (Canada)<br><b>Rapporteur:</b> Ana Salvatierra Rojas, Solar Cooling Engineering GmbH (Germany)                     |
|   | 4. | <b>Topic:</b> Empowering Safety: Advancing Health & Safety in Energy Access<br><b>Moderator:</b> Gabrielle Coeuille, Carbon Trust (United Kingdom)<br><b>Rapporteur:</b> Christoph Peters, TTA (Spain)  |
|   | 5. | <b>Topic:</b> Solar Process Heat for Industry and Agriculture on the Move<br><b>Moderator:</b> Werner Weiss, AEE-INTEC - Institute for Sustainable Technologies (Austria)<br><b>Rapporteur:</b> Samson Mhlanga, National University of Science and Technology, (Zimbabwe)                 |
|   | 6. | <b>Topic:</b> 2024 Mini-Grid Global Market: The Data Collection Challenge<br><b>Moderator:</b> Irene Calvé Saborit, SEforALL (Austria)<br><b>Rapporteur:</b> Nicolás Larrañaga, SEforALL (Austria)  |
|   | 7. | <b>Topic:</b> Optional requested by participants during registration on site.<br><b>Moderator:</b> TBC<br><b>Rapporteur:</b> TBC  |


| <b>SESSION 6: LESSONS LEARNED</b><br> <b>SALA D'ACTES</b><br><b>Chairs:</b><br><b>Gabrielle Coeuille, Carbon Trust (United Kingdom)</b><br><b>Roberto Estevez, GEAPP - Global Energy Alliance for People and Planet (USA)</b> |   |
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| 15:15 – 15:30  | <b>Last Mile Electrification in Iberoamerica</b><br>Roberto Ayala, MAUE (Spain)   |
| 15:30 – 15:45  | <b>Off-Grid Solar Mini-Grids in Southern Ethiopia – Loads and Impacts</b><br>Erik Ahlgren, Chalmers Univ of Technology (Sweden)   |
| 15:45 – 16:00  | <b>Solar PV Mini-Grid Best Practices and Mobile Application Based Commissioning: Results from Inspection and Surveys of 400 Solar PV Mini-Grids in Indonesia</b><br>Andre Susanto, Inovasi Dinamika Pratama (Indonesia) |
| 16:00 – 16:15  | <b>Discussion</b>   |

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| 16:15 – 17:00 | <b>COFFEE BREAK AND VISIT TO INDUSTRY AND POSTER EXHIBITION</b><br><b>Posters Blocks D, E, F</b><br> <b>EXHIBITION AREA – ES MERCAT</b> |
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| <b>SESSION 7A - PARALLEL SESSION: TECHNICAL INNOVATIONS</b><br> <b>SALA D'ACTES</b><br><b>Chairs:</b><br><b>Dr. Lucas Rafael do Nascimento, Federal University of Santa Catarina (Brazil)</b><br><b>Celestino Ruivo, ISE, University of Algarve, ADAI (Portugal)</b> |   |
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| 17:00 –<br>17:10  | <b>Lithium-Ion Batteries in PV Off-Grid Applications</b><br>Michael Müller, IEA - International Energy Agency, PVPS TCP   |
| 17:10 –<br>17:20  | <b>Haitian-Led Innovation in Off-Grid Electrification</b><br>Roberto Estevez, GEAPP (USA)   |
| 17:20 –<br>17:30  | <b>Solar Green-Hydrogen Production for Productive Applications in Isolated Mini Grids and Amazon Decarbonization</b><br>Dr. Lucas Rafael do Nascimento, Universidade Federal de Santa Catarina (Brazil)   |
| 17:30 –<br>17:40  | <b>Hybrid Solar Cooking with Thermal and Green Hydrogen</b><br>Andreu Moià-Pol, UIB (Spain)   |
| 17:40 –<br>17:50  | <b>Discussion</b>   |
| 17:50 –<br>18:00  | <b>The Role of Green Hydrogen Technology as Seasonal Storage for Island Electrification – Case Studies from the Pacific Islands</b><br>Katrin Lammers, Reiner Lemoine Institut (Germany)  |
| 18:00 –<br>18:10  | <b>The Power of Predictability: Demonstrating the Value of Marine Hydrokinetic Power Systems in Mini-Grids</b><br>Brendan Cahill, ORPC (USA)  |
| 18:10 –<br>18:20  | <b>Technological Innovations in Off-Grid Applications: Gasification as the Primary Generation Source (Reffect-Africa Project) and Load Management (Water Production and Cold Storage)</b><br>Yann Deferne, ITC - Canary Islands Institute of Technology (Spain) |
| 18:20 –<br>18:30  | <b>Empowering Rural Communities with a Decentralised Hybrid Biomass Gasification Solar PV Power Plant</b><br>Howard Piwang, Mandulis Energy (Uganda)  |
| 18:30 –<br>18:45  | <b>Discussion</b>   |

| <b>SESSION 7B - PARALLEL SESSION: DESIGN AND OPTIMIZATION</b><br> <b>AB03</b><br><b>Chairs:</b><br><b>Peter Lilienthal, University of Colorado (USA)</b><br><b>Helvi Ileka, NUST - Namibia Energy Institute (Namibia)</b> |  |
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| 17:00 –<br>17:10   | <b>Renewable Energy for Assisting Communities Tool</b><br>Carmen Ruiz Garrido, acciona.org Foundation (Spain)  |
| 17:10 –<br>17:20   | <b>Drinking Water &amp; Community Energy for Suriname: A Collaboration for System Design</b><br>Grietus Mulder, VITO - Flemish Institute for Technological Research NV (Belgium)                     |
| 17:20 –<br>17:30   | <b>Techno-Economic Analysis of a Domestic Solar Water Heating System Using System Advisor Model Software</b><br>Kevin Nnanye Nwaigwe, University of Botswana (Botswana)                              |
| 17:30 –<br>17:40   | <b>Evaluation of PV Solar-Hydro-Battery Coordinated Dispatch and Control via Controller Hardware in the Loop (CHIL) Studies</b><br>Daniel Arenas, GE Vernova (Italy)                                 |
| 17:40 –<br>17:50   | <b>Discussion</b>  |
| 17:50 –<br>18:00   | <b>Analysis of the Financial and Economic Viability of Medium Voltage Mini Grids for Islands and Rural Electrification in Ghana</b><br>Seth Agbeve Mahu, Ministry of Energy of Ghana (Ghana)         |
| 18:00 –<br>18:10   | <b>Energy Access Explorer - The Digital Public Good to Deliver Climate-Compatible Energy Transitions for Everyone</b><br>Dr. Dimitrios Mentis, World Resources Institute (USA)                       |
| 18:10 –<br>18:20   | <b>Pathway to Sustainable Operation and Performance of Mini-grids: Lessons Learned from Namibia</b><br>Bertha Lwakatare, Institute of New Energy Systems, Technische Hochschule Ingolstadt (Germany) |
| 18:20 –<br>18:30   | <b>Understanding and Reducing the Environmental Life Cycle Emissions of a Solar-Powered Cold Room</b><br>Stuart Walker, University of Sheffield / Efficiency for Access (United Kingdom)             |
| 18:30 –<br>18:45   | <b>Discussion</b>  |


| <b>SESSION 7C - PARALLEL SESSION: FROM MARKET PLANNING TO BUSINESS MODELS</b><br> <i>SALA DE GRAUS B</i><br><b>Chairs:</b><br><b>Richard Sieff</b> , MECS - Modern Energy Cooking Services (United Kingdom)<br><b>Ashish Shrestha</b> , ESMAP – Energy Sector Management Assistance Program, World Bank Group (USA) |  |
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| 17:00 – 17:10  | <b>The Impacts of Remote Monitoring on Improving Services for Health Facilities Electrification in Benin</b><br>Magda Moner-Girona, JRC (Italy)  |
| 17:10 – 17:20  | <b>The Agricultural Cold Chain Access Planning Tool (AgCAP)</b><br>Andreas Sahlberg, SEforALL (Austria)  |
| 17:20 – 17:30  | <b>A New Solar Electricity Access Model for Rural Malawi Centered on Clean Cooking</b><br>Robert D. Van Buskirk, Solar4Africa.org (USA)  |
| 17:30 – 17:40  | <b>Smart Business Models and Incentive Schemes to Unlock Private Investments in First-Mile Solar Cooling</b><br>Dr. Georgia Badelt, GeoCode International GmbH (Germany)   |
| 17:40 – 17:50  | <b>Discussion</b>  |
| 17:50 – 18:00  | <b>Integrated Energy Planning – The Key to Strengthening the Utilization of Mini-Grids for eCooking</b><br>Richard Sieff, MECS - Modern Energy Cooking Services (United Kingdom)                                   |
| 18:00 – 18:10  | <b>Mutual Gain of Electric Markets and Agricultural Microgrids</b><br>Pierre Damien Uwitjje, University of Rwanda Chalmers University of Technology (Rwanda)   |
| 18:10 – 18:20  | <b>Empowerment Through Appliances: Insights from the Humanitarian Energy Sector</b><br>Liya Bensy Thomas, Efficiency for Access / Energy Saving Trust (United Kingdom)   |
| 18:20 – 18:30  | <b>Community Ownership Models for Decentralised Renewable Electricity Systems in the Global South - Lessons for Nigeria</b><br>Sophia Schneider, Wuppertal Institute for Climate, Environment and Energy (Germany) |
| 18:30 – 18:45  | <b>Discussion</b>  |


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| 20:30 | <b>CONFERENCE DINNER WITH POSTER AWARD</b><br> <i>RESTAURANTE CA N'EDUARDO - C/ Contramuella Mollet, 3, 07012 Palma, Balearic Islands</i><br><b>Jatin Nathwani</b> , WISE - University of Waterloo (Canada)<br><b>Helvi Iлека</b> , NUST - Namibia Energy Institute (Namibia)<br><b>Kilian Reiche</b> , iiDevelopment GmbH (Germany) |
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## FRIDAY, SEPTEMBER 6


| <b>SESSION 8: OPERATION ASPECTS</b><br><br><b>Chairs:</b><br><b>Carsten Hellpap</b> , Energy Consultant (Germany)<br><b>João Nuno Garcia</b> , Polytechnic Institute of Lisbon (Portugal) |   |
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| 9:00 –<br>9:15   | <b>FMEA and Quality Inspection of Solar Thermal Installations in Soltrain+ Project in Zimbabwe</b><br>Samson Mhlanga, National University of Science and Technology (Zimbabwe)  |
| 9:15 –<br>9:30   | <b>Enhancing Electricity Consumption Prediction in Operational Mini-Grids Through Stochastic Simulation Modelling</b><br>Carlos Guerrero Lucendo, VITO - Flemish Institute for Technological Research NV (Belgium)  |
| 9:30 –<br>9:45   | <b>Mini-Grid O&amp;M Managerial Models for Community Infrastructures In Refugee Settlements And Their Host Communities. Alianza Shire’s Dolo Ado Project Approach Review</b><br>Sonia Ramos Galdo, Centro de Innovación en Tecnología para el Desarrollo Humano - itd UPM (Spain) |
| 9:45 –<br>10:00  | <b>PROTEO: The Last Mile Service Management System</b><br>Manuel Alberto Pastor Gutiérrez, acciona.org, The Energy and Water Foundation (Spain)   |
| 10:00 –<br>10:15   | <b>Discussion</b>   |
| 10:15 –<br>10:30   | <b>Round Tables’ Conclusions</b><br><br>Daniel Zimmerle, Colorado State University, USA  |
| 10:30 –<br>11:00   | <b>COFFEE BREAK AND VISIT TO INDUSTRY AND POSTER EXHIBITION</b><br>  |

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| 11:00 –<br>11:05 | <p><b>SOLAR COOKING CHEFS KNIGHTING AND INDUCTION</b></p> <p> <b>SALA D'ACTES</b></p> <p><b>Xavier Vallvé, TTA (Spain)</b></p> |
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| <p><b>SESSION 9A: PROJECTS SHOWCASE</b></p> <p> <b>SALA D'ACTES</b></p> <p><b>Chairs:</b></p> <p><b>Xavier Vallvé, TTA (Spain)</b></p> <p><b>Jatin Nathwani, WISE - University of Waterloo (Canada)</b></p> |  |
| 11:05 –<br>11:20   | <p><b>Engineering, Procurement, and Construction of 10 PV-Diesel Hybrid Mini-Grids in the Upper Suriname River</b></p> <p>Richard Paal, Energie Bedrijven Suriname (Suriname)</p>  |
| 11:20 –<br>11:35   | <p><b>Improvement of Livelihoods Through Adoption of the Water-Energy-Food Nexus – A Case of the SADC Region</b></p> <p>Kudakwashe Ndhlukula, SACREEE (Namibia)</p>  |
| 11:35 –<br>11:50   | <p><b>Key Findings of Testing Two Different Business Models for Solar-Powered Cold Rooms in Kenya and Ghana</b></p> <p>Manuel Willhaus, Phaesun GmbH (Germany)</p>   |
| 11:50 –<br>12:05   | <p><b>Discussion</b></p>   |
| 12:05 –<br>12:20   | <p><b>Interconnected Minigrids: Powering Prosperity and Boosting Last Mile Energy Access</b></p> <p>Alberto Rodriguez, RMI (USA)</p>   |
| 12:20 –<br>12:35   | <p><b>Solutions for an Efficient Integration of Hybrid PV-Storage Community Microgrids in Weak Electrical Networks: The Use Case Of Guidakhar (Senegal)</b></p> <p>Yann Deferne, Canary Islands Technology Institute (Spain)</p> |
| 12:35 –<br>12:50   | <p><b>Empowering Coastal Communities: Sustainable Water Access via Solar-Powered Seawater Desalination in the Colombian Caribbean</b></p> <p>Julia Bosson, Corpoema, IDE-E (Colombia)</p>  |
| 12:50 –<br>13:00   | <p><b>Discussion</b></p>   |

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| 11:05 –<br>13:00 | <b>SESSION 9B: Solar Cooking event</b><br> <b>AB02</b><br><b>Chefs:</b><br><b>Manuel Vilchez, IPCENA (Spain)</b><br><b>Celestino Ruivo, University of Algarve, (Portugal)</b><br><b>Richard Sieff, MECS, (UK)</b> |
|                  | <b>Cooking with the experts</b><br>Parabolic solar cookers<br>Box oven solar cookers<br>Electric Pressure Cookers with off-grid PV-generation  |

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| 13:00 –<br>13:15 | <b>PLENARY CLOSING REMARKS</b><br> <b>SALA D'ACTES</b><br><b>Werner Weiss, AEE-INTEC - Institute for Sustainable Technologies (Austria)</b><br><b>Xavier Vallvé, TTA - Trama TecnoAmbiental (Spain)</b><br><br><p style="text-align: center;"><b>END OF THE CONFERENCE</b></p> |
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| 13:15 –<br>14:30 | <b>SOLAR LUNCH WITH FOOD COOKED DURING SESSION 9B</b><br>Sponsored by the ESMAP – The World Bank Group<br> <b>EXHIBITION AREA – ES MERCAT</b> |
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## SIDE EVENT 3

### Electricity Access for Underserved Customers: The Case for Undergrid Mini Grids

**When:** Friday September 6, 14:30 - 16:00

**Hosted By:** ESMAP - The World Bank Group

**Where:** AB01



**The objective of this 1.5-hour workshop is to engage participants in focused discussions on the role of interconnected and undergrid mini grids in improving energy access for poorly served customers. Traditionally, mini grids targeted off-grid areas, but now there's interest in undergrid mini grids for areas connected to the main grid but receiving poor service. These mini grids are being built and operated in locations with existing grid connections but suffer from frequent blackouts, affecting economic development.**

*This workshop will explore the potential for scaling undergrid mini grids in low- and middle-income countries, with examples from India and Nigeria. The World Bank's Nigeria DARES project and ESMAP's new publication on mini grid solutions will be highlighted. Participants will discuss emerging business models, best practices, and the challenges and opportunities in using undergrid mini grids to bridge the electricity access gap. This session will also provide a platform for mini grid developers, utilities, regulators, and other stakeholders to share their experiences and insights.*