

INVESTOR PRESENTATION  
AUGUST 2015

The background of the slide is a dark, blue-tinted photograph of an industrial facility, likely a coal gasification plant. It shows complex piping, structural steel, and a large cylindrical vessel. A thick, light gray curved line arches across the upper half of the image. In the bottom left corner, a worker wearing a hard hat is partially visible.

***“A Unique Opportunity to Invest in  
the China Energy Growth Story”***

# DISCLAIMER

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Sino Gas & Energy Holdings Limited (ASX:SEH, “Sino Gas”, “the Company”) holds a 49% interest in Sino Gas & Energy Limited (SGE) through a strategic partnership with MIE Holdings Corporation (“MIE” SEHK: 1555) to develop two blocks held under Production Sharing Contracts (PSCs) with CNPC and CUCBM. SGE has been established in Beijing since 2005 and is the operator of the Sanjiaobei and Linxing PSCs in Shanxi province.

Certain statements included in this release constitute forward looking information. This information is based upon a number of estimates and assumptions made on a reasonable basis by the Company in light of its experience, current conditions and expectations of future developments, as well as other factors that the Company believes are appropriate in the circumstances. While these estimates and assumptions are considered reasonable, they are inherently subject to business, economic, competitive, political and social uncertainties and contingencies.

Many factors could cause the Company’s actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, gas prices, exploration, acquisition, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. Forward-looking information is no guarantee of future performance and, accordingly, investors are cautioned not to put undue reliance on forward-looking information due to the inherent uncertainty therein. Forward-looking information is made as at the date of this release and the Company disclaims any intent or obligation to update publicly such forward-looking information, whether as a result of new information, future events or results or otherwise.

The purpose of this presentation is to provide general information about the Company. No representation or warranty, express or implied, is made by the Company that the material contained in this presentation will be achieved or prove to be correct. Except for statutory liability which cannot be excluded, each of the Company, its officers, employees and advisers expressly disclaims any responsibility for the accuracy or completeness of the material contained in this presentation and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this presentation or any error or omission therefrom.

This presentation should be read in conjunction with the Annual Financial Report as at 31 December 2014, the half year financial statements together with any ASX announcements made by the Company in accordance with its continuous disclosure obligations arising under the *Corporations Act 2001 (Cth)*.

# RESOURCES STATEMENT

The statements of resources in this release have been independently determined to Society of Petroleum Engineers (SPE) Petroleum Resource Management Systems (PRMS) standards by internationally recognised oil and gas consultants RISC (announced 3 March 2015) using probabilistic estimation methods. These statements were not prepared to comply with the China Petroleum Reserves Office (PRO-2005) standards or the U.S. Securities and Exchange Commission regulations and have not been verified by SGE's PSC partners CNPC and CUCBM.

All resource figures quoted are unrisks mid-case unless otherwise noted. Sino Gas' attributable net Reserves & Resources assumes PSC partner back-in upon ODP approval, CBM Energy's option to acquire an interest of 5.25% in the Linxing PSC (by paying 7.5% of back costs) is exercised, and MIE fulfil funding obligations under the strategic partnership agreement. Reserves & Resources are net of 4% in-field fuel for field compression and field operations. Reference point is defined to be at the field gate. No material changes have occurred in the assumptions and subsequent work program exploration and appraisal results have been in line with expectations.

Information on the Resources in this release is based on an independent evaluation conducted by RISC Operations Pty Ltd (RISC), a leading independent petroleum advisory firm. The evaluation was carried out by RISC under the supervision of Mr Peter Stephenson, RISC Partner, in accordance with the SPE-PRMS guidelines. Mr Stephenson has a M.Eng in Petroleum Engineering and 30 years of experience in the oil and gas industry. Mr. Stephenson is a member of the SPE and MICHemE and consents to the inclusion of this information in this release. RISC is independent with respect to Sino Gas in accordance with the Valmin Code, ASX listing rules and ASIC requirements.

## Sino Gas' Attributable Net Reserves & Resources as at 31 December 2014

SEH Attributable Net Reserves & Resources	1P Reserves (Bcf)	2P Reserves (Bcf)	3P Reserves (Bcf)	2C Contingent Resources (Bcf)	P50 Prospective Resources (Bcf) <sup>1</sup>	EMV <sub>10</sub> (US\$m) <sup>2</sup>
<b>31 December 2014</b> (Announced 3 March 2015)	350	448	557	739	649	\$3,076
<b>31 December 2013</b> (Announced 4 March 2014)	129	291	480	850	1,023	\$2,258
<b>Total 2014 Change (+/-%)</b>	<b>+54% (2P)</b>			<b>-13%</b>	<b>-37%</b>	<b>+36%</b>
Gross Project 31 December 2014	1,238	1,608	2,022	2,560	2,568	N/A

Note 1. The estimated quantities of petroleum may potentially be recovered by the application of future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

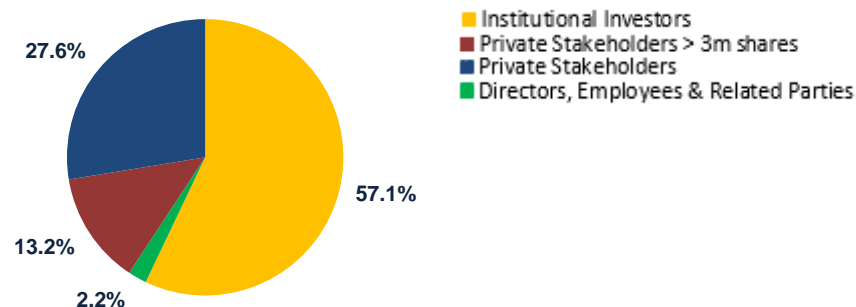
Note 2. EMV is the probability weighted net present value (NPV), including the range of project NPVs and the risk of the project not progressing. Project NPV<sub>10</sub> is based on a mid-case wellhead gas price of US\$9.76/Mscf and lifting costs (opex+capex) of ~US\$1.3/Mscf for mid-case Reserves, Contingent & Prospective Resources.

# COMPANY SNAPSHOT

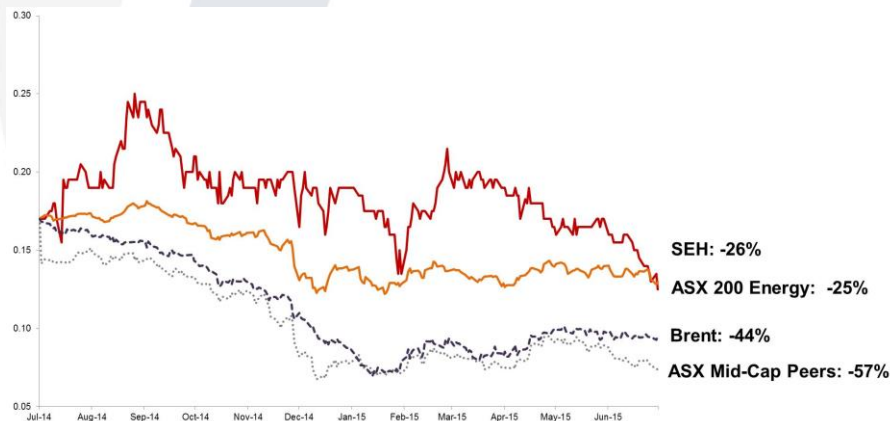
## Corporate Information – as at 30 June 2015

ASX Listed (S&P ASX 300)	SEH
Share Price	A\$0.125
Issued Shares	2,070m
Market Cap	US\$200m
Cash Balance	US\$78m
Drawn/undrawn debt facilities	US\$10/40m

## Share Register – June 2015



## 12 Month Share Price Performance to 30 June 2015



## Top Shareholders – Jun 2015

	Shares (m)	%
FIL Investment Management	203.2	9.8%
Kinetic Investment Partners	128.1	6.2%
Commonwealth Bank of Australia	110.8	5.3%*
SG Hiscock	72.6	3.5%
Perennial Value	60.2	2.9%

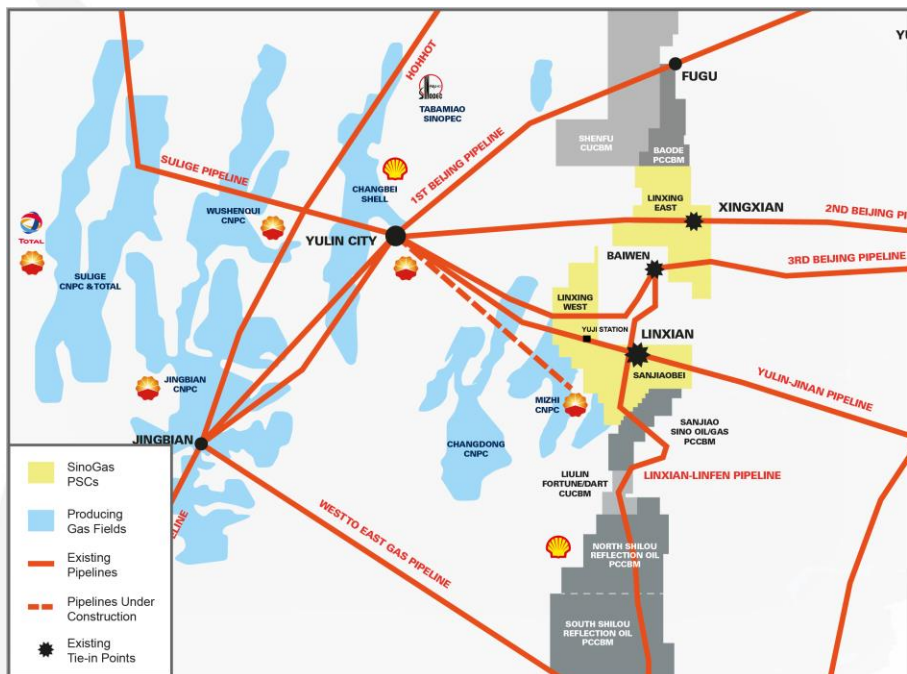
# FIRST HALF 2015 COMPANY HIGHLIGHTS

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- Excellent results from pilot production with >95% facility uptime (only two downtime incidents) and strong individual well performance, verifying our geological model - Sanjiaobei station uptime production averaged 4.2 MMscf/d
- Significantly strengthened balance sheet to fund business materially through to ODP with A\$84 million equity placement and share purchase plan
- Linxing Central Gathering Station construction completed and commissioning commenced in preparation for first gas sales in early 2H 2015
- Second Gas Sales Agreement signed for gas sales from Linxing CGS at ~US\$9.60/Mscf, up from previous GSA for Sanjiaobei CGS at ~US\$9.50/Mscf
- Substantial reserve/resource maturation announced with 54% increase in net 2P reserves, 171% increase in net 1P reserves in 2014<sup>1</sup>
- 13 wells drilled, including drilling of TB-3H, 5 well tests performed
- Average vertical well drilling cost decreased ~10% compared to 2014 average
- Excellent occupational health and safety record maintained with 240,000 incident free man hours recorded in 1H 2015



# SIGNIFICANT ASSETS IN THE PROLIFIC ORDOS BASIN



## The most productive natural gas basin in China:

- Unconventional gas production of over 3bcf/day
- Ready access to key demand centres with multiple tie-in points
- Sino Gas' ~3,000km<sup>2</sup> acreage is located approx. 500km from Beijing



# A UNIQUE CHINA GAS INVESTMENT OPPORTUNITY

## Attractive market dynamics

- ≈ **Strong demand outlook:** Government target to double nat gas % of energy mix by 2020<sup>1</sup>
- ≈ **Robust gas prices:** Average China city-gate ~US\$11/mcf effective 1 April 2015
- ≈ **Supportive policy:** Government policy prioritising unconventional gas production

## Large scale / low cost resource

- ≈ **Substantial scale:** Project gross 1.6 tcf 2P & 2.6 tcf 2C in the prolific Ordos Basin<sup>2</sup>
- ≈ **Significant upside:** 2.6 tcf gross prospective resource<sup>2</sup> with ongoing exploration
- ≈ **Low cost supply:** Competitively positioned on the China gas supply cost curve

## Pathway to commercialisation

- ≈ **Pilot Production:** >95% uptime in 1H15, material production growth targeted in 2H15
- ≈ **Gas Sales:** Initial sales at c.US\$9.50-US\$9.60/Mscf
- ≈ **Market Access:** Adjacent to existing infrastructure with ready access to key markets

## Strong partners

- ≈ **SOEs:** Tier 1 PSC partners (CNPC & CNOOC) with established unconventional operations in the Ordos Basin
- ≈ **MIE:** Strategic JV partner with proven track record of operating PSCs in China

## Experienced team / well financed

- ≈ **Strong board and management:** Experienced team with strong technical and commercial expertise
- ≈ **Financing:** US\$78m cash<sup>3</sup> - materially funds to ODP

# CHINA: FEEDING THE EVER HUNGRIER ENERGY DRAGON

China: **61% of net global energy demand growth** in 2014<sup>1</sup>

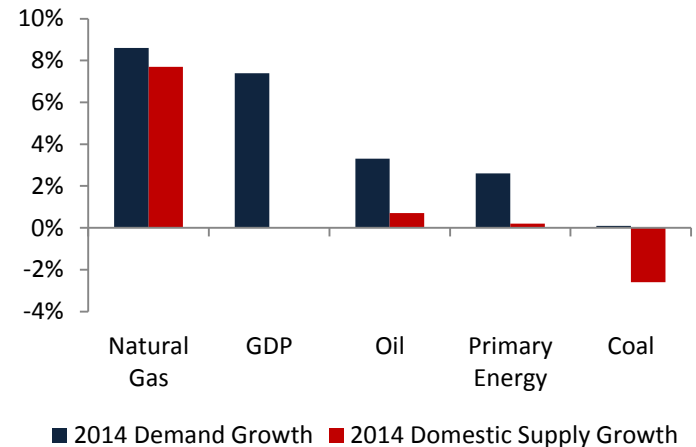
In line with government policy, **natural gas remains the fastest growing fossil fuel**, taking market share from oil, coal

- Natural gas grew c.3x faster than primary energy demand, above GDP growth rates<sup>2</sup>

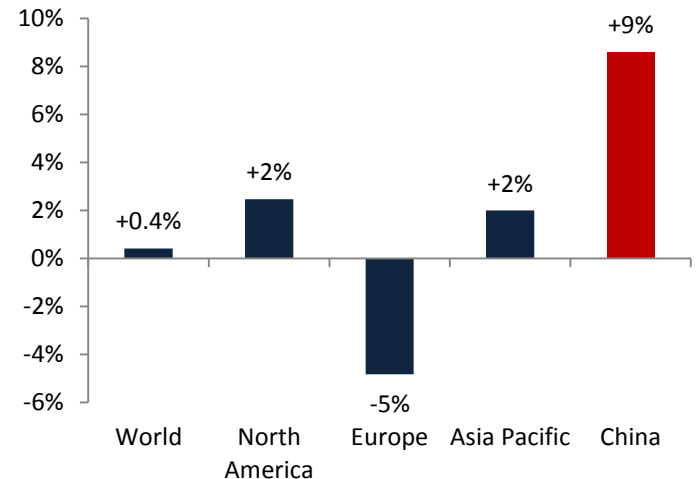
Despite the slowdown in energy demand growth, **domestic production failed to keep up with demand growth** across all fossil fuels

- China's overall fossil fuel import dependency rose from 15.2% to 17.8%<sup>1</sup>
- China's natural gas import dependency rose from 27% to 28%<sup>1</sup>

China 2014 Demand/Supply Growth<sup>2</sup>



China 2014 Nat Gas Demand Growth vs RoW<sup>1</sup>





# CHINA POLICY HIGHLY SUPPORTIVE OF NATURAL GAS

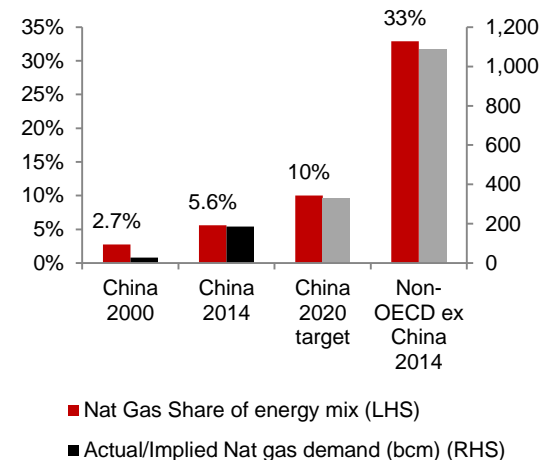
## 2020 Energy Development Strategy Action Plan outlines the Government's goals for Natural Gas in China:

- Grow share of energy mix to over 10% by 2020 (5.6% in 2014)
- Encourage domestic production to limit reliance on imports

## Examples of policy in action:

- NDRC regulated gas prices
- Shutting of all coal fired power plants in Beijing by 2016, banning all coal within city by 2020
- Material revisions to Environmental Protection Law enacted
- Highest ever fine agreed for environmental violation in July 2015 for 2010 Dalian oil spill
- Environmental Tax recently proposed, including taxing carbon emissions
- China/US agreement on CO2 emissions
- National Oil Companies redirecting LNG volumes to other markets to avoid crowding out domestic supply

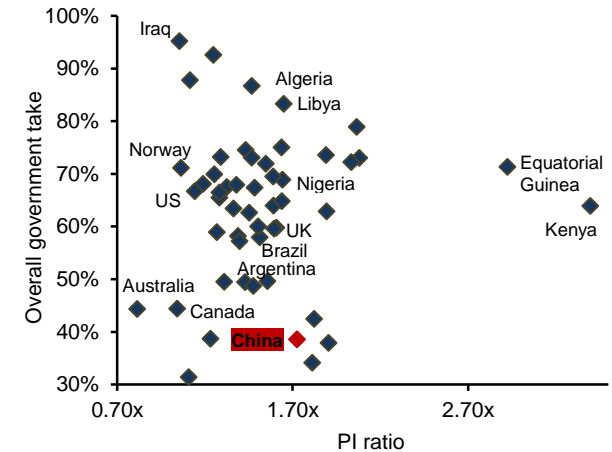
China Policy Pushing for Increased Natural Gas Adoption<sup>1</sup>



# OPERATING IN CHINA: A WELL ESTABLISHED & FAVOURABLE REGIME

- World's 5<sup>th</sup> largest oil producer, 6<sup>th</sup> largest gas producer
- Over 20 private international firms involved in upstream operations
- Ranks favorably globally on P/I Ratio and Government Take<sup>1</sup>
- Well established and transparent procedures and regulatory requirements
- Long term government plans and policies (including natural gas pricing) conducive to planning long term investments
- Large, well developed service industry available at internationally competitive prices
- Ranked 24 out of 48 Major Economies for Rule of Law, just behind France, Austria, Belgium, Germany and Australia<sup>2</sup>.

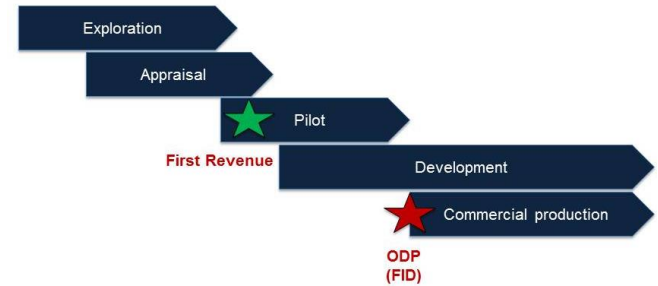
China ranks favorably on government take, P/I<sup>1</sup>



Typical Conventional Development Progression

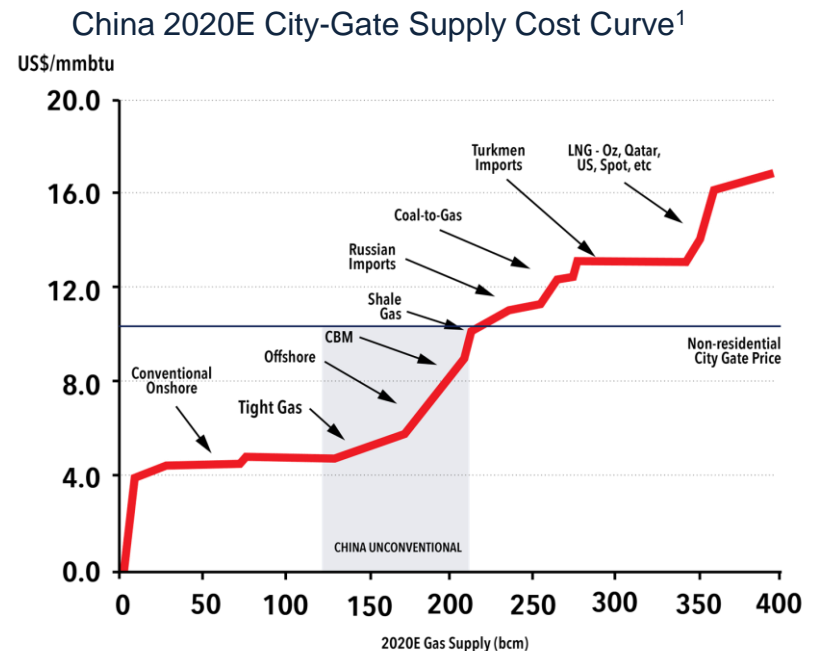


China Unconventional Development Progression



# PRICING AND SINO GAS' POSITION ON COST CURVE

- As of 1 April 2015, average city gate prices in China ~US\$11/mcf, Sino Gas' contracted wellhead price US\$9.50-\$9.60/mcf
- In setting domestic gas prices, the NDRC states its objectives include:
  - Incentivising domestic production
  - Reducing losses on imported gas
  - Keeping natural gas cost competitive vs. alternative fuels
- Imports, both pipeline and LNG, expected to remain at the high end of the cost curve, even in a lower oil price environment
- Sino Gas' assets highly cost competitive with est. capex + opex of US\$1.30/mcf<sup>2</sup>



1 – Source: Macquarie Research

2 – To be read in conjunction with Resource Statement on slide 3. EMV is based on NPV<sub>10</sub> with a mid-case gas price of US\$9.76/Mscf and lifting costs (opex+capex) of ~US\$1.3/Mscf for mid-case Reserves, Contingent & Prospective Resources

# LARGE SCALE ASSETS WITH SIGNIFICANT UPSIDE

## Size & Scale: 1.6 tcf 2P and 2.6 tcf 2C gross<sup>1</sup>

SEH net: 448 bcf 2P + 739 bcf 2C<sup>1</sup>

## 2014 1P Reserves +166%, 2P Reserves +54%

## Attractive Geology with Stacked Multiple Pay-Zones

## Surrounded by Substantial Existing Production

Ordos Basin currently produces over 3Bcf/day from conventional and tight gas reservoirs

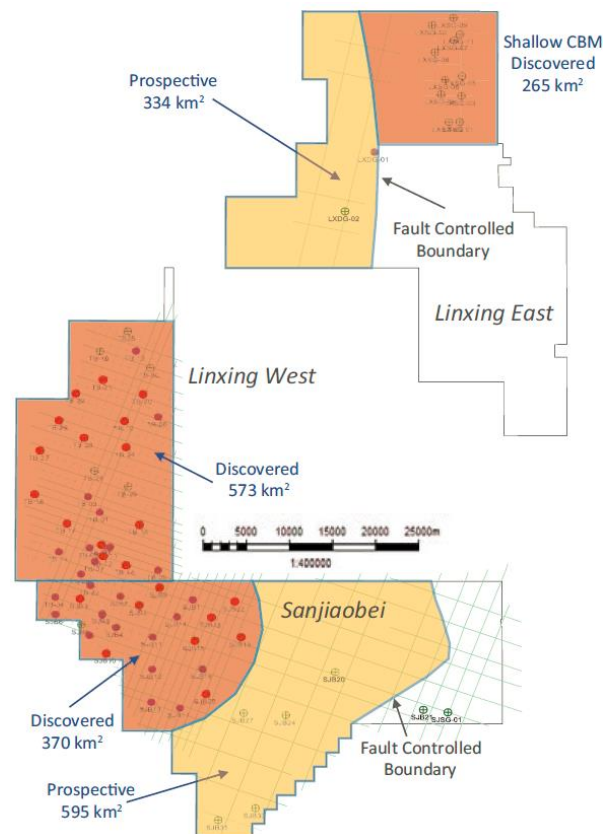
## Commercialisation

First pilot pipeline sales achieved, continuing to ramp up production

## Cost Competitive Resource base

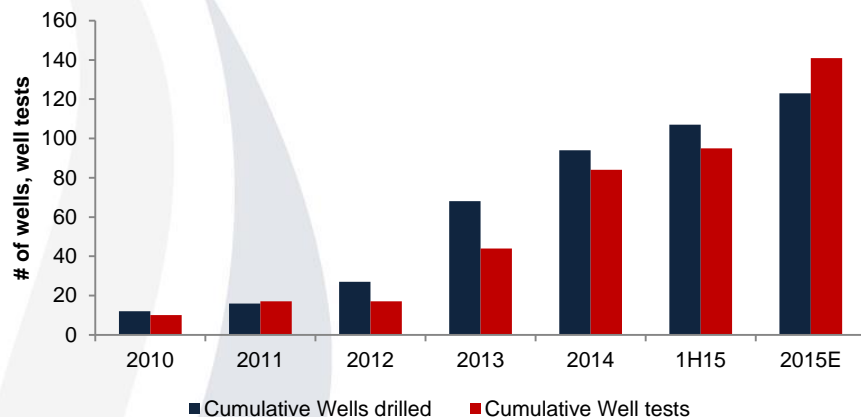
Capex + Opex estimated to be c.US\$1.30/Mscf<sup>2</sup>

## Project and Drilling Overview

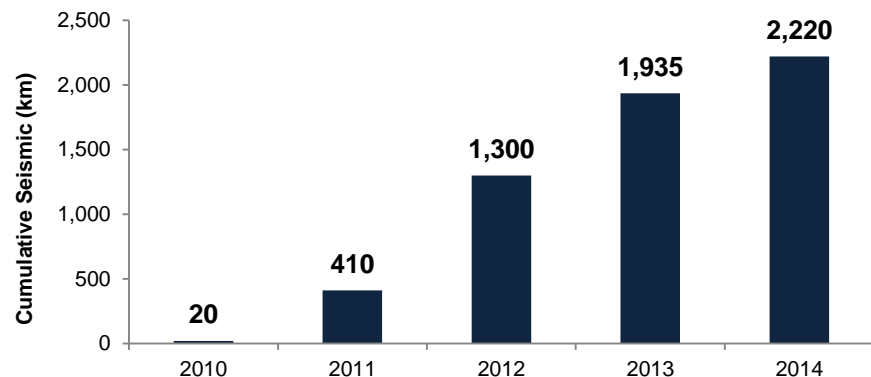


# COMPANY GROWTH

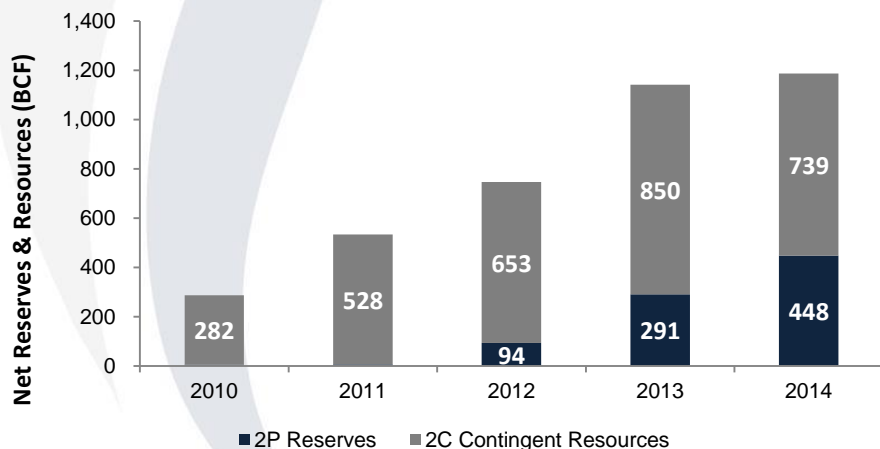
## Cumulative wells drilled & well tests



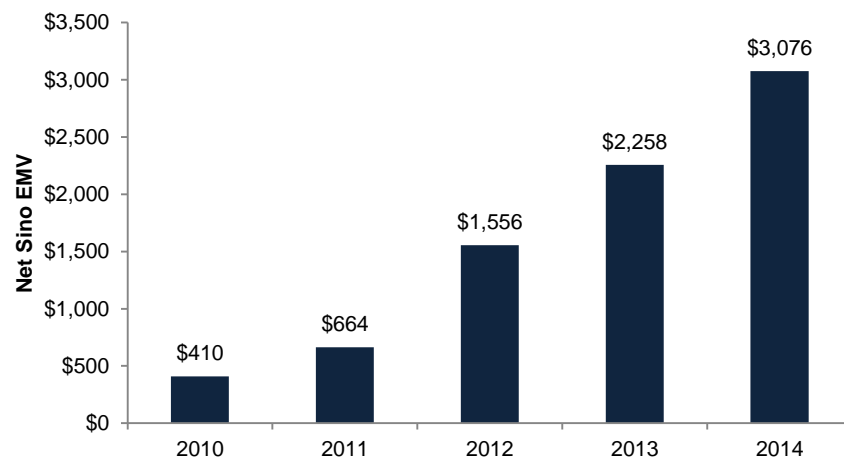
## Cumulative Seismic



## Sino Gas' Net 2P + 2C Growth<sup>1</sup>



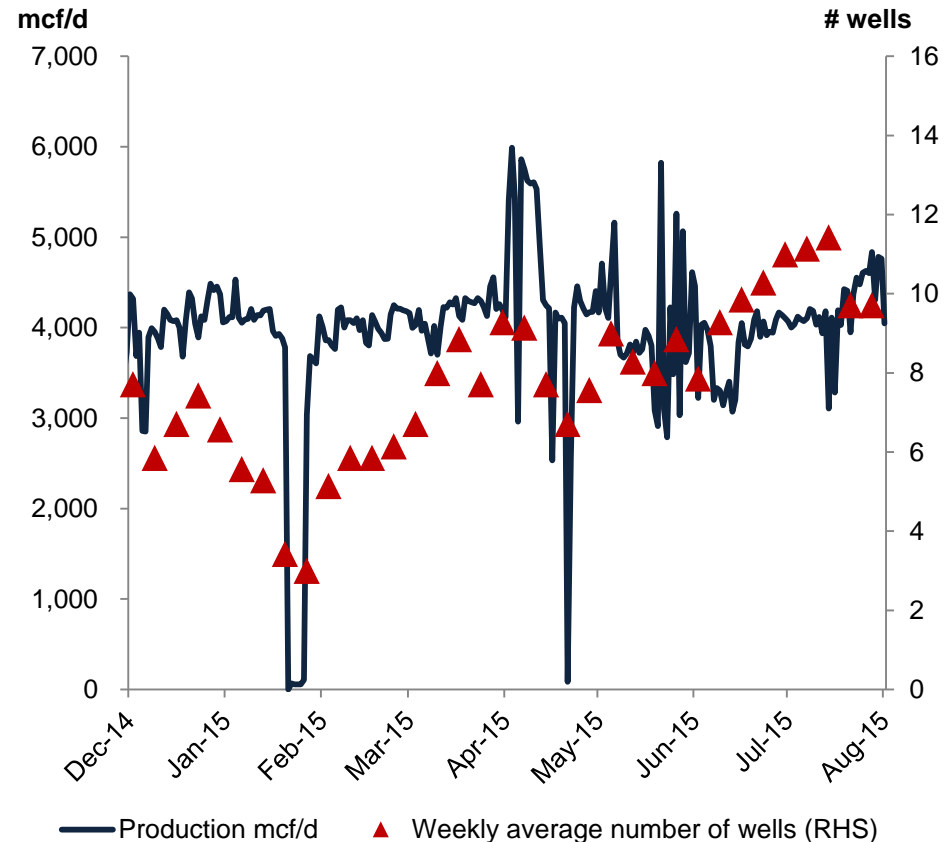
## Sino Gas' Net EMV<sup>2</sup>



# RESULTS OF PILOT PRODUCTION TO DATE

- Sanjiaobei Central Gathering Station pilot gas sales commenced 1 December 2014
- Production constrained by processing downstream off-take capacity
- Excellent uptime recorded for start-up phase
- Larger Linxing Central Gathering Station expected to be brought on in August 2015
- Individual well performance confirming geological model

**Excellent well and operational performance since start up; well capacity in excess of processing/downstream capacity**

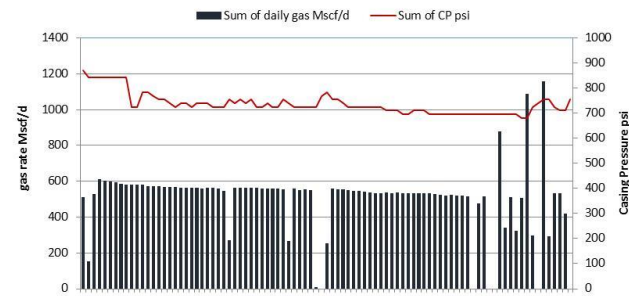
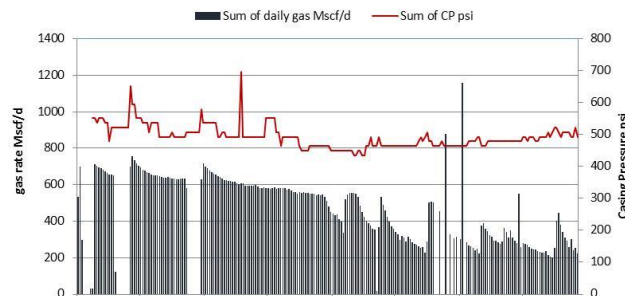
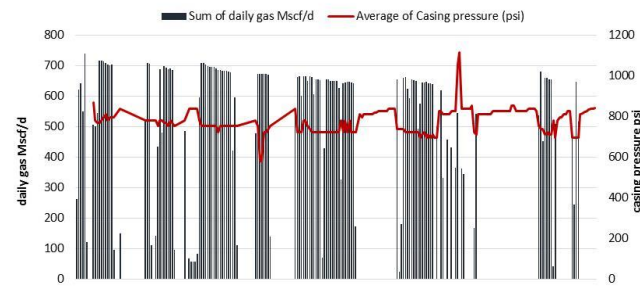
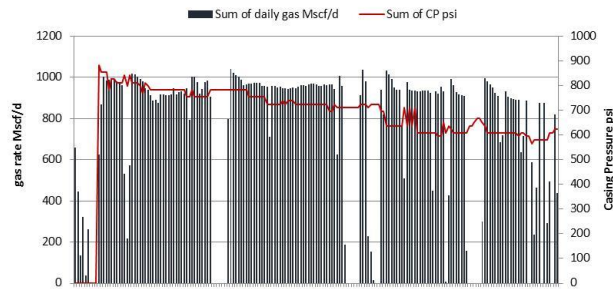




# INDIVIDUAL WELLS PERFORMING STRONGLY

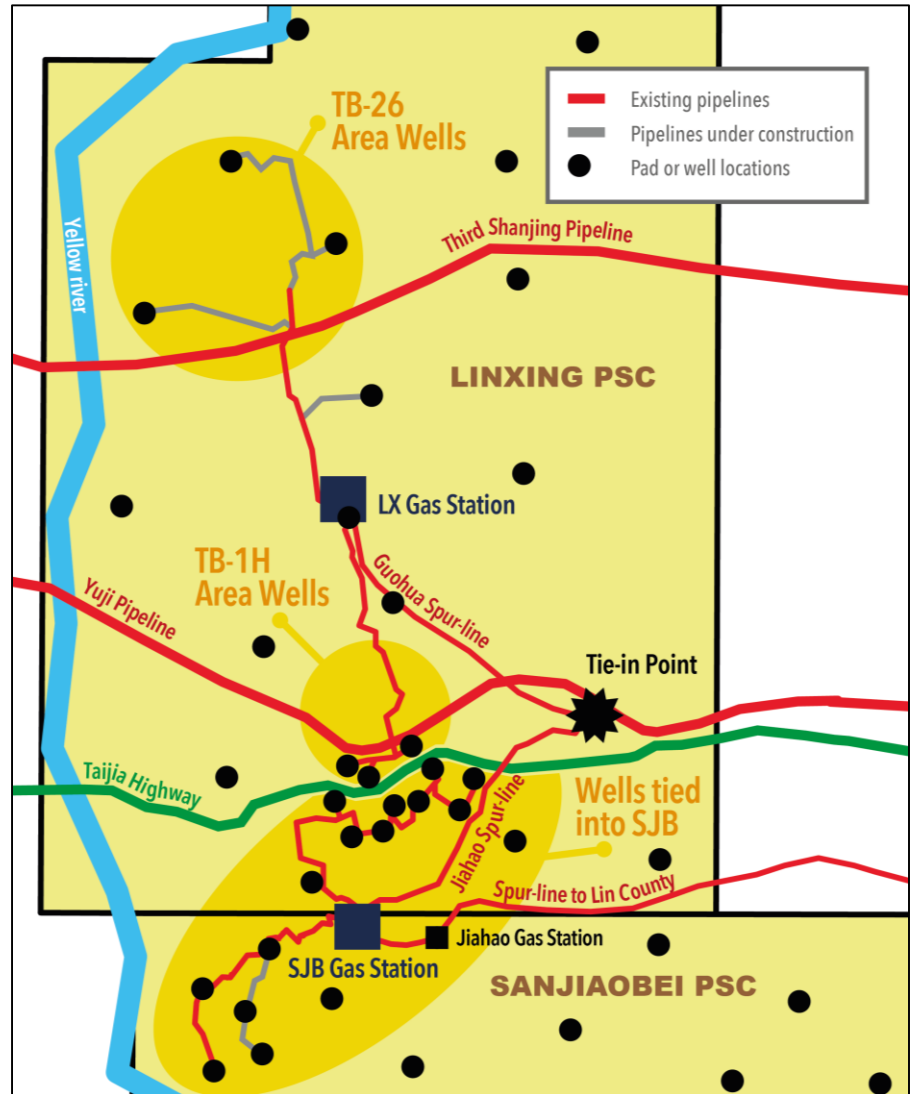
- Well capacity has been in excess of processing/downstream capacity, necessitating wells to be cycled on/off
- Well performance has been slightly better than expected average
- Some wells remain on plateau and some show modest declines

## Selection of daily production per well



# 2015 WORK PROGRAM PROGRESS

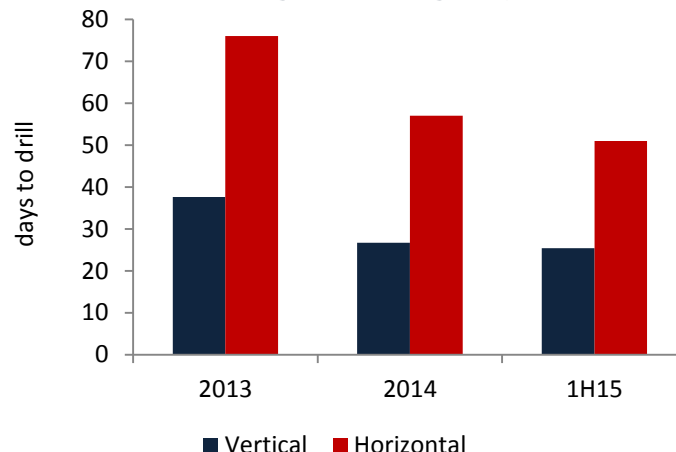
- ≈ 30 wells planned to be drilled in 2015, of which 20 are development wells (including 3 horizontals) and 8 exploration wells
  - By mid-year, 11 development wells and 2 exploration wells completed
- ≈ Linxing central gathering station expected to be brought online in August, bringing total installed capacity to ~25 MMscf/d
- ≈ Additional wells to be tied in over 2H15
  - TB-26 area wells tie-in expected by early 4Q
- ≈ Ramping up production toward full installed capacity by year end
- ≈ Engineering and Design work currently underway for capacity expansion installation end 2015 for next phase of production growth



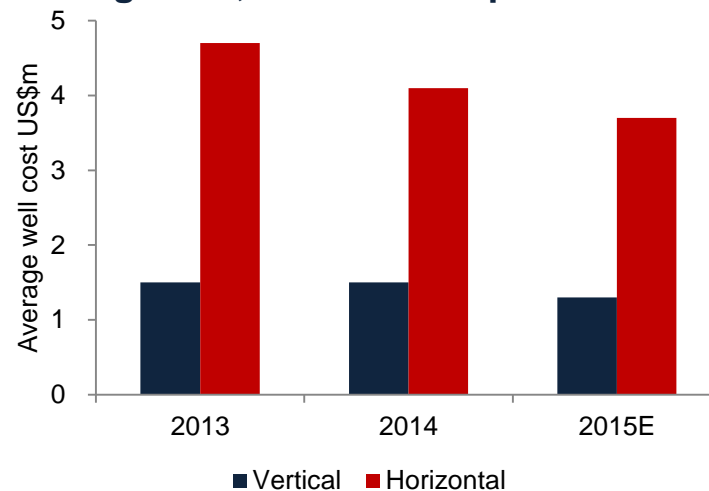
# EFFICIENCY IMPROVEMENTS AND COST SAVINGS

- Efficiencies and improved rig rates drove ~10% decrease in average well costs in 1H15 vs. 2014
- Vertical wells drilled ~5% faster than 2014, which was ~30% faster than 2013
- TB-3H drilled in 2015 ~33% faster than TB-1H drilled in 2013
- Chinese National Oil Companies have cut capex budgets in response to lower oil prices, resulting in lower rig utilisation and decreased rig rates
- During 2014, average well test rate increased 70% vs 2013

**Average drilling days**



**Average drill, frac and complete costs**

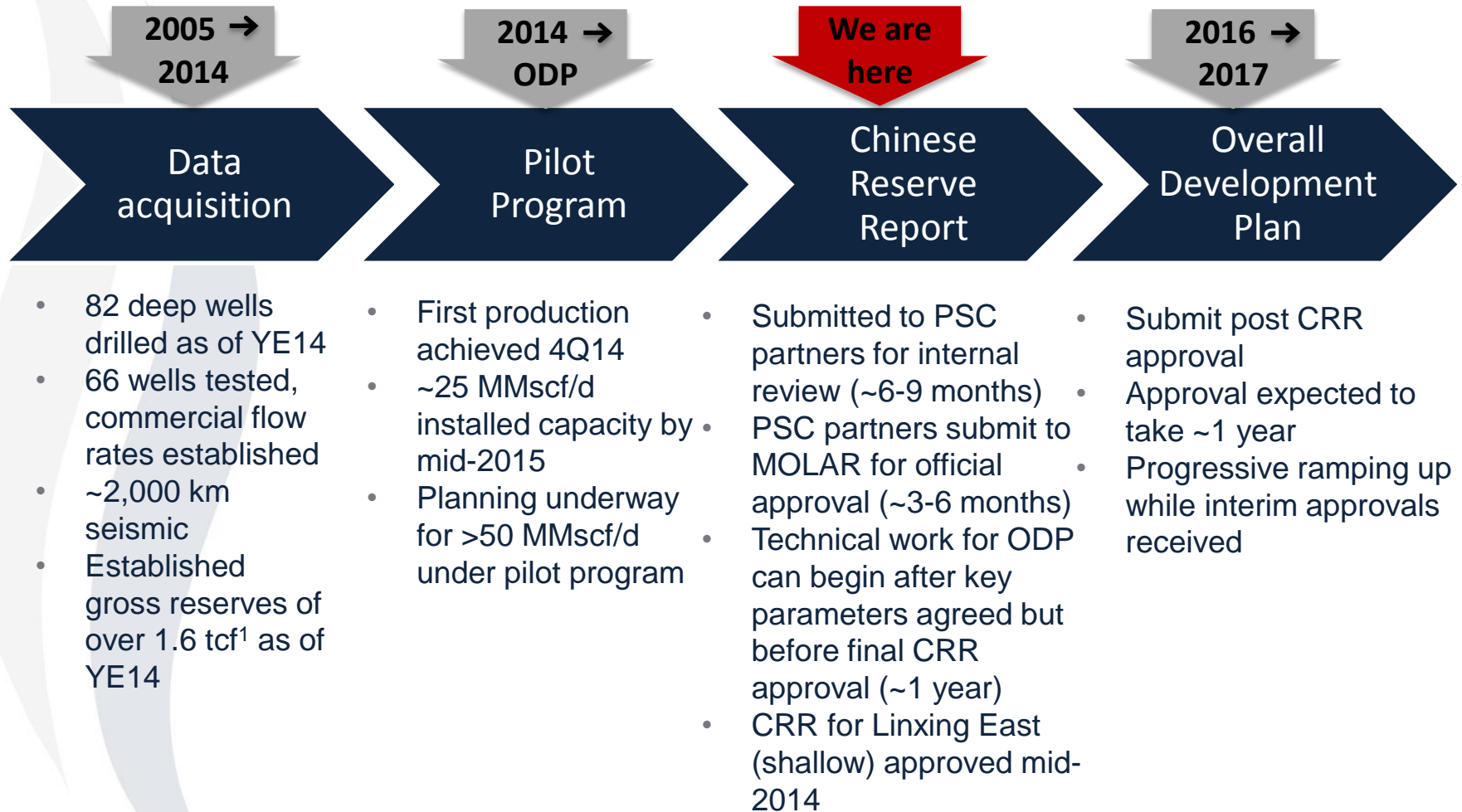


# GAS SALES PROCEEDS

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- Significant progress made on resolving outstanding commercial matters to complete payment process for gas sales to flow through to the Joint Venture company (SGE)
- Major issues in agreement:
  - Gas Sales Agreements in place, gas volumes agreed daily between SGE, PSC partners and Gas Buyers
  - PSC stipulates allocation mechanisms for pilot production
  - Local tax office registrations recently completed by both PSC partners
  - Payments made to PSC partners from Gas Buyers
- Outstanding approvals needed related to allowing for cash transfers from SOEs to foreign joint venture company, no significant impediments encountered but time required to work through regulatory process
- It has been determined that revenue can be recognised by SGE in the half-year financial statements in accordance with international accounting standards, the PSCs and gas sales contracts in place
- Lump sum payment for gas sold since start of Pilot Production expected once resolved; once in steady state operations, gas proceeds expected to be paid monthly based on the volume of gas nominated to the gas buyer
- Resolution expected by year end 2015

# KEY CHINESE REGULATORY APPROVALS



# STRONG STRATEGIC PARTNERSHIPS

## ~ MIE (MIE Holdings Corporation)

- Strategic Partner with a proven track record of working under Chinese regulatory system
- Successful execution of three ODP approvals in China
- Other operations in Kazakhstan, USA & China
- 400+ wells drilled per year in China for the last two years

## ~ SGE

- PSC Operator partnered with major State Owned Enterprises (SOE) with extensive field development experience

## ~ CUCBM

- The original SOE formed to develop the CBM industry in China
- Now 70% owned by CNOOC

## ~ CNPC

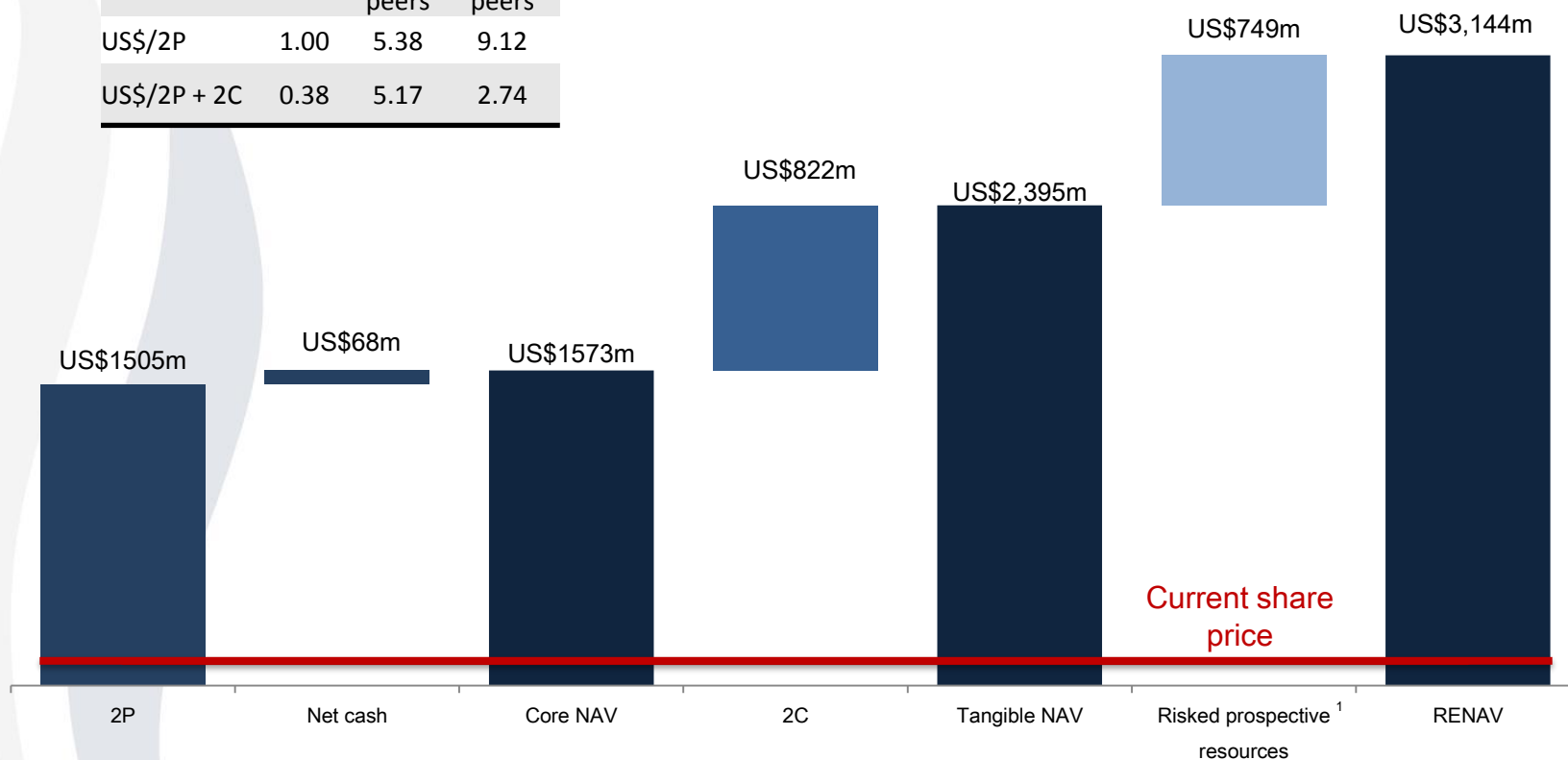
- China's largest oil and gas producer with an extensive international presence
- Strong focus on the development of unconventional gas in China





# CLOSING THE VALUE GAP THROUGH DELIVERY

Current trading metrics <sup>2</sup>			
	SEH	China peers	Aus list peers
US\$/2P	1.00	5.38	9.12
US\$/2P + 2C	0.38	5.17	2.74



# 2015 PRIORITIES

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## ≈ Q1 2015

- ✓ Independent Reserve & Resource update March
- ✓ Gas Sales Agreement Linxing March
- ✓ Infield development drilling and testing Ongoing

## ≈ Q2 2015

- ✓ Securing funding to materially fund company towards ODP April
- ✓ Drilling of third horizontal well May/June
- ✓ Installation and commissioning at Linxing CGS June

## ≈ Q3 2015

- First gas Linxing CGS August
- Testing TB-3H September

## ≈ Q4 2015

- CRR approvals expected During quarter
- Tie-in of additional wells from TB-26 Area October
- Installation of additional processing capacity December
- Production exit rate ~25 MMscf/d (gross) December

# PILOT PROGRAM PHOTOS



Sanjiaobei Central Gathering facilities commissioned



Pad Drilling Christmas Trees



SGE gathering lines being installed



Third party Linxing Spur Line >100 MMscf/d capacity



# PILOT PROGRAM PHOTOS – LINXING CENTRAL GATHERING STATION



# CONTACTS

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can be found on our website:

**[www.sinogasenergy.com](http://www.sinogasenergy.com)**

