

Prepared for APERC Annual Conference 2019

15-16 May 2019

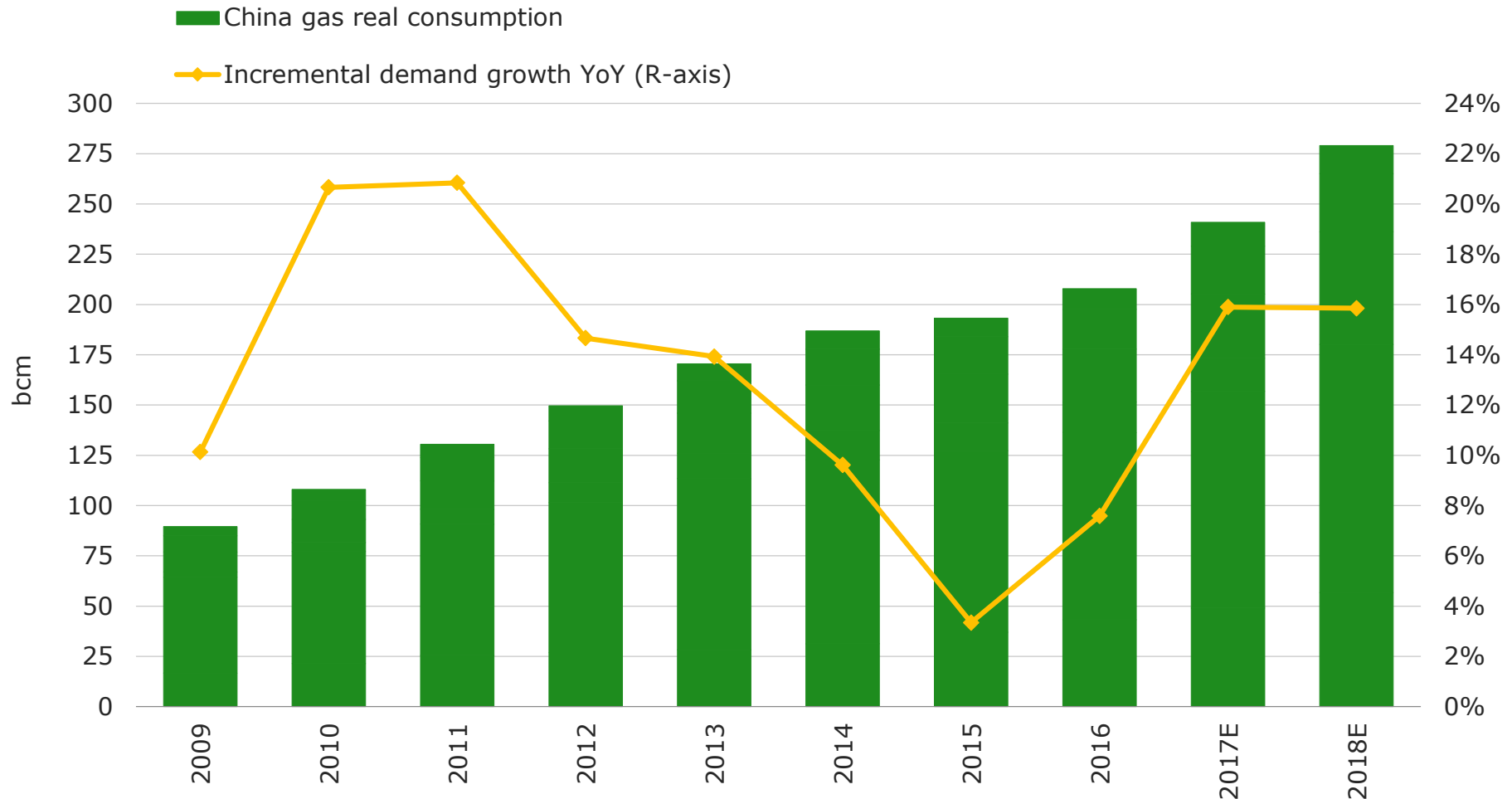
# China Gas Market Briefing

Fareed Mohamedi,  
Managing Director,  
SIA-Energy International



# 16% real gas consumption growth continues in 2018

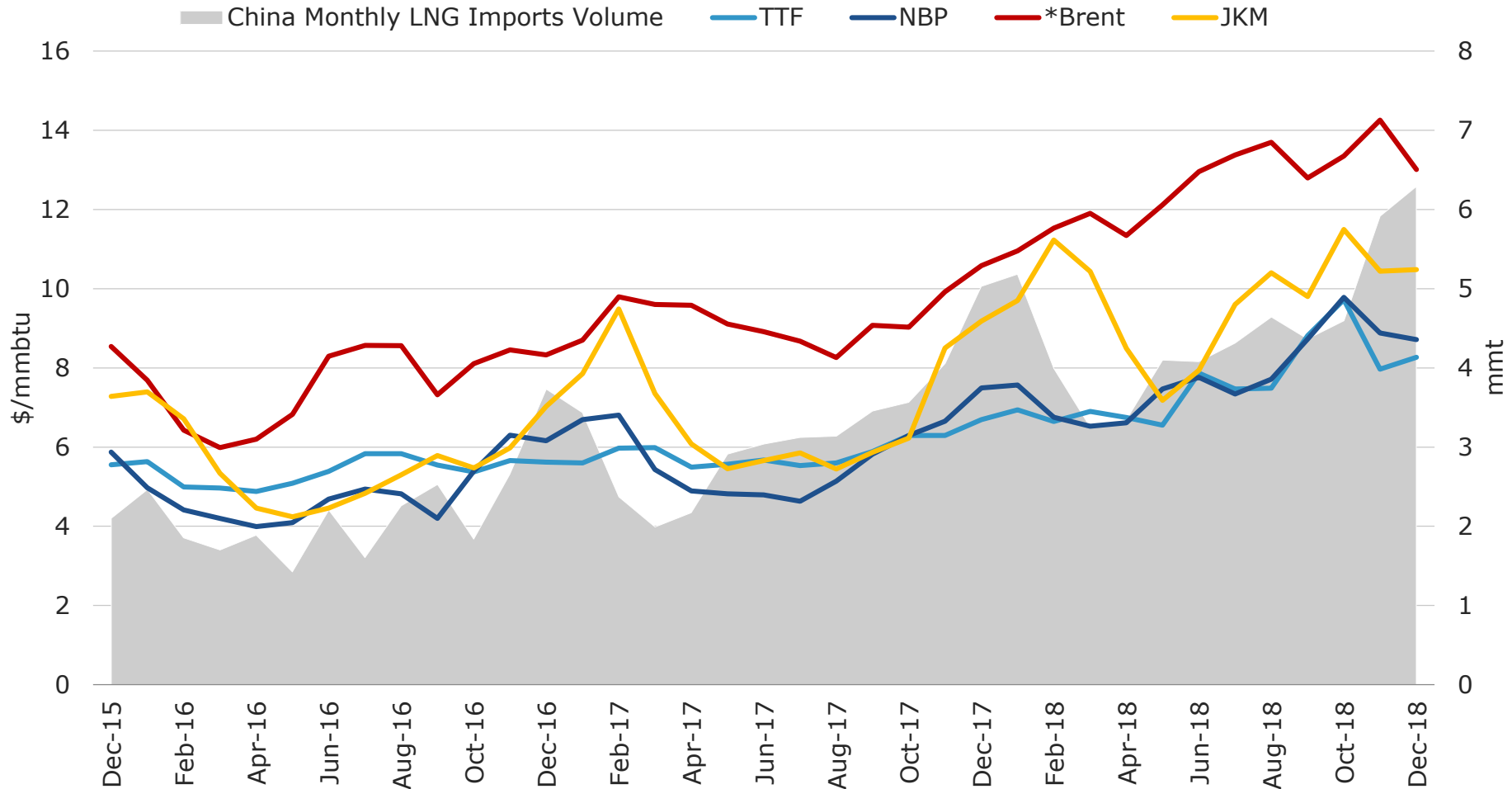
## China Gas Demand by Sector



Source: SIA Energy

# China's "demand shock" pushes up JKM prices; energy security is back to government agenda

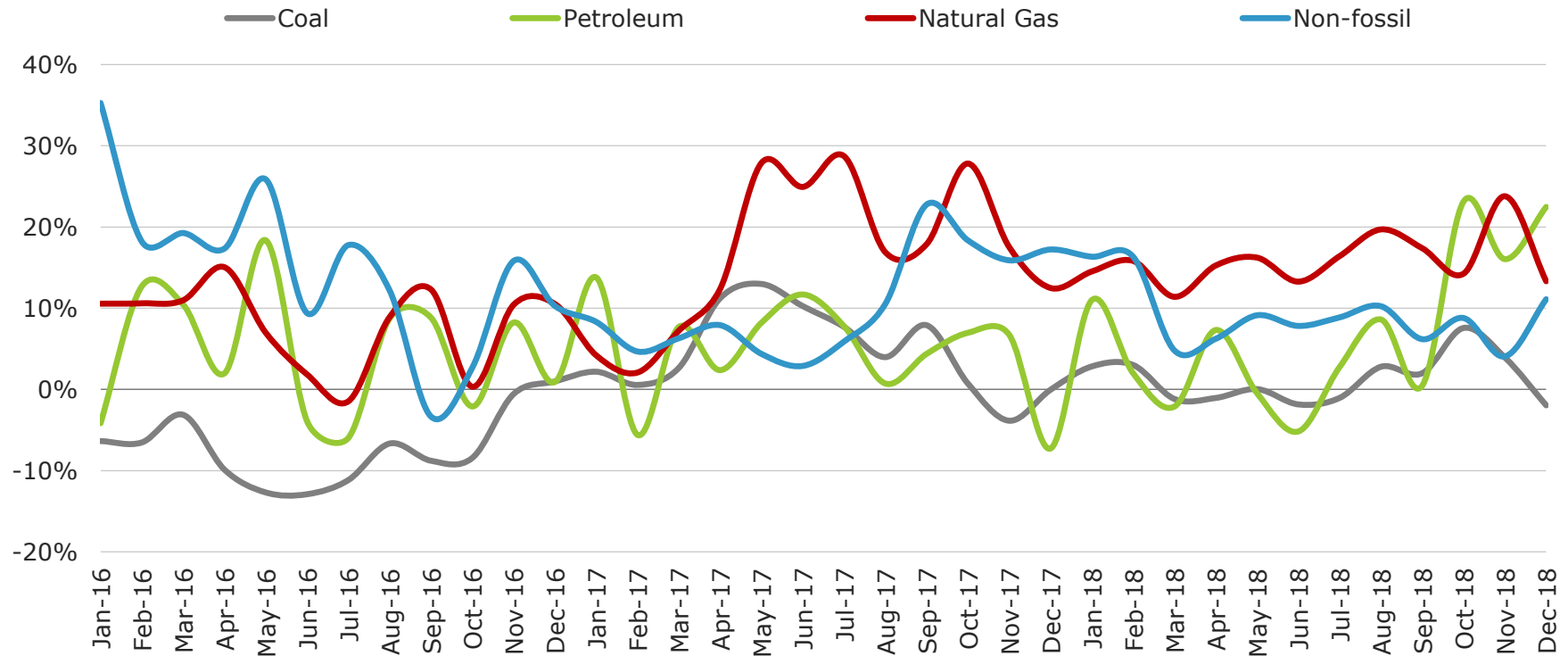
## Major LNG/Gas Prices vs China Monthly LNG Import Volume



\* Represent oil-parity prices  
Source: SIA Energy

# Myth 1: China's two consecutive years of high demand growth was driven by coal-to-gas switch policy single-handedly

## China Monthly Primary Energy Consumption Growth



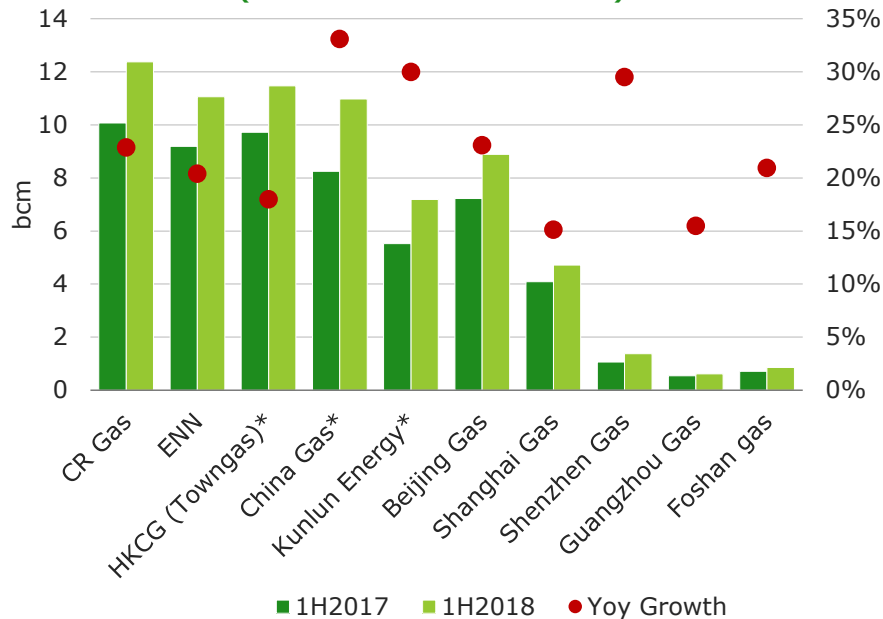
Source: SIA Energy, the NBS, China Customs

### SIA Argument:

1. Coal-to-gas switch policy mandate to northern Chinese cities (2+26) started in 2012, not 2017.
2. All fuels in primary energy grew in 2017-18 including coal, which reversed previous downward trend.
3. High double digit growth is a combined effect of economic boom and politicized "CTG campaign"—industrial upgrade and urbanization are still the fundamental drivers, but environmental mandates and government interference in supply and pricing are the "accelerators", which partially advanced future demand growth.

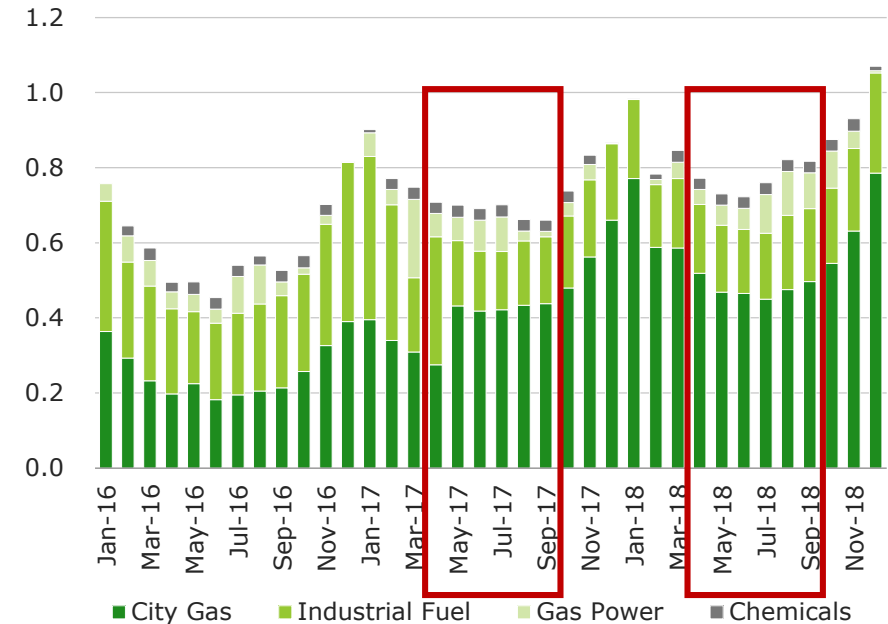
# Myth 2: China imported record LNG in the summer to fill underground storages in order to prepare for winter

Gas Sales Volume by Major City Gas Distributor (1H2017 vs 1H2018)



Source: public information disclosure of the companies

Henan Monthly Piped Gas Demand by Sector



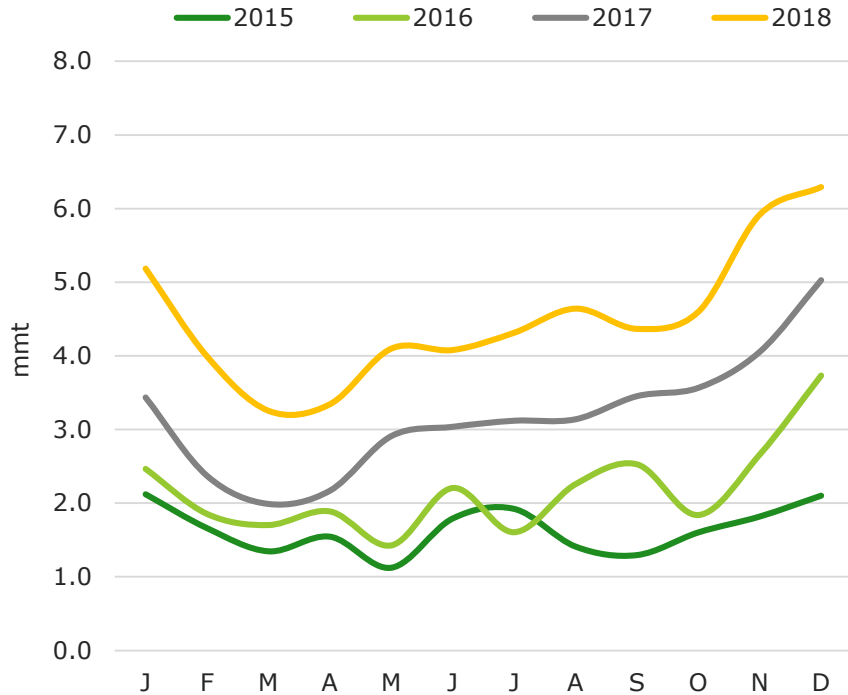
Source: Henan Energy Administration

## SIA Argument:

1. Summer 2018 was a demand-pull story (2017 summer policy-push & demand-pull). City gas enjoyed higher (20-30%) growth compared to gas-fired power and other large industries due to supply constraints.
2. Summer LNG imports were driven by (1) CNPC reshaped term LNG delivery curve towards winter-heavy and spaced out summer for spot LNG imports; (2) Northern China CTG program continues, and central government mandated NOC supply security at all cost, curtailment for the rest of China started in Q2.
3. CNOOC has no UGSs to store gas for winter. Sinopec Wen23 was ready for injection of cushion gas but was short of gas supply until Q4. SIA estimated total off-peak months injection volume of 9 bcm and net injection of 2-3 bcm in 2018.

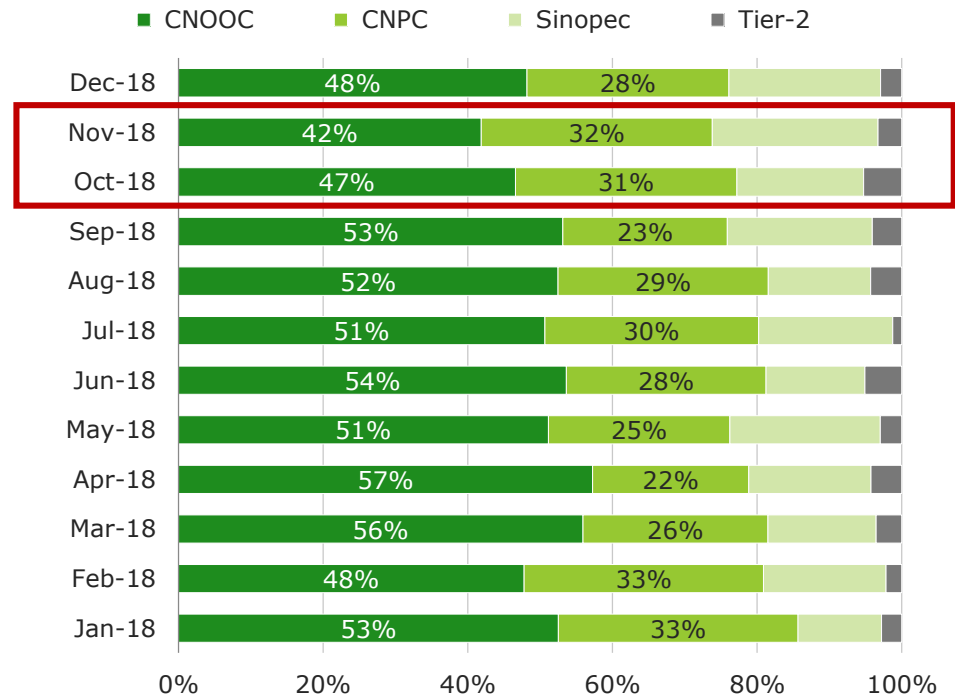
# Myth 3: China's winter gas demand slowed and LNG imports stagnant

## China LNG Imports Seasonality



Source: SIA Energy created from China Customs data

## NOCs and Tier-2's Shares in LNG Imports



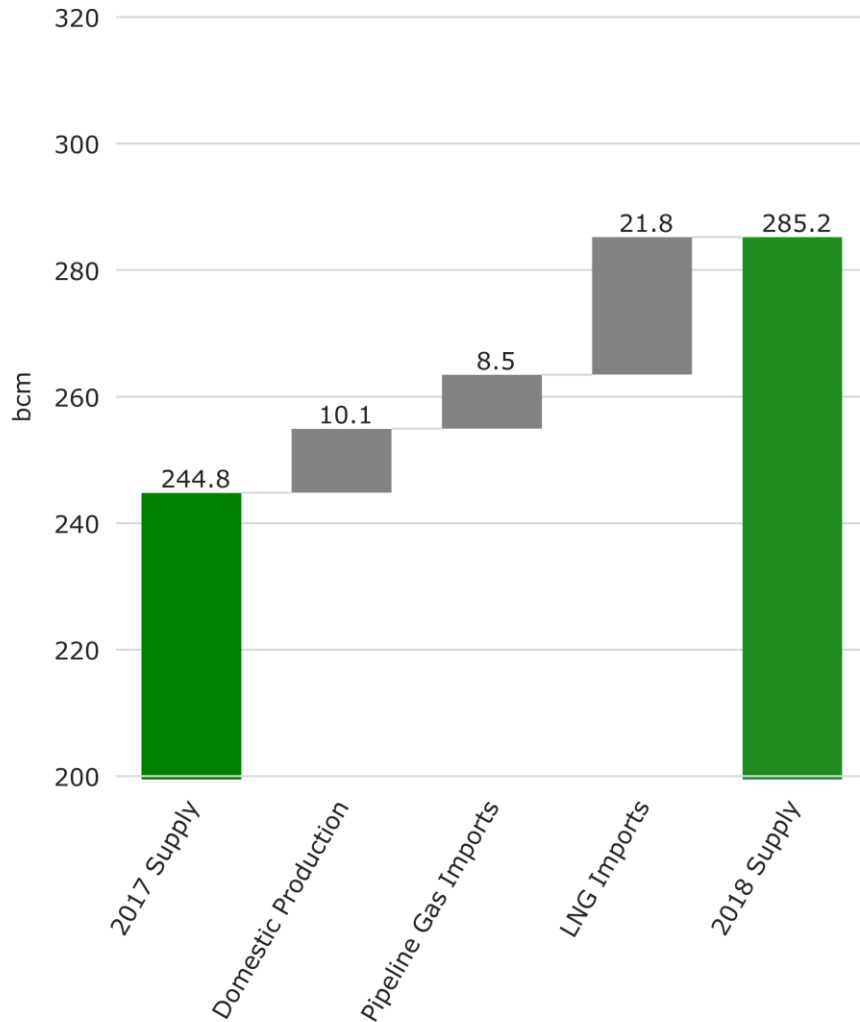
Source: SIA Energy

### SIA Argument:

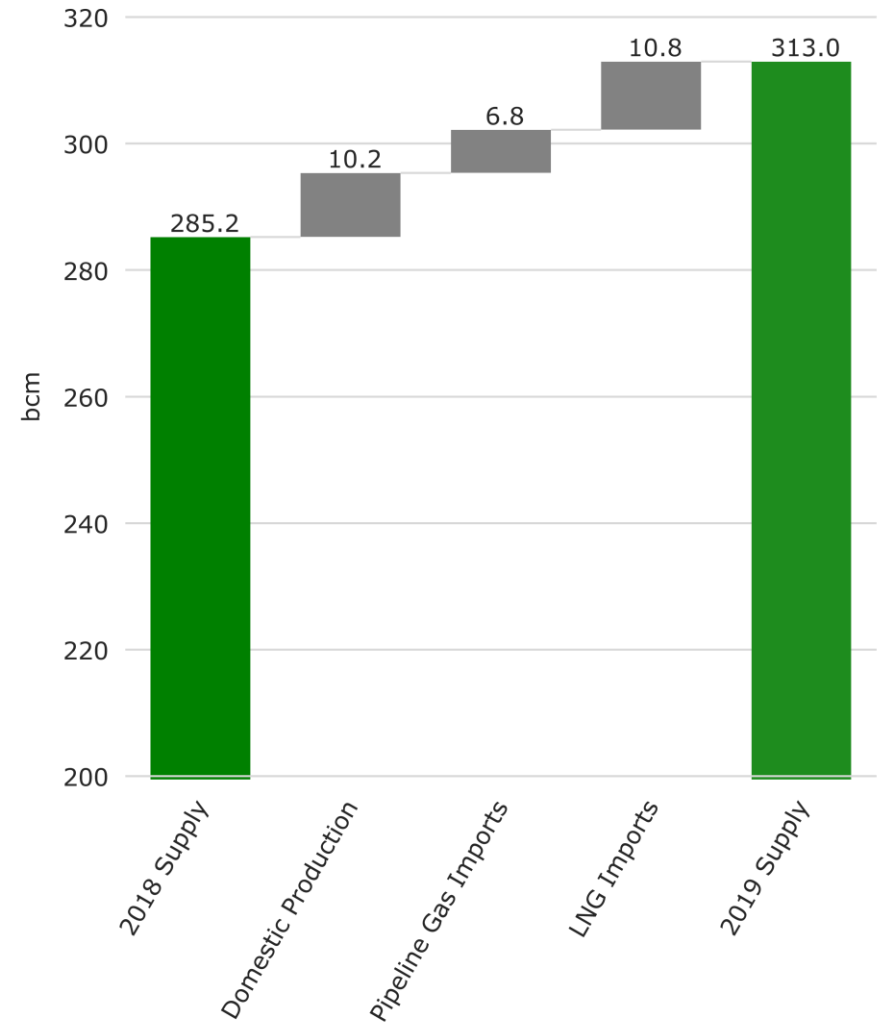
1. 4Q2018 China LNG imports grew 33% yoy, no sign of slow down whatsoever.
2. However, due to CNPC's pre-contracted winter term LNG and increased pipeline supply, trucked LNG prices did not hike as the previous winter; lacking pipelines & UGS, CNOOC's trucked LNG distribution experienced glut.
3. CNOOC's market share in LNG imports drastically reduced from 53% in September to 42% in November, causing defers and cancellation of CNOOC spot cargos, on the contrary, CNPC's share in LNG imports went up by 9% in same months.

# Incremental supply mainly came from LNG imports and domestic production, especially shale gas and tight gas

## 2018 Total Gas Supply Growth by Source

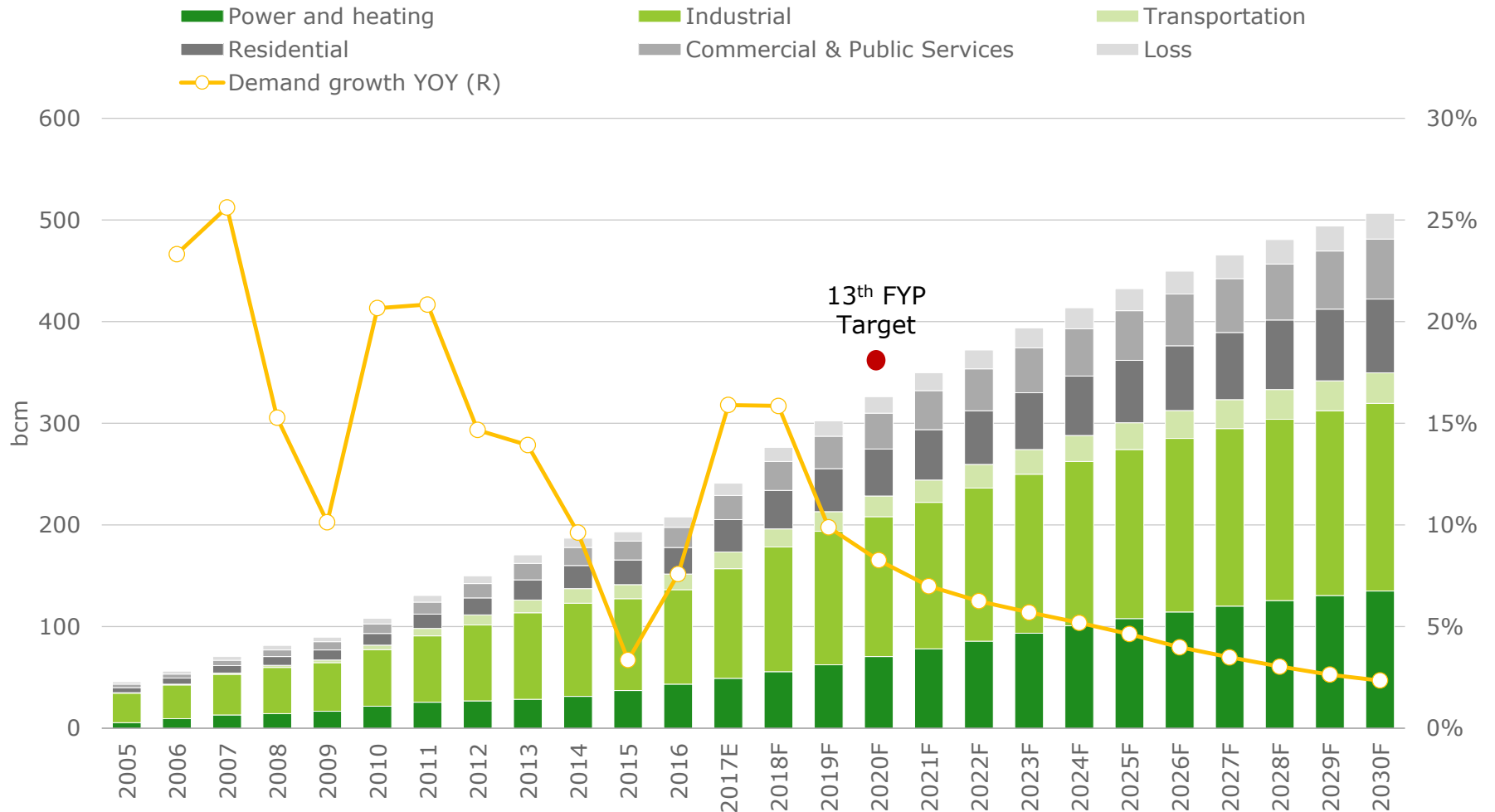


## 2019 Total Gas Supply Growth by Source



# Real demand is expected to reach 330 bcm and 510 bcm respectively in 2020 and 2030

## China Gas Demand Forecast 2030

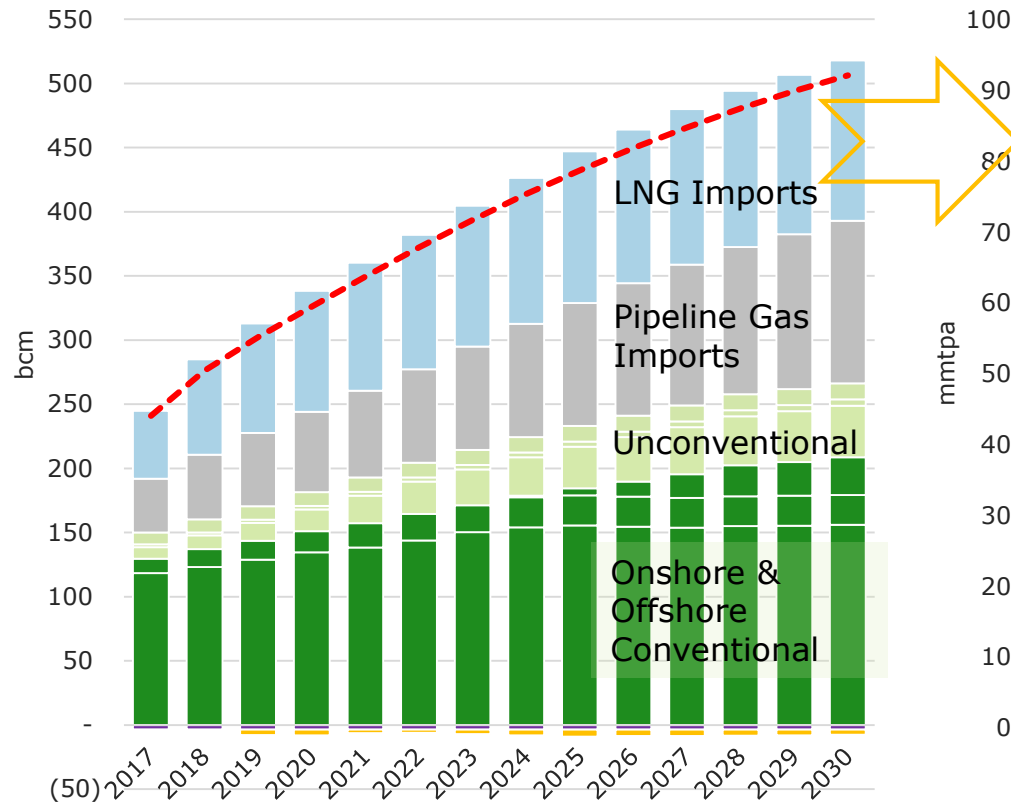


Source: SIA Energy



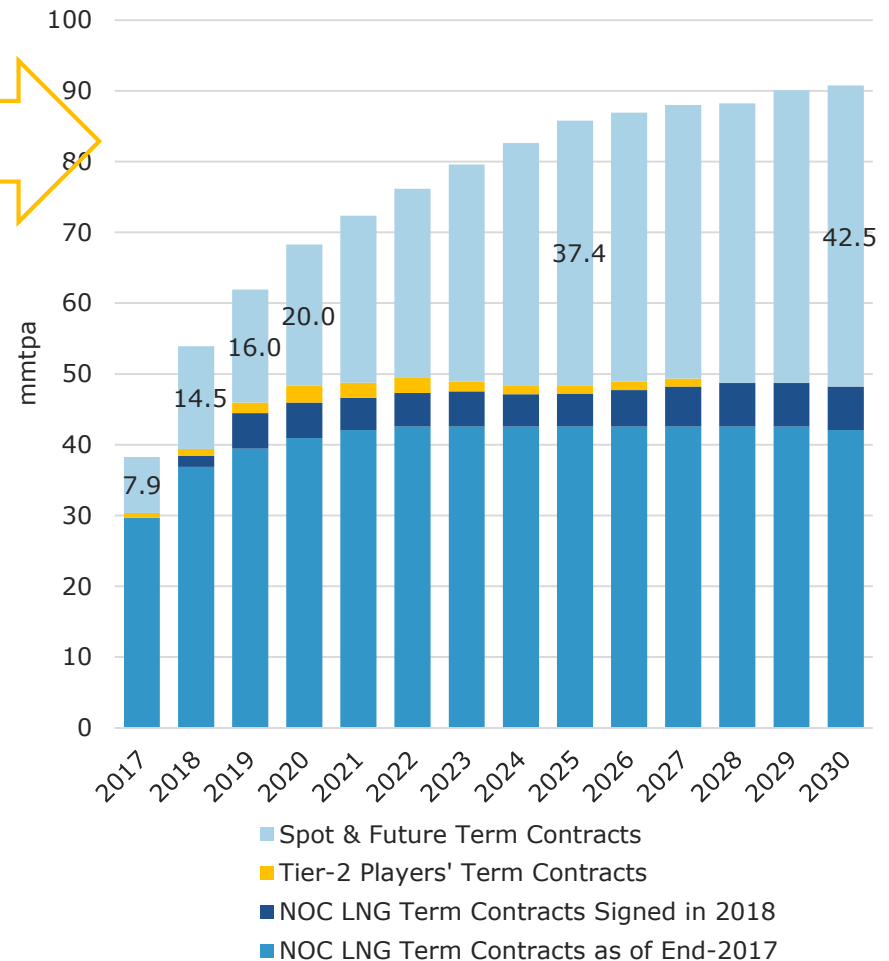
# To meet future demand, China will have to sign new long term LNG contracts and help FID of new liquefaction capacity

## China Gas Supply-Demand Balance



Source: SIA Energy

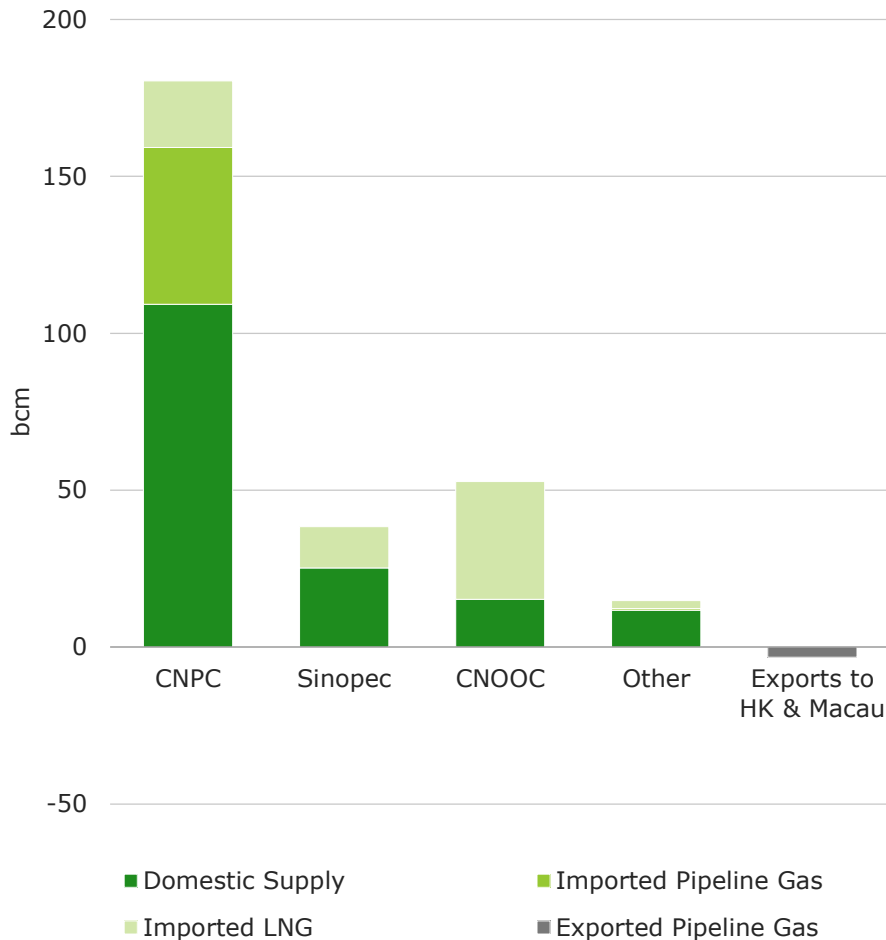
## China Imported LNG Forecast



Source: SIA Energy

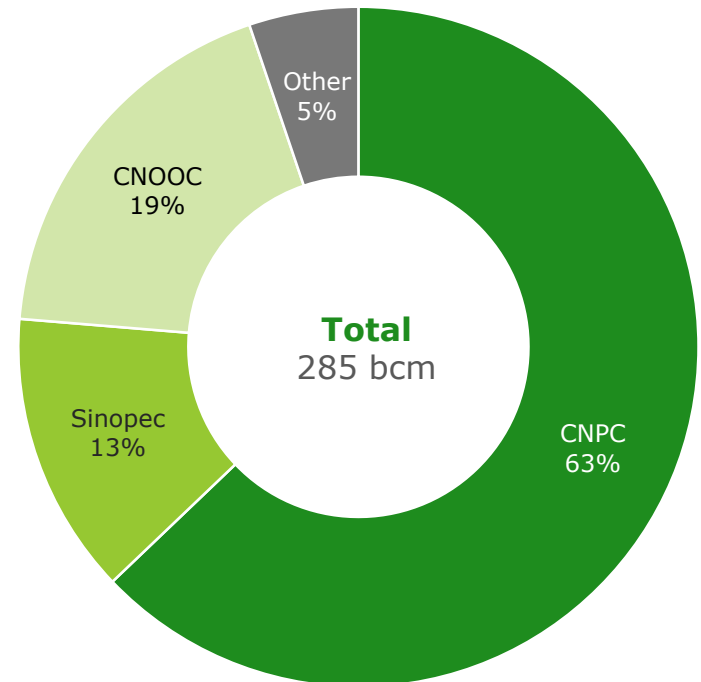
# NOCs still have dominant position (95%) in total gas supply

2018 Gas Supply by Company & Source



Source: SIA Energy

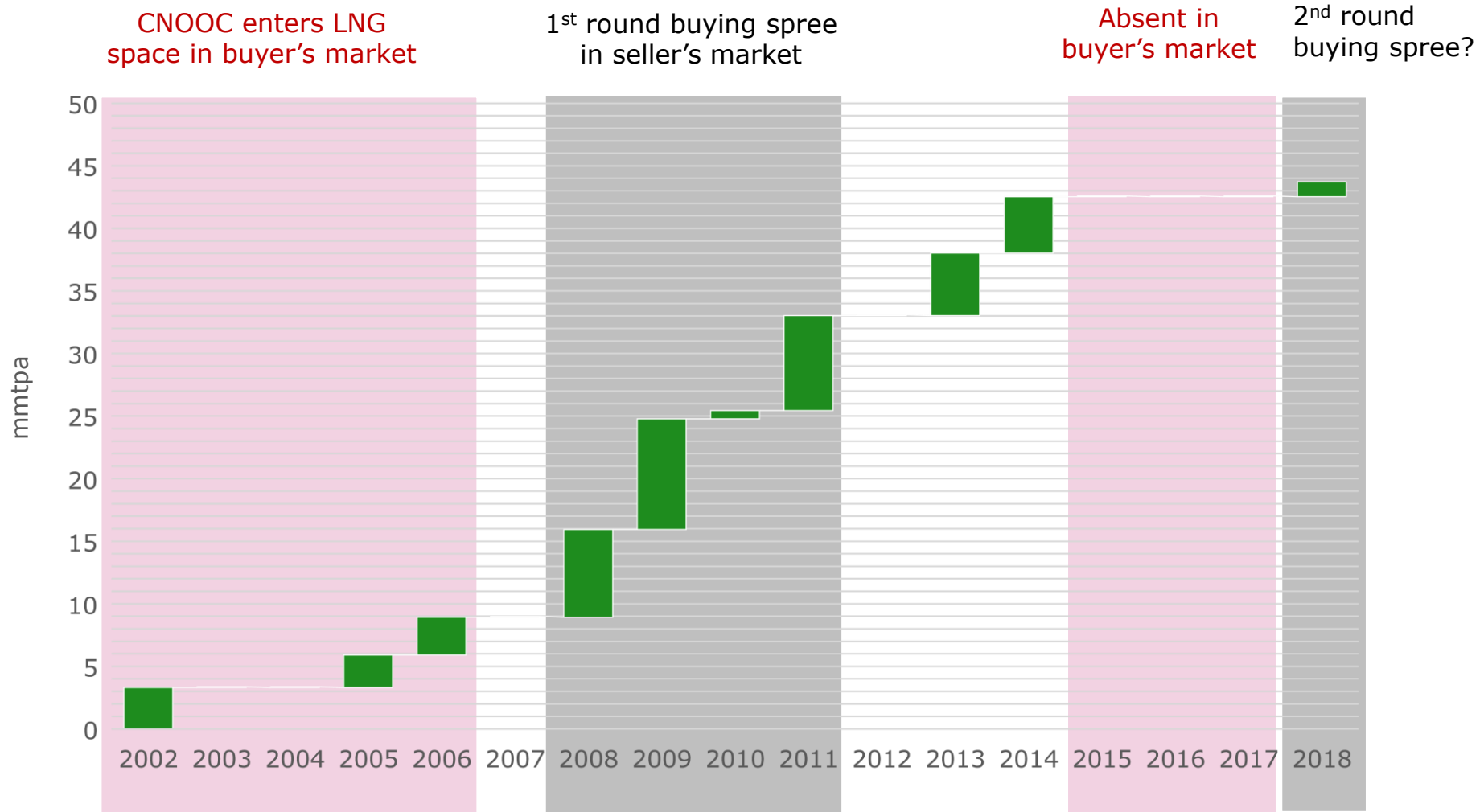
2018 China Gas Supply by Company  
(Including Supply to Hong Kong and Macao)



Source: SIA Energy

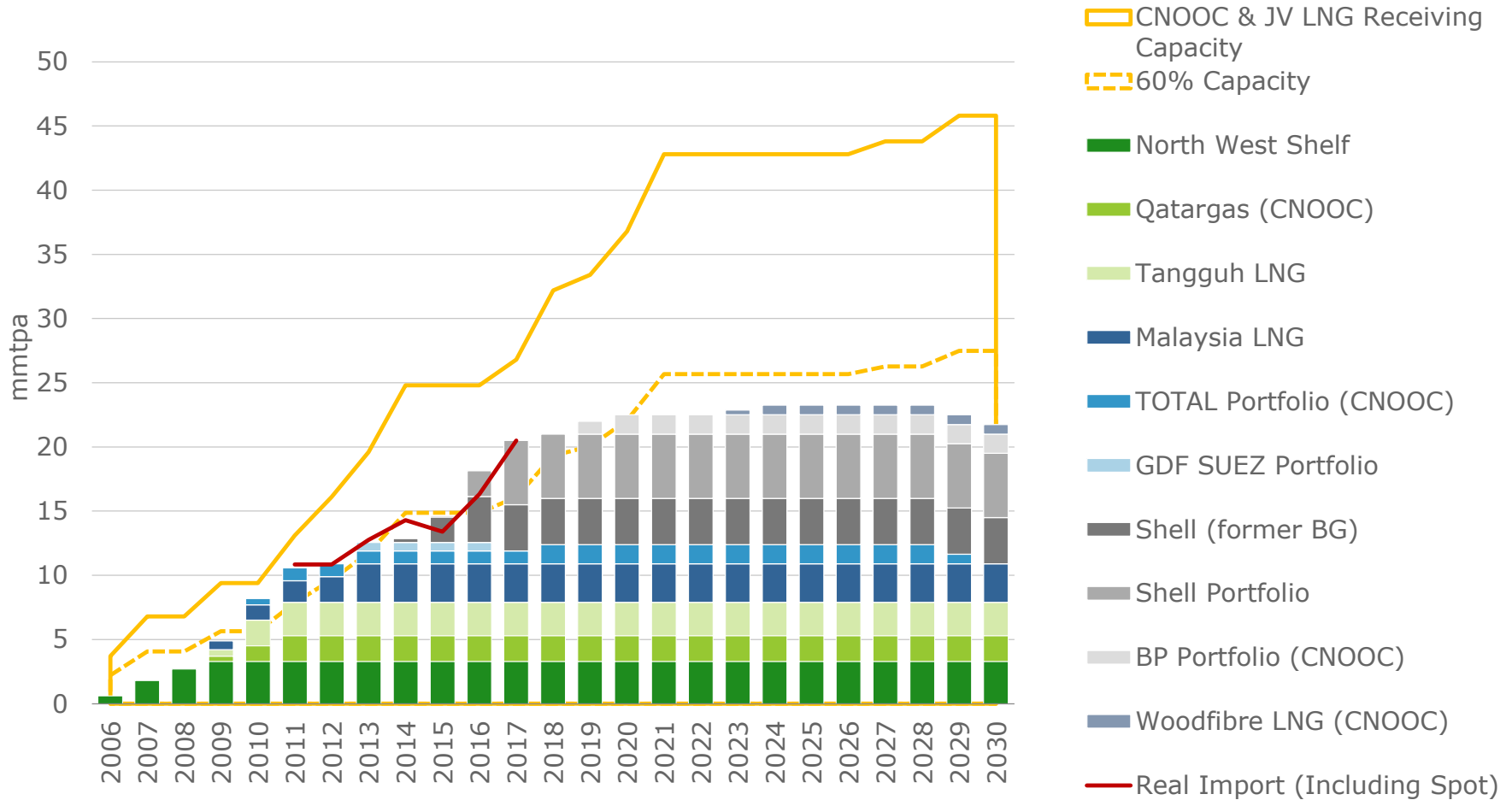
# After three years of absence, Chinese NOCs are back to LNG market for term deals

## Three Chinese NOCs Term Contract Signed Year and Peak Contract Volume



# CNOOC – looking for diversified incremental supply at smaller and shorter contracts to create flexibility

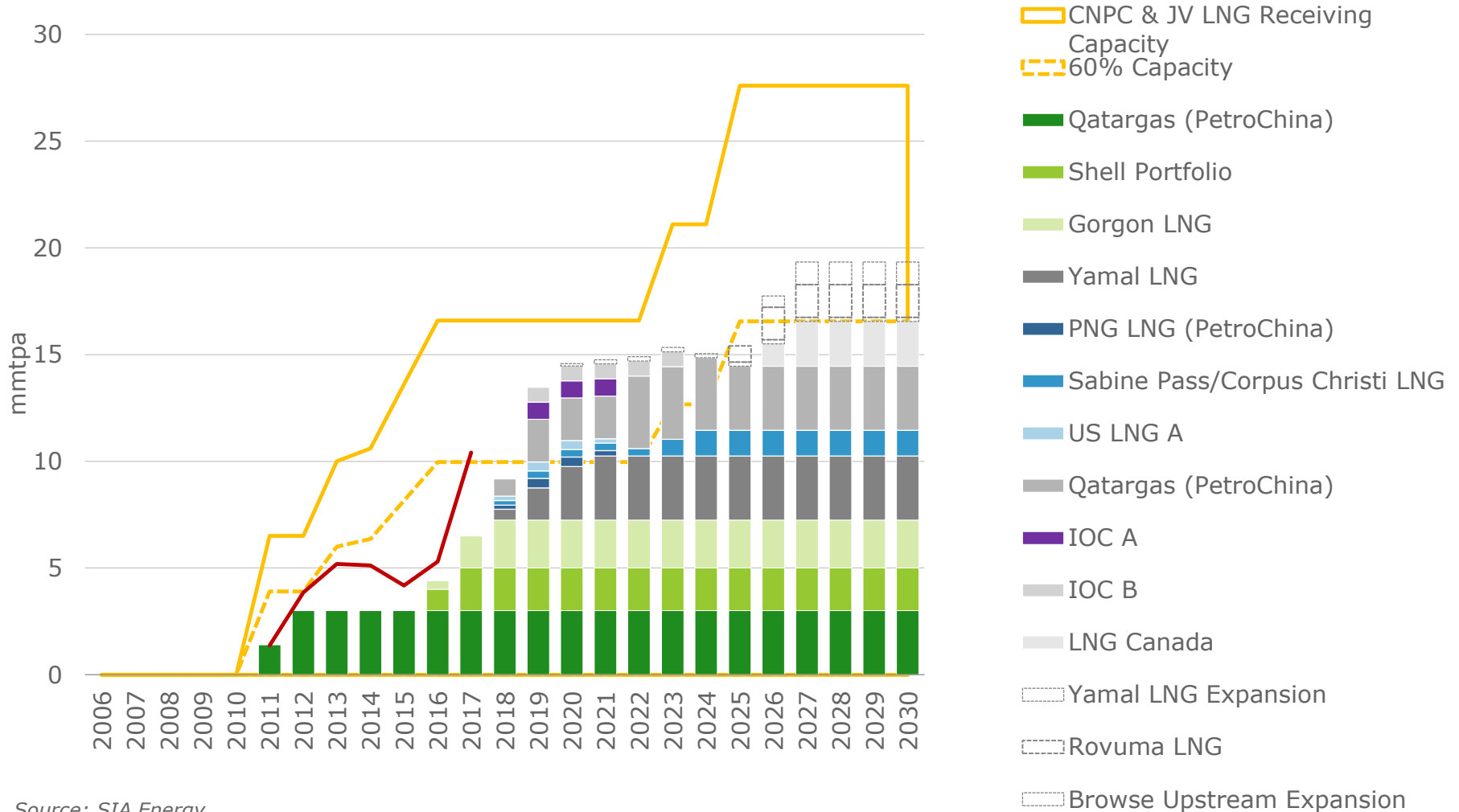
## CNOOC Contracted Volume vs. Real Imports vs. Terminal Capacity



Source: SIA Energy

# CNPC – turning winter spot demand into terms in the near term, while leaving long term market for future equity lifting

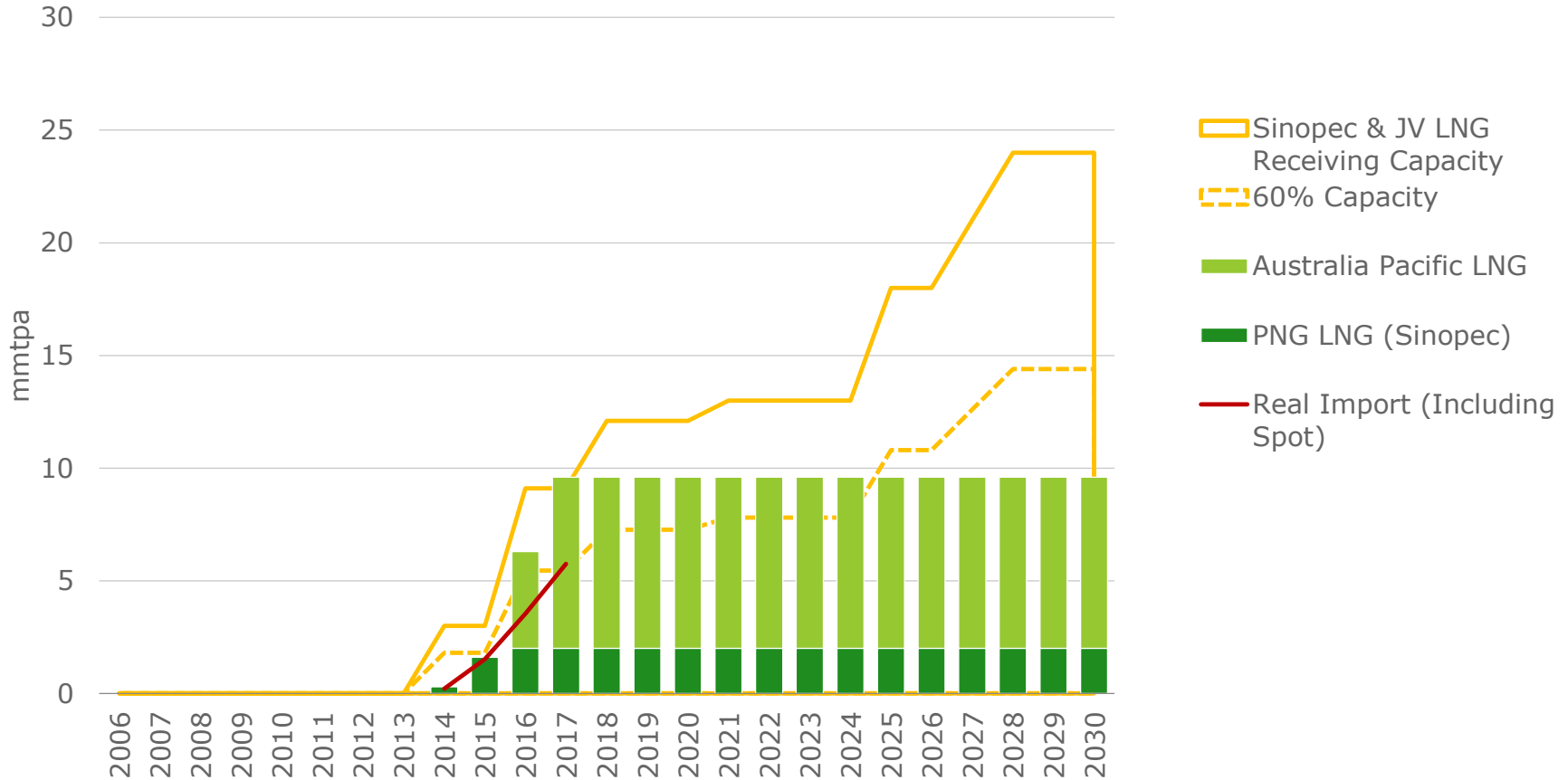
## CNPC Contracted Volume vs. Real Imports vs. Terminal Capacity



Source: SIA Energy

# Sinopec – eager to play catchup and diversify its supply portfolio

## Sinopec Contracted Volume vs. Real Imports vs. Terminal Capacity



Source: SIA Energy

# Tier-2 Chinese LNG Players by Peer Group

## Who are taking actions ?

## Who may take actions ?



Provincial Gas Grid/  
Provincial Energy



City-gas  
Operators



Gas Power  
Plants

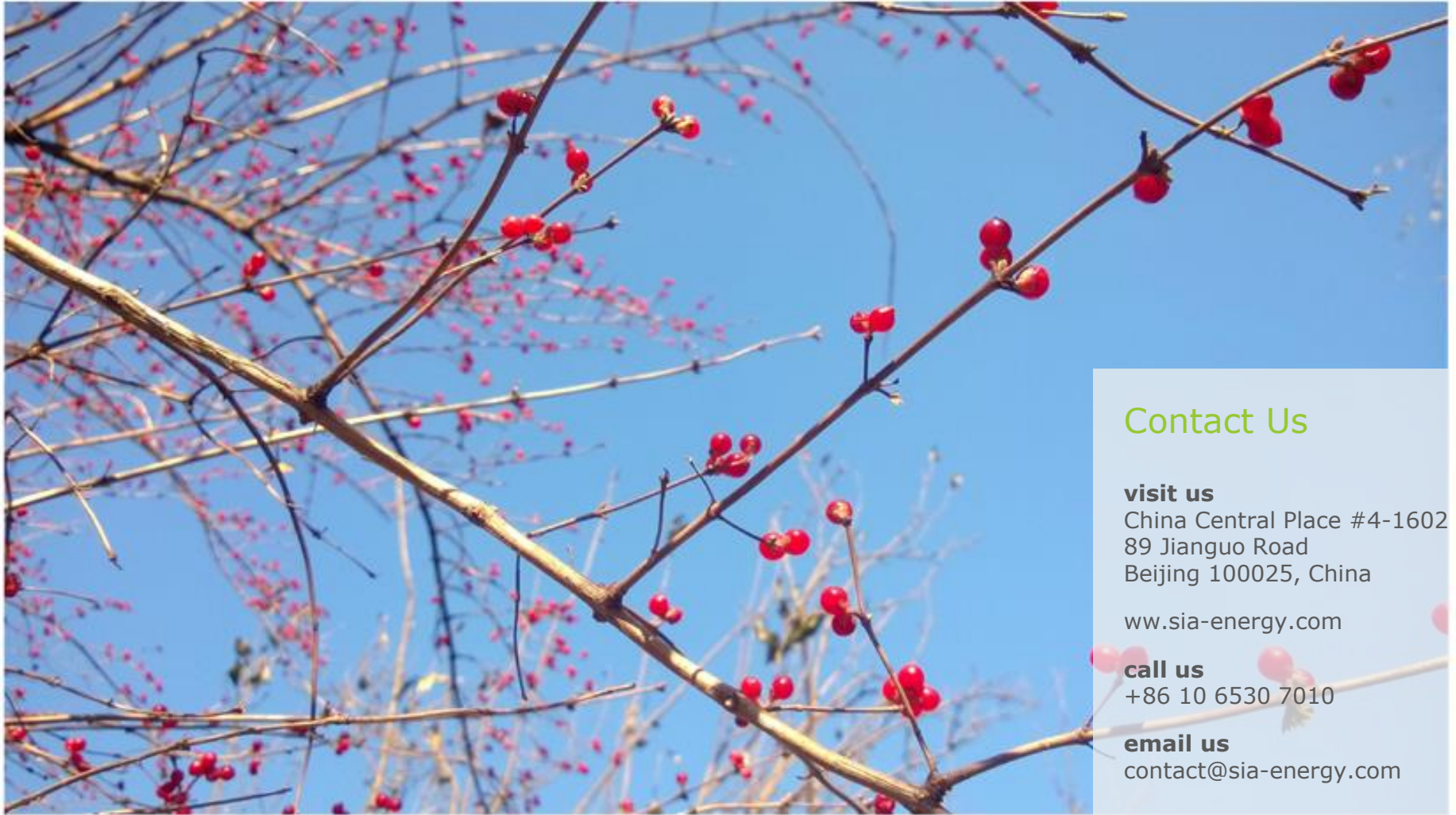


LNG/LPG  
Distributors



Oil Traders /  
Refineries





## Contact Us

### visit us

China Central Place #4-1602  
89 Jianguo Road  
Beijing 100025, China

[www.sia-energy.com](http://www.sia-energy.com)

### call us

+86 10 6530 7010

### email us

[contact@sia-energy.com](mailto:contact@sia-energy.com)

All rights reserved. All information and content provided herein are provided for information purposes only and should not be construed as financial or investment advice. SIA makes no representations or warranties of any kind, express or implied. In no event shall SIA be responsible or liable, directly or indirectly, for any damage or loss caused or alleged to be caused by or in connection with the use of or reliance on any information or content herein.