

IEA / NEA Nuclear Technology Roadmap Update Stakeholder Engagement Workshop

Venue: International Energy Agency, Paris, France
9 rue de la Fédération, 75015 Paris
Room 2
23-24 January 2014

Time	Day 1: Thursday 23 January 2014
13:30– 14:00	Registration open
14:00– 14:10	Welcome Didier Houssin, Director, Sustainable Energy Policy and Technology, IEA
14:10– 14:25	Technology Roadmap Overview and role of Nuclear in the IEA Scenarios Cecilia Tam, Energy Technology Policy Division, IEA
14:25– 14:40	Focus of Nuclear Roadmap Update Ron Cameron, Head Nuclear Development Division, NEA
14:40– 15:30	Interactive Discussion: What role for nuclear? Moderator: Didier Houssin, IEA This discussion will focus on the scope of the roadmap update, including boundaries and critical issues that should be included such as stability of electricity production costs, security of supply and role of nuclear in climate change mitigation. Lessons learned and best practices to be included within the roadmap update.
15:30– 16:00	Coffee break
16:00– 17:45	Session 1: Technology development needs for nuclear Moderator: Ron Cameron, NEA <u>1.a: Reactor technology</u> Presenter: Henri Paillere, Nuclear Development Division, NEA Short presentations followed by group discussion, focused on the following topics: <ul style="list-style-type: none"> • Current state of the market, Gen II and Gen III reactors • Long Term Operation for existing fleet • Enhanced safety features – lessons from the Fukushima Daiichi accident • Small Modular Reactors • Gen IV technologies • Other innovations

	<p><u>1.b: Fuel cycle and decommissioning</u></p> <p>Presenter: Beth Lisann, Office of Nuclear Energy, US DoE Presenter: Andreas Ehlert, E.ON</p> <p>Short presentations followed by group discussion, focused on the following topics:</p> <ul style="list-style-type: none"> • Front and back end of the fuel cycle - development of new fuels such as accident tolerant fuels, reprocessing options storage and disposal of high level waste, extended storage issues, transport • Decommissioning
17:45-18:00	Wrap-up

Time	Day 2: Friday 24 January 2014
9:00–10:30	<p>Session 2: Overcoming barriers to nuclear build (other than financing) Moderator: Barry Kaufer, World Nuclear Association</p> <p>Presenter: Véronique Decobert, Westinghouse Presenter: Didier Beutier, Areva Presenter: Jorma Aurela, Ministry of Employment and the Economy, Finland</p> <p>Short presentations followed by group discussion, focused on the following topics:</p> <p><u>2.a: Industrial issues</u></p> <ul style="list-style-type: none"> • Supply chain bottlenecks (large heavy forgings), localisation • Codes and standards • Licensing – harmonisation • Building on time and on budget <p><u>2.b: Human resource issues</u></p> <ul style="list-style-type: none"> • Training and capacity development needs, for new build and decommissioning and waste management activities. Identification of skills, mobility
10:30–11:00	Coffee break
11:00-12:30	<p>Session 3: Economics and Financing of Nuclear Moderator: Manuel Baritaud, Gas Coal and Power Markets Division, IEA</p> <p>Presenter: Anne Crepin, AREVA – Industry Perspective Presenter: Oliver Rooke, UK DECC – New nuclear and the electricity market reform in the UK</p> <p>This session will focus on today’s reality for financing nuclear, the current economics of nuclear, impact of electricity market design on finance, and economics of long term operation. Mechanisms such as government loan guarantees, vendor financing and role of export credit agencies will be discussed. Participants will be asked to share lessons learned and current practices on financing nuclear as well as recommendations (if needed) for additional policy support or changes in technology development (eg. SMR) which would facilitate greater deployment of nuclear.</p>

12:30-14:00	Lunch (provided)
14:00-15:30	<p>Session 4: Nuclear regulation and safety Moderator: Neil Blundell, Nuclear Safety Division, NEA</p> <p>Presenter: David Shropshire, IAEA – Regulation for new build and new comer countries and Fukushima Safety Action Plan Presenter: Bjarne Noren, Director of Expert Group Division of WANO Paris Centre – WANO’s contribution to strengthen nuclear safety worldwide Presenter: Neil Blundell, NEA – Strengthening Good Practice within Nuclear Safety post Fukushima-Daiichi</p> <p>This session will focus on regulatory needs for enhanced safety and regulation, institutional development requirements for new nuclear countries, and nuclear safety research activities following the Fukushima Daiichi accident, which will lead to improved safety systems that can be back-fitted in existing reactors or evolutions in designs of future reactors.</p>
15:30-16:30	<p>Session 5: Key Message for the Roadmap update Moderator: Cecilia Tam and Henri Paillere</p> <p>This final session will review the various roadmap milestones and actions discussed during the previous session and will end with a roundtable on recommended key messages for the roadmap update. The goal of the nuclear roadmap update is to:</p> <ul style="list-style-type: none"> • Outline current status of nuclear technology development and need for additional R&D to address increased safety requirements. • Provide an updated vision for nuclear energy’s role in a low carbon energy system. • Identify barriers and actions needed to accelerate the development and deployment of nuclear technologies to meet the roadmap vision. • Identify and share lessons learned and best practices in nuclear regulation, front and back end fuel cycle practices, construction and financing.
16:30	<p>Closing remarks Thierry Dujardin, Acting Deputy Director-General and Deputy-Director Science and Development, NEA</p>