

# Cooperative Activities of APEC on Oil and Gas

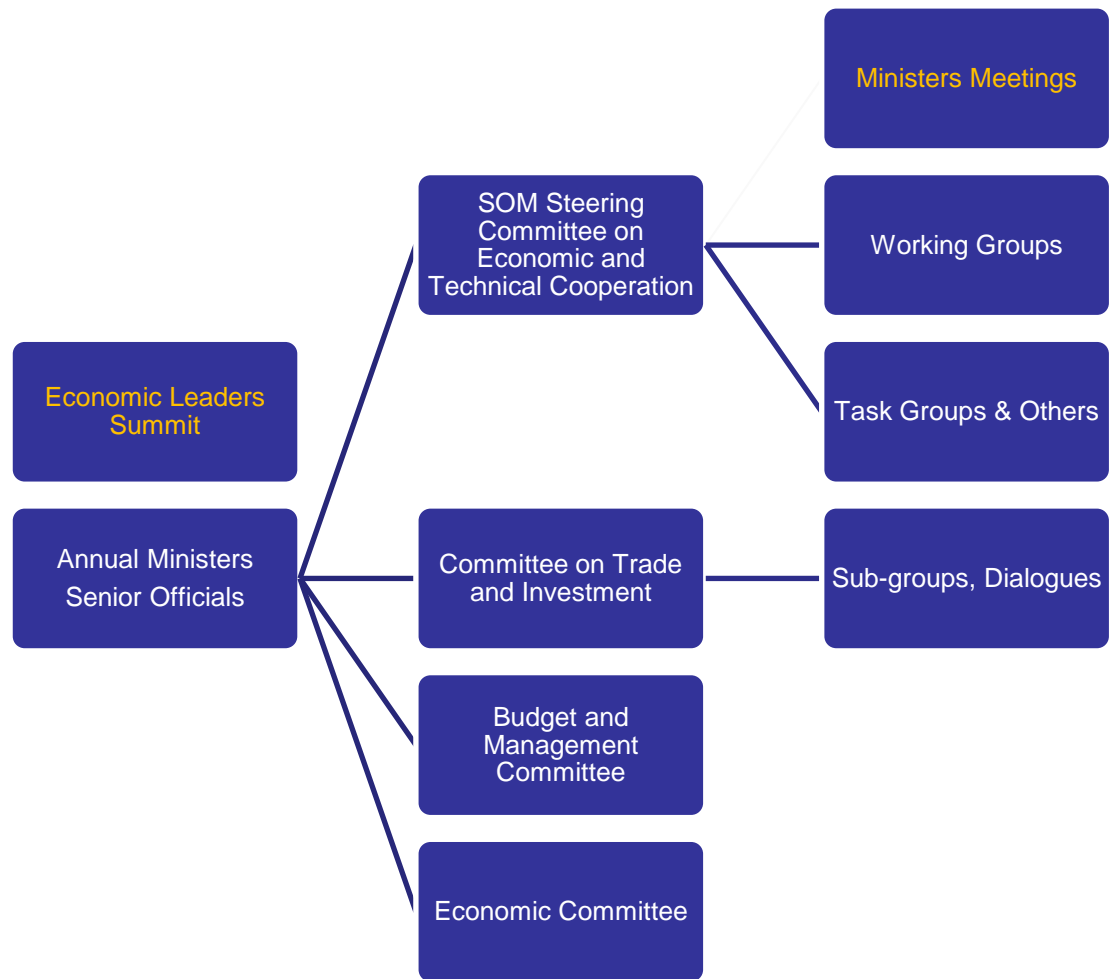
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# 1. Asia-Pacific Economic Cooperation

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; Viet Nam



# APEC Energy Working Group (EWG)



Launched in 1990, the EWG helps further APEC goals to facilitate energy-related-trade and investment and seeks to maximize the energy sector's contribution to the region's economic and social well-being, while mitigating the environmental effects of energy supply and use.

The EWG meets formally twice a year to discuss developments and progress on energy policy issues; 53 meetings to date.

# EWG and sub-fora

- Expert Group on Clean Fossil Energy (EGCFE)
- Expert Group on Energy Efficiency & Conservation (EGEEC)
- Expert Group on Energy Data & Analysis (EGEDA)
- Expert Group on New & Renewable Energy Technologies (EGNRET)
  - Low-Carbon Model Town Task Force (LCMT TF) (2010- )
  - Energy Resiliency Task Force (ERTF) (2015- )
- **Supported by two research bodies**
  - Asia Pacific Energy Research Centre (APEREC) (1996- )
  - Asia Pacific Sustainable Energy Center (APSEC) (2015- )

## Key Policy Goals and Initiatives/Activities

- Energy Intensity Reduction 45 % by 2035
- Renewable Energy Doubling by 2030
- Reform of Inefficient Fossil Fuel Subsidy
- Energy Security Initiative
  - Oil & Gas Security Initiative
  - Energy Resilience and Modernisation of Infrastructure
- Energy Smart Communities Initiative
  - Low Carbon Model Town
  - Knowledge Sharing Platform
- Green Energy Finance Initiative, LNG Trade Facilitation Initiative

## **2. Activities on oil & gas**

**---mainly focussed on energy security**

## Top 10 Net importers in 2015/16 (provisional)

Oil	Mt	Coal	Mt	Natural gas	bcm
US	348	PR China	247	Japan	116
PR China	333	India	199	Germany	79
India	203	Japan	189	PR China	69
Japan	165	Korea	134	Italy	65
Korea	139	Chinese Taipei	66	Turkey	46
Germany	91	Germany	53	Korea	44
Italy	67	Turkey	36	Mexico	43
Spain	65	Malaysia	29	France	43
Netherlands	59	Thailand	23	UK	38
France	57	Brazil	20	Spain	28



# APEC Energy Security Initiative

## Five Measures, Endorsed by Leaders in 2002

- Real-Time Energy Information Sharing
- Joint Oil Data Initiative
- Sea-lane Security
- Emergence Response of Oil Supply
- Non-oil & Longer-term Measures

## Longer-term Measures added in 2004

- Energy Investment; Natural Gas Trade; Energy Efficiency; Renewable Energy; Clean Fossil Energy; Hydrogen and Alternative Transportation Fuels; Methane Hydrates; Nuclear Energy; Petroleum infrastructure/Crude oil and refined products


# Oil and Gas Security Initiative

## Objective

OGSI is to improve oil and gas security in APEC region by carrying out security exercises, accelerating information sharing and transmission, and conducting research on issues that have impact on regional oil and gas security.

## Achievement

- ✓ Oil and Gas Security Exercise
  - Establish “Oil and Gas Security Exercise Model Procedure (EMP)”.
  - Voluntary exercises have been taken place in 5 economies since 2015, including Thailand, Indonesia, the Philippines, Australia, and Peru.
- ✓ Oil and Gas Security Network
  - 3 OGSN Forums have been held (Kitakyushu, Kagoshima, Irkutsk)
  - Bi-monthly OGS Newsletters have been sent to member economies’ officials
- ✓ Oil and Gas Security Studies
  - 6 studies were already published; 2 studies are underway




**APEC**  
Asia-Pacific Economic Cooperation

**APEC OIL AND GAS SECURITY EXERCISE MODEL PROCEDURE**

*A Step-by-Step Approach for Planning, Conducting and Evaluating Emergency Exercises*

**First Edition**  
November 2015

**APERC**  
Asia Pacific Energy Research Centre



**APERC** April 2016 Issue No. 1

**APEC Oil and Gas Security Newsletter**

**Declining CAPEX Raises Concerns Over Oil Supply Security**

The tumultuous environment in the energy industry has resulted in dramatic cuts to capital spending across many oil and gas companies worldwide. Spending for 2015 was significantly below 2014 and this trend will continue throughout 2016, marking the first time capital spending has dropped for two consecutive years since 1980. Reductions on capital spending, rig counts and headcounts allow companies to shield dividend commitments and ease investor concerns. Total US spending in 2016 is expected to fall 25.4% in response to huge losses posted last year with cuts directed primarily at drilling exploration and production. ExxonMobil and Chevron announced capital expenditure cuts of approximately 25% this year.

Despite these moves, global crude supplies continue to outweigh demand. OPEC estimates that the global oversupply for 2015 was 2.02 million bbl/d, up 1.0 million bbl/d from 2014. Inventories will remain high through 2016 in light of Iran's return to the market and China's slowing economy.

It has become increasingly difficult to issue new equity to fund projects, especially as refinancing old debt may come at a higher cost with greater restrictions due to declining credit ratings. The top 60 US independent oil and gas companies currently have a combined net debt of \$206 billion. Up to half of these companies are at risk of bankruptcy due to an inability to sell assets and acquire merger or acquisition opportunities. Last year, 40 US oil and gas companies filed for bankruptcy, holding a combined debt of \$16 billion. This difficult environment has spurred an increased emphasis on exploring new forms of capital sourcing and deployment while improving efficiencies. Diversified energy portfolios and trade relations are required to stabilize energy security.

Numerous projects have been cancelled or postponed to reduce costs, pushing supply to a future when oil prices have (next page)

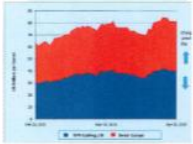
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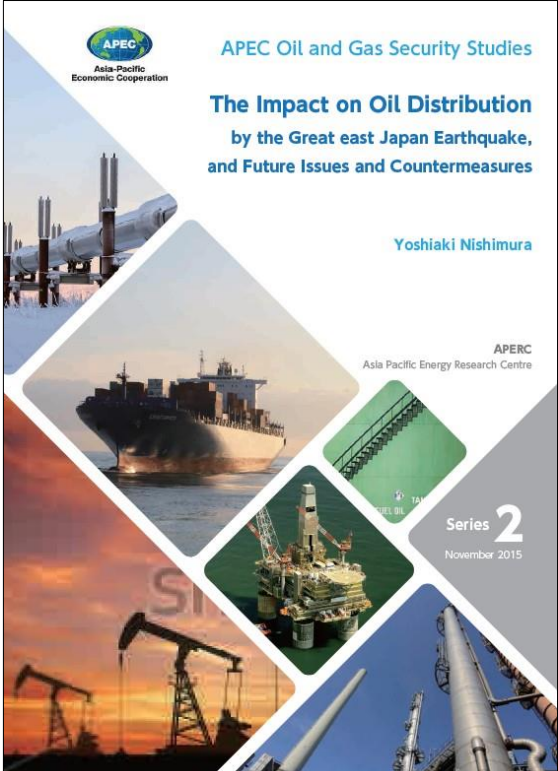
**Highlights**

- Opening Event - IREI 2016 / APEC 20th Anniversary Joint Symposium 2016
- Opening Event - LNG Producer-Consumer Conference 2016
- Crude Oil Spot Price (WTI and Brent)
- Natural Gas Spot Price (Henry Hub)
- Photo Story

**CRUDE OIL SPOT PRICE**



WTI—USD 39.74 (Apr. 18)  
Source: US Energy Information Administration



**APEC** Asia-Pacific Economic Cooperation

**APEC Oil and Gas Security Studies**

**The Impact on Oil Distribution by the Great East Japan Earthquake, and Future Issues and Countermeasures**

Yoshiaki Nishimura

APERC Asia Pacific Energy Research Centre

Series **2**  
November 2015



# APEC LNG Trade Facilitation Initiative

## Objective

Asia has 70% of global market of liquefied natural gas (LNG). But, it is characterised by complicated and scattered nature. Challenges include pricing mechanism, fluctuating demand, flexibility without un-necessary barriers.



## Tasks

- Promotion of information sharing
- Promotion of cross-cutting dialogue and cooperation
- Promotion of Public-Private Partnership

## Activities of sub-fora

### Expert Group on Energy Data and Analysis

- Yearly energy statistics of member economies
- JODI Oil & Gas
- APEC Energy Outlook

### Expert Group on Clean Fossil Energy

- Reforming, to include Oil and Gas as a sub-group
- Report on APEC Oil and Gas to be release next year
- Oil and Gas trade to be included, besides security

### Asia Pacific Energy Research Centre

- Studies and reports → <http://aperc.ieej.or.jp>
- Annual Conference

## 3. Tentative direction of future activities

APEC is a right platform to promote energy security  
as an international public goods

## Jointly,

- Revive works on Trade & Investment and business engagement
- To promote joint investments on the upstream oil & gas exploration and development
  - To increase supply, to remove uneasiness on resource ownership
- To promote regional trading centres of oil and gas
  - To promote flexibility and price indexing in NE Asia
- To promote information/dialogues for mutual understanding and to avoid mistake on judgement

## Individually,

- Each should act as a responsible stakeholder
- Member economies are advised to join, individually, the existing international security framework, such as IEA and Energy Charter Treaty
- Each member economy is advised to establish stockpiles for oil, and possibly LNG
  - Insecurity in one economy will affect others
- Each member economy is advised to improve the robustness of energy infrastructure for resiliency
  - For both terror attacks and climate impact



# Outreach

- To cooperate with IEA & others on the global energy investment, supply and demand forecast
  - Mismatch between Infrastructures & upstream developments and demands create business cycles
  - Good information/prediction on both future supply and demand would be beneficial to alleviate business cycles
- To seek cooperation with other international fora on interconnectivity and trade promotion
  - Regional power grids
  - Pipelines on gas and oil
- Welcome interaction with UNECE, BSEC, SCO, GTI and EAEU

