

Technical Session, 4th Wed October – On- site and Online

Time	Content
	<p align="center">Plenary Session(open)</p> <p align="center">Theme: High-level talk that frames one of the technical sessions</p> <p align="center">Moderator: Dr. William Tumas (NREL, US)</p>
8:50-9:00	<p align="center">Introduction: RD20 goals, recommendations, progress, future plans</p> <p align="center">Dr. Haruhiko Obara (AIST, Japan)</p>
9:00-9:25	<p align="center">Global perspective of H2, challenges/opportunities, applications of H2 for decarbonization of energy sectors</p> <p align="center">Prof. Dr. Christopher Hebling (Fraunhofer ISE, Germany)</p>
9:25-9:50	<p align="center">Large-scale PV deployment, challenges and opportunities (TW workshop overview and other concepts), bringing circularity to PV</p> <p align="center">Dr. Silvana Ovaitt (NREL, US)</p>
9:50-10:15	<p align="center">CCUS challenge/opportunities/perspectives and opportunity for integration concepts, include value proposition</p> <p align="center">Dr. Dietmar Tourbier (CSIRO, Australia)</p>
10:15-10:45	<p align="center">Panel Discussion among the speakers</p>
10:45-11:00	<p align="center">Coffee Break</p>
11:00-11:15	<p align="center">Activity Report of PV Task Group (TG1-1)</p> <p align="center">Dr. Harald Muellejans (JRC, EU)</p>
11:15-11:30	<p align="center">Presentation from the task forces (make the task force important —short talks from task force leader) H₂ LCA</p> <p align="center">Dr. Amgad Elgowainy (ANL, US)</p>
11:30-12:00	<p align="center">Panel discussion on RD20 collaborations, status and future</p> <p align="center">Advisory Board Members</p>
12:00-13:30	<p align="center">Lunch Break</p>

	<p align="center">TS1: Applications and impacts of H2 for decarbonization of energy sectors and for power to X</p> <p align="center">Moderator Dr. Florence Lefebvre-Joud (CEA-Liten, France)</p>	<p align="center">TS2: LCA and environmental impacts on large-scale deployment of PV</p> <p align="center">Moderator Dr. Christian Thiel (JRC, EU)</p>	<p align="center">TS3: CCU — with a focus on CCU value proposition and integration themes</p> <p align="center">Moderator Dr. Dietmar Tourbier (CSIRO, Australia)</p>
13:30-13:55	<p align="center">Overview – Decarbonization by Sectors</p> <p align="center">Dr. Florence Lefebvre-Joud (CEA-Liten, France)</p>	<p align="center">Overview</p> <p align="center">Prof. Dr. Michio Kondo (Waseda University & AIST, Japan)</p>	<p align="center">Opportunities and Challenges for Integrating CO2 Capture and Conversion</p> <p align="center">Dr. Joshua Schaidle (NREL, US)</p>
13:55-14:20	<p align="center">Outbrief from Gigaton H2 Workshop</p> <p align="center">Dr. Bryan Pivovar (NREL, US)</p>	<p align="center">Environmental assessment of large-scale photovoltaic deployment</p> <p align="center">Dr. Myriam Merad (CNRS-Paris Dauphine, France)</p>	<p align="center">Levelized cost of CO2 abatement (LCCA) framework for Carbon Capture and Utilization (CCU) – Case studies and applications for R&D and policy gaps.</p> <p align="center">Dr. Farid Bensebaa (NRC, Canada)</p>
14:20-14:45	<p align="center">Reversible Solid Oxide Cells: A Flexible Energy Device for Both Power Generation and Hydrogen Production (* NEDO Program)</p> <p align="center">Dr. Kazunari Sasaki (Kyushu University, Japan)</p>	<p align="center">Chemical risk assessment on photovoltaic (PV) panel</p> <p align="center">Dr. Kyoko Ono (AIST, Japan)</p>	<p align="center">High-Temperature Solar Thermal Usage for Thermochemical Carbon Dioxide Splitting and Its Application to CCU (* NEDO Program)</p> <p align="center">Dr. Koji Matsubara (Niigata University, Japan)</p>
14:45-15:10	<p align="center">Current Status of Green Ammonia Production and Utilization Research in South Korea</p> <p align="center">Dr. Hyung Chul Yoon (KIER, Korea)</p>	<p align="center">Environmental assessment due to high penetration of PV</p> <p align="center">Dr. Leandro Michels (UFMS, Brazil)</p>	<p align="center">An overview of the CSIR's research on biogenic carbon capture and utilisation to low- carbon, sustainable hydrogen</p> <p align="center">Mr. Zama Duma (CSIR, South Africa)</p>
15:10-15:35	<p align="center">The multivector integrated smart systems, microgrids and hydrogen valley at ENEA, for accelerating the energy transition</p> <p align="center">Dr. Giorgio Graditi (ENEA, Italy)</p>	<p align="center">India solar missions and impacts as well as aspects of large-scale PV deployment</p> <p align="center">Dr. Anil Kottantharayil (IITB, India)</p>	<p align="center">CCU in the Context of Hydrogen Storage and Synthetic Fuels</p> <p align="center">Dr. Florian Nestler (Fraunhofer ISE, Germany)</p>
15:35-16:00	<p align="center">Decarbonizing Shipping Industries</p> <p align="center">Dr. Vibha Dhawan (TERI, India)</p>	<p align="center">Overview of the potential and challenges for Agrivoltaics</p> <p align="center">Ms. Anatoli Chatzipanagi (JRC, EU)</p>	<p align="center">CCU technology for the production of e-fuels and e-chemicals</p> <p align="center">Dr. Donghyun Chun (KIER, Korea)</p>

16:00-16:25	Techno-economic prefeasibility analysis for zero-carbon maritime fuel at 2 South African ports Mr. Thomas Roos (CSIR, South Africa)	French-Japanese International Collaboration in R&D of Next Generation Solar Cells and Beyond (* NEDO Program) Dr. Takaya Kubo (The University of Tokyo, Japan)	Materials for an effective desfossilization Dr. Juan Ramón Morante Leonart (IREC, Spain) (online)
Coffee Break			
17:00-18:00	TS1: Wrap-up session (closed) Panel discussion—focus on international collaboration opportunities, RD20 future actions Summary of potential recommendations/actions Speakers and leader	TS2: Wrap-up session (closed) Panel discussion—focus on international collaboration opportunities, RD20 future actions Summary of potential recommendations/actions Speakers and leader	TS3: Wrap-up session (closed) Panel discussion—focus on international collaboration opportunities, RD20 future actions Summary of potential recommendations/actions Speakers and leader

* NEDO Research and Development Program for Promoting Innovative Clean Energy Technologies Through International Collaboration
 As of 29th Sept
 (Program time and contents are subject to change.)

Expected participating countries and regions



For registration and most up-to-date information on RD20 conference, please visit:
<https://rd20.aist.go.jp/>

Contact: RD20 Secretariat M-rd20secretariat-ml@aist.go.jp