

# Programme – 18 September (Day 1)

---

Arrival and check-in – 08:00–08:45 a.m.

OECD Headquarters, 2, rue André Pascal 75016 Paris

Room CC1

## Welcome remarks

- 8:45  
(10 min)
- Mathias Cormann, Secretary-General, OECD\*

## Opening remarks from the 2025 Chair and previous Chairs

- 8:55  
(25 min)
- Ahn Duk-geun, Minister of Trade, Industry and Energy, Korea (15 min)
  - Ebba Busch, Deputy Prime Minister and Minister for Energy, Business and Industry, Sweden\* (5 min)
  - Marc Ferracci, Minister of Industry and Energy, France\* (5 min)

## Scene setting remarks: Nuclear Energy Outlook

- 9:20  
(10 min)
- William D. Magwood, IV, Director-General, NEA\*

## Keynote address

- 9:30  
(15 min)
- Christopher Wright, Secretary of Energy, United States\*

## Special address

- 9:45  
(15 min)
- Ajay Banga, President, World Bank Group\*

## Plenary Session 1: Transformative Markets for New Nuclear

- 10:00  
(60 min)
- Rising energy demand from industrial consumers and innovations in reactor designs promise transformative markets and applications for new nuclear. Strong demand signals for power generation and process heat continue to appear across the industrial economy. This represents a transformation for the nuclear industry, which has historically been driven by power demand from utilities. Today that may be changing, with technology companies like Amazon, Google, Meta and Microsoft all recently announcing plans for significant investments in new nuclear capacity to meet growing electricity demand from energy-intensive data centres. At the same time, heavy industries—including oil and gas, steel manufacturing, and chemicals production—are exploring advanced reactors as a reliable source of power and process heat. NEA industrial case studies suggest additional opportunities in other markets such as mining operations, cement, paper, hydrogen, potash production for the fertiliser industry, and marine propulsion to replace bunker fuel for merchant shipping. These markets represent emerging—and often transformative—applications of nuclear energy technologies. This panel will discuss the enabling conditions required to meet this demand and build at the scale to triple nuclear energy by 2050.

11:00  
(15 min)

### Group photos:

- Photo 1: All Heads of Government Delegations
- Photo 2: All Heads of Government Delegations and CEOs of Industry Associations

11:00  
(30 min) *Coffee break*

### Concurrent Leadership Breakout Sessions for Ministers and CEOs

#### 11:30 (75 min) **Leadership Breakout Session 1: Financing**

Energy markets have evolved significantly since the 1970s and 1980s, when most existing nuclear power plants were built and financed. Over time, markets have been liberalised, and power utilities have been restructured or privatised. Financing frameworks for new nuclear will accordingly benefit from adaptation and ideas for restructuring. Fourteen major private financial institutions pledged support for tripling nuclear power by 2050 last year, signifying the first step towards the commitments from private capital needed to fulfil this ambition. This breakout session provides an opportunity for ministers and representatives from financial institutions to discuss models to unlock the capital for the next wave of nuclear new build.

#### 11:30 (75 min) **Leadership Breakout Session 2: Workforce Development**

Workforce development has been identified by many as a potential rate-limiting factor as the nuclear sector to deliver on goals like the *Declaration on Tripling Nuclear by 2050*. While indicators suggest that younger generations are showing more interest in nuclear energy compared to previous cohorts, with many universities reporting increased interest in their nuclear engineering programs, much must be done to strengthen the workforce aspect of the nuclear energy supply chain. A stronger workforce is important not only for construction, but necessary to support a mature and healthy nuclear industry going forward in areas like safety, regulation, law, operations, maintenance, and more. Responding to this priority, the NEA and its member states have launched initiatives to establish long-term workforce strategies. Examples include NEA's Plan 2035, the British government's Nuclear Skills Taskforce, and France's *Université des Métiers du Nucléaire*. This session will bring together ministers, representatives from nuclear employee organisations, private-sector employers, and utilities to explore key workforce issues and strategies to strengthen the talent pipeline. As future leaders in the nuclear sector, the NEA Young Professionals Delegation will bring their international voice and demonstrate how nuclear youth communities are bridging gaps to support workforce expansion.

#### 11:30 (75 min) **Leadership Breakout Session 3: Realities of Nuclear Construction and Supply Chains**

Recent nuclear construction projects in OECD countries have faced delays and costs overruns. While some of those challenges could be partly attributed to the difficulties inherent with the deployment of first-of-a-kind reactor designs, they also revealed structural challenges across OECD nuclear supply chains in terms of project management, approaches to contracting, and overall delivery strategy. Construction risks not only impact project timelines and costs, but also influence key stakeholders' confidence, including investors, utilities, prospective end-users, and society more broadly. Mitigating these construction risks presents a key challenge for governments and industry seeking to deliver on their objectives for new nuclear projects. This breakout session will focus on the role for both governments and industry to expand the capabilities of nuclear supply chains and foster strategic partnerships and international cooperation to ensure the delivery of nuclear energy projects on-time and on-budget.

#### 11:30 (75 min) **Leadership Breakout Session 4: Fuel Supply Security**

Ensuring a reliable nuclear fuel supply chain is crucial for both maintaining current nuclear power capacity and supporting its expansion. As global demand for nuclear energy rises, fuel supplies must not only increase but also adapt to minimise dependence on unreliable suppliers. Additionally, some advanced reactor designs require new fuel formats and levels of enrichment, such as Tri-structural Isotropic Particle Fuel (TRISO) and High-Assay Low Enriched Uranium (HALEU). The successful commercialisation of these innovative reactor technologies will depend on the construction or expansion of fuel fabrication facilities. This session will explore strategies for strengthening security of the nuclear fuel supply chain and the need for new production lines to support the tripling of nuclear energy by 2050.

12:45 *Lunch by invitation*  
(90 min)

### Accelerating SMRs Summit Opening Remarks

14:15 • William D. Magwood, IV, Director-General, NEA\*  
(5 min)

### Accelerating SMRs Summit Framing Remarks

14:20 • TBC  
(10 min)

### Plenary Session 2: Accelerating SMRs Summit (Part 1)

14:30 Interest in SMRs is growing as countries grapple with their energy security needs and look to boost economic growth, especially in industrial sectors. The NEA is pleased to reconvene ministers, regulators, and industry leaders for the *2nd Accelerating SMRs Summit* to identify and assess critical policy decisions needed to drive the widespread commercialization of SMR technologies. Near-term policy and investment decisions will be crucial in helping energy supply to meet market demand. This session will offer a showcase for innovative applications of SMRs within the nuclear sector and beyond, focusing on the key enabling factors for successful deployment, such as the fuel cycle, supply chains, human resources, policy frameworks, and economic competitiveness.  
(90 min)

Chair: Peter Tertzakian, Deputy Director, ARC Energy Research Institute\*

**14:30-15:00: High Temperature SMRs for Chemicals Production and Industrial customers**

**15:00-15:30: SMRs for Fuel Cycle Innovation**

**15:30-16:00: SMRs for Smart Cities**

16:00 *Coffee break*  
(30 min)

### Plenary Session 2: Accelerating SMRs Summit (part 2)

16:30 **16:30-17:00: Generation IV SMRs for Reliable Power**  
(60 min)

**17:00-17:30: Modular Construction for SMR Success**

### Closing Remarks

17:30 • Ahn Duk-geun, Minister of Trade, Industry and Energy, Korea\*  
(30 min) • Announcing the Co-host for Roadmaps to New Nuclear 2026 with Special Remarks  
• William D. Magwood, IV, Director-General, NEA\*

18:00 *VIP dinner for ministers*  
(60 min) *Evening reception at OECD Conference Centre*

## Programme – 19 September (Day 2)

8:00

(75 min) *By invitation: Special Breakfast Session with Accelerating SMRs contributors from industry and government*

Arrival and check-in – 09:00–09:30 a.m.

### Opening Remarks

9:30

(15 min)

- William D. Magwood, IV, Director-General, NEA\*
- Ahn Duk-Geun, Minister of Trade, Industry, and Economy, Republic of Korea\*

### Plenary Session 1: Nuclear Energy for Emerging Economies

9:45

(60 min)

Nuclear energy can transform energy access in economies worldwide, unlocking economic and social benefits for hundreds of millions of people. Nations such as Ghana, Indonesia, Kenya, Mongolia, Nigeria, the Philippines, Rwanda, and Uganda are already exploring the potential of nuclear energy to transform their domestic energy systems and improve regional grid stability. Large-scale reactors and SMRs offer tailored solutions for the energy needs of emerging economies, meeting growing demand while overcoming grid infrastructure limitations. This session will explore opportunities for collaboration to leap forward on energy systems and energy access, including expertise and technology sharing between NEA members and emerging economies interested in civil nuclear power.

10:45

(20 min)

*Coffee Break and move to breakout rooms*

### Concurrent Breakout Sessions on Innovation

From its inception as a scientific discovery to its evolution into a key component of global energy infrastructure, nuclear energy has benefited from breakthroughs in physics, engineering, and materials science. Innovations in the nuclear energy sector are poised to benefit from the rapid growth of the Internet of Things (IoT), digitisation, and artificial intelligence. Several challenges remain, including securing the supply chain for new reactor designs, managing financial risks associated with first-of-a-kind (FOAK) projects, maintaining a skilled workforce, and adapting regulatory frameworks to accommodate new reactor designs, advanced materials, and accident-tolerant fuels. These breakout sessions offer a deeper exploration of innovations in nuclear energy in the areas of space exploration, medical radioisotopes, and closing the nuclear fuel cycle.

11:05

(75 min)

#### **Breakout session 1: Nuclear Energy for Space Exploration**

Space nuclear power systems (SNPS) have been used for the past 60 years to advance space exploration and improve our knowledge of the solar system. Reliable and energy-dense power options are critical for future space exploration and experimentation. Several NEA member countries and SMR technology developers interested in deploying SMRs on Earth are also advancing designs that could be suitable to provide power to operations in space for both surface missions and spacecraft propulsion. The complex operating environment in space is expected to drive innovation in SMR and micro-SMR technologies, which could also significantly benefit the development of terrestrial SMRs. This breakout session will explore the development of nuclear technologies for applications in space and discuss opportunities to leverage these innovations on Earth.

11:05

(75 min)

#### **Breakout session 2: Medical Radioisotopes**

Nuclear medicine stands at the threshold of a new era of advanced therapeutic treatments, applying new, exciting technologies that bring us closer to reducing or even eliminating the fear that patients feel when they hear the word “cancer.” The 2nd International Workshop on the Security of Supply of Medical Radioisotopes in October 2024, which gathered over 130 top decision-makers in the field, joined by hundreds more participants online, showcased

remarkable innovations using radioisotopes such as Lutetium-177 (Lu-177) and Actinium-225 (Ac-225), making significant leaps forward in cancer treatment. However, the supply of these highly beneficial materials is limited, and it has yet to be proven how and when supply chains will become established to meet demand. This breakout session will focus on assessing market demand growth potential, supply chain vulnerabilities (e.g. enrichment, irradiation, processing, treatment), and gap analysis of medical infrastructure investment requirements.

11:05  
(75 min)

### **Breakout session 3: Closing the Nuclear Fuel Cycle - Drivers and Challenges**

As several countries expand their reliance on nuclear energy, effective strategies for managing nuclear waste are becoming increasingly important. While deep geological repositories are being developed to dispose of used fuels and high-level waste from existing reactors, emerging nuclear technologies – such as small modular reactors (SMRs) and Generation IV designs – introduce innovative fuel cycles that demand equally forward-thinking waste solutions. Advanced reprocessing technologies enhance the ability to recycle used fuel and improve long-term waste management. When combined with fast reactors, these innovations hold significant potential to further improve the sustainability of nuclear energy. This breakout session will explore the key challenges and opportunities in fuel and waste management, including considerations for closing the fuel cycle.

12:20  
(90 min)

*Lunch by Invitation*

## **Plenary Session 2: Advancements in Waste Management and the Role of International Collaboration**

13:50  
(60 min)

The nuclear sector has a long-standing track record in the safe and responsible management of used fuel and high-level waste from nuclear power reactors. A wide range of solutions exist for storage, transportation, treatment and recycling. In recent years, significant progress has been made in the development of deep geological repositories (DGR), recognised as the most effective solution for the permanent disposal of Used Fuel and high-level waste. As more countries turn to nuclear energy to enhance energy security and achieve net-zero goals, the back end of the nuclear fuel cycle is gaining renewed attention. Policymakers, industry leaders and other stakeholders must consider how existing infrastructure and programmes can accommodate increasing amounts of nuclear waste. Moreover, the emergence of new nuclear technologies – such as small modular reactors (SMR) and Generation IV systems – will introduce a broad spectrum of waste types and new technical and logistical considerations. Effectively addressing these evolving needs is essential for the sustainable and responsible expansion of nuclear energy. This session will explore the challenges and opportunities associated with the back end of the nuclear fuel cycle and highlight the critical role of international cooperation in advancing solutions.

## **Plenary Session 3: The Role of Artificial Intelligence in the Future of Nuclear Energy**

14:50  
(60 min)

Artificial intelligence (AI) offers transformative opportunities to enhance nuclear energy's performance, safety, and efficiency. Pairing the design, construction, and operation of nuclear projects with AI could revolutionize the sector—optimizing reactor operation, enabling predictive maintenance to minimize downtime, and facilitating real-time monitoring to ensure the highest safety standards while reducing costs. This relationship could benefit both industries: as datacentres powering AI require significant, reliable energy, and nuclear can provide 24/7 baseload generation to meet this power demand. Furthermore, AI has the potential to significantly accelerate licensing and permitting processes for advanced nuclear energy, including advancing preliminary license applications to repurpose hundreds of retiring coal plant and nuclear sites, enhancing permitting engineers' productivity, and reducing the time and cost of early drafts—addressing a major barrier to nuclear energy development. This breakout session will explore these mutual benefits and the risks associated with AI's adoption in a highly regulated and safety-focused sector.

15:50  
(20 min)

*Coffee Break*

## **Public-Private Roundtable**

16:10  
(50 min)

Public-private partnerships can play an essential role in accelerating the deployment of new nuclear. In this session, CEOs and government ministers will explore key strategies, joint initiatives, and innovative methods for

securing the technical expertise and experience needed to deploy new nuclear energy projects successfully. This includes the vital contribution of the private sector in fostering nuclear innovation, advancing technology, improving cost efficiency, and refining deployment strategies to support the growth of emerging nuclear energy initiatives. This session also provides an opportunity to discuss ways to harmonise regulatory recognition of technological advances across jurisdictions, while maintaining the strength of nuclear safety provisions.

Chair: Daniel Poneman, Distinguished Fellow, Atlantic Council Global Energy Center

*Announcement of major deliverables*

## Closing Plenary Remarks

- 17:00 • Closing keynote speech: VIP guest
- (20 min) • Closing remarks: William D. Magwood, IV, Director-General, NEA

DRAFT