

International Conference on Climate Change and the Role of Nuclear Power

7–11 October 2019

PROGRAMME

Organized by the
International Atomic Energy Agency (IAEA)

In cooperation with

OECD / NEA

IAEA Headquarters Vienna, Austria

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Scientific Support: A. van Heek, NEPK
M. Khoroshev, NEPK
J. Callen, NEPK

Conference Coordination: M. Neuhold, MTCD
S. Padmanabhan, MTCD

Administrative Support: S. Benitez-Navarro, NEPK

Location of the Event:

International Atomic Energy Agency
Vienna International Centre (VIC)
Building M, BRB

Wagramer Strasse 5
A-1400 Vienna, Austria
Tel.: (+43 1) 2600 21330

Working Language: English

Resolutions: No resolutions may be submitted for consideration on any subject; no votes will be taken.

IAEA Mobile Conference Application



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Android



iPhone



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View on up-to-date programme



Check floor map of the sessions and exhibitors



Read abstracts and full-papers of speakers



Raise questions to speakers during session



Send message to other participants



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TIMETABLE

Monday, 7 October 2019

Time	Session Title / Break	Venue
10:00–10:45	Opening Session	
10:45–12:20	High-Level Plenary Session of the International Organizations	Board Room B
12:20–12:30	Outcomes of the IAEA 2018 Ministerial Conference on Nuclear Science and Technology	
12:30–14:00	Lunch	
14:00–15:15	High-Level Plenary Session of Member States	Board Room B
15:15–15:45	Coffee/Tea Break	
15:45–17:00	High-Level Plenary Session of Member States	Board Room B
17:15–19:15	Welcome Reception	M-Building – Ground Floor

Tuesday, 8 October 2019

Time	Session No.	Session Title / Break	Venue
08:45–10:45	1	Plenary Session Track 1 & 4: <i>Energy Policies and Financial Instruments to Stimulate Low Carbon Investments</i>	Board Room B
10:45–11:15		Coffee/Tea Break	
11:15–12:45	1.a	Parallel Technical Session 1a: <i>Implementation of the Climate Change Goals from a Global Perspective</i>	Board Room B
11:15–12:45	4.a	Parallel Technical Session 4a: <i>Cost Reduction Potentials of Nuclear New Build</i>	Conference Room M2
12:45–14:00		Lunch Break	
		Side event 1: <i>Nuclear for Climate Change, China's Solution</i>	Board Room A
14:00–15:30	1.b	Parallel Technical Session 1b: <i>Perspective of Countries with Ongoing Nuclear Power Programmes</i>	Board Room B
14:00–15:30	1.c	Parallel Technical Session 1c: <i>Planning Tools to Support the Preparation & Update of NDCs (near-term) & LEDS (mid-term)</i>	Board Room A
14:00–15:30	4.b	Parallel Technical Session 4b: <i>Financing Sources for New Nuclear Projects</i>	Conference Room M2
15:30–16:00		Coffee/Tea Break	

Time	Session No.	Session Title / Break	Venue
16:00–17:30	1.d	Parallel Technical Session 1d: <i>Regional Perspectives: The Case of EU</i>	Board Room B
16:00–17:30	1.e	Parallel Technical Session 1e: <i>Perspective of Countries with Longer-Term Nuclear Prospects</i>	Conference Room M2
17:30-19:00		Side event 2: <i>Millennial Nuclear Caucus</i>	Conference Room M2

Wednesday, 9 October 2019

Time	Session No.	Session Title / Break	Venue
08:45–10:45	2	Plenary Session Track 2 & 3: <i>Nuclear Power Today & Tomorrow</i>	Board Room B
10:45–11:15		<i>Coffee/Tea Break</i>	
11:15–12:45	2.a	Parallel Technical Session 2a: <i>NPP Long-Term Operation</i>	Board Room B
11:15–12:45	3.a	Parallel Technical Session 3a: <i>Advanced Reactor Deployment for Electric and Non-Electric Applications</i>	Conference Room M2
12:45–14:00		<i>Lunch Break</i>	
		Side event 3: <i>Low Carbon Energy Systems Based on Nuclear & Renewables – International Expertise & National Best Practices</i>	
14:00–15:30	2.b	Parallel Technical Session 2b: <i>Flexible Operation & Hybrid Energy Systems</i>	Board Room B
14:00–15:30	3.b	Parallel Technical Session 3b: <i>Greenhouse Gas Reduction in the Nuclear Fuel Cycle</i>	Conference Room M2
15:30–16:00		<i>Coffee/Tea Break</i>	
16:00–17:30	2.c	Parallel Technical Session 2c: <i>Large Deployment of Evolutionary Nuclear Power Plants</i>	Board Room B
16:00–17:30	3.c	Parallel Technical Session 3c: <i>Challenges Associated with the Rapid Deployment of New Innovative Technologies</i>	Conference Room M2
17:30- 19:00		Side event 4: <i>IAEA - Power Invest: Insights into the Costs and Benefits Attached to Investments in the Power Sector</i>	
17:30- 19:00		Side event 5: <i>Through the Climate Lens: Growing Support for a Technology Inclusive Approach</i>	

Thursday, 10 October 2019

Time	Session No.	Session Title / Break	Venue
08:45–10:45	3	Plenary Session Track 5 & 6: <i>Partnerships & Engagement</i>	Board Room B
10:45–11:15		<i>Coffee/Tea Break</i>	
11:15–12:45	5.a	Parallel Technical Session 5a: <i>Multilateral Partnership Mechanisms</i>	Board Room B
11:15–12:45	6.a	Parallel Technical Session 6a: <i>National Insights into Public Perception</i>	Conference Room M2
12:45–14:00		<i>Lunch Break</i>	
		<i>Side event 6: Capacity Building in Support of SDGs on Energy & Climate</i>	
14:00–15:30	5.b	Parallel Technical Session 5b: <i>Experiences and Perspectives on Cooperation</i>	Board Room B
14:00–15:30	6.b	Parallel Technical Session 6b: <i>Strategies and Initiatives on Channels of Communication</i>	Conference Room M2
15:30–16:00		<i>Coffee/Tea Break</i>	
16:00–17:30		<i>Side event 7: Infographics: IAEA Data Visualization Challenge</i>	
16:00–17:30	6.c	Parallel Technical Session 6c: <i>Novel Approaches to Nuclear Communication</i>	Board Room B
17:30– 19:00		<i>Side event 8: Advanced Nuclear Innovation & Climate Change: UK Perspectives</i>	Conference Room M2

Friday, 11 October 2019

Time	Session No.	Session Title / Break	Venue
09:00–10:30	4	Plenary Session: <i>Nuclear Safety & Security</i>	Board Room B
10:30–11:00		<i>Coffee/Tea Break</i>	
11:00–11:20	5	Award Ceremony <i>Infographics: IAEA Data Visualization Challenge</i>	Board Room B
11:20–12:00	6	Closing Plenary	Board Room B

MONDAY, 7 OCTOBER 2019**10:00-10:45 OPENING SESSION Board Room B**

Name	Designating Member State/Organization	Title
M. Chudakov	Conference President, Deputy Director General and Head of the Department of Nuclear Energy, IAEA	Welcome Address
C. Feruta	Acting Director General, IAEA	Opening Address
W. Magwood IV	Director General, Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD/ NEA)	Opening Address

**10:45-12:20 HIGH-LEVEL PLENARY SESSION OF
THE INTERNATIONAL Board Room B
ORGANIZATIONS****Chairperson: M. Chudakov**

Name	Designating Member State/Organization	Title
Z. Liu	Under-Secretary-General for Economic and Social Affairs, United Nations Department of Economic and Social Affairs (UNDESA)	Keynote Address
Y. Li	Director General, United Nations Industrial Development Organization (UNIDO)	Keynote Address
H. Lee	Chair, Intergovernmental Panel on Climate Change (IPCC)	Keynote Address
A. Rising	Director General, World Nuclear Association (WNA)	Keynote Address
F. Birol	Executive Director, International Energy Agency of the Organisation for Economic Co-operation and Development (OECD/ IEA)	Video message
P. Espinosa	Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC)	Message

**12:20-12:30 OUTCOMES OF THE IAEA 2018
MINISTERIAL CONFERENCE ON Board Room B**

NUCLEAR SCIENCE AND TECHNOLOGY**Chairperson: M. Chudakov**

Name	Designating Member State/Organization	Title
N. Mokhtar	Deputy Director General and head of the Department of Nuclear Sciences and Applications, IAEA	Keynote Address

*12:30–14:00 Lunch***14:00-17:00 HIGH-LEVEL PLENARY SESSION OF MEMBER STATES Board Room B****Chairperson: M. Chudakov**

Name	Designating Member State/Organization	Title
T. Namsrai	Minister, Ministry of Environment and Tourism, Mongolia	Keynote Address
J. Gadano	Undersecretary of Nuclear Energy, Ministry of Energy, Argentina	Keynote Address
M. A. Zafar	Ambassador of Bangladesh to Austria and Permanent Representative to the UN Offices and Other International Organizations in Vienna, Bangladesh	Keynote Address
R. Danilow	General Coordinator, Ministry of Mines and Energy, Brazil	Keynote Address
K. Zhang	Chairman, China Atomic Energy Authority, China	Keynote Address
O. Youssef	Ambassador, Permanent Mission of Egypt	Keynote Address
F. Jacq	Chairman, Alternative Energies and Atomic Energy Commission, France	Keynote Address
P. Kovács	State Secretary Responsible for Maintaining the Capacity of the Paks Nuclear Power Plant, Prime Minister's Office, Hungary	Keynote Address

15:15–15:45 Coffee/Tea Break

A. Kakodkar	Chairman, Rajiv Gandhi Science and Technology Commission, India	Keynote Address
K. Mrabit	Director, Moroccan Agency for Nuclear and Radiological Safety and Security, Morocco	Keynote Address
V. Artisyuk	Councilor, Advisor to Director General of State Atomic Energy Corporation Rosatom, Russian Federation	Keynote Address

Name	Designating Member State/Organization	Title
J. Loughhead	Chief Scientific Adviser at the Department for Business, Energy and Industrial Strategy, UK	Keynote Address
S. Jaworowski	Senior Advisor-Nuclear Energy, Office of Nuclear Energy, U.S Department of Energy, United States of America	Keynote Address

17:15–19:15 Welcome Reception, M-Building – Ground Floor

TUESDAY, 8 OCTOBER 2019

08:45–10:45	PLENARY SESSION 1: Energy Policies and Financial Instruments to Stimulate Low Carbon Investments	Board Room B
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Chairpersons: **J. Gadano, International Framework for Nuclear Energy Cooperation (IFNEC)**
M. Takada, UNDESA

Paper No.	Name	Designating Member State/Organization	Title
	M. Kray	USA	Invited Speaker #1: Track 1 – Advancing Energy Policies that Achieve the Climate Change Goals
	A. Metelitsa	UNIDO	Invited Speaker #2: Track 1 – Advancing Energy Policies that Achieve the Climate Change Goals
	C. Lewandowski	France	Invited Speaker #3: Track 1 – Advancing Energy Policies that Achieve the Climate Change Goals
	S. Bilbao y Leon	OECD/ NEA	Invited Speaker #1: Track 4 – Shaping the Future of the Nuclear Industry in Regulated and Deregulated Energy Markets to Address Climate Change
	J. Gu	China	Invited Speaker #2: Track 4 – Shaping the Future of the Nuclear Industry in Regulated and Deregulated Energy Markets to Address Climate Change
159	P. Lion	Russia	Invited Speaker #3: Track 4 – Shaping the Future of the Nuclear Industry in Regulated and Deregulated Energy Markets to Address Climate Change

10:45–11:15 Coffee/Tea Break

11:15–12:45 PARALLEL TECHNICAL SESSION 1A: Board Room B
Implementation of the Climate Change
Goals from a Global Perspective

Chairpersons: F. Vladu, UNFCCC
M. Deinert, USA

Paper No.	Name	Designating Member State/Organization	Title of Paper
26	H. Schneider	Switzerland	Nuclear Energy in the Article 6 of the Paris Agreement
17	E. Morales	Uruguay	Nuclear Shares in Power and Final Energy Consistent with 1,5 °C Scenarios – Considerations for National Climate Strategies
117	A. Van Heek	IAEA	Opportunities for Small Nuclear Power Plants by the Recurring Submission Mechanism of the Paris Agreement
7	H. Turton	IAEA	Nuclear Power and Climate Change: Scenario Perspectives to 2050
51	N. Davydova	Russia	Nuclear Energy May Help to Overcome the Restrictions on Economic Growth Posed by Climate Change Mitigation Policies
83	M. Deinert	USA	Beyond LCOE: Quantifying Co-Benefits and the Value of Resilience in Power Systems

12:45–14:00 *Lunch Break*

12:45-13:45 Side event 1: Nuclear for Climate Change, China's Solution, Board Room A

11:15–12:45 PARALLEL TECHNICAL SESSION 4A: Conference Room M2
Cost Reduction Potentials of Nuclear New
Build

Chairpersons: P. Lion, Russia
V. Alexeeva, IAEA

Paper No.	Name	Designating Member State/Organization	Title of Paper
45	A. Roulstone	UK	Meeting the UK's 2050 De-Carbonisation Targets for Electricity Generation: the Contribution of Nuclear Energy
57	K. Gogan	UK	Can Nuclear Energy be a Competitive Climate Change Option Today?: Lessons from Recent World Experience
135	J. Devezeaux	France	The Renewal of the French Nuclear Fleet, a Key to Achieve the EU 2050 Decarbonization Goals

Paper No.	Name	Designating Member State/Organization	Title of Paper
58	J. Lovering	USA	Historical Learning Rates for Nuclear Power and the Implications for Future SMRs
	N. Han	China	Challenges and Measures of New Build NPPs Construction in China

12:45–14:00 *Lunch Break*

12:45-13:45 Side event 1: Nuclear for Climate Change, China's Solution, Board Room A

**14:00–15:30 PARALLEL TECHNICAL SESSION 1B: Board Room B
Perspective of Countries with Ongoing Nuclear Power Programmes**

**Chairpersons: C. van Drunen, Canada
A. Kumar, India**

Paper No.	Name	Designating Member State/Organization	Title of Paper
16	M. Chyzhenko	Ukraine	Contribution of Nuclear Power to the Avoidance of GHG Emissions in Ukraine
61	A. Kumar	India	Role of Nuclear Power in Reduction of Greenhouse Gas Emissions – Indian Scenario
	M. Crozat	USA	Economics and Policies Shaping the Role of Nuclear Energy in the U.S.
147	C. van Drunen	Canada	Nuclear Power: Sustaining Current Contributions and Facilitating Future Pathways

15:30–16:00 *Coffee/ Tea Break*

**14:00–15:30 PARALLEL TECHNICAL SESSION 1C: Board Room A
Planning Tools to Support the Preparation & Update of NDCs (near-term) & LEDS (mid-term)**

**Chairpersons: M. Nyasapoh, Ghana
H. Turton, IAEA**

Paper No.	Name	Designating Member State/Organization	Title of Paper
36	M. Nyasapoh	Ghana	Nuclear Power Contribution Towards a Low-Carbon Electricity Generation for Ghana

Paper No.	Name	Designating Member State/Organization	Title of Paper
70	G. Borsatto	Brazil	Energy Demand and Supply Analysis to Contribute to the Climate Change Challenges Achievement Using IAEA Methodology and Tools
107	R. Muradyan	Armenia	Creation of Energy Policies in Armenia that Achieve the Climate Change
114	M. Kukharchuk	Ukraine	Assessment of the Potential Role of Nuclear Energy in Ukrainian Climate Change Mitigation Strategies

15:30–16:00 *Coffee/ Tea Break*

**14:00–15:30 PARALLEL TECHNICAL SESSION 4B: Conference Room M2
Financing Sources for New Nuclear Projects**

**Chairpersons: M. Kray, USA
M. Cometto, IAEA**

Paper No.	Name	Designating Member State/Organization	Title of Paper
146	P. Murphy	IAEA	Alternative Contracting and Ownership Approaches for New Nuclear Power Plants IAEA-TECDOC-1750
105	E. Teplinsky	USA	Development Financial Institution Financing for Small Modular Reactor (SMR) Projects: A Mechanism to Address Climate Change Crisis and Meet Sustainable Development Goals by Facilitating SMR Deployment in the Developing World
65	K. Kallemets	Estonia	Achieving 33GWe Annual Newbuild with Startup Model and Financing in SMR Deployment Industry
148	F. Dassa	France	Nuclear and Climate: the Necessary Evolutions of the Market Design
	M. Martini	OECD/ ENV	Financing Techniques and Instruments to Promote Low Carbon Development

15:30–16:00 *Coffee/ Tea Break*

**16:00–17:30 PARALLEL TECHNICAL SESSION 1D: Board Room B
Regional Perspectives: the Case of EU**

Chairpersons: E. Proust, European Nuclear Society
A. Van Heek, IAEA

Paper No.	Name	Designating Member State/Organization	Title of Paper
31	M. Constantin	Romania	Nuclear Power Development in Romania in the Context of Future Energy Market and Climate Change Policies
47	Ž. Tomšić	Croatia	Possible Role of SMR in Croatian Low Carbon Development Strategy
123	E. Proust	European Nuclear Society	The Important Role of Nuclear Power in a Low Carbon World: the View of the European Nuclear Society's High Scientific Council
139	A. Gerse	Hungary	Towards a Low-Carbon Electricity Supply in Central Eastern Europe: Modelling the Role of Nuclear Power Plants
128	B. Picamal	FORATOM	Nuclear Power in Europe - Where To?

17:30–19:00 Side event 2: Millennial Nuclear Caucus, Conference Room M2

16:00–17:30 PARALLEL TECHNICAL SESSION 1E: Conference Room M2
Perspective of Countries with Longer-Term Nuclear Prospects

Chairpersons: G. Güngör, Turkey
B. Magne, IAEA

Paper No.	Name	Designating Member State/Organization	Title of Paper
4	G. Güngör	Turkey	The Role of Nuclear Energy in Transition Pathways of Turkish Energy Sector
30	V. Watcharasuragul	Thailand	Dissemination of How Nuclear Energy Can Support Thailand 4.0 Policy
34	R. Fahmy	Egypt	The Significant Role of Nuclear Energy in Tackling Climate Change
122	D. Musyoka	Kenya	Nuclear Power Contribution to Kenya's Nationally Determined Contributions
143	I. Ennison	Ghana	The Role of Nuclear Power in the Mitigation of Ghana's Long Term Greenhouse Gas Emission

17:30–19:00 Side event 2: Millennial Nuclear Caucus, Conference Room M2

WEDNESDAY, 9 OCTOBER 2019**08:45–10:45 PLENARY SESSION 2: Nuclear Power Today & Tomorrow Board Room B****Chairpersons: A. Omoto, Japan
D. Nicholls, South Africa**

Paper No.	Name	Designating Member State/Organization	Title of Track
154	L. Guimarães	Brazil	Invited Speaker #1: Track 2 – The Increasing Contribution of Nuclear Power in the Mitigation of Climate Change, Including Synergies with Other Low-Carbon Power Generation Sources
120	G. Rasul Athar	Pakistan	Invited Speaker #2: Track 2 – The Increasing Contribution of Nuclear Power in the Mitigation of Climate Change, Including Synergies with Other Low-Carbon Power Generation Sources
152	J. Reyes	USA	Invited Speaker #3: Track 2 – The Increasing Contribution of Nuclear Power in the Mitigation of Climate Change, Including Synergies with Other Low-Carbon Power Generation Sources
163	S. Pivet	Generation IV International Forum	Invited Speaker #1: Track 3 – Development and Deployment of Advanced Nuclear Power Technologies to Increase the Use of Low-Carbon Energy
160	M. Lesinski	Canada	Invited Speaker #2: Track 3 – Development and Deployment of Advanced Nuclear Power Technologies to Increase the Use of Low-Carbon Energy
	A. El Gammal	European Energy Research Alliance	Invited Speaker #3: Track 3 – Development and Deployment of Advanced Nuclear Power Technologies to Increase the Use of Low-Carbon Energy
<i>10:45–11:15 Coffee/Tea Break</i>			

**11:15–12:45 PARALLEL TECHNICAL SESSION 2A: Board Room B
NPP Long-Term Operation**

Moderator: F. Dermarkar, Canada

Paper No.	Name	Designating Member State/Organization	Title of Paper
150	A. Goicea	FORATOM	The Importance of Long-Term Operation of the Existing EU Nuclear Fleet
151	S. Bernhoft	USA	Overview of the Electric Power Research Institute's Research for Long Term Operations
153	A. Al Mazouzi	France	Innovation for Safe and Competitive Nuclear Energy as a Low Carbon Energy Source in the Long Term
156	S. Rátkai	Hungary	MVM Paks NPP Contribution to Carbon Free Electricity Production in the Hungarian Electricity Mix
	M. Knutson	Canada	

12:45–14:00 *Lunch Break*

12:45-14:00 Side event 3: Low Carbon Energy Systems Based on Nuclear & Renewables – International Expertise & National Best Practices

**11:15–12:45 PARALLEL TECHNICAL SESSION 3A: Conference Room M2
Advanced Reactor Deployment for Electric and Non-Electric Applications**

**Chairpersons: K. Hioki, Japan
S. Bragg-Sitton, USA**

Paper No.	Name	Designating Member State/Organization	Title of Paper
37	J. Reyes	USA	Adapting Nuclear Power for Climate Change
92	M. Deinert	USA	Scale Matters: Ending Global Electricity Poverty Provides New Opportunities for SMR and MMR Technologies
86	M. Li	China	Deep-Pool Low-Temperature Heating Reactor (DHR)
35	L. Alkawass	Austria	Nuclear-SMR for Reliable Electricity System and Climate Change Mitigations in Lebanon
155	T. Nishihara	Japan	Japan's HTGR program and potential for reduction of CO ₂ emission

Paper No.	Name	Designating Member State/Organization	Title of Paper
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12:45–14:00 *Lunch Break*

12:45-14:00 Side event 3: Low Carbon Energy Systems Based on Nuclear & Renewables – International Expertise & National Best Practices

**14:00–15:30 PARALLEL TECHNICAL SESSION 2B: Board Room B
Flexible Operation & Hybrid Energy Systems**

Moderator: S. Bragg-Sitton, USA

Paper No.	Name	Designating Member State/Organization	Title of Paper
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52	S. Feutry	France	Renewables and Flexible Nuclear Alliance for a Low Carbon Electricity Generation
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12	S. Pustovalov	Russia	New Opportunities of Existing Nuclear Power Plants for Climate Change Mitigation
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19	N. Haneklaus	Germany	Nuclear-Renewable Hybrid Energy Systems – IAEA Activities
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118	F. Reitsma	IAEA	Potential of Hybrid Energy Systems Based on SMRs and Renewables for Energy Supply and Security
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	C. Fazio	Joint Research Centre of the European Commission	Nuclear in Future Energy Mix. Research Needs from a European Perspective
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15:30–16:00 *Coffee/ Tea Break*

**14:00–15:30 PARALLEL TECHNICAL SESSION 3B: Conference Room M2
Greenhouse Gas Reduction in the Nuclear Fuel Cycle**

**Chairpersons: A. Bychkov, Russia
S. Monti, IAEA**

Paper No.	Name	Designating Member State/Organization	Title of Paper
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43	J. Guidez	France	What is the Interest of New Type of Reactors to Improve the Fight Against Global Warming?
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79	Z. Li	China	Exploration Progress and Models on Green Type of Sandstone-Hosted Uranium Resources for Nuclear Energy Development in China
119	H. Tulsidas	UNECE	Energy Neutral Mineral Processing to Support Climate Change Mitigation
162	P. Paviet	USA	Why is the Back End of the Nuclear Fuel Cycle Important for Greenhouse Gas Reduction?
15:30–16:00 <i>Coffee/ Tea Break</i>			

**16:00–17:30 PARALLEL TECHNICAL SESSION 2C: Board Room B
Large Deployment of Evolutionary Nuclear Power Plants**

**Chairpersons: A. Bychkov, Russia
T. Jevremovic, IAEA**

Paper No.	Name	Designating Member State/Organization	Title of Paper
24	M. Shohag	Bangladesh	A Comprehensive Study on the National Power System Master Plan of Bangladesh Incorporating Nuclear Power in the Energy Mix Considering Climate Change and Country's Development Goal
121	H. Turton	IAEA	Accelerating Deployment of Low Carbon Power for 1.5°C
101	J. Seo	Republic of Korea	Korean Experiences on Delivering Generation III Advanced Light Water Reactors - APR1400
42	I. Pioro	Canada	Current Status and Future Developments in Nuclear-Power Industry of the World

17:30–19:00

Side event 4: IAEA - Power Invest: Insights into the Costs and Benefits Attached to Investments in the Power Sector

Side event 5: Through the Climate Lens: Growing Support for a Technology Inclusive Approach

**16:00–17:30 PARALLEL TECHNICAL SESSION 3C: Conference Room M2
Challenges Associated with the Rapid Deployment of New Innovative Technologies**

**Chairpersons: J. Guidez, France
F. Reitsma, IAEA**

Paper No.	Name	Designating Member State/Organization	Title of Paper
74	I. Khamis	IAEA	The Role of Nuclear Hydrogen Production in a Low-Carbon Economy
97	L. Shasko	Canada	Creative Disruption for Clean Nuclear Energy and GHG Emission Reductions
138	A. Moskvin	Russia	Hydrogen Energy Perspectives
75	C. Ni	China	Developing Nuclear Energy Heating to Reduce Carbon Emissions in North China
157	J. Arima	Japan	Opportunities and Challenges for Nuclear Innovation in Japan

17:30–19:00

Side event 4: IAEA - Power Invest: Insights into the Costs and Benefits Attached to Investments in the Power Sector

Side event 5: Through the Climate Lens: Growing Support for a Technology Inclusive Approach

THURSDAY, 10 OCTOBER 2019**08:45–10:45 PLENARY SESSION 3: Partnerships & Engagement Board Room B****Chairpersons: M. Betti, Joint Research Centre of the European Commission
Suryantoro, Indonesia**

Paper No.	Name	Designating Member State/Organization	Title of Track
99	S. Jaworowski	Nuclear Innovation: Clean Energy Future	Invited Speaker #1: Track 5 – Enhancing International Cooperation and Partnership in Nuclear Power Deployment
	K. Gogan	UK	Invited Speaker #2: Track 5 – Enhancing International Cooperation and Partnership in Nuclear Power Deployment
	F. Vladu	UNFCCC	Invited Speaker #3: Track 5 – Enhancing International Cooperation and Partnership in Nuclear Power Deployment
158	G. Thomas	UK	Invited Speaker #1: Track 6 – Public and Non-Nuclear Stakeholders' Perception of the Role of Nuclear Power in Climate Change Mitigation
	J. Lovering	USA	Invited Speaker #2: Track 6 – Public and Non-Nuclear Stakeholders' Perception of the Role of Nuclear Power in Climate Change Mitigation
	S. Qvist	Sweden	Invited Speaker #3: Track 6 – Public and Non-Nuclear Stakeholders' Perception of the Role of Nuclear Power in Climate Change Mitigation

*10:45–11:15 Coffee/Tea Break***11:15–12:45 PARALLEL TECHNICAL SESSION 5A: Multilateral Partnership Mechanisms Board Room B****Moderator: S. Jaworowski, USA**

Paper No.	Name	Designating Member State/Organization	Title of Paper
	K. Gogan	UK	

Paper No.	Name	Designating Member State/Organization	Title of Paper
	L. Angelino	International Renewable Energy Agency (IRENA)	Interactive Panel Session on: <i>Enhancing International Cooperation and Partnership in Low-Carbon Power Deployment</i>
	W. Huang	IAEA	
	J. Cobb	World Nuclear Association (WNA)	

12:45–14:00 *Lunch Break*

12:45-14:00 Side event 6: Capacity Building in Support of SDGs on Energy & Climate

**11:15–12:45 PARALLEL TECHNICAL SESSION 6A: Conference Room M2
National Insights into Public Perception**

**Chairpersons: R. Whittleston, UK
C. Nahon, France**

Paper No.	Name	Designating Member State/Organization	Title of Paper
6	L. Alkawass	Austria	Lebanese Public Opinion on Nuclear Power
9	Y. Anpilova	Ukraine	Nuclear Energy and Public Opinion in Ukraine
129	H. Cheerathadayan	India	Environment, Nuclear Power and People's Movement: India's Triangular Dilemma
22	M. Ritonga	Indonesia	The Role of Teachers on Forming People's Perception on Nuclear Energy in Indonesia
	S. Roth	Sweden	

12:45–14:00 *Lunch Break*

12:45-14:00 Side event 6: Capacity Building in Support of SDGs on Energy & Climate

14:00–15:30 PARALLEL TECHNICAL SESSION 5B: Board Room B
Experiences and Perspectives on Cooperation

Chairpersons: A. Metelitsa, UNIDO
A. Borio Di Tigliole, IAEA

Paper No.	Name	Designating Member State/Organization	Title of Paper
32	B. Carpinelli	Argentina	Nuclear Energy as a Solution to Climate Change Analyzed in Terms of the New Global Market Demands, the Importance of Nuclear Projects Cooperation and the IOs Role
72	B. Li	China	Current Status of Nuclear Power Development and Nuclear Safety in China
23	E. Zaveckas	USA	Harnessing International Support for Nuclear Power Deployment: Challenges and Opportunities
5	M. Sejmenova-Gichevska	North Macedonia	Nuclear Information Management Related to Climate Change: Correlation between Energy Indicators for Sustainable Development and INIS Knowledge Organisation System

15:30–16:00 *Coffee/ Tea Break*

14:00–15:30 PARALLEL TECHNICAL SESSION 6B: Conference Room M2
Strategies and Initiatives on Channels of Communication

Chairpersons: F. Puente Espel, Mexico
A. Stott, IAEA

Paper No.	Name	Designating Member State/Organization	Title of Paper
96	L. Shasko	Canada	Innovating the Bridge Building Elements of 'Reluctant Acceptance'
115	C. Grundy	UK	Dialogue Study Public Perception for Advanced Nuclear Technologies including SMRs and AMRs
133	E. Langegger	Austria	The Nuclear4Climate Initiative: Lessons Learned from Grassroots Campaign
	L. Beltran	Mexico	

15:30–16:00 *Coffee/ Tea Break*

16:00–17:30 PARALLEL TECHNICAL SESSION 6C: Board Room B
Novel Approaches to Nuclear
Communication

Chairpersons: G. Thomas, UK
L. Berthelot, IAEA

Paper No.	Name	Designating Member State/Organization	Title of Paper
53	C. Ringenbach	France	The Climate Collage: Original & Effective Way to Explain Climate Change Widely for Non-Scientific People
81	N. Davydova	Russia	Public Involvement in the Discussion on Nuclear Energy, the Environment and Climate Change: the Case of the ROSATOM Public Council's Project "Green Square"
142	S. Rasmeni	South Africa	Addressing the Public Perception on the Role of Nuclear Power on Climate Change Reduction Through Educational Awareness and Collaboration
116	B. Kugelmass	USA	True Reversal of Climate Change Requires Nuclear Energy

16:00-17:30 Side event #7: Infographics: IAEA Data Visualization Challenge

17:30–19:00 Side event #8: Advanced Nuclear Innovation & Climate Change: UK Perspectives, Conference Room M2

FRIDAY, 11 OCTOBER 2019

09:00–10:30 **PLENARY SESSION 4: Nuclear Safety and Security** **Board Room B**

Chairpersons/ **L. Heikinheimo, Finland**
moderators: **J. Lentijo, IAEA**

Name	Designating Member State/Organization	Title
H. Alkaabi	United Arab Emirates	Keynote speaker
M. Hartley	UK	Keynote speaker
Y. Liu	China	Panelist
A. Parvez	Pakistan	Panelist
K. Mrabit	Morocco	Panelist
S. Mallick	IAEA	Panelist

10:30–11:00 Coffee/Tea Break

11:00–11:20 **AWARD CEREMONY** **Board Room B**

Name	Designating Member State/Organization	Title
W. Huang	IAEA	Infographics: IAEA Data Visualization Challenge

11:00–11:20 **CLOSING SESSION** **Board Room B**

Name	Designating Member State/Organization	Title
M. Chudakov	Conference President, IAEA	Conference Summary

Poster Presentations

TUESDAY, 8 OCTOBER 2019

10:45–11:15 POSTER SESSION 1: TRACKS 1 & 4 MO2 Foyer Area
15:30-16:00 Energy Policies and Financial Instruments to Stimulate Low Carbon Investments

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
21	L. Ferreira da Silva C. França de Menezes	Brazil	New Perspectives for The Brazilian Energy Sector
25	C. Manda L. Mandoloma	Malawi	A Review of the Contribution of Nuclear Power Plans Towards Malawi Energy Poverty and Climate Change Mitigation Goals: A development Country Perspective
27	O. Dudkin	Ukraine	Achieving the climate change goals through nuclear energy development: Ukrainian experience
29	O. Agbenorku K. Appiah, A. Mensah	Ghana	The Introduction of Nuclear Power to Ghana's Energy Mix and its Implications on Climate Change
49	E. M. Ruiz H. R. Mora, D. P. Martín, I. L. López	Cuba	Evaluation of Adaptation Options for the Cuban Energy System to Climate Change and Extreme Weather
50	M. B. Alsous	Syria	Strategic study of the Syrian energy supply alternatives for the period 2020-2050 including GHG statistics
56	T. T. Naing	Myanmar	The Role of Nuclear Power and Climate Change in Myanmar
77	G. Pourabedin	Iran	Suggesting the National Measurement, Reporting and Verification (MRV) System for Iran
88	E. Elmoujarkach	Saudi Arabia	The Impact of Adding Two Nuclear Reactors to Saudi Arabia National Grid in Reduction of Carbon Dioxide Emissions
91	W. Allison	UK	Understanding the Place of Nuclear in the Science of Energy
95	J. McBride	USA	Drivers of Historical Nuclear Construction Costs
106	U. F. Ahmad N.F. Isa	Nigeria	Nuclear Power: Essential for Sustainable Development
111	P. González B.Nagel, G.Ribeck	Chile	Nuclear Energy and Climate Change Policies in Chile

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
127	N. A. Basri A.T. Ramli, K. Hamzah, S. Hashim¹	Malaysia	CO ₂ Emission in the Energy Sector in Malaysia - An Overview
134	A. El-Sadat M. A. Tolba, S. A. Kotb. N. M. A. Ayad	Egypt	Optimum Planning of Nuclear Power Plants Integration in Egyptian Grid for Minimizing the CO ₂ Emissions
145	B. Asfaw	Ethiopia	The Role of Nuclear Power and other Alternative Energy Mixes to Mitigate Climate Change in Ethiopia
161	S. Richet	IAEA	Overall Review of the Energy Contributions for the 1.5 Degrees Scenarios

WEDNESDAY, 9 OCTOBER 2019

10:45–11:15	POSTER SESSION 2: TRACKS 2 & 3	MO2 Foyer Area
15:30-16:00	Nuclear Power Today & Tomorrow	

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
10	S.I.A.Saed Ahmed	Egypt	The Impact of Climate Changes and The Thermal Performance of Nuclear Power Plant
13	R. Menya	Uganda	Regulatory Infrastructure for Launching the First Nuclear Power Plant in Uganda
15	L.H. Nahari A. W. Harto, M.T.	Indonesia	Nuclear Energy Industrial System Concept For Reducing Carbon Emissions In The Face Of Climate Change
28	E. D. Greaves L. Sajo-Bohus F. Visaez G.Bernasconi	Venezuela	The molten salt reactor as an energy aid to foster worldwide a reforestation program modelled on the Venezuelan experience.
38	A. M. A. Dawood	Ghana	Why I Choose Nuclear Power – The Facts and Figures #
40	M. Varvagianni P. Savva, T. Xenofontos, J. Silva, J. Maillard, N. Catsaros	Greece	Preliminary Study of large commercial ships nuclear propulsion capability using small modular ADS
41	Z. M. Ihsan	Indonesia	How Environmentally Friendly and Economic is Different Method of Electrical Load Following in Nuclear Power Plant
48	M. Salem	Egypt	Proposed Investigation on the Replacement of Coal and Fossil Energy by Nuclear Power Related to its Impact on Climate Change

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
64	S.K. Rasmeni H.J van Niekerk L. Ncube B. Zhao	South Africa	Impacts of paleoclimate change on the evolution of the Zambezi River Basin: Implications to South Africa's hydropower generation and electricity crisis
76	D. Subbotniskiy C. Batra	IAEA	Service Benefits: Potential Role of SMRs in Isolated Northern Areas for Climate Change Mitigation
80	R. El Emam T. Jevremovic, I. Khamis, S. Monti, F. Reitsma	IAEA	Innovative Nuclear Energy Systems: Sustainable Solution for Energy Security and Climate Change Concerns
89	Endre Böröcsök Ágnes Gerse	Hungary	Sustainable nuclear-renewable hybrid systems: a case study for Hungary
90	Whan-Sam Chung S-Su Kim Ik Jeong	Korea Rep of	A holistic model for environmental impact assessment of nuclear power generation in Korea
109	K. Narayana	India	Ocean-contained-nuclear-farms integrated with global-free-gravity transportation for restoring climate-health to the best condition of stone-age period
141	C. A. B. Dath	Sénégal	Small Uranium Mines in the SMR Development Era with Focus on African Context from Economic to Sustainability Analysis
144	J. Liou	IAEA	Nuclear Renaissance: Small Modular Reactors in Developing Countries versus Obstacles and Challenges of Grid Capacity

THURSDAY, 10 OCTOBER 2019**10:45–11:15 POSTER SESSION 3: TRACKS 5 & 6
15:30-16:00 Partnerships & Engagement****MO2 Foyer Area**

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
44	A. Ioannidou	Greece	The role of higher education institutions in changing public perception of the role of nuclear energy in climate change
	E. English	IAEA	Talk Pretty – The Role of Data Visualization in Improving Public Perception

E-Posters**TUESDAY, 8 OCTOBER 2019****10:45–11:15 E-POSTER SESSION: TRACKS 2 & 3
Nuclear Power Today & Tomorrow****MO1 E-Space area**

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
10	S.I.A. Saed Ahmed	Egypt	The Impact of Climate Changes and The Thermal Performance of Nuclear Power Plant

TUESDAY, 8 OCTOBER 2019**15:30–16:00 E-POSTER SESSION: TRACKS 2 & 3
Nuclear Power Today & Tomorrow****MO1 E-Space area**

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
15	L.H. Nahari A. W. Harto, M.T.	Indonesia	Nuclear Energy Industrial System Concept For Reducing Carbon Emissions In The Face Of Climate Change

WEDNESDAY, 9 OCTOBER 2019**10:45–11:15 E-POSTER SESSION: TRACKS 2 & 3 MO1 E-Space area
Nuclear Power Today & Tomorrow**

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
109	K. Narayana	India	Ocean-contained-nuclear-farms integrated with global-free-gravity transportation for restoring climate-health to the best condition of stone-age period

WEDNESDAY, 9 OCTOBER 2019**15:30-16:00 E-POSTER SESSION: TRACKS 2 & 3 MO1 E-Space area
Nuclear Power Today & Tomorrow**

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
144	J. Liou	IAEA	Nuclear Renaissance: Small Modular Reactors in Developing Countries versus Obstacles and Challenges of Grid Capacity

THURSDAY, 10 OCTOBER 2019**10:45–11:15 E-POSTER SESSION: TRACKS 5 & 6 MO1 E-Space area
Partnerships & Engagement**

Screen No.	Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
1		E. English	IAEA	Talk Pretty – The Role of Data Visualization in Improving Public Perception

THURSDAY, 10 OCTOBER 2019**15:30-16:00 E-POSTER SESSION: TRACKS 1 & 4 MO1 E-Space area
Energy Policies and Financial Instruments to Stimulate Low Carbon Investments**

Screen No.	Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
1	21	L. Ferreira da Silva C. França de Menezes	Brazil	New Perspectives for The Brazilian Energy Sector

IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE EVENT

Climate Change and Nuclear Power (2018)

IAEA Bulletin, Nuclear Technology for Climate (2018)

Nuclear Power for Sustainable Development (2017)

Nuclear Power and Market Mechanisms under the Paris Agreement (2017)

The IAEA and Climate Change (2017)

Nuclear Power and the Paris Agreement (2016)

Nuclear Power and Sustainable Development (2016)

Adapting the Energy Sector to Climate Change (2019)

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International Conference on Research Reactors: (CN-277), 25–29 November, Buenos Aires, Argentina

2020

International Conference on Nuclear Security (ICONS-2020) (CN-278), 10-14 February, Vienna, Austria

International Conference on Enhancing the Operational Safety of Nuclear Power Plants (CN-284), 11-15 May, Beijing, China

International Conference on Knowledge Management and Human Resources Development: Challenges and Opportunities (CN-282), 15-19 June, Moscow, Russia

International Symposium on Sustainable Animal Production and Health – Current Status and Way Forward (CN-281), 22-26 June, Vienna, Austria

International Conference on the Safe Transport of Radioactive Material (CN-280), 29 June to 3 July, Vienna, Austria

Scientific Forum (CN-283), 22 to 23 September, Vienna, Austria

28th IAEA Fusion Energy Conference (FEC2020) (CN-286), 12-17 October, Nice, France

International Conference on the Management of Naturally Occurring Radioactive Materials (NORM) in Industry (CN-287), 19-23 October, Vienna, Austria

International Conference on Radiation Safety (CN-279), 9-13 November, Vienna, Austria

International Conference on Molecular Imaging and Clinical PET-CT: Paving the Way Towards Personalized Medicine and Theranostics (IPET-2020) (CN-285), 24 - 27 November, Vienna, Austria

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