APERC

APERC

ASIA PACIFIC ENERGY RESEARCH CENTRE

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1 MESSAGE FROM THE PRESIDENT

Kazutomo IRIE
Chairman and President

Asia-Pacific Economic Cooperation (APEC) is a framework for economic cooperation involving 21 Asia-Pacific countries and regions (called "economies"). APEC comprises forums such as the Leaders' Meeting, the Ministerial Meeting and Sectoral Ministerial Meetings. The Energy Working Group (EWG), under the direction of the Energy Ministerial Meeting (EMM), is active in the energy sector.

To support these activities, the Asia Pacific Energy Research Centre (APERC) was established in 1996 in Tokyo following the directive of APEC Leaders in the Osaka Action Agenda.

The primary objective of APERC is to help foster a common understanding of, and solutions to, the energy challenges facing APEC member economies. This is accomplished through the study and analysis of each APEC member economy's energy demand and supply trends, the future energy demand and supply outlook, the development of the energy market, and responses to policy challenges. APERC is also developing a database of statistics necessary for energy research in the APEC region and is providing training designed to improve research capabilities.

The APEC region, and particularly Asia, has achieved significant economic growth in recent years, which has been accompanied by rapid growth in energy consumption. The APEC region now accounts for more than 50% of total global energy consumption. Meanwhile, the environment surrounding energy has been changing rapidly in recent years, reflecting fluctuations in the supply and price of oil, the shale gas revolution, and the accelerated introduction of renewable energy.

APERC will continue to do its utmost to meet expectations in addressing energy and environmental challenges in the APEC region. Specifically, it will seek to step up cooperation within the region for the efficient use of energy, the realisation of low carbon energy supply and the achievement of energy security.

I would like to take this opportunity to express my sincere appreciation for the extensive assistance that APERC receives from Japan and other APEC member economies. This assistance in funding for visiting researchers and support for research and study activities allows APERC to fulfill its mission.

Since its founding, APERC was an affiliate of the Institute of Energy Economics, Japan (IEEJ). On 1 July 2019, a new APERC was created as an independent general incorporated foundation. This transition was further solidified on 1 April 2020, when APERC took over the APEC-related activities from IEEJ. As we mark our 30th anniversary in 2026, we are inspired to renew our commitment to advancing energy research and collaboration across the Asia-Pacific region. We look forward to your continued support to deepening our partnerships in the years ahead.

2 SUMMARY OF ACTIVITIES

1. Activities to Foster Common Understanding of Energy Issues

【1】APEC Energy Demand and Supply Outlook

Every three years, APERC prepares an Energy Demand and Supply Outlook for the APEC region, looking ahead 30 years or more. The Outlook presents the energy and sectoral and energy source projections for the APEC region and for each of the 21 APEC member economies.

The latest edition, the ninth, was released in 2025.

【2】APEC Energy Overview

Each year, APERC also prepares and publishes the APEC Energy Overview, which introduces the current energy status and key energy policies in the 21 APEC member economies.

2. Activities to Support the Achievement of Energy Efficiency and Low-Carbon / Clean Energy Policy

【1】Support for Energy Efficiency Policy Development

Based on the consensus reached at the 15th APEC Leaders' Meeting in Sydney, Australia, in 2007, as well as at the 19th APEC Leaders‘ Meeting in Honolulu, United States, in 2011, APEC established a target of at least a 45% reduction in energy intensity by the year 2035 relative to 2005 levels. In pursuit of this target, APEC has implemented a range of initiatives since 2009 to promote energy efficiency throughout the region. Currently, the following project is in progress:

●Capacity Building Workshop for Energy Efficiency & Conservation Policy

Building upon the expertise and insights gained from APERC's previous energy efficiency policy initiatives, the workshop was officially launched in 2025 to facilitate capacity development for energy efficiency policymakers throughout APEC economies.

【2】Support for the Introduction of Low-Carbon / Clean Energy

APERC’s support for the introduction of low-carbon energy sources, such as renewable energy, was launched, building on the outcomes of the 9th APEC Energy Ministerial Meeting held in Fukui, Japan, in 2010. This commitment was further reinforced at the 11th APEC Energy Ministerial Meeting in Beijing, China, in 2014, where member economies agreed to the goal of “doubling the share of renewable energy in the region by 2030 compared to 2010 levels.

Furthermore, the importance of capacity building for methane emission reduction was discussed at the 13th APEC Energy Ministerial Meeting in Seattle, United States, in 2023. In 2024. At the 14th APEC Energy Ministerial Meeting in Lima, Peru, it was concurred that the development and deployment of clean and low-carbon hydrogen should be prioritized within the region.

●Capacity Building Workshop for New & Renewable Energy Policy

Building upon APERC's extensive expertise in renewable energy policy initiatives, the workshop was inaugurated in 2026 to facilitate capacity development for renewable energy policymakers across APEC Region.

●Workshop on Cleaner & More Efficient Operation of Fossil Energy Industry

The inaugural workshop was held in December 2025, aiming to facilitate the exchange of best practices in technologies and operational strategies that enhance energy efficiency and reduce fugitive emissions in the fossil energy sector. The workshop also serves as a platform for identifying practical solutions and offering expert guidance to support cleaner, more sustainable operations.

●Clean & Low-Carbon Hydrogen (CLCH) Policy Convention

As the adoption of clean, low-carbon hydrogen is expected to grow significantly, considerable economic and technological challenges must still be addressed. To support this transition, the inaugural CLCH Policy Convention is scheduled for 2026. This platform will bring together policymakers from APEC member economies to share best practices, exchange insights, and foster regional collaboration on advancing clean, low-carbon hydrogen development.

3. Support for Energy Security

●APEC Oil & Gas Security Initiative (OGSI)

The declaration of the 10th APEC Energy Ministerial Meeting held in June 2012 in Saint-Petersburg, Russia, calls for the implementation of a project to improve responses to oil and natural-gas emergencies, thereby ensuring the security of supply. Exercises took place in 2013 in Indonesia and Thailand (the latter was a joint exercise involving all Southeast Asian APEC member economies)

Based on this foundation, APERC is currently advancing the following initiatives:

1) Oil & Gas Security Exercise:OGSE
Tabletop exercises simulating specific responses to potential threats and emergency scenarios affecting the oil and gas sector.

2) Oil & Gas Security Network:OGSN
Providing an information-Sharing Platform for Oil and Gas Security Policymakers (OGSN forum), and publishing a Periodical Newsletter (OGSNL).

3) Oil & Gas Security Studies:OGSS
Research and analysis on critical issues related to oil and gas security, with findings published in dedicated reports.

4. Acceptance of Trainees and Dispatch of Experts

APERC accepts energy modeling trainees, chiefly from developing economies in the APEC region. These trainees learn about preparing energy statistics and energy demand and supply outlooks, and related matters.

APERC also sends experts on modeling techniques to APEC member economies and provide instruction in data management, energy balance preparation, macroeconomic modeling, and energy supply planning to help improve energy data and develop energy demand and supply outlook capability.

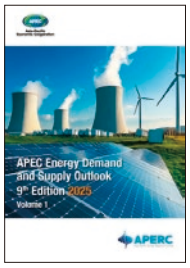
5. Activities to Build APEC Energy Data Management Network

APERC has built a communication network with energy organisations in the APEC member economies. The network allows uniform management of energy data submitted by APEC member economies and the preparation of energy balance tables based on this data.

APERC also serves as the secretariat responsible for organising the APEC Expert Group on Energy Data and Analysis (EGEDA) that meets once each year. APERC supplies the oil and gas data provided by APEC member economies to the Joint Organisations Data Initiative (JODI) database and works to improve data quality.

3 RESEARCH REPORTS

1. APEC Energy Demand and Supply Outlook



APEC Energy Demand and Supply Outlook 9th Edition 2025 Volume 1
https://aperc.or.jp/file/2025/12/1/APEC_Outlook_9th_Edition-Volume_1.pdf
APEC Energy Demand and Supply Outlook 9th Edition 2025 Volume 2 （Economy Reviews）
https://aperc.or.jp/file/2026/2/12/APEC_Outlook_9th_Edition-Volume_2_rev.pdf

APEC Energy Demand and Supply Outlook 8th Edition 2022 Volume 1
APEC Energy Demand and Supply Outlook 8th Edition 2022 Volume 2 （Economy Reviews）
APEC Energy Demand and Supply Outlook 7th Edition 2019 Volume 1
APEC Energy Demand and Supply Outlook 7th Edition 2019 Volume 2 （Economy Reviews）
APEC Energy Demand and Supply Outlook 6th Edition 2016 Volume 1
APEC Energy Demand and Supply Outlook 6th Edition 2016 Volume 2 （Economy Reviews）
APEC Energy Demand and Supply Outlook 5th Edition 2013 Volume 1
APEC Energy Demand and Supply Outlook 5th Edition 2013 Volume 2 （Economy Reviews）
APEC Energy Demand and Supply Outlook 4th Edition 2009 Volume 1
APEC Energy Demand and Supply Outlook 4th Edition 2009 Volume 2 （Economy Reviews）
APEC Energy Demand and Supply Outlook 2006
APEC Energy Demand and Supply Outlook Economy Review 2006
APEC Energy Demand and Supply Outlook 2002
APEC Energy Demand and Supply Outlook Updated September 1998
APEC Energy Demand and Supply Outlook & Energy Balance Tables Updated September 1998

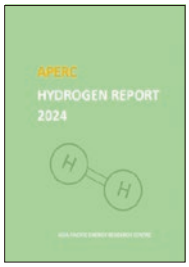
2. APEC Energy Overview

・Issued annually since 1996

https://aperc.or.jp/reports/energy_overview.php

3. APERC Fossil Fuel Reports（Coal, Oil, Gas, Hydrogen）

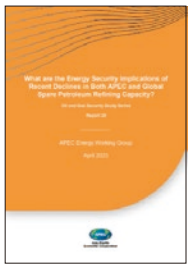
・Issued from 2018 (2020 for Hydrogen) to 2025



Fossil Fuel Reports

https://aperc.or.jp/reports/fossil_fuel_report.php

4. APEC Oil and Gas Security Studies (OGSS)



https://aperc.or.jp/reports/ogsi.php

No.20 What are the Energy Security Implications of Recent Declines in Both APEC and Global Spare Petroleum Refining Capacity? April 2025
No.19 Oil and Gas Security During the Energy Transition, September 2023
No.18 The impact of COVID-19 on oil and gas security, April 2022
No.17 Changing LNG market dynamics – implications for supply security in the APEC region, September 2020
No.16 Emerging energy security risks in changing global energy landscape, September 2018
No.15 Small-scale LNG in Asia Pacific, July 2019
No.14 Energy Security of APEC Economies and Changing Downstream Oil Environment, August 2018
No.13 Oil and Gas Security Indexation, September 2018
No.12 Investments in Natural Gas Supply Chain under the Low Price Environment, June 2018
No.11 Natural Gas Security in APEC, June 2017
No.10 Impact of Low Oil Price on Energy Security, June 2017
No. 9 Superiority of LPG: A Disaster Resistant Energy Source, May 2017
No. 8 Oil and Gas Security Indexation, March 2017
No. 7 Plans for Fuel Supplies during Disasters in Expectation of Nankai Megathrust Earthquakes, October 2016
No. 6 Melting of the Arctic Sea ice-Significance for the APEC Economies' Energy Security, November 2015
No. 5 Petroleum Product Trading and Security, November 2015
No. 4 Prospects and Compromise Points of the Arab Spring, Impact on Energy Security in the Asia-Pacific Region, November 2015
No. 3 The Energy Reform in Mexico, Implications for the Asia-Pacific Region, November 2015
No. 2 The Impact on Oil Distribution by the Great East Japan Earthquake, and Future Issues and Countermeasures, November 2015
No. 1 Oil Supply Security and Emergency Policy in the APEC Region, November 2015

5. Other Reports *Published from 2015 onwards

- APEC Energy Resiliency Sectoral Guidelines for Energy Infrastructure Companies, September 2024
- Renewable Energy Certificates (RECs) in Six APEC Southeast Asia Economies, July 2023
- APEC Energy Resiliency Guidelines, February 2023
- Challenges and Perspectives of Deployment of BEVs and FCEVS, February 2020
- Perspectives on Hydrogen in the APEC Region, June 2018
- Nuclear Power Generation in Asia-Pacific, August 2017
- Geopolitical Implication of Iran Nuclear Agreement, May 2017
- Natural Gas Utilization in APEC: Is the Golden Age of Gas Still Probable?, April 2017
- Geopolitical Risks in the Middle East after the Emergence of Islamic State and the Impact on the Energy Supply In Asia, November 2016
- Energy and Economic Competitiveness, October 2016
- LNG in Asia-Pacific-Favoring trade and rational market development, October 2016
- The Effect of the Crude Oil Price Drop on the Global Energy Market, September 2016
- A Study on the Development of Evaluation Methods for Smart Communities, September 2016
- Study on Policies to Lower Oil Demand in the Transport Sector in the APEC Region, September 2016
- Policy Success Factors for Geothermal Electricity Development in the APEC Region, 2015
- Initiatives to Expand the Introduction of Renewable Energy in Various APEC Economies: Examples of RPS in Japan, Korea and California in the US, November 2015
- A Study on Smart Communities in the APEC Region, November 2015
- Electric Power Grid Interconnections in Northeast Asia: a Quantitative Analysis of Economic and Environmental Benefits, November 2015
- Revised Version: Pathways to Shale Gas Development in Asia Pacific, November 2015
- Exercise Model Procedure, November 2015

All research reports are able to be downloaded from https://aperc.or.jp/

Report
https://aperc.or.jp/reports/

4 OVERVIEW OF ASIA-PACIFIC ECONOMIC COOPERATION (APEC)

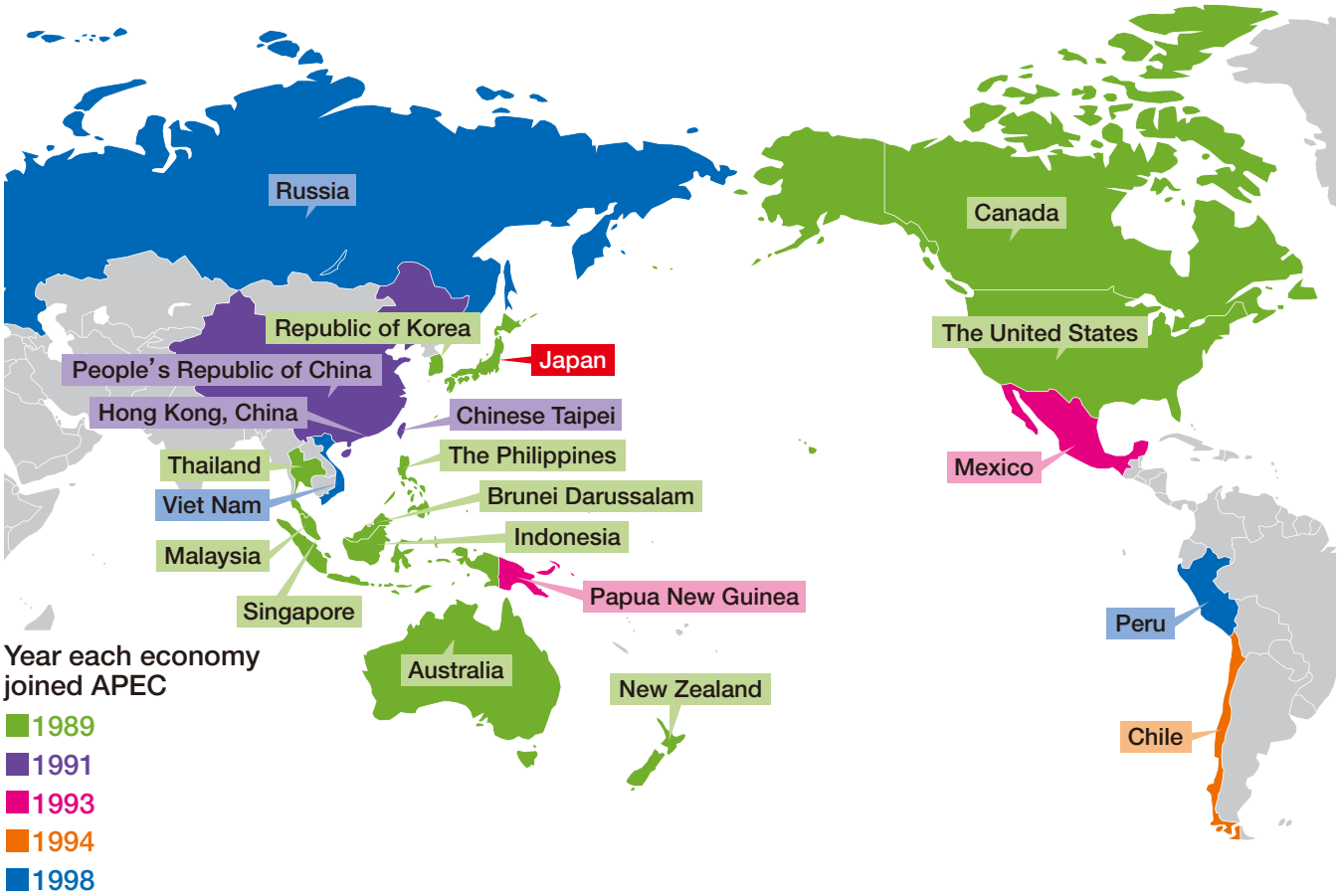
1. OVERVIEW

The Asia-Pacific Economic Cooperation (APEC) is a framework for economic cooperation, encompassing 21 economies in the Asia-Pacific region. In the late 1980s, there was remarkable economic growth, particularly in ASEAN, thanks to policies to attract foreign capital and progress in market integration in Europe and North America. With this growth, the need for new alliances and cooperation based on interdependent economic relationships was rising in the Asia-Pacific region as well.

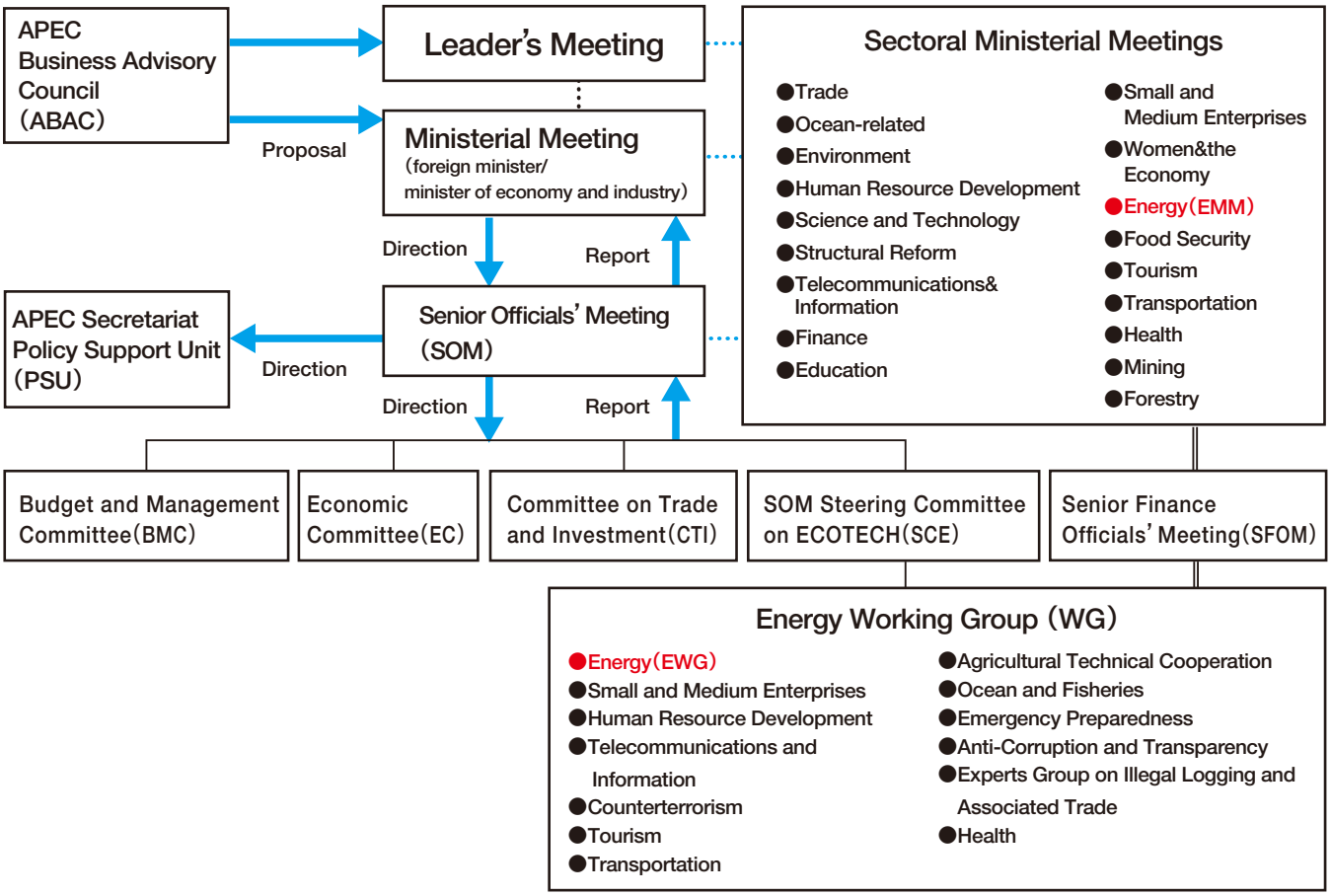
Against this backdrop, Bob Hawke, then prime minister of Australia, officially proposed the establishment of APEC in January 1989, partly in response to an approach from Japan. APEC was inaugurated with the first ministerial meeting held in Canberra later that year. The activities of APEC are characterised by cooperative and voluntary actions and an open framework for regional cooperation. Under these principles, APEC conducts activities for sustainable growth and prosperity in the Asia-Pacific region, including trade and investment liberalisation, business facilitation, and economic and technical cooperation.

APEC 21 Member Economies

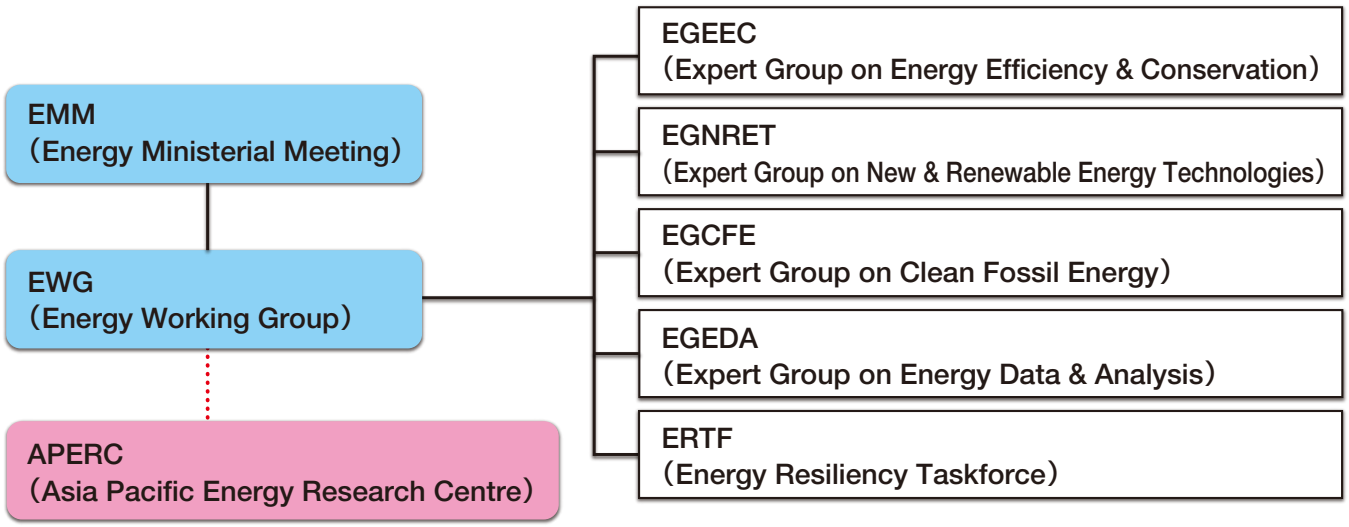
Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; Russia; Singapore; Chinese Taipei; Thailand; The United States and Viet Nam.



2. APEC ORGANISATIONAL STRUCTURE



3. APEC ENERGY ORGANISATIONS AND APERC

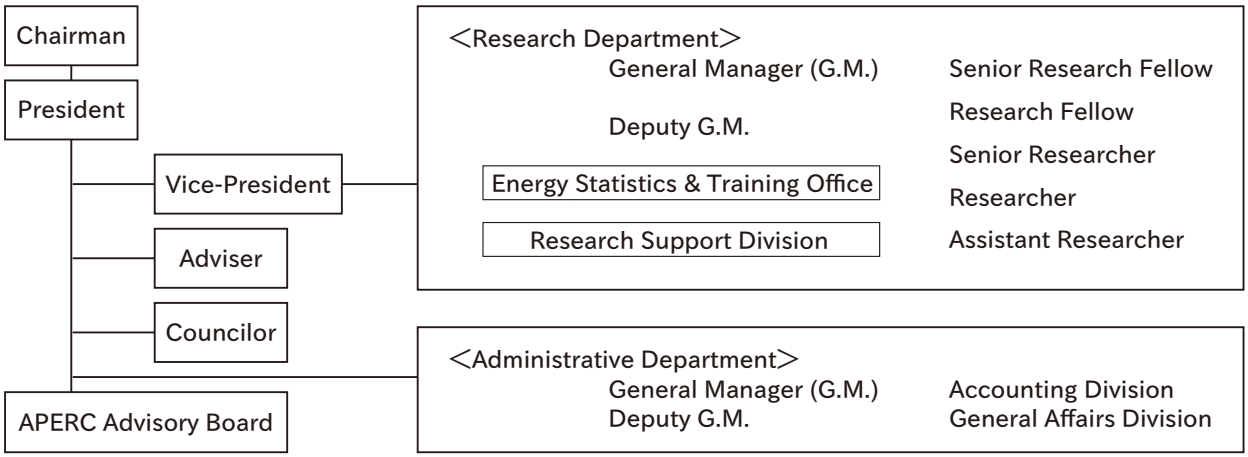


5 ORGANISATION AND OPERATION OF APERC

1. Establishment and History

APERC is an international organisation established in Tokyo on 1 July, 1996 as an affiliate of the Institute of Energy Economics, Japan (IEEJ), at the initiative of the Japanese Government in accordance with the APEC Osaka Action Agenda of November 1995. On 1 July, 2019 a new APERC was created as an independent general incorporated foundation and on 1 April, 2020 APERC took over APEC-related activities from IEEJ.

2. Organisation



3. Staffing

To accomplish the assigned tasks and to enhance the development of human resources for energy study in the APEC region, highly-qualified visiting researchers recruited from APEC member economies, in addition to Japanese researchers, conduct joint research and policy support activities.

Visiting researchers come from governments, research institutes and academic organisations in APEC member economies and are recruited through a competitive process. They are selected from qualified candidates in various fields, including economics, engineering, international relations and policy analysis.

4.Budget for Activities

The government of Japan has provided most of APERC's budget since the Centre's inception. This financial contribution (subsidy until fiscal year 2011) has been used to facilitate research activities and policy support, including activities to support the achievement of energy efficiency objectives, the acceptance of trainees and the dispatch of experts, the construction of energy data management networks, and activities to enhance fuel supply stability.

The Australian government also provided a subsidy to support research activities from 2004 to 2006.

5. APERC Advisory Board

●Background

The establishment of the APERC Advisory Board was endorsed by the APEC Energy Working Group (EWG) at their 16th meeting in Cairns, Australia, in August 1998. The Terms of Reference were endorsed by the APEC EWG at their 17th meeting in Oakland, the United States, in April 1999.

●Terms of Reference

The Advisory Board is a group of representatives of major research institutions located in the APEC region, who guide and facilitate APERC's cooperative research. The primary role of the Board is to give professional advice on APERC's on-going and proposed research, including methodologies, approaches, databases, and information sources, as well as the consultation of relevant experts.

APERC carefully considers the advice provided by its Advisory Board members in proposing its research plan at the APEC Energy Working Group (EWG).

Members (as of April 2026) are as follows:

Mr. Adam McKissack	Chief Energy Economist, Office of Energy Economics, Department of Climate Change, Energy, the Environment and Water (DCCEEW)	Australia
Mr. Allan Fogwill	COO, Petroleum Technology Alliance Canada (PTAC) Former President and CEO, Canadian Energy Research Institute (CERI)	Canada
Prof. Wang Zhongying	Former Director General, Energy Research Institute (ERI), National Development and Reform Commission (NDRC)	People's Republic of China
Dato' Ir. Ts. Razib Dawood	Executive Director, ASEAN Centre for Energy (ACE)	Malaysia
Dr. Nuki Agya Utama	Director for Energy Policy and Head of Asia Zero Emission Center, Economic Research Institute for ASEAN and East Asia (ERIA) Former Executive Director, ASEAN Centre for Energy (ACE)	Indonesia
Prof. Tatsuya Terazawa	Chairman and CEO, Institute of Energy Economics, Japan (IEEJ)	Japan
Dr. Hyun-Jae Kim	President, Korea Energy Economics Institute (KEEI)	Republic of Korea
Dr. Tatiana Mitrova	Research Fellow, Centre on Global Energy Policy, School of International and Public Affairs (SIPA), Columbia University	Russia
Dr. Viboon Sricharoenchaikul	Director, Energy Research Institute (ERI), Chulalongkorn University	Thailand
Dr. Nan Zhou	Senior Scientist, Technical Program Lead for the Net Zero World Action Centre, Lawrence Berkeley National Laboratory (LBNL)	The United States
Mr. Glen Ellsworth Sweetnam	Distinguished Fellow, Energy Policy Foundation (EPRINC)	The United States

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