

PROGRAMME OVERVIEW

10th (Tue)	11th (Wed)	12th (Thur)	13th (Fri)
15:00 - 17:00 Registration	9:00 - 9:30 Registration & Coffee	9:00 - 9:30 Registration & Coffee	9:00 - 9:30 Registration & Coffee
16:00 - 18:00 Welcome Drink	9:30 - 10:10 Opening Session Moderator and Introduction to the 43rd IEW: Massimo Tavoni (EIEE) Opening remarks: Dr. Kenji Yamaji (RITE) Presentation: Dr. Keigo Akimoto (RITE) Location: Traditional Japanese Noh Theater	9:30 - 10:50 Plenary Session 2 Plenary Session 2: Policy-Energy Modelling Linkage Moderator: Keigo Akimoto Presentation: Dr. Leonardo Paoli (IEA) Dr. Ananth Chikkatur (Deloitte) Location: Traditional Japanese Noh Theater	9:30 - 10:30 Parallel Session 8 - VRE - Sectoral Pathways-Transport - Transition-Economics - Role of Hydrogen
	10:10 - 11:30 Plenary Session 1 Challenges of Energy Transition toward Carbon Neutrality Moderator: Geoffrey Blanford (EPRI) Presentation: Prof. Diana Ürge-Vorsatz (CEU) Prof. Yukari Yamashita (IEEJ) Location: Traditional Japanese Noh Theater	11:00 - 12:20 Parallel Session 4 - Energy Modelling-Advancing Modelling Methodology - Transition-Case Study - Transition-Economics - Energy Access, Poverty, Justice, Energy Security - Sectoral Pathways-Transport	10:40 - 12:00 Plenary Session 3 Demand, Service and Social Aspect for Mitigation Moderator: Bob van der Zwaan (TON) Presentation: Prof. Joyashree Roy (AIT) Dr. Geoffrey Blanford (EPRI) Location: Traditional Japanese Noh Theater
	11:30 - 12:30 Lunch	12:20 - 13:20 Lunch	12:00 - 12:10 Closing remarks 12:10 - 13:00 Lunch 13:00 - Excursions
	12:30 - 14:10 Parallel Session 1 - Energy Modelling-Incorporating Climate - Transition-Strategies, Sectoral Pathways-Buildings - Demand-Side Measures - Transition-Infrastructure - Energy Access, Poverty, Justice, Energy Security	13:20 - 15:00 Parallel Session 5 - CDR - Transition-Case Study - Demand-Side Measures - Role of Hydrogen - Sectoral Pathways-Industry, Sectoral Pathways-Buildings	Next day June 14th (Sat) Osaka Expo
	14:10 - 14:40 Coffee Break	15:00 - 15:30 Coffee Break	
	14:40 - 16:00 Parallel Session 2 - Energy Modelling-Spatial Perspective, Energy Modelling-Advancing Modelling Methodology - Transition-Strategies - Energy/Climate Policy - Sectoral Pathways-Transport - Energy Access, Poverty, Justice, Energy Security	15:30 - 16:10 ETSAP & Parallel Session 6 - ETSAP - Transition-Strategies - Transition-Infrastructure - Role of Hydrogen - Critical Materials	
	16:10 - 17:10 Parallel Session 3 - Transition-Infrastructure - Transition-Case Study - Transition-Global South - Critical Materials - Energy/Climate Policy	16:20 - 17:20 Parallel Session 7 - Energy/Climate Policy, Circular Economy - Transition-Case Study - Transition-Economics - Critical Materials - VRE	
	17:40 - 19:40 Welcome Dinner @ Iraka	17:20 Move to Nara Hotel by walking 18:20 - 20:20 Official Dinner @ Nara Hotel	

DAY 1 – WEDNESDAY, 11 JUNE 2025

9:00 - 9:30

Registration & Coffee

9:30 - 10:10

Opening Session

Moderator and Introduction to the 43rd IEW:

Massimo Tavoni (EIEE)

Opening remarks:

Dr. Kenji Yamaji (RITE)

Presentation:

Dr. Keigo Akimoto (RITE)

Location:

Traditional Japanese Noh Theater

10:10 - 11:30

Plenary Session 1

Challenges of Energy Transition toward Carbon Neutrality

Moderator:

Geoffrey Blanford (EPRI)

Presentation:

Prof. Diana Ürge-Vorsatz (CEU)

Prof. Yukari Yamashita (IEEJ)

Location:

Traditional Japanese Noh Theater

11:30 - 12:30 Lunch

12:30 - 14:10

Parallel Session 1

- Energy Modelling-Incorporating Climate
- Transition-Strategies, Sectoral Pathways-Buildings
- Demand-Side Measures
- Transition-Infrastructure
- Energy Access, Poverty, Justice, Energy Security

14:10 - 14:40

Coffee Break

14:40 - 16:00

Parallel Session 2

- Energy Modelling-Spatial Perspective, Energy Modelling-Advancing Modelling Methodology
- Transition-Strategies
- Energy/Climate Policy
- Sectoral Pathways-Transport
- Energy Access, Poverty, Justice, Energy Security

16:10 - 17:10

Parallel Session 3

- Transition-Infrastructure
- Transition-Case Study
- Transition-Global South
- Critical Materials
- Energy/Climate Policy

17:40 - 19:40

Welcom Dinner @ Iraka

Parallel Session 1

12:30 - 14:10, June 11 (Wed)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
Energy Modelling-Incorporating Climate	Transition-Strategies, Sectoral Pathways-Buildings	Demand-Side Measures	Transition-Infrastructure	Energy Access, Poverty, Justice, Energy Security
Chair: Atsushi KUROSAWA IAE	Chair: Ken WADA RITE	Chair: Volker KREY IIASA	Chair: Keigo AKIMOTO RITE	Chair: Sumie NAKAYAMA J-Power
Planning energy systems resilient to climate change: identification of future extreme events and analysis on cost and technologies	Exploring Strategies and Technology Sensitivities in Japan's Net-Zero Energy Supply Transition	Low Energy and Material Demand (LEMD) strategies for residential sector decarbonization in an ageing society: a scenario study for Japan	Bridging Continents: Analyzing Emission Allocation and Trade Dynamics in the Energy Transition of Europe and Africa	Rural electricity access – method and policy insights through a multi-modelling approach applied to East Africa contexts
Francesco DE MARCO ETH Zurich	Eamon FRAZER The University of Tokyo	Tao CAO The University of Tokyo	Amir FATTAHI TNO, Utrecht University	Erik AHLGREN Chalmers University of Technology
Designing Robust Energy Systems Under Weather Uncertainty and Nuclear Power Outages: A Case Study in Northern Europe	Analysis of Decarbonization Strategies using a Global Energy System Model considering Innovative Synthetic Methane Production Technology	More benefits with lower demand- Quantifying the co-benefits of energy demand measures in the Residential building sector	Developing E-Methane Value Chain and Proper GHG Accounting Rules to Incentivize Recycled Carbon Fuels	Bridging decent living gaps in mitigation scenarios: a multi-model study for the residential sector in India
Kamran FORGHANI Chalmers University of Technology	Yuna ISHIDA The University of Tokyo	Souran CHATTERJEE University of Plymouth	Ryota KUZUKI The Japan Gas Association	Alessio MASTRUCCI International Institute for Applied Systems Analysis (IIASA)
Assessing Climate Impacts by Integrating a Global CGE Model with Regional, Sector-Specific Damage Functions	Long Duration Energy Storage for Electricity System Decarbonization	Intermittent production of electricity-based synthetic jet fuel as a demand-side management strategy for grid decarbonization	Carbon Intensity Analysis on e-methane and Hydrogen Carriers Shipped by Supply Chains of International and Domestic Production	Using Willingness to Pay can misguide energy policy design in developing countries with unstable electricity supply: Evidence from Benin
Eun Young KIM Yonsei University	Todd LEVIN Argonne National Laboratory	Oleg LUGOVOY OptimalSolution LLC	Yuki ISHIMOTO The Institute of Applied Energy	Michael Adu OKYERE Clean Air Task Force
	Net-Zero by 2050: Evaluating Energy Efficiency and Sufficiency Contributions in Europe Using PyPSA-EUR	Estimating the Nonlinear Temperature Sensitivity of Residential Electricity Demand under Measurement Errors	Evaluating Interstate Gas Infrastructure in the Energy Transition: A Switch-Gas Model Approach	Bridging the Gap: A Novel M2/LIHC Hybrid Indicator Unveils Energy Poverty Dynamics -- case study of the Czech Republic
	Muhammad Umair TAREEN University of Liege	Kyungsik NAM Hankuk University of Foreign Studies	Rangrang ZHENG Fulbright University Vietnam	Matej OPATRNY Charles University
	Building (or not building) Futuring Capacity in Japan's Energy and Climate Policymaking	Method and Estimation of Cross-sectoral Mitigation Potential of Demand Side Solutions	Approach to setting the attribution of CO2 reductions for CCU fuels— Toward a system counting fuel selection as an emission reduction effort	
	Manuela HARTWIG The University of Tokyo	Ninaad DESAI Asian Institute of Technology(AIT)	Naoki MATSUO Institute for Global Environmental Strategies (IGES)	

Parallel Session 2

14:40 - 16:00, June 11 (Wed)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
Energy Modelling-Spatial Perspective, Energy Modelling-Advancing Modelling Methodology	Transition-Strategies	Energy/Climate Policy	Sectoral Pathways-Transport	Energy Access, Poverty, Justice, Energy Security
Chair: Fuminori SANO RITE	Chair: Ken WADA RITE	Chair: Miyuki NAGASHIMA RITE	Chair: Shunsuke MORI Tokyo University of Science	Chair: Naoko ONISHI RITE
Is wind power deployed where it is windiest? Implications for analyzing energy futures.	Pathways to Climate Neutrality: Europe's Energy Transition under the Green Deal	An Analytical Study on Changes in Scenarios of IEA's World Energy Outlook	Navigating the Green Transition: Evaluating the Cost-Effectiveness of EU Shipping Decarbonization Under Different Policies	Give me Equity or Give me Death: Contrasting Metrics for Multi-Objective Capacity Expansion Modeling
Carin LUNDQVIST Chalmers University of Technology	Steven Sergij SALIM TNO	Sumie NAKAYAMA J-POWER / Kyoto University	Maria de OLIVEIRA LAURIN, Gonzalo OTT CRUZ Chalmers University of Technology/Lulea Technical University LTU	Jordan FRENCH University of Texas at Austin
Addressing long-term uncertainties in the Norwegian energy system: A cost-driven scenario generation approach	Long-term heat storage and non-linear district heating behaviour in large-scale energy system modelling	Application Of Extended The Theory Of Planned Behavior On Renewable Energy Investment: Considering Multiple Environmental Policies Mixes	Evolving Bilateral Shipping in Climate Scenarios: Coupling Econometrics with Integrated Assessment Model	Is nuclear power reliable: A comprehensive analysis of unplanned nuclear power outages
Celine PAGNIER Norwegian University of Science and Technology	Amos SCHLEDORN Technical University of Berlin	Shichang ZHANG Hong Kong University of Science and Technology	Hesam NAGHASH Delft University of Technology	Xiaoming KAN Chalmers University of Technology
High sensitivity to methodological choices when integrating social acceptance data in electricity system modeling	Assessing the economy-wide effect of localizing renewable energy value chains in South Africa	Experience alters response: Patterns in Energy Efficiency Investments	Where, When, and Why: Electric Vehicle Charging Patterns that Support the Electricity System Transition	Accelerating offshore wind development enhances energy security and promotes carbon neutrality in China's coastal regions
Evelina TRUTNEVYTE University of Geneva	Julia TATHAM Energy Systems Research Group	Ingmar HEIKENS TNO	Siobhan POWELL ETH Zürich	Jiang LIN University of California, Berkeley
	How feasible are modeled electricity system transition pathways to achieve zero CO2 emission target considering societal factors? An optimization-based modeling case study in 31	Retrospective of Prospective Exercises: A Chronicle of Long-Term Modelling and Energy Policymaking in France	Techno-economic assessment of low-carbon ammonia as fuel for the maritime sector	
	Xin WEN University of Geneva	Nadia MAÏZI MINES Paris-Paris Science et Lettres University	Wouter Christiaan SCHREUDER University of AmsterdamAnahi	

Parallel Session 3

16:10 - 17:10, June 11 (Wed)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
Transition-Infrastructure	Transition-Case Study	Transition-Global South	Critical Materials	Energy/Climate Policy
Chair: Yukari YAMASHITA IEEJ	Chair: Amir FATTAHI TON	Chair: Souran CHATTERJEE University of Plymouth	Chair: Atsushi KUROSAWA IAE	Chair: Sumie NAKAYAMA J-Power
PyPSA-DE: Open-source German energy system model reveals savings from integrated planning for the energy transition Michael LINDNER Technical University Berlin	Assessing the disruptive uncertainties in carbon sequestration and utilization Finland's energy system net-zero transition Farzin AHMADI Aalto University	Exploring global fuel price uncertainty in long-term energy-economic modelling: A two-world framework for national decarbonization planning Tara CAETANO University of Cape Town	Critical Minerals Recovery Potential from Renewable Energy E-Waste: Opportunities and Challenges in Southeast Asia Justin LARSON RTI International	Green Alert: Collateral Constraints in the Low-Carbon Transition Armon REZAI Vienna University of Economics and Business
Maximal Electrification with a Minimal Methanol Economy: A Solution for Deep Decarbonisation Tom BROWN Technical University Berlin	Health Co-Benefits of Energy Transition: Evidence from Chinese counties Yan GUO Chengdu University Of Technology	Computation of weighted average cost of capital (WACC) in the power sector for African countries and the implications for country-specific electricity technology cost Brian MUKHAYA Clean Air Task Force	Analysis of the global potential for recycling critical minerals from electric vehicle batteries in net-zero emissions scenarios Ayami HAYASHI Research Institute of Innovative Technology for the Earth (RITE)	Economic and Distributional Impacts of Carbon Pricing in Egypt Govinda TIMILSINA World Bank
Modeling the Impact of Hypothetical Power Trade Between Japan and Korea Haein KIM Yonsei University			Demand-side strategies can mitigate critical materials supply bottleneck in solar photovoltaic deployment: A dynamic integrated assessment framework Yuning ZHANG Hunan University	The Role of Projects of Common Interest in Reaching Europe's Energy Policy Targets Bobby XIONG Technische Universitat Berlin

DAY 2 – THURTHDAY, 12 JUNE 2025

9:00 - 9:30

Registration & Coffee

9:30 - 10:50

Plenary Session 2

Plenary Session 2: Policy-Energy Modelling Linkage

Moderator:

Keigo Akimoto

Presentation:

[Dr. Leonardo Paoli \(IEA\)](#)

[Dr. Ananth Chikkatur \(Deloitte\)](#)

Location:

Traditional Japanese Noh Theater

11:00 - 12:20

Parallel Session 4

- Energy Modelling-Advancing Modelling Methodology
- Transition-Case Study
- Transition-Economics
- Energy Access, Poverty, Justice, Energy Security
- Sectoral Pathways-Transport

12:20 - 13:20 Lunch

13:20 - 15:00

Parallel Session 5

- CDR
- Transition-Case Study
- Demand-Side Measures
- Role of Hydrogen
- Sectoral Pathways-Industry, Sectoral Pathways-Buildings

15:00- 15:30

Coffee Break

15:30 - 16:10

ETSAP & Parallel Session 6

- ETSAP
- Transition-Strategies
- Transition-Infrastructure
- Role of Hydrogen
- Critical Materials

16:20 - 17:20

Parallel Session 7

- Energy/Climate Policy, Circular Economy
- Transition-Case Study
- Transition-Economics
- Critical Materials
- VRE

17:20

Move to Nara Hotel by walking

18:20 - 20:20

Official Dinner @ Nara Hotel

Parallel Session 4

11:00-12:20, June 12 (Thr)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
Energy Modelling-Advancing Modelling Methodology	Transition-Case Study	Transition-Economics	Energy Access, Poverty, Justice, Energy Security	Sectoral Pathways-Transport
Chair: Jubair SIEED RITE	Chair: Joni JUPESTA IPB University	Chair: Ryuji MATSUHASHI The Tokyo University	Chair: Joyashree ROY AIT	Chair: Nan ZHOU LBNL
Shared Responsibilities and Information Asymmetry at the Energy Modelling-Policy Interface: A Principal-Agent Perspective	Committed oil projects lock African countries into additional economic losses	Implications of Alleviating Unreliable Electricity Supply for Energy Poverty: Evidence from Households in Benin	The Energy Trade Network Structure and Risks	The Effect of Subway Policies on Gasoline Consumption: Subway Expansion versus Fare Changes
Franziska BOCK Delft University of Technology	Rebecca DRAEGER Universidade Federal do Rio de Janeiro, Brazil(Coppe)	Prudence DATO Clean Air Task Force	Marten BRIENEN Oklahoma State University	Antung LIU Indiana University
An Integration of Dynamic Input-Output Analysis and Power Expansion and Operation Planning Model for the Evaluation of the Effects of New Technologies	Multi-level emission impacts of electrification and coal pathways in China's netzero transition	A quantitative framework for operationalizing the concept of a "just transition". Assessing and ranking household vulnerability to climate change and the green transition based on administrative microdata.	Analysis of Electricity and Fuel Supply Resilience in Japan under Fuel Import Disruptions using Stochastic Dynamic Programming	Are EVs Cleaner Than We Think? Consequential Emissions of Electric Vehicle Adoption Are Lower Than Short-run Marginal Emissions Rates Indicate
Shunsuke MORI Tokyo University of Science	Chen GONG Potsdam Institute for Climate Impact Research	Berend HOPMAN TNO	Yuto HONDA The University of Tokyo	Qian LUO Princeton University
Does myopic foresight modeling better capture real-world electricity system transition? Hindcasting in 31 European countries	Transforming energy: Assessing green ammonia production as a sustainable alternative to electricity exports in Lao PDR	Green Transitions in Coal-Dependent Economies: A Hybrid Computable General Equilibrium Analysis of the Czech National Energy and Climate Plan	Assessment of energy security indicators in Japan transition scenarios for net-zero emissions	Energy Implications of Autonomous Vehicles Adoption: A Multinational Comparative Study of Public and Private Uses
Hui SHEN University of Geneva	Vignesh SRIDHARAN Imperial College London	Inaki VERUETE VILLEGAS Charles University Environment Center	Miyuki NAGASHIMA Research Institute of Innovative Technology for the Earth (RITE)	Camila CALLEGARI Federal University of Rio de Janeiro(UFRJ)
The water-energy-mineral-land nexus: An interlinked global model of LCIA and IAM applicable to this century		Comprehensive national accounting for CO2 emissions under decarbonization pathways	Identifying the Spatial Synchronization Patterns of Wind Energy Droughts under Climate Change in China's Grids	Can the installation of photovoltaics motivate households to adopt battery electric cars?
Koji TOKIMATSU Institute of Science Tokyo		Rintaro YAMAGUCHI National Institute for Environmental Studies (NIES)	Qing WU The University of Hong Kong	Milan ŠČASNÝ Charles University

Parallel Session 5

13:20 - 15:00, June 12 (Thr)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
CDR	Transition-Case Study	Demand-Side Measures	Role of Hydrogen	Sectoral Pathways-Industry, Sectoral Pathways-Buildings
Chair: Koji TOKIMATSU Institute of Science Tokyo	Chair: Francesco DALLA LONGA TON/University of Amsterdam	Chair: Alessio MASTRUCCI IIASA	Chair: Yuki ISHIMOTO The Institute of Applied Energy	Chair: Yoshiyuki SHIMODA RITE/Osaka University
Carbon Capture and Storage in Indonesia's Energy Sector: A Least-Cost Optimization Approach	Net-zero compatible development pathways in Argentina, Brazil, China, India, Indonesia, Mexico and South Africa	Evaluating the Effectiveness of Multi-Sector Demand Response in Energy Planning Models	Exploring Hydrogen Trade Dynamics in South-East and East Asia under a 1.5°C Pathway	Green Steel in Europe: Technological and Distributional Transition
Anindhita Institute of Science Tokyo	Yann BRIAND Deep Decarbonization Pathways (DDP) Initiative Climate, Energy and Transport Expert	Trevor BARNES Simon Fraser University	Maurizio GARGIULO E4SMA Srl	Sebastian OSORIO Potsdam Institute for Climate Impact Research (PIK)
The potential of BECCS and e-fuel from Oil Palm Residues in Southeast Asia	Examining scenarios of low-carbon fuels exports from the United States with energy systems modeling	A Choice Experiment study to assess social benefits from citizens' proactive participation in Renewable Energy Communities	Integrated Assessment of Korea's Future Hydrogen Trade for the 2050 Carbon Neutrality Target	Climate Clubs, Competitiveness Concerns, and Alternative Correction Measures
Joni JUPESTA IPB University	Aranya VENKATESH EPRI	Giacomo LAI University of Cagliari	Jiwon KWUN Korea Advanced Institute of Science and Technology(KAIST)	Ramiro PARRADO Centro EuroMediterraneo sui Cambiamenti Climatici-CMCC
Accounting for carbon capture solvent cost and energy demand in the energy system	Integrating Aviation into Ireland's carbon budget: Pathways to Net-Zero in a Carbon-Constrained Future	PyPSA-BD for Strategic Power Sector Planning in Bangladesh with gradual Renewable Energy Penetration, end-use enhanced efficiency and demand-side flexibility	Optimizing hydrogen deployment: a hybrid approach for coordinating hydrogen valley design with global energy systems and local constraints and opportunities.	Alleviating Energy Insecurity Through Clean Energy Technology
Markus MILLINGER RISE-Research Institutes of Sweden	Vahid ARYANPUR University College Cork	Firuz Ahamed NAHID Asian Institute of Technology(AIT)	Charles TANO Mines Paris-PSL- EDF- IFPEN	Xiaofeng YE University of Maryland
Unpacking the bottlenecks of deploying Direct Air Capture at scale	Global perspectives on economy-wide net-zero energy systems: A comparative analysis between the U.S. and Japan	Global role of decentralized energy systems to decarbonize residential energy end-use	Advancing Local Energy Transitions: GIS-Based Optimization for Green Hydrogen Integration in Urban Systems	
Massimo TAVONI EIEE	Anahi MOLAR-CRUZ EPRI	Arvind SRINIVASAN ETH Zürich	Stella Nadine STEIDL University Of Canterbury	
Impact of long-term carbon budget uncertainty on the role of carbon dioxide removal in national energy transitions	Regional Production Shift and Increased Utilization Dampen Coal Mine Methane Emissions in China	Peer Effects in Residential Energy Consumption	Electricity- and Hydrogen-DrivenEnergy System Sector-Coupling inNet-Zero CO2 Emission Pathways	
Weipeng XIE University College Cork	Jie ZHANG Lawrence Berkeley National Laboratory	Kareman YASSIN Hitotsubashi University	Bob van DER ZWAAN TNO	

Parallel Session 6 & ETSAP

15:30 - 16:10, June 12 (Thr)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
ETSAP	Transition-Strategies	Transition-Infrastructure	Role of Hydrogen	Critical Materials
Organizer: Brian Ó Gallachóir University College Cork (UCC)	Chair: Takashi HOMMA RITE	Chair: Jubair SIEED RITE	Chair: Yuki ISHIMOTO The Institute of Applied Energy	Chair: Ayami HAYASHI RITE
PANEL DISCUSSION Title: Why do energy systems modelling with TIMES? Discussion Topics: 1. What type of energy and climate policy questions is TIMES best suited to addressing based on your experience? 2. What are the key advantages from your experience of being within the TIMES modelling community (via ETSAP)? 3. What are the key strengths and limitations of the TIMES modelling software? 4.	One Path to Rule Them All: Comparing Hydrogen, Biomass, and Electrification for Reaching Net Zero in New Zealand Rafaella CANESSA University of Canterbury	Feasibility Analysis of Nationwide Interconnected Electric Power Systems with an Optimal Power Generation Mix Model considering Data Center Power Demand Naoki TANIGUCHI The University of Tokyo	Optimizing Regional Hydrogen Energy Layout with Cost Variations in Renewable Hydrogen Production under Electricity-Hydrogen-Carbon Coupling Yaxi LU Chengdu University of Technology	Renewable Energy Deployment and Critical Minerals Scarcity in the Net-Zero Transition Francesco DALLA LONGA TNO
	Optimizing the global heat pump supply chain for net-zero transition Can CUI ETH Zurich	How to reduce the cost of synthetic fuels? A robust assessment of the key cost reduction levers Johannes BRAUER Deloitte	Hydropower for Hydrogen: Locating Cost-Effective Production Sites in Laos Lukas SCHIRREN Imperial College London	Near-optimal solutions for long-term energy planning facing the possible critical raw materials supply disruption Matteo NICOLI Università degli Studi di Torino

DAY 3 – FRIDAY, 13 JUNE 2025

9:00 - 9:30

Registration & Coffee

9:30 - 10:30

Paralle Session 8

- VRE
- Sectoral Pathways-Transport
- Transition-Economics
- Role of Hydrogen

10:40 - 12:00

Plenary Session 3

Demand, Service and Social Aspect for Mitigation

Moderator:

Bob van der Zwaan (TON)

Presentation:

[Prof. Joyashree Roy \(AIT\)](#)

[Dr. Geoffrey Blanford \(EPRI\)](#)

Location:

Traditional Japanese Noh Theater

12:00 - 12:10 Closing remarks

12:10 - 13:00 Lunch

13:00 - Excursions

Next day June 14th (Sat)

Osaka Expo

Parallel Session 7

16:20 - 17:40, June 12 (Thr)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
Energy/Climate Policy, Circular Economy	Transition-Case Study	Transition-Economics	Critical Materials	VRE
Chair: Masahiro SUGIYAMA The University of Tokyo	Chair: Joni JUPESTA IPB University	Chair: Hiromi YAMAMOTO CRIPEI/Tohoku University	Chair: Anahi MOLAR-CRUZ EPRI	Chair: Yu NAGAI CRIEPI
Simultaneous Tripling of Renewable and Nuclear Energy: Assessing Korea's Ambitious Clean Energy Goal using IPCC Scenario Database Jiseok AHN Korea Institute of Energy Research	Interactions between Climate Change Mitigation, Damages, and Adaptation: An Intertemporal Computable General Equilibrium Analysis for Ireland Kelly DE BRUIN ESRI	Energy Efficiency Pricing in Regulated Electricity Markets Guiyoung JIN Hankuk University of Foreign Studies (HUFS)	Raw materials for the green energy transition: Criticality of materials, technologies, and systems Michaela SCHICHO Fraunhofer Institute for Systems and Innovation Research ISI	Global Potential of Mine Photovoltaic Systems for Sustainable Energy Transition Yang ZHANG Hong Kong University of Science and Technology
Navigating uncertainty in the energy transition: Evaluating policy levers for robust decarbonization strategies Antonio Francisco RODRIGUEZ-MATAS Comillas Pontifical University	City energy transitions: Modelling policy alignments with sectoral integration at sub-city levels Kushagra GUPTA Chalmers University of Technology	Forest Sustainable and Economic Analysis Model (ForSEAM): Spatial and Temporal Optimization of Woody Biomass Harvesting for Low Carbon Resources Lixia LAMBERT Oklahoma State University	Sustainability in Energy Production: Water Recycle, Reuse and Resource Recovery Somnath BASU Jewel Innovations in Energy and Environment	Generalized leveled cost as a metric for explaining model behavior of linear programming-based energy systems models: Application to quantifying the integration costs of renewable energy in MESSAGE Takuya HARA IIASA, Toyota Motor Corporation
Exploring Circular Economy Strategies for Decarbonizing Global Mobility Infrastructure Volker KREY International Institute for Applied Systems Analysis (IIASA)	Climate resiliency of high altitude hydropower of Nepal in a spatiotemporal resolution power sector model Khem GYANWALI Tribhuvan University	Carbon Emissions and the Transmission of Monetary Policy Jose Nicolas ROSAS Universitat Pompeu Fabra	Assessing Future Material Demand From The Power Sector Under Carbon And Water Constrained Scenarios, A Long-Term Study Conducted With Tiam-Fr Marie, Thuong-Thuong CODET Center for Applied Mathematics-Mines Paris PSL	A Spatiotemporally Resolved Optimization Model for Renewable Energy Integration to the Nigerian power system Abayomi Ebenezer OLAWUMI Yokohama National University
	Leaving Someone Behind: Coal Phase-Out in South Korea Yeong Jae KIM KDI School of Public Policy and Management	Trading models for Energy Communities: Optimisation of collective benefits under various scenarios for P2P trades Laura WANGEN University Grenoble Alpes	Towards Impact Assessment of Critical Minerals on Technology Choice in Light-Duty Vehicles Atsuo KOMATSUBARA Toyota Central R&D Labs., Inc.	Integrated Analysis of Variable Renewable Energy Deployment and Power Distribution in the Residential and Low-Voltage Sector Ryosuke OSAWA The University of Tokyo

Parallel Session 8

9:30 - 10:30, June 13 (Fri)

Traditional Japanese Noh Theater	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
VRE	Sectoral Pathways-Transport	Transition-Economics	Role of Hydrogen	
Chair: Yu NAGAI CRIEPI	Chair: Yuko NAKANO RITE	Chair: Hiromi YAMAMOTO CRIPEI/Tohoku Univerisity	Chair: Souran CHATTERJEE University of Plymouth	
Larger, but not faster: Diffusion of onshore wind power in late-adopting countries Yodefia RAHMAD Chalmers University of Technology	Are Heavy-Duty Vehicles at a Crossroads?A Real Options and Innovation Diffusion Perspective on Hydrogen Fuel Cell vs. Battery Electric trucks Oana IONESCU GAEL, Université Grenoble Alpes, Grenoble INP	Impact of the Irish carbon tax and the European Emissions Trading System on outdoor air pollution in Ireland Kirsten EVERETT Economic and Social Research Institute (ESRI)	Soft-linking ESM to a CGE model: prospects for a low-carbon and renewable fuels-powered economy Ahmed ELBERRY University of Amsterdam-TNO	
Representing policies in probabilistic projections: The cases of solar PV and onshore wind power in Europe Nik ZIELONKA University of Geneva	Steering Toward Net-Zero: An Integrated Assessment Modeling of Autonomous Vehicles and their Impact on Energy and Emissions Ahmed Sobhy Saleh MAHMOUD Korea Advanced Institute of Science & Technology (KAIST)	Economic Assessment on Asian International Competitiveness in 2030 Using a Global Energy-Economic Model Takashi HOMMA Research Institute of Innovative Technology for the Earth (RITE)	The green hydrogen ambition and implementation gap Adrian ODENWELLER Potsdam Institute for Climate Impact Research (PIK)	
Analysis of Japan's Transition to Net-Zero Electricity through Large-Scale Integration of Variable Renewable Energy Jubair SIEED Research Institute of Innovative Technology for the Earth (RITE)	Modeling optimal charging and vehicle operation planning of electric light-duty trucks at a courier branch in japan Tomoyuki YAMADA Central Research Institute of Electric Power Industry		Domestic Low-carbon Hydrogen Production via Renewables and PPA in Japan Tianhong ZHANG The University of Tokyo	