



**UNFCCC COP 27
Sharm El -Sheikh, Egypt**

Marrakech Partnership for Global Climate Action

ENERGY DAY – 15 November 2022
14:00-15:30, Lotus Room

Organised by Global Wind Energy Council (GWEC), International Energy Agency (IEA), World Business Council for Sustainable Development (WBCSD) and ReNew Power

MP “Implementation Lab”: A cleaner power sector by 2030: Scaling renewable and storage-based systems

Concept note

Description	<i>This Lab will showcase the renewable energy-based technology mix that will enable decarbonization of the global electricity system. We are at an unprecedented moment of cost-competitiveness, investment and technological maturity of grid-scale renewable energy (primarily solar and wind power, which need to make up at least 40% of all global electricity generation under the Clean Power Breakthrough), and storage technologies. This Lab will examine how wind-solar-storage based systems are scaling up in countries around the world, bringing together policymakers, supply-side industry and civil society to showcase the progress that has been made and the key roadblocks to scaling these systems by 2030.</i>
Headline	<i>Showcasing the renewable energy-based systems that will enable decarbonization of the global electricity mix</i>
Breakthrough	<i>Clean Power: The 2030 Breakthrough Outcome is to expand solar and wind power to make up at least 40%, and all renewables to make up at least 60%, of global electricity generation by 2030.</i>
Guiding Question	<i>How can we scale RE/storage-based systems to achieve a cleaner power sector, in line with the 2030 Breakthrough for renewables to make up at least 60% of global electricity generation</i>
Targeted Outcomes	<p><i>We wish to highlight:</i></p> <ul style="list-style-type: none"> <i>• Technological advancement and cost reduction of storage solutions suitable for different conditions, including pumped hydro, grid-scale batteries and green hydrogen, in the last 2-3 years</i> <i>• Move towards hybrid RE/storage procurement by governments which can provide firm clean power, in the last 2-3 years</i> <i>• Growth of solar and wind power in global power mix, including installed capacity, cost reduction and increasing investment, in the last 2-3 years</i> <i>• Commitments by major utilities to decarbonisation, such as via Race to Zero, in the last 1 year</i> <i>• Prioritisation by civil society for governments, companies and investors to prioritise 100% renewables, in the last 2-3 years</i> <i>• The opportunities to accelerate clean power in line with a just and equitable energy transition, which can protect workers and vulnerable communities</i>
Objectives	<ul style="list-style-type: none"> <i>• Support progress on climate change mitigation goals by advancing shared understanding of technological and economic feasibility of RE-based electricity systems, including wind, solar and storage hybrid projects, given wind and solar will make up two-thirds of the global electricity mix in a net zero by 2050 system</i>

	<ul style="list-style-type: none"> • <i>Encourage governments, industry, utilities and NGOs to support uptake of electricity systems based on large-scale renewable energy, towards pursuit of 2030 Breakthrough</i> • <i>Through replicable case studies across different regions, highlight the practical actions from policy, regulatory, economic and technological perspectives to accelerate deployment of RE-based systems</i>
*Participants	<ul style="list-style-type: none"> • <i>Target partners for the event: GWEC, IEA, WBCSD, ReNew Power</i> • <i>Target participants:</i> <ul style="list-style-type: none"> ○ <i>High-Level Climate Champion for opening remarks</i> ○ <i>Energy agency or think tank to share 2030 outlook (e.g. IEA, IRENA, BNEF)</i> ○ <i>Governments from developed-developing countries to share case studies on planning and procurement of large-scale RE and hybrid systems (e.g. India, Australia, Thailand, Portugal, Germany)</i> ○ <i>Supply-side industry representatives from developed-developing countries to share case studies on technology innovation, cost reduction pathways (e.g. ReNew, Orsted, DNV, Lekela)</i> ○ <i>Industry associations representing clean energy solutions, especially wind, solar and storage (e.g. GWEC, GSC, LDES Council)</i> ○ <i>Development bodies pushing for large-scale RE deployment (e.g. USAID, Danish Energy Agency, ADB, AfDB, WBG-IFC)</i> ○ <i>NGOs and civil society pushing for majority or 100% RE systems (e.g. WRI, ICLEI, REN21, SFOC, Pembina Institute, Carbon Tracker Initiative, PPCA, Ember, The Climate Group, SE4ALL)</i>
Key Action points out of the discussion	<ul style="list-style-type: none"> • <i>Participants should come away from the Lab with policy, regulatory, economic and/or technological recommendations that can be applied at national level for accelerating deployment of large-scale renewables. This can include practical actions to speed up permitting, ensure regulatory stability through PPAs, incentivise cost reduction of long-duration storage systems and create procurement frameworks for hybrid systems.</i> • <i>They should also reach a shared understanding the milestones that need to be reached during this decade (e.g. cost reduction for storage technologies, procurement timelines for hybrid projects) to achieve the 2030 Breakthrough. Ideally this would come with governments and/or industry sharing specific commitments in the mid-term to accelerate progress.</i> • <i>Policymakers should forge new connections across stakeholder groups to enable access to knowledge, data and learning, particularly with the private sector, and gain understanding of the available resources for support in accelerating large-scale renewables deployment. Ideally this would come with commitments to work together at national level in specific countries.</i>

Draft Agenda

Timing	Session Description	Speaker suggestions (Name, Title, Organisation)	Additional notes/ Format tips
30 minutes before	<p><i>GWEC team at Action Room for prep:</i></p> <ul style="list-style-type: none"> • <i>Reserve seats for speakers</i> • <i>Tech check - videos, slides</i> • <i>Speaker greeting, mics and logistics run through</i> • <i>Team on door</i> 		
15 minutes before	<p><i>Music playing, Energiser Video</i></p>		<p><i>Videos/imagery as participants enter.</i></p> <p><i>Reserved seating for 20-30 targeted participants in inner circle at table.</i></p>
<p><i>EVENT START: 1400-1410</i></p> <p><i>10 mins</i></p>	<p><i>Moderator introduces the event and frames the question: How can we scale RE/storage-based systems to achieve a cleaner power sector, in line with the 2030 Breakthrough for renewables to make up at least 60% of global electricity generation?</i></p> <p><i>Should list intervention speakers, and encourage the new level of collaboration between IRENA and IEA, via their work together on the Breakthrough Agenda Report.</i></p>	<ul style="list-style-type: none"> • Eduarda Oliveira Zoghbi, Senior Adviser, Student Energy 	
<p><i>1410-1420</i></p> <p><i>5 mins each</i></p>	<p><i>High-level keynote speaker who can provide a vision for 2030, focused on power sector decarbonisation and the different country contexts that need scalable solutions.</i></p> <p><i>Should reference Breakthrough</i></p>	<ul style="list-style-type: none"> • Tim Gould, Chief Economist, IEA • Ben Backwell, CEO, Global Wind Energy Council 	<p><i>HLC will either provide opening or closing remarks</i></p>

	<p><i>Agenda 2022 report, looking at Clean Power (chapter 2): a) 5 major recommendations for stronger international coordination on clean power; b) general magnitude of change required (beyond the high-level breakthrough of 40% solar and wind, 60% renewable by 2030) -- i.e., adding ~8.0 TW of additional renewable capacity by 2030, quadrupling today's deployment rate, energy intensity reductions in the global economy should double from 2% to 4% per annum. Doubling annual expenditure from USD 900 billion in 2021 to \$1800 billion in 2030.</i></p>		
<p>1420-1445 25 mins (5-7 mins each)</p>	<p><i>Presentations from RE/storage industry and policymaker groups: Showcasing several case studies where hybrid projects and tenders are moving forward and proving technological feasibility, cost competitiveness and bankability.</i></p>	<ul style="list-style-type: none"> • Daniel Wetzel, Head of Tracking Sustainable Transitions • Inamara Mélo, Secretary of Environment and Sustainability, Pernambuco, Brazil • Ingrid Reumert, SVP, Orsted • Jennifer Layke, Global Director, Energy, World Resources Institute • Gianluca Sambucini, Economic Affairs Officer, Renewable Energy, UN Economist Commission for Europe 	<p><i>Are there visuals or footage and decks to bring the topics to life?</i></p>
<p>1445-1505 20 mins</p>	<p><i>Breakouts into groups of 3-4 people in the inner circle:</i></p> <ul style="list-style-type: none"> • <i>How these solutions could be replicated and scaled across different regions?</i> 	<p><i>Facilitated by moderator, with support from partners who can guide each inner circle discussion</i></p>	<p>Design guidance: <i>For this section, the inner circle can turn their chairs to form</i></p>

	<ul style="list-style-type: none"> • <i>What are the major roadblocks for each constituency group / region?</i> • <i>What actions can each constituency group commit to in following up?</i> 		<p><i>groups. Each group should appoint a rapporteur.</i></p> <p><i>The outer circle can simply turn to the person sitting next to them.</i></p> <p><i>Run Menti polls during this time for the outer circle – word cloud for brainstorming + polling</i></p>
<p><i>1505-1520</i></p> <p><i>15 mins</i></p>	<p><i>Reporting back to the group: Moderated feedback to the group, with a view to distilling ambitious action points to support the 2030 Breakthrough</i></p>	<p><i>Facilitated by moderator, taking volunteers for insights from both inner circle and outer circle. Moderator should walk around.</i></p> <p><i>Limit reporting to 2 mins.</i></p>	<p><i>Note-taker to capture comments</i></p>
<p><i>1520-1530</i></p> <p><i>10 mins</i></p>	<p><i>Summary and closing remarks</i></p>	<p><i>High-level remarks and closing summary by moderator</i></p> <ul style="list-style-type: none"> • Nigel Topping, UN High-Level Climate Champion • Eduarda Oliveira Zoghbi, Senior Adviser, Student Energy 	<p><i>End with the vision to 2030 and optimism.</i></p>