The Next Wave of Chinese LNG Importers

ZHOU Xizhou 周希舟
Managing Director – Asia Power, Gas, Coal & Renewables
IHS Markit
Key implications

• The rise of non-NOCs in China’s wholesale natural gas supply are creating new dynamics in the global LNG market. Several Chinese non-national oil companies (NOCs) have procured LNG supply agreements and successfully imported cargoes. Many more companies are building or proposing new LNG receiving terminals.

• Together, China’s non-NOCs will present significant opportunities for suppliers. These companies vary from large end users and citygas distributors seeking to minimize their gas procurement costs to energy companies looking for new market opportunities.

• However, further reforms are required to allow new players to fulfill their potential. Instituting non-discriminatory infrastructure access, removing policy barriers to downstream market, and relaxing price regulation are critical areas.

Note: China refers to mainland China in this presentation.
Recent policies and market fundamentals support Chinese non-NOCs’ LNG import activities

Key drivers supporting Chinese non-NOC LNG imports

- Mixed-ownership policy
- Supply security policy
- Midstream TPA policy
- Global market supply availability

Note: TPA = third-party access.
Source: IHS Markit
Multiple Chinese non-NOCs already own and operate LNG terminals

Operating LNG terminals (end-2018)

China’s operating LNG receiving capacity (end-2018)

Note: The operating capacity does not account for equity shares in each project.

Source: IHS Markit
In 2018, non-NOC LNG imports approached 3 MMt, but the share remains small compared with the NOCs

China's non-NOC LNG imports by company

Note: Shenergy holds a majority share in the Shanghai Yangshan LNG terminal. However, cargoes received at this terminal are mostly from CNOOC's term supply and are not counted in this graph.

Source: IHS Markit

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Non-NOC LNG importers fall into three main categories

<table>
<thead>
<tr>
<th>Key categories for non-NOC LNG importers and sample players</th>
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<tbody>
<tr>
<td><strong>Citygas distributors</strong></td>
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<tr>
<td>Have existing downstream markets</td>
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<tr>
<td>Want to reduce supply cost and increase supply security</td>
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<tr>
<td>Shenergy, ENN, Guanghui, Zheneng, Beijing Gas, China Gas,</td>
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<tr>
<td>Shenzhen Gas, Guangzhou Gas</td>
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<tr>
<td><strong>Large gas consumers</strong></td>
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<tr>
<td>Have own gas demand, e.g., gas-fired power generators</td>
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<tr>
<td>Want to reduce supply cost and increase supply security</td>
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<td>Huadian, Yudean</td>
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<tr>
<td><strong>Opportunists</strong></td>
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<tr>
<td>May have access to energy users that may switch to gas</td>
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<tr>
<td>Look for new opportunities to expand existing business</td>
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<tr>
<td>JOVO, Sinoenergy, Beijing Energy, Baota, Hanas, Poly-GCL,</td>
</tr>
<tr>
<td>Pacific Oil &amp; Gas</td>
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</tbody>
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Source: IHS Markit © 2019 IHS Markit
Infrastructure accessibility and rigid pricing regulation are two major impediments for non-NOCs

Challenges remain for non-NOC LNG importers

- Domestic pricing regulations
- Domestic market affordability
- Pipeline access
- Downstream market access
- Credit worthiness
- LNG industry experience

Issues shared with the NOCs
Issues specific to the non-NOCs

Most LNG imports face financial losses

Range of coastal wholesale LNG market prices: High and volatile, but only apply to users who need gas in liquid form or do not have enough piped gas access

Shanghai regulated citygate price

Notes: Shanghai citygate and wholesale LNG prices are net of value-added tax and regas cost to be comparable with landed cost of LNG imports.

Source: IHS Markit © 2019 IHS Markit
Non-NOCs’ regas terminal capacity is expected to more than triple by 2025

China’s non-NOCs’ regas terminals (end-2018)

China’s LNG capacity outlook

Source: IHS Markit
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