

APEC EGCFE Oil and Gas Meeting

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Removing destination clauses: The implications on long-term LNG demand in APEC

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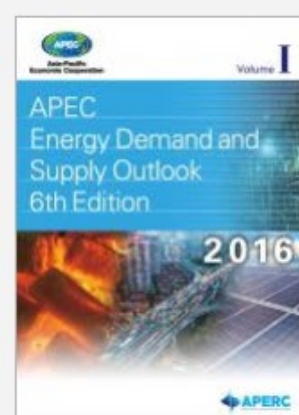
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APEC Energy Demand and Supply Outlook

The APEC Energy Demand and Supply Outlook is designed to provide a basic point of reference for anyone wishing to become more informed about the energy choices facing the APEC region. The business-as-usual projections illustrate the risks of the development path the APEC region is now on. Alternative scenarios examine options for improving sustainability. APERC normally prepares a new version of the Outlook every 2 or 3 years.

Recent editions of the Outlook have been published in two volumes. Volume 1 discusses the outlook for the APEC region as a whole, and compares the outlook for the various APEC economies. Volume 2 has provides an 'Economy Review' (chapter) discussing the outlook for each APEC economy.

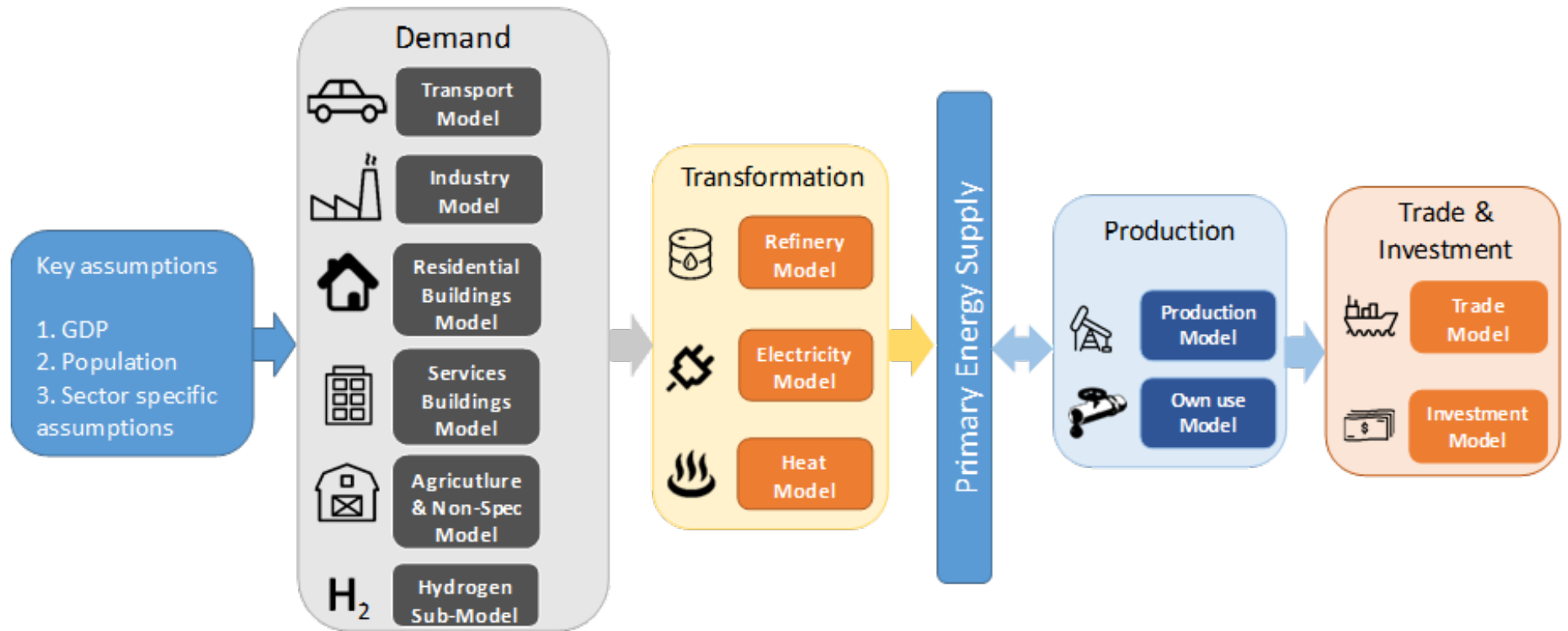
▶ APEC Energy Demand and Supply Outlook 6th Edition



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Methodology – Energy demand and supply



Note: The Outlook will be published in spring 2019

Source: APERC

The Outlook projects energy demand and supply up to 2050, covering 21 economies (APEC Members).

Methodology – Gas supply gap

Total gas import

$$Im_{i,y} = PS_{i,y} + Ex_{i,y} - P_{i,y}$$

Where:

$P_{i,y}$ = Domestic gas production projection for economy i in year y .

$PS_{i,y}$ = Primary gas supply for economy i in year y .

$Ex_{i,y}$ = Total gas export for economy i in year y .

Gas supply gap

$$S_{gi} = Im_{ti} - Im_{pipe} - Im_{lngc}$$

Where:

Im_{ti} = Total gas import projection for economy i .

Im_{pipe} = Projection of gas pipeline import based on existing pipeline capacity for economy i .

Im_{lngc} = LNG imports based on existing LNG supply contracts at 100% for economy i .

The gas import and export is based on capacity limitation, possible trade flow, domestic demand and gas production

What is destination clause?

A destination clause

a clause that designates a list of unloading terminals as destination ports of LNG ships. In other words, the clause prevents buyers from reselling LNG to other users.

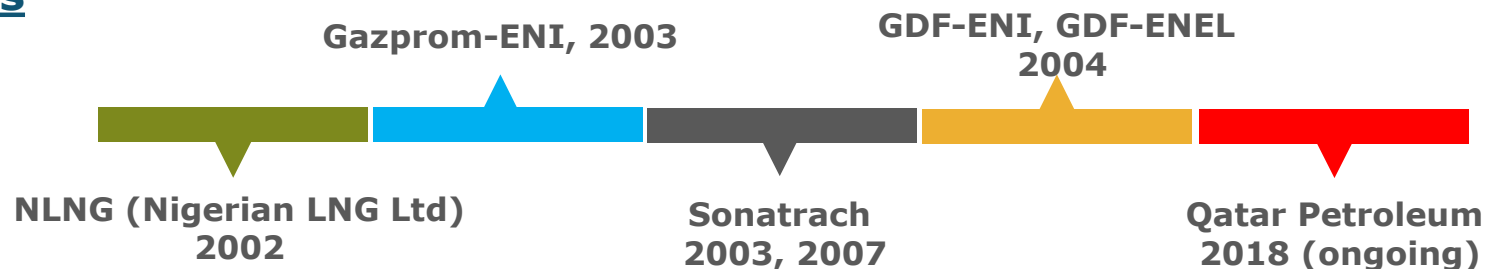
Japan's survey

Japan Fair Trade Commission (JFTC) released a report *Survey on LNG Trades: Ensuring of fair competition in LNG trades*. It concludes destination clause is *highly like to breach Antimonopoly Act*.

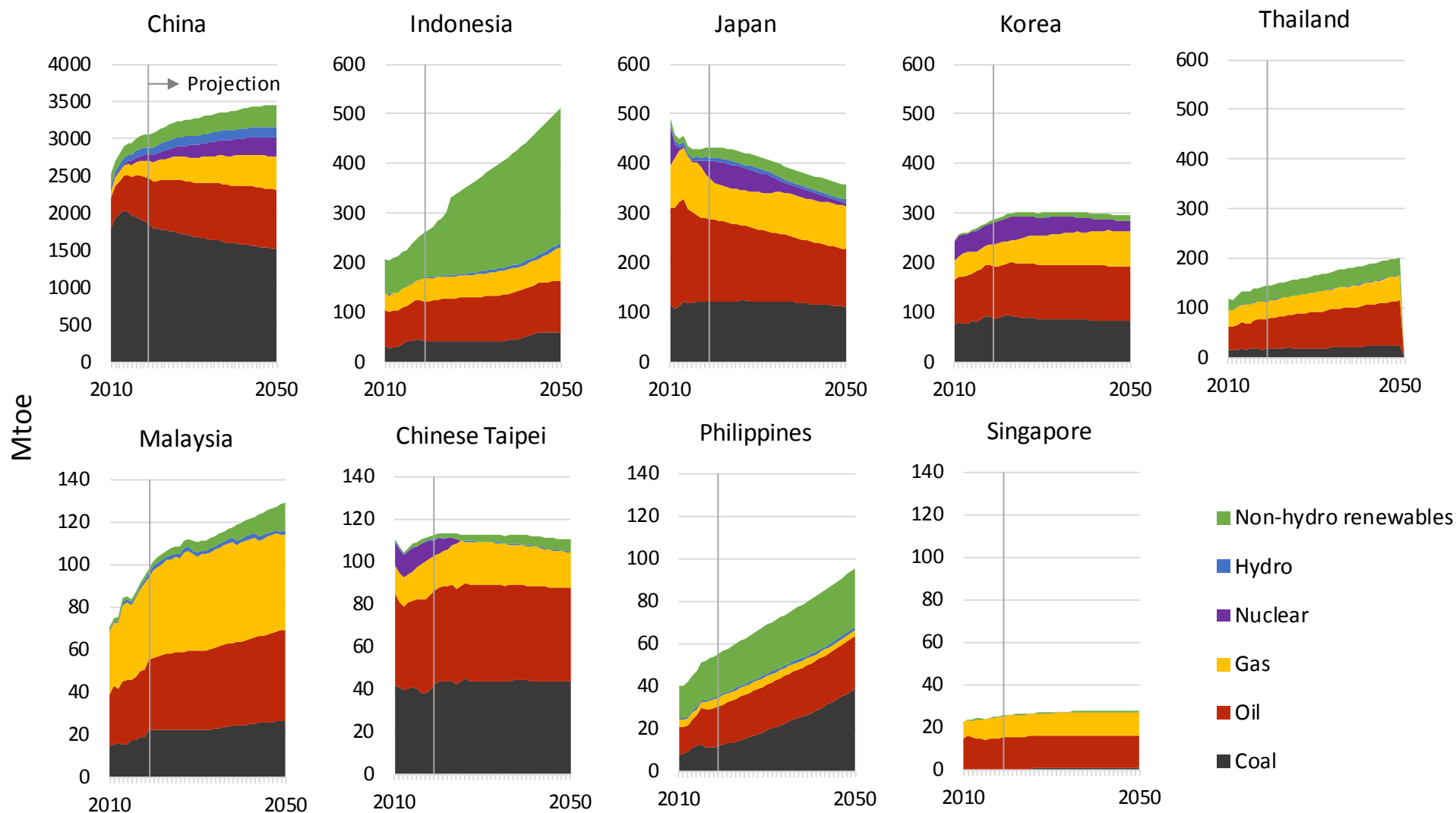
Possible factors of the inclusion of destination clause

- 1) For buyers: to ensure stable supply when there were few suppliers
- 2) For sellers: to restrain competition; to ensure recouping their investment (for equity holders as well); to include as a guarantee to get approval from authorities and obtain a lower interest rate loan
- 3) For buyers and sellers: minimize the delay or interruption of a supplier's operation; to serve to guarantee the trade as distance may create various uncertainties

EU cases

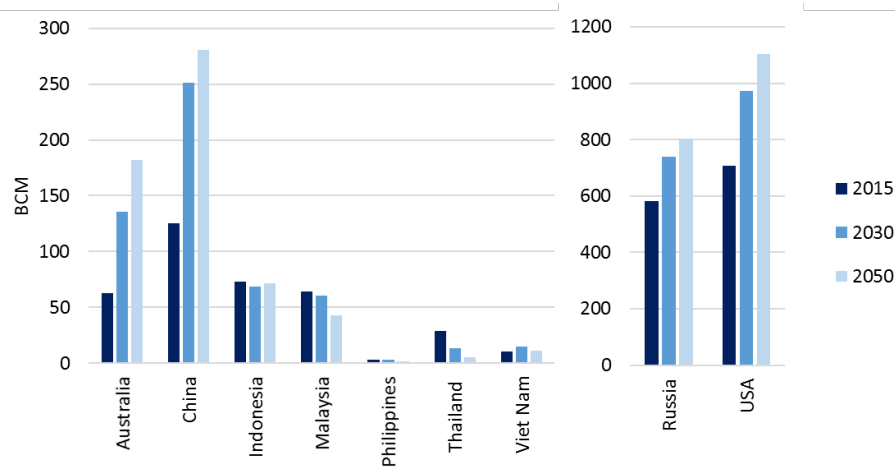


Total primary energy supply by fuel, 2010-2050



Gas production and trade in selected Asia Pacific economies

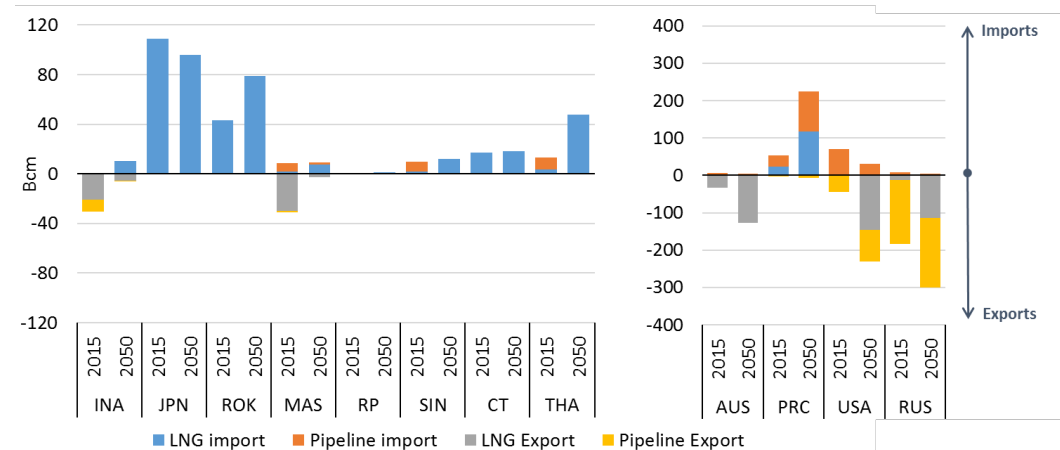
Gas production, 2015-2050



Sources: (IEA, 2018) (historical) and APERC analysis (projection)

- **South-East Asia is projected to see the decline in production**
- **Unconventional gas production is projected to support gas production growth in the US**

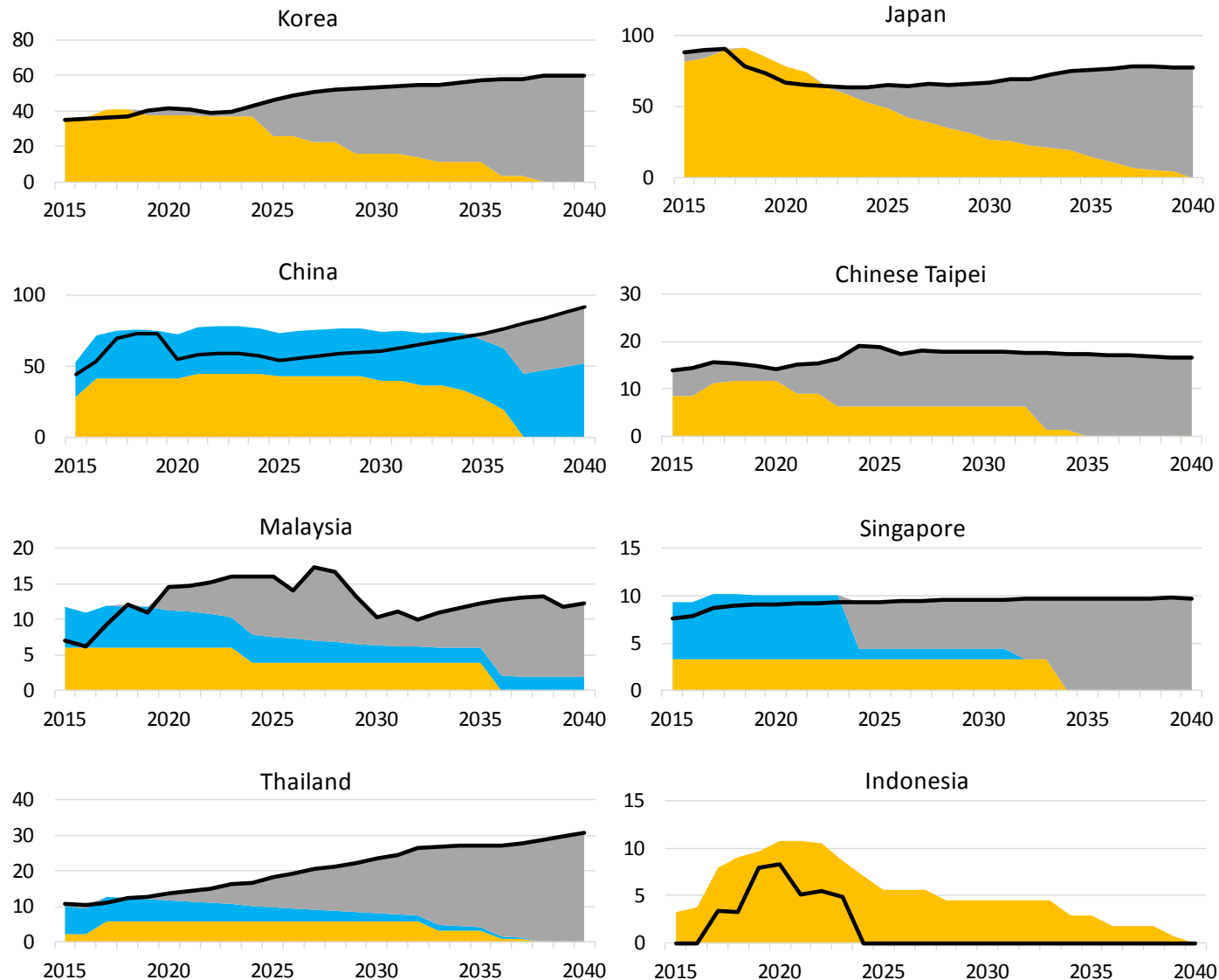
Gas trade, 2015 and 2050



Sources: (IEA, 2017) (historical), Cedigaz (2018) and APERC analysis (projection)

- **LNG is projected to become the main source of gas imports in the future.**
- **The US, Russia and Australia are projected to expand LNG export capacity in order to meet demand**

Projected natural gas supply gap in APEC, 2015-2050 (Mtoe)



Possible effect of destination clause removal on future LNG trade

Supply security

Destination clause provides more security layer for gas importer (but lack of flexibility to re-sell the cargo). However, removing destination clause can provide options for buyers to acquire gas from spot markets

Gas pricing

There is a possibility that the removal of the destination clause will affect the LNG price as a producer may factor in the effect of removing the clause (some producers may see it as an additional risk to the business)

Gas hub creation in Asia

Removing destination clause provides more liquidity to the LNG market in Asia - to buy and sell LNG without restrictions.

Gas demand

Gas is considered one of the most flexible fuels despite the challenge in transportation. Flexible and faster fuel switch can help improve demand

Conclusion

- **Gas is projected to grow the most rapidly in APEC among all the fuels, which implies LNG demand continues to grow.**
- **The projected gas supply gap in APEC economies presents opportunities for LNG exporters.**
- **Removing destination clause may be a challenge for some LNG producer and consumer, but the benefits can be huge for all in the long term.**
- **The US and Russia are the most promising LNG exporter to fill up the supply gap, given that these exporters do not have legacy issues of a destination clause, which makes them very flexible options for importers in APEC.**



Thank you

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