



10.e. APERC Gas Market Report 2020

Plenary MeetingThe 60th Meeting of APEC Energy Working Group (EWG)
9-11 December 2020

Diego RIVERA RIVOTA, Researcher

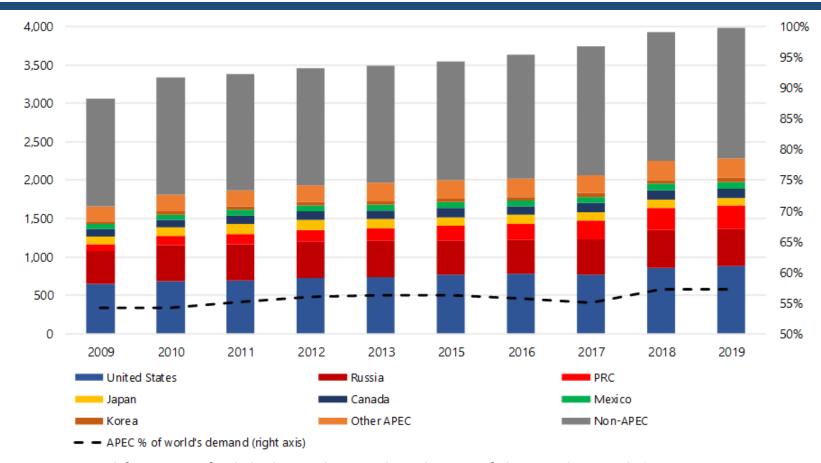


About the Report and its Structure

- Third edition of these APERC fossil fuels annual reports.
- Structure:
 - Executive summary
 - Section 1: Gas Demand
 - Section 2: Gas Production
 - Section 3: Gas Trade
 - Section 4: Gas Prices
 - Section 5: Impact of COVID-19 on APEC gas demand



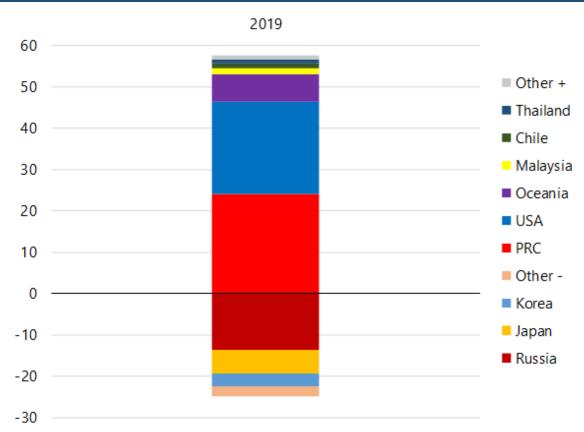
Natural gas demand in APEC and the world, 2009-2019 (bcm)



- APEC accounted for 57% of global gas demand and 67% of demand growth in 2019.
- In 2019, gas accounted for at least 10% of TPES in 18 APEC economies,
- Only 2 economies decreased gas demand in the past decade.
- Global gas demand growth slowed-down in 2019 (1.5% vs 5.1%), APEC economies crucial role.

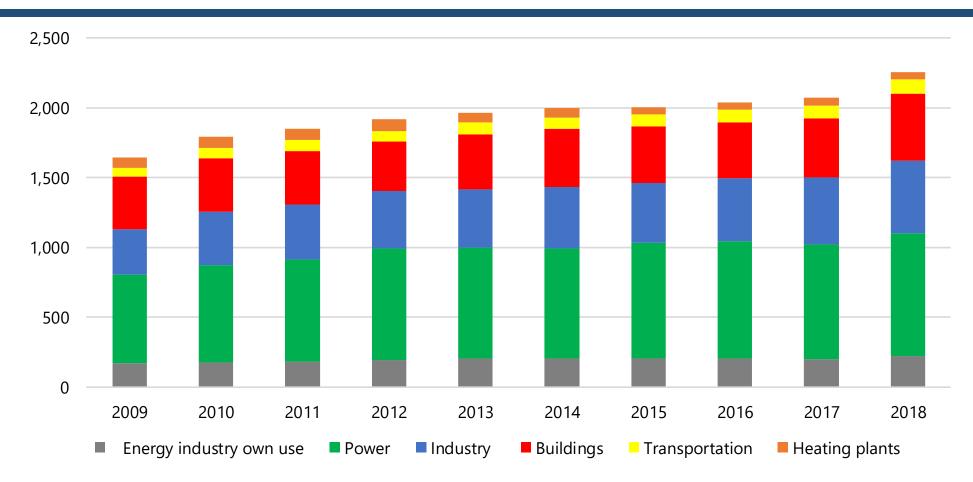
Sources: IEA, Natural Gas Information 2020; APEC EGEDA, Energy Balance Table, 2020

Natural gas demand growth in APEC by economy, 2018-2019 (bcm)



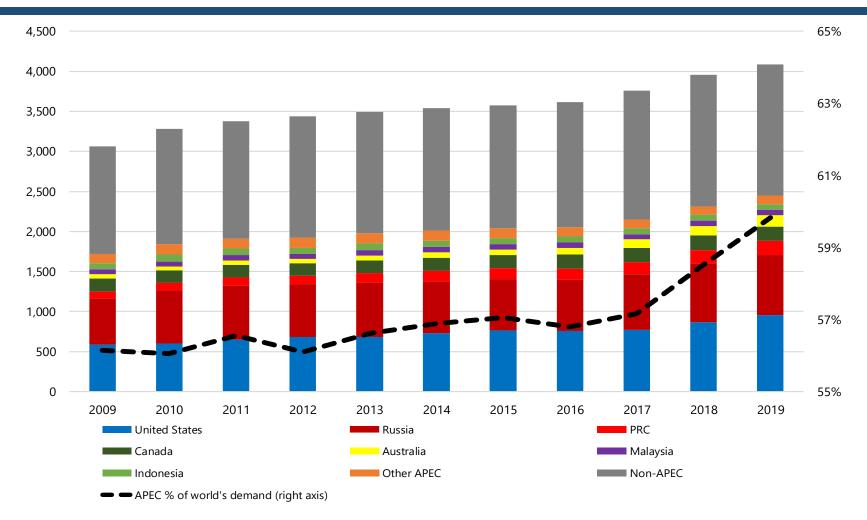
- APEC demand grew only 33 bcm or 1.5% in 2019 (vs 190 bcm of growth in 2018).
- The US remains the main gas consumer in the world; PRC the fastest growing.
- Russian gas demand fell by 13 bcm; demand also declined in Japan, Korea, and Indonesia.

Natural gas demand by sector, 2009-19 (bcm)



- Power is the largest gas consuming sector and grew the most (247 bcm). (USA, Mex, etc.)
- Industry had the fastest growth rate (4.8% CAGR), lead by increases in USA and China
- Buildings sector grew by 2.5% depending on seasonal heating needs. (China, Russia and USA).

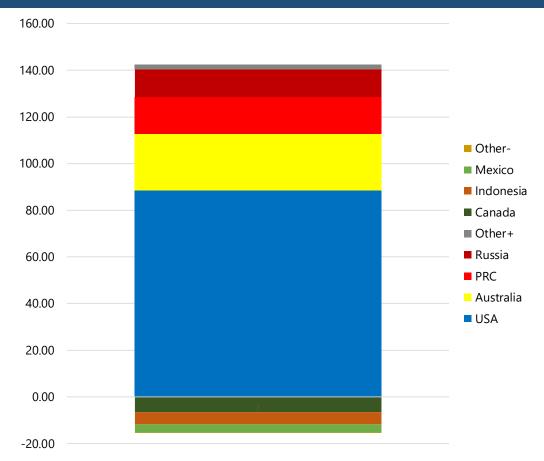
Natural gas production in APEC and the world, 2009-2019 (bcm)



- APEC gas production grew by 42% in the last decade, increasing its share of global production to 60%.
- 4 of the world's 5 top gas producers are APEC members (US, Russia, China and Canada).

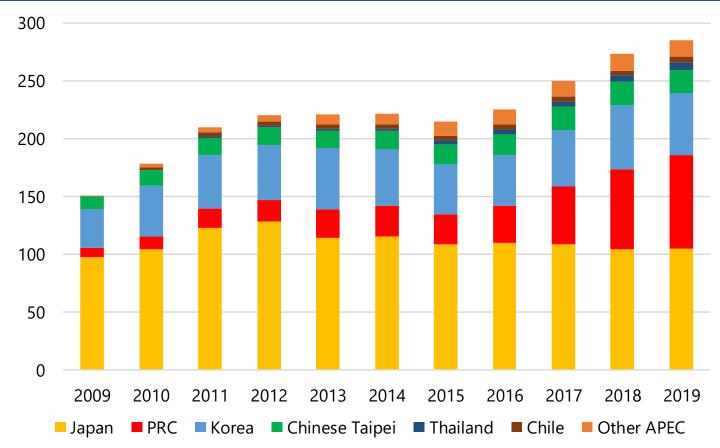


Gas production growth in APEC by economy, 2009-2019 (bcm)



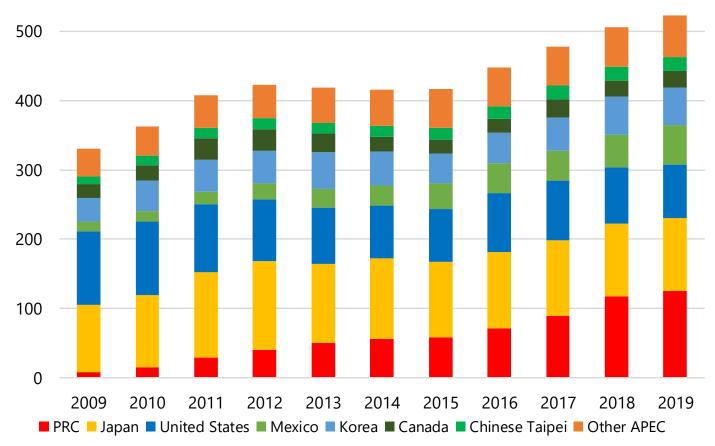
- APEC production grew by 130 bcm in 2019 (vs 167 bcm in 2018), lead by the US, Australia,
 China and Russia.
- Incremental production more than offset decreases in Canada (4%), Indonesia (7%), Mexico (12%) and others.

Trade: APEC LNG imports by economy, 2009-2019 (bcm)



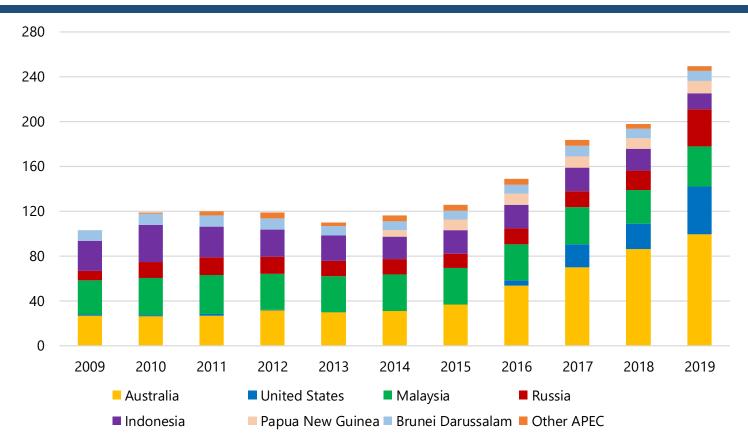
- LNG imports grew by 70% since 2009, however APEC's share of world imports decreased to 61%.
- In 2019, LNG imports increased by 15 bcm, a growth rate of 5.6% vs 6.8% in 2018.
- Most of this growth took place in the PRC and more than offset decreases in Korea and the USA.
- ASEAN LNG imports grew in Thailand and Malaysia. Philippines and Viet Nam join the club.

Trade: APEC gas imports by economy, 2009-2019 (bcm)



- APEC members increased their imports by 36% since 2009, accounting for 42% of global imports.
- In a decade China's gas imports rose by 118 bcm (#1 importer), while US imports shrank by 29 bcm.
- In 2019, APEC growth was driven by Mexico (10 bcm), the largest growing piped importer since 2009.

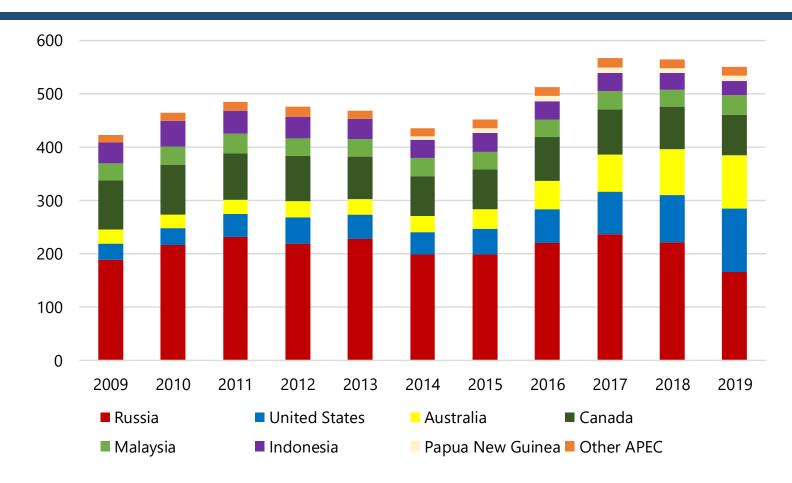
Trade: APEC LNG exports by economy, 2009-2019 (bcm)



- From 2009-19, APEC LNG exports more than doubled. Equivalent to 54% of global LNG exports (vs 41%).
- Australian exports lead growth, almost quadrupling in the same period.
- Non-traditional LNG exporters in APEC: PNG, Peru and the USA.
- Russian exports doubled in 2019, while Indonesian ones fell by 24%.



Trade: APEC gas exports by economy, 2009-2019 (bcm)

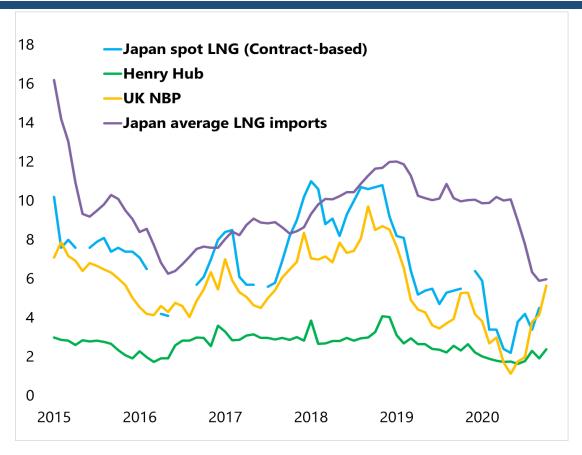


- APEC gas exports decreased overall in 2019 by 13 bcm (2%), falling to 45% of global exports.
- Russian exports shrunk by 55 bcm, however it still remains the world's largest exporter.
- Exports from the US and Australia rose by 30 and 13 bcm, respectively, supported by LNG.



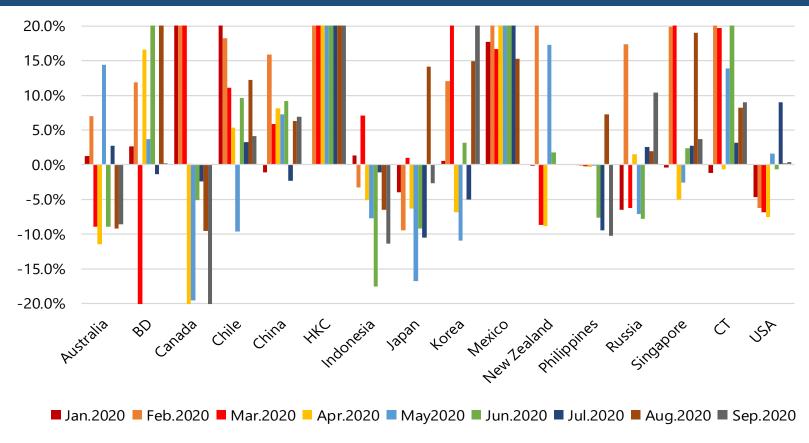
International gas price benchmarks

APERC



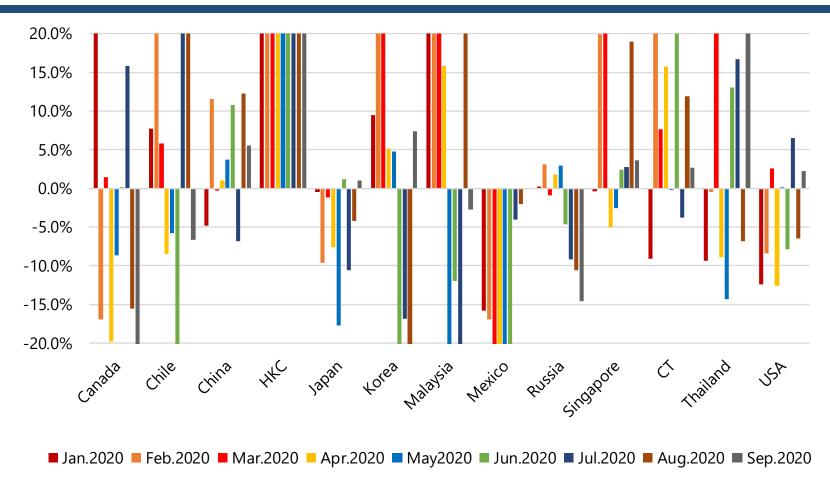
- The main regional price benchmarks have seen historical lows in 2019 and 2020. average price of LNG imports to Japan have almost halved since August 2020, reflecting the extremely low-crude price scenario observed in March 2020.
- The NBP fell below the Henry Hub in May 2020, at \$1.13 /Mmbtu; increased demand to Europe and declining production
- Henry Hub has remained below \$3/Mmbtu since 2019 on a monthly basis. Except for August and October, the benchmark has been at least 25% lower than in 2019.

Case study: Impact of COVID-19 in APEC gas demand (% m-o-m 2020 vs 2019)



- The COVID-19 pandemic impacts and the restrictive measures undertaken by governments have varied substantially across the region.
- Through September 2020, gas demand shows an annualized growth of 0.6% (vs 1.5% in 2019).
- The IEA expects a global gas demand decline of 3%, highlighting the relative resilience of gas demand in some APEC economies.
- Demand in Japan and Indonesia has declined by 5% while it has grown by 34% in Mexico.

Case study: Impact of COVID-19 in APEC gas imports



- Imports in the APEC region, in contrast, have fallen overall by 0.6%.
- This results from a combination of declines in imports {Japan (5.5%) and Mexico (17%)}, moderate growth in China (3.7%) and double-digit growth rates in economies including Chinese Taipei, Thailand and Malaysia.



Conclusions

- With 57% and 60% of global gas demand and production, respectively, APEC is at the centre of the global natural gas dynamics.
- APEC gas demand continued to grow in 2019 but decelerated substantially, increasing by only 33 bcm.
- The US shale revolution continue allowing domestic production and exports grow. The
 US become the second largest LNG exporter in APEC.
- China became the world's largest gas importer and is poised to become the largest LNG importer in the next 5 years.
- APEC LNG exports grew by 28% in 2019, supported mostly by new liquefaction faiclites in Australia, US and Russia.
- Three dynamics to follow:
 - 1. Impacts of the commission of the Power of Siberia pipeline and the new pipeline company in China?
 - 2. Regasification projects under construction in Thailand, Viet Nam and the Philippines, how much demand will they actually capture?
 - 3. The COVID-19 pandemic has diminished gas demand in the near-term and could be a long-term effect of the pandemic in the APEC region.







