International Energy Agency

Launch of Thailand power system flexibility study

Friday 4 June 2021, 14:00 - 15:30 Bangkok / 09:00 - 10:30 CEST

Virtual webinar

Register <u>here</u>

Working language: Thai and English, simultaneous interpretation

Partner:







Launch of Thailand Power System Flexibility Study Friday 4 June 2021, 14:00 - 15:30 Bangkok / 09:00 - 10:30 CEST

This report launch event, organised in collaboration with Electricity Generating Authority of Thailand (EGAT), is intended to share the key findings of the IEA report on Thailand Power System Flexibility Study and recommendations on enhancing power system flexibility. This study examines flexibility from the technical and contractual aspect, and their interactions, under the current context of Thailand's power system. For technical flexibility, the report analyses the value of technical flexibility options, including power plants, pumped storage hydro and battery energy storage systems. For contractual flexibility, the report analyses the impacts of existing power purchase agreement and fuel supply contract structures on system flexibility. This report provides recommendations for the system to be able to use the full range of flexibility options in the most cost-effective and secure way.

Register here: https://ieaorg.zoom.us/webinar/register/WN_9-WyUCp1TJyq6vWqgyt80A

Draft Agenda

14:00 Bangkok	Opening Remarks
09:00 CEST	Dr. Nitus Voraphonpiput, Director, Generation and Transmission System Planning Division, EGAT
	Cesar Alejandro Hernandez, Head of Renewable Integration and Secure Electricity Unit, IEA
14:15 Bangkok	Power system development to support clean energy in Thailand (10 min)
09:15 CEST	Danuyot Dangpradit, Generation and Transmission Planning Division, EGAT
	Thailand power system flexibility study (30 min)
	Key findings and recommendations: technical and contractual flexibility
	Craig Hart, Energy Analyst, IEA
	Randi Kristiansen, Economics & Financial Analyst, IEA
14:55 Bangkok 09:55 CEST	Moderated panel discussion and Q&A
	Dr. Poonpat Leesombatpiboon, Executive Director, International Affairs Division, Ministry of Energy
	Dr. Nitus Voraphonpiput, Director, Generation and Transmission System Planning Division, EGAT
	Randi Kristiansen, Economics & Financial Analyst, IEA
	Dana Kenney, Principal Associate, Abt Associates, Inc.
	Moderator: Peerapat Vithayasrichareon, Energy Analyst, Renewable Integration and Secure Electricity Unit, IEA
15:25 Bangkok	Closing Remarks
10:25 CEST	Cesar Alejandro Hernandez, Head of Renewable Integration and Secure Electricity Unit, IEA
15:30 Bangkok	End of webinar
10:30 CEST	

The IEA's work on the Thailand power system flexibility study is part of the IEA's Clean Energy Transitions in Emerging Economies programme, which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952363.



Speakers' bios



Dr. Nitus Voraphonpiput is the Director of Generation and Transmission System Planning Division at EGAT, which is responsible for generation and transmission system development Planning, new technology on power system development planning, as well as power system connection and cooperation Planning. His work experiences at EGAT include the managerial works related to power purchase agreement both in technical analysis and negotiation upon numerous power purchase projects with neighbouring countries. He has played the significant role in developing the regional power projects of Laos, Thailand, Malaysia and Singapore Power Integration Project (LTMS-PIP) and Chairman for Working Group 2 of Heads of ASEAN Power Utilities/Authorities (HAPUA) being responsible for ASEAN Power Grid (APG)/ Transmission development. He has also been expertise and involved in several works in electrical fields. Dr. Nitus has a Doctoral Degree in Electrical Engineering from King Mongkut's University of Technology North Bangkok.



Dr. Poonpat Leesombatpiboon graduated from Thammasat University in economics with major in Econometrics and International Economics. Later he received the Royal Thai Government Scholarship to complete his MSc. in Operational Research at the London School of Economics (LSE). He served at National Energy Policy Office and as an academic advisory team to three Energy Ministers and one Deputy Prime Minister of Thailand. He completed his Ph.D. in Economics at George Washington University in the USA focusing his research ion the Strategic Petroleum Reserve (SPR) for Thailand. During his study in the USA, he also served as a consultant at the World Bank. He later returned to Ministry of Energy and took the role of Chief, Strategic International Energy Cooperation with the focus on promoting the relations and partnership between Thailand and several countries. His current role as the Executive Director of International Affairs Division is vital to promote the energy connectivity and trading in the region.





Cesar Alejandro Hernandez is the Head of the Renewable Integration and Secure Electricity Unit at the IEA. Mr Hernandez joined in 2017 to work in Electricity Market Design, Electrification and Power sector Decarbonisation strategies. Before he held the position in the Mexican Government as Managing Director for Analysis and Market Surveillance, where he participated in the design and implementation of the Power Sector Reform. Prior to this position, he was an advisor to the Finance Vice Minister in Mexico in energy and environmental issues. From 2007 to 2011 Mr Hernandez was Deputy Chief Economist, at Comisión Federal de Competencia, the Mexican Antitrust Authority. He holds a PhD in economics by the University of Toulouse in France, and a BA in Economics by the ITAM.



Danuyot Dangpradit is the Head of Power Development Planning Section in the Generation and Transmission System Development Division at EGAT. He is mainly responsible for the generation system development focusing on National Power Development Plan or PDP preparation. His EGAT experiences include the activities and projects management of international cooperation between EGAT, Thailand and related energy agencies on both multilateral and bilateral. Danuyot has a Master Degree in electrical engineering from Chulalongkorn University, Thailand.



Craig Hart is a renewables and power systems professional with almost 10 years' experience in the field. He currently works as an analyst in the Renewable Integration and Secure Electricity unit at the IEA, where he contributes to research and analysis around system flexibility, adequacy and resilience in the clean energy transition of both developed and emerging economies. This includes techno-economic modelling of future, transitioning power systems in order to highlight their flexibility requirements, and how mature and emerging technologies can be used to address the technical challenges of the clean energy transition. His work also involves taking those technical solutions that are identified to navigate a certain system's clean energy transition and providing specific recommendations at policy, regulatory and market levels in order to guide, unlock and incentivise system flexibility.





Randi Kristiansen is working in the Renewable Integration and Secure Electricity division in the IEA as an Economics & Financial analyst where she works with power system flexibility, market reform and cross-border (within countries and between countries) trading. Before joining the IEA she has spent 10 years trading power, coal, gas and electricity certificates in various European markets, as well as structuring corporate PPA's for renewables. After trading she joined the Danish Transmission System Operator, where she worked in the market development department. Randi Kristiansen holds a master of Economics from Aalborg University, Denmark.



Dana Kenney is a climate change and energy expert with more than 30 years of professional experience, including over 20 years in developing countries. She is currently Chief of Party of the USAID Clean Power Asia program, based in Bangkok. Prior to this, Kenney was a Senior Power Sector Advisor for USAID's Power Africa initiative based in Nigeria and led a USAID-funded project in the Republic of Georgia supporting development and implementation of low-emission development strategies. Kenney previously managed country programs under the Analysis and Investment for Low Emissions Growth (AILEG) project and also spent over a decade as a Senior Energy Advisor to USAID, overseeing programs supporting clean energy policy, planning and investments in Georgia and Indonesia. Kenney holds an M.A. in Technology and Human Affairs from Washington University in St. Louis, Mo. and a dual B.A. in Economics and Environmental Studies from Principia College in Elsah, III.



Peerapat Vithayasrichareon in an Energy Analyst at the IEA, leading the analytical work on renewable integration. He has led grid integration analysis in many regions including China, Indonesia, Thailand and ASEAN. Prior to the IEA, Peerapat was a Senior Consultant at Intelligent Energy Systems in Australia, where he took on advisory projects related to power sector planning and renewable integration in Asia Pacific. His previous roles include a Research Fellow at the Centre for Energy and Environmental Markets in Australia and an engineer at EGAT in Thailand. Peerapat had led the delivery of an Australian Government funded research project which examined the impact of high renewables in the Australian electricity sector. Peerapat holds a PhD in Electrical Engineering from the University of New South Wales, Australia.

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Personal Data Protection Notice for the Launch of Thailand power system flexibility study

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Please refer to the <u>Data Protection Notice regarding Visitors to the IEA and IEA Event Participants</u> available on the IEA's website for further information regarding the IEA's processing of your personal data for the Launch of Thailand power system flexibility study taking place on 4 June 2021 (the "**event**") and your rights in relation to your data.

The IEA also wishes to inform you that the event will be videorecorded. Additionally, the videorecording will be posted on. the IEA's website after the event. This in order to expand access to a wider audience, including people who weren't able to attend the event. Photographs may also be taken to facilitate communications and publicity. The IEA is unable to edit the recording during the live webcast or after the event in order to obscure any participant's image.

The recordings and photographs may be disseminated on social media channels and potentially re-used for informational purposes for up to 5 years. Additionally, the videorecording will be available for public review for up to 10 years. All such material will then be archived at the IEA for an indefinite period of time. Only limited IEA staff have access to such archived recordings and photographs.

As mentioned in the notice, we may also contact you about future events that might be of interest. If you do not wish to be contacted about this and future RISE events relating to power system flexibility work, please email anna.kalista@iea.org.