

PACIFIC FORUM

I N T E R N A T I O N A L



Council for Security Cooperation in the Asia-Pacific (CSCAP)

Nuclear Energy Experts Group

Singapore

August 2-4, 2023

AGENDA

Wednesday, August 2, 2023

9:00

Introduction

Vista 2 & 3 - Level 3

Speaker(s): CSCAP Singapore and USCSCAP

9:15

Session 1: Developments in States with Established Nuclear Energy Programs

Vista 2 & 3 - Level 3

This session will examine trends in countries that manufacture nuclear reactors and/or rely on nuclear power for electricity generation. Is the current energy mix in these countries sustainable? What are the pros and cons of including nuclear energy in the mix? Has there been a shift in public acceptance of nuclear energy in the region? What impact has the aggressive development of nuclear energy by China and India had on the rest of the region? How have energy demand dynamics influenced the market for nuclear power exports in the region?

Speaker(s):

Sitakanta Mishra

Kaoru Naito

Jiyoung Park

10:30

Coffee Break

Vista 2 & 3 - Level 3

10:45

Session 2: Developments in States Pursuing Development of a Nuclear Energy Program

Vista 2 & 3 - Level 3

This session will focus on recent developments in Asian States that are actively pursuing nuclear energy as an alternative power source as part of their clean energy transition. How are countries addressing increasing energy demands and

their commitments to reduce carbon emissions from fossil fuels? What are the key drivers and impediments influencing plans for diversifying energy sources? Are current clean energy transition plans achievable? What are the current or future prospects for including nuclear power as an alternative energy source?

Speaker(s):
Sunarko

12:30 **Lunch**
Opus Bar & Grill - Lobby Level

14:00 **Session 3: Nuclear Energy and the Clean Energy Transition**
Vista 2 & 3 - Level 3

This session will offer perspectives on the potential role of nuclear energy in meeting clean energy goals established by commitments under the UN Framework Convention on Climate Change (UNFCCC). What is the relationship between the development of renewable energy sources such as wind and solar and nuclear energy? What is the optimal mix among various energy sources?

Speaker(s):
Victor Nian

15:30 **Break**
Vista 2 & 3 - Level 3

15:45 **Session 4: Conversion of Fossil Energy Resources for Nuclear Power**
Vista 2 & 3 - Level 3

This session will examine the potential feasibility of converting existing fossil fuel power production facilities for nuclear power generation. Is it possible to convert fossil fuel facilities for use as nuclear power facilities? What are the advantages and disadvantages of repurposing fossil fuel facilities? What types of nuclear reactors would be most suitable for use at converted facilities?

Speaker(s):
Brandt Mabuni

17:00 **Day 1 Sessions Conclude**

18:00 **Dinner**
Panorama 1 (Top floor)

Thursday, August 3, 2023

9:00 **Welcome**

Vista 2 & 3 - Level 3

9:05 **Session 5: Small Modular Reactor Technology Update**

Vista 2 & 3 - Level 3

This session will examine the recent developments in the various technologies associated with small modular reactors. Which technologies are emerging as the most suitable for use in operational SMRs? What are their most attractive features? What are the key challenges with each technology? Are there differences between land-based and floating power plant applications?

Speaker(s):

Andhika Yudha Prawira

Julius Cesar Trajano

Topan Setiadipura

10:30 **Coffee Break**

Vista 2 & 3 - Level 3

10:45 **Session 6: Emerging Technology Update**

Vista 2 & 3 - Level 3

This session will examine the potential role for emerging technologies including microreactors and nuclear fusion. What role can microreactors play in the broader context of developing a nuclear power program? What are the microreactor technologies with the greatest potential? What are the major challenges associated with deploying microreactors? What is the status of research on nuclear fusion? What is a realistic timeline for deployment of technology?

Speaker(s):

Amir Mohagheghi

Jorshan Choi

12:15 **Lunch**

Opus Bar & Grill - Lobby Level

13:30 **Session 7: Nuclear Governance: IAEA, ASEANTOM and National Regulators**

Vista 2 & 3 - Level 3

This session will focus on efforts by international, regional and national regulatory agencies that will influence the development and SMRs, microreactors, and other emerging technologies. What are the key lessons learned regarding SMRs contained in the 2022 IAEA publication on the subject? How will the findings of this study influence the deployment of SMRs? What roles are ASEANTOM and national regulators expected to play in the preparatory work associated with newly announced nuclear power programs in Southeast Asia?

How are IAEA, ASEANTOM and national regulators coordinating on emerging nuclear power programs? How do Asia's regional nuclear networks such as the Forum for Nuclear Cooperation in Asia and Asia Pacific Safeguards Network help strengthen nuclear security and nonproliferation?

Speaker(s):
Trevor Findlay
Haruetai Kasiwattanawut
Yutthana Tumnoi

15:00 **Roundtable on the future of Nuclear Energy in Asia and Wrap-up**
Vista 2 & 3 - Level 3

17:00 **Day 2 Sessions Conclude**

18:00 **Dinner**

Friday, August 4, 2023

9:00 **Introduction**
Vista 2 & 3 - Level 3

9:15 **Discussion Session 1: Spent Nuclear Fuel Management and Decommissioning**
Vista 2 & 3 - Level 3

This session will examine regional perspectives on spent nuclear fuel management for traditional nuclear power plants and small modular reactors (SMRs). Discussion questions will include the following:

- What are commonly discussed fuel management and decommissioning plans?
- What are the largest concerns regarding fuel management and/or decommissioning?
- What are the security implications for different fuel management and decommissioning plans

10:00 **Discussion Session 2: UAS/CUAS Challenges for Security and Regulations**
Vista 2 & 3 - Level 3

This session will examine the security threats posed by unmanned aerial systems (UAS) to nuclear power plants, along with counter-UAS (CUAS) measures that are under consideration by regional participants. Discussion questions will include the following:

- What are the biggest areas of interest regarding UAS?
- What opportunities exist for expanding UAS capabilities?

- How could CUAS be used as a basis for cooperation?

10:45

Coffee Break

Vista 2 & 3 - Level 3

11:00

Discussion Session 3: Nuclear Security Response and Performance Testing

Vista 2 & 3 - Level 3

This session will examine regional policy and operational perspectives for evaluating and assessing security response plans for emergency incidents at nuclear power plants. Discussion questions will include the following:

- What are the biggest obstacles to successful response & performance testing?
- What response & performance testing capabilities exist in the region?
- What stakeholders are important to engage?

11:45

Summary Insights & Conclusions

Vista 2 & 3 - Level 3

12:00

Day 3 Sessions Conclude