

Workshop on Non-Electric and Hybrid Applications of Nuclear Energy

Event Details

Location: [BEXCO's Convention Hall and Exhibition Hall](#), Busan, Korea

Room: 205 APEC Hall (the floor above the KAP Annual Conference and the Nuclear Industry Exhibition)

Date: Friday, April 26, 2024, from 9:00 – 17:00

Organizers: Korea Atomic Energy Research Institute (KAERI) and GIF Non-Electric Applications of Nuclear Heat (NEANH) Task Force.

Hosts: Korean Nuclear Industry Association (KAIF), and Korea Nuclear International Cooperation Foundation (KONICOF), in coordination with the [39th Annual KAP Conference](#).

Note: To register for this event, participants must register for the 39th Annual KAP Conference by [submitting a registration form](#) to the conference organizers at reg@kaif.or.kr. Registration includes access to the industry exhibition, a souvenir, lunch for 3 days, a reception dinner on April 24th, and a technical tour on April 25th. International participants attending this workshop are eligible for a reduced registration fee of USD 350 (KRW 450,000).

- A technical tour is also being planned for workshop attendees on Thursday, April 25th. During registration, participants must choose one of the below tour options:
 1. APR1400 construction site and the KPS nuclear maintenance technology center where you can observe the real-scale component models for the LWR, OR
 2. Doosan Enerbility, which is the factory for the reactor vessel and steam generator.

Tentative Programme

09:00 – 09:20 **Opening Remarks:** Welcome address and keynote remarks

Welcome Address of GIF PG Member from Korea	Chang Sun Lee, Ministry of Science and ICT or Jin Young CHO, KAERI (TBC)
Congratulatory Address of the secretary general	Joon Ho SHIN, Director General. Korea Nuclear International Cooperation Foundation, KONICOF

09:20 – 10:15 **Session 1:** Historic context and overview of ongoing international efforts

History of non-electric and hybrid applications of nuclear and the NEANH Task Force	Shannon BRAGG-SITTON, Director, Integrated Energy and Storage Systems, Idaho National Lab (Chair of the GIF NEANH Task Force)
International Atomic Energy Agency (IAEA) activities related to non-electric applications	Francesco GANDA, Technical Lead for Non-Electric Applications, IAEA
NEA Industrial Case Studies for SMR Markets, and the role of hydrogen	Brent WILHELM, Nuclear Technology and Economics Analyst, NEA
International Energy Agency (IEA) Hydrogen Technology Collaboration Programme Task 44 – Hydrogen from Nuclear Energy	Gilles RODRIGUEZ, Project Manager, Commissariat à l'énergie atomique (CEA)
GIF Hydrogen Production PMB with overview of WP4 on integration technologies	Pierre SERRE-COMBE, Deputy Director, Energy Programs for New Hydrogen Technology CEA

10:15 – 10:30 **Break**

10:30 – 11:50 Session 2: Industrial end-user perspectives

Overview of the alliance for nuclear heat utilization in Korea	Mr. Chan Soo KIM, Principal Researcher, KAERI, and member of VHTR SSC and NEANH-TF.
Panel discussion with industrial end users (moderated by Chan Soo Kim)	<p>Chemical sector: Mr. Hyun Il SHI, Professor of Chemical Engineering, Myungji University.</p> <p>District Energy: Mr. Il Hwan KANG, Secretary General, Korean Cogeneration Association</p> <p>Hydrogen: Mr. Jin Nam PARK, Clean Hydrogen Program Director, Korea Institute of Energy Technology Evaluation and Planning.</p> <p>Steel: Mr. Pil Jin MOON, Leader, Carbon Neutrality Strategy Sector, POSCO</p>

11:50 – 13:05 Break for lunch

13:05 – 14:25 Session 3: Existing operational experience and the challenges associated with operating a co-located system

Remarks and Introduction of Session 3	Seok-Bin Park (SIAP)
Panel discussion on regulation and experience (moderated by Seok-Bin Park)	<p>Nuclear desalination or district heating: (TBD)</p> <p>Hydrogen production: Mr. Tetsuo NISHIHARA, Director General, HTGR Research and Development Center, Sector of Fast Reactor and Advanced Reactor Research and Development Japan Atomic Energy Agency (JAEA)</p> <p>Nuclear energy regulator: Mr. Sun Jae Kim, Principal Researcher of Senior Advisory Committee, Korea Institute of Nuclear Safety</p> <p>Industrial sector regulator: Mr. YoungJo RYU, Director, Safety Technical Standards Division, Korea Gas Safety Cooperation</p>

14:25 – 15:45 Session 4: Nuclear technology developers targeting non-electric applications.

Panel discussion with nuclear energy technology vendors (moderator (TBC))	<p>Existing LWR: Mr. Sang Jin HAN, Director, KHNP</p> <p>MSR: Mikal BØE, Chief Executive Officer, Core Power</p> <p>HTGR: Mr. Chan Soo KIM, Principal Researcher, KAERI, and member of VHTR SSC and NEANH-TF (TBD)</p> <p>LWR SMR: Mr. Han Ok KANG, Vice President for SMART development, KAERI</p>
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15:45 – 16:00 Break

16:00 - 17:00 Session 5: Interactive discussion on the topics discussed, and next steps.

Summary of the day's discussion	Shannon BRAGG-SITTON, Director, Integrated Energy and Storage Systems, Idaho National Lab
Moderated interactive discussion with audience	

17:00 Event Concludes