# Q2

SINO Gas & Energy
www.sinogasenergy.com

# QUARTERLY ACTIVITIES REPORT

## Q2 Highlights

- **Q2 gross pilot production of ~17 MMscf/d, up ~10% on the previous quarter**
  - On-track to deliver production within guidance as new Sanjiaobei GSA mitigates risk of further downstream constraint
  - First horizontal well (TB-1H) surpassed 1 Bcf of production in under 2 years
- **New Gas Sales Agreements signed for both Linxing and Sanjiaobei PSCs with a fixed price of ~US$6.40/Mscf (~A$8.00/Mscf), significantly improving off-take reliability**
- **Work program on-track to deliver low cost/high margin production growth**
  - Seven pilot wells completed and well performance in line with expectations
  - New Linxing North CGS on schedule to startup around the end of 2017 / 2018
  - Well costs reduced ~15% compared to 2016 average
- **Progressing preparation of Linxing and Sanjiaobei ODP with submission anticipated in 2H 2017**
- **Natural gas demand continued to surge, up >20% 2Q year over year,** Government released further policy documents to spur natural gas demand
- **SGE to post 2Q profit pre-shareholder financing costs with strong margin ~US$4/Mscf (~A$5.30/Mscf)[1]**

**Sino Gas & Energy Holdings Limited ("Sino Gas") Managing Director, Glenn Corrie said:** *"2017 is an important year for the company as we advance towards full field development and large scale production that will generate significant cash flow. Sino Gas remains on track to deliver our 2017 key objectives of achieving stable and reliable production from our existing facilities, install new facilities to position us for further production growth in 2018 and to submit our first tight gas ODP.*

*Our production in Q2 was an improvement over Q1, despite encountering some offtake constraints downstream of Sanjiaobei. The marketing team worked diligently to secure an alternative gas buyer to enable the commencement of sales to Shanxi GuoHua. ODP planning is well underway and in conjunction with our PSC partners, SGE have made good progress compiling key components of the full field development plan which make up a significant proportion of the reports.*

*The China gas market continues to strengthen with demand growth at levels not seen since 2014 and with this backdrop, SGE is very well positioned as a low cost, high margin business of scale."*

## 2017 Priorities

- ☑ Maintain safety record
- ☑ Update Reserves and Resources Estimates
- ☑ Purchase option for additional interest in Linxing
- ☑ Finalise Sanjiaobei cash receipt
- ☑ Secure additional gas sales agreements
- ☑ Further well cost reductions
- ☑ Average gross full-year production of 18-23 MMscf/d[2]
- ☑ Install new CGS on Linxing North
- ☑ Complete ODP processes
- ☑ Further well performance improvements

☑ Completed ☑ On-track

1.Margin is calculated as the Joint Venture net revenue after VAT and partner share less operating expenses per Mscf of sales. Please refer to non-IFRS Financial Information note on page 6

2.Guidance amended with production still on track to deliver within original range

All financial numbers are in US dollars unless otherwise stated and unaudited

# PILOT DEVELOPMENT

## Health, Safety and the Environment

A total of 145,850 Lost Time Injury free hours were recorded during 2Q17 from the drilling, testing and production operations on the Linxing and Sanjiaobei PSCs. There were no recorded environmental incidents.

## Pilot Production

Production for the second quarter averaged ~17 million standard cubic feet per day ("MMscf/d"), up nearly 10% over the first quarter despite no new wells being tied-in. Strong individual well performance and high Sino Gas & Energy Limited ("SGE" or "Joint Venture") facility utilisation rates were partially offset by lower gas offtake reliability at the Chinalco plant downstream of Sanjiaobei. The uptime performance rate of the Linxing Central Gathering System ("CGS") has been top quartile at 99.5%.

Two new Gas Sales Agreements ("GSA") with Shanxi GuoHua Energy Limited Company ("GuoHua") increase natural gas sales options and provide greater certainty of being able to maximise off-take and revenue from both Linxing and Sanjiaobei at attractive pricing mitigating the risk of further downstream constraints.

Sino Gas remains on track to achieve annual production within its production range, albeit at the lower end of the range. As a result, the production guidance range for the year is being narrowed to 18 to 21 MMscf/d.

Well performance continues to be in-line with expectations. The first horizontal well, TB-1H, has surpassed cumulative production of 1 billion cubic feet ("Bcf") within 22 months.

During the quarter, significant progress was also made optimising production flows which has allowed both Production Sharing Contracts ("PSCs") to produce independently, simplifying gas marketing arrangements.

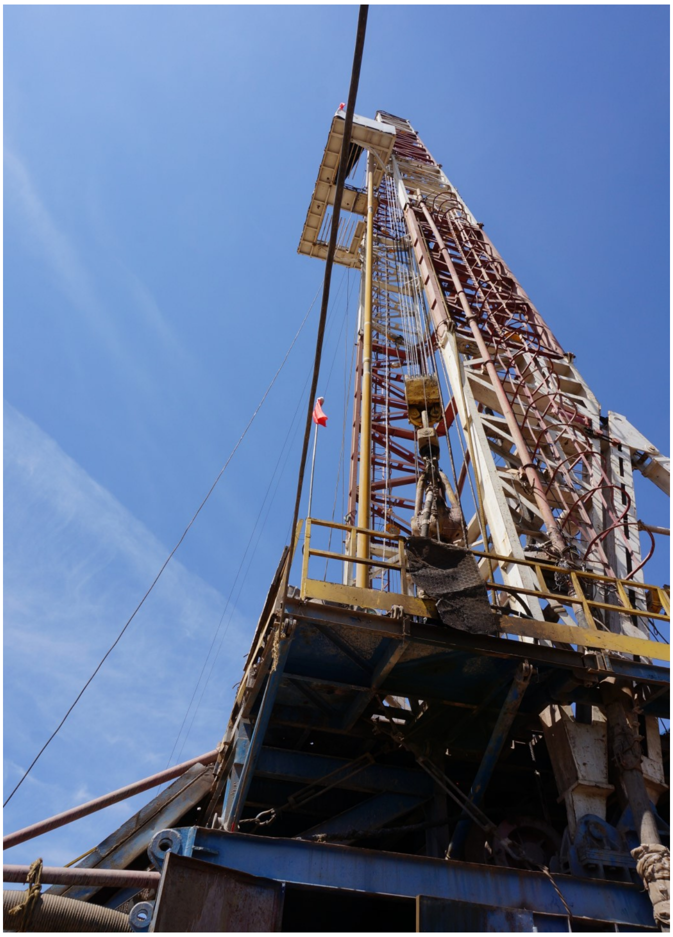
## Gas Marketing

In July, SGE, in conjunction with its PSC Partners, CUCBM and PetroChina, signed two new GSAs for gas sold from both the Linxing and Sanjiaobei PSCs. The GSAs are with an existing gas buyer, GuoHua, a subsidiary of Sinopec and one of the largest gas distribution companies in Shanxi Province.

This Linxing GSA is effective from March 2017 to March 2018 with a fixed gas price of ~US$6.40/Mscf[1] (~A$8/Mscf) equivalent and covers minimum daily contract volume of 14 MMscf/d. The Sanjiaobei GSA is effective from July 2017 to the end of 2017 at the same price and covers the total available production from the Sanjiaobei CGS. The contract fixed price is a premium to the average of the previous summer 2016 and winter 2016/2017 agreed gas prices and provides greater revenue and volume certainty during the summer demand period. SGE was able to achieve this due to the strong relationship with GuoHua and positive natural gas fundamentals. For additional details, refer to announcements 17 July 2017 and 24 July 2017.

## New Production Facilities

Construction of the new Linxing North CGS is on track for commissioning around the end of 2017/early 2018 as planned. Long-lead equipment procurement is ongoing with the majority of components, including the compressor, the critical path item, ordered during the quarter. With the site identified and land leasing completed, earthworks are scheduled to commence in August. Three rigs have been mobilised to drill 11 production wells during 2H17 which will be tied-in to the CGS to support production ramp up. These will be in addition to the 3 wells, including horizontal well TB-2H, previously drilled. Once completed, installed gross processing capacity across the Linxing and Sanjiaobei PSCs will increase ~70% to over 40 MMscf/d. Gas marketing discussions are underway with multiple gas buyers to secure GSAs for the export of gas from the CGS.



On Linxing East, detailed feasibility studies indicate that a more permanent SGE owned and controlled CGS to accommodate much higher production volumes from the greater Linxing East area is preferred over a tie-back to third party infrastructure. As a result, the Linxing East development project has been deferred to enable the feasibility studies for a larger CGS to be completed. The deferral is not expected to materially impact 2017 production.

1. GSA denominated in RMB. Assuming RMB/US$ exchange rate of 6.78

## Drilling and Testing

**Linxing PSC — Sino Gas 31.7%[1]**

During the second quarter, two pilot wells completed drilling on Linxing West, identifying net pay of 6.8 and 22.7m respectively. An additional three wells will be drilled from the same pad before all five wells will be fractured and tied-in as production well stock. Four pilot wells on the TC-06 pad were fractured and will be tied into the Linxing CGS once testing is complete.

The drilling program on Linxing has proceeded slightly slower than anticipated due to protracted land leasing for well pad locations. However, this is currently being resolved and three additional rigs are being mobilised to accelerate the drilling program in addition to the two rigs that are currently running.

**Sanjiaobei PSC — Sino Gas 24%**

During the second quarter, five pilot wells on two pads completed drilling, identifying net pay of 10-30 meters each. Additional pilot development wells on both pads are planned. Five wells on the SJB601 pad were fractured during the quarter with tests rates on four wells of ~220-600 Mscf/d. These wells were tied-in during July. Three work-over rigs are currently operating to increase production from existing wells following the first two successful work-overs completed in April and reported in the Q1 activities report.

## 2017 Budget

The 2017 budget is weighted to the second half of the year and Sino Gas continues to expect full year SGE capital expenditures in the range of US$40-$50 million gross (US$20-$25 million Sino Gas share), including the originally planned drilling of 30-35 wells and the installation of the Linxing North CGS. SGE is actively seeking opportunities to optimise the capital expenditure program and further reduce costs. The cost of drilling and completing development wells has been reduced by ~15% to ~US$850,000 and SGE is considering opportunities to reduce the five exploration wells included in the original work plan.

# OVERALL DEVELOPMENT PLAN

SGE is progressing Overall Development Plan ("ODP") activities with its PSC partners.

On Sanjiaobei, ODP compilation is progressing, including detailed subsurface evaluation, reservoir modelling and drilling / well completion design to maximise recovery of gas from the various reservoirs. Good progress has also been made on the surface development to manage a full range of production plateau outcomes. Internal preparation on the Environmental Impact Assessment in ongoing and discussion with external parties, including PCCBM and local government will commence in earnest during Q3. SGE continues to target submission of the first tight gas ODP in 2H 2017.

On Linxing, SGE continues to work with CUCBM for the first ODP for the Linxing PSC. In collaboration with CUCBM, in recognition of the Linxing PSC being identified in the 13th Five Year Plan as a strategic development project, a focussed ODP report for Linxing is being prepared for submission in 2H. This report is intended to support an early approval to enable accelerated development of core areas of the Linxing block.

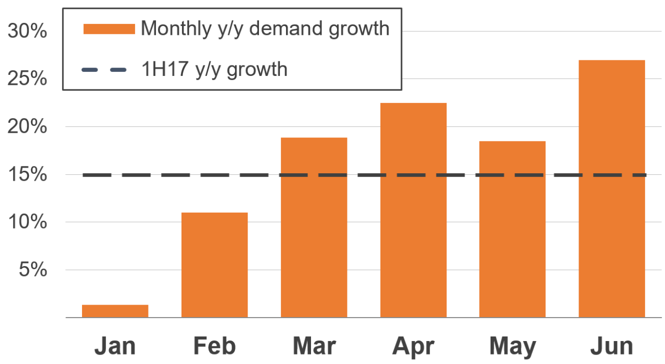
Sino Gas anticipates providing additional details to the market in the second half of 2017 on anticipated development parameters once the development plans are finalised.

# CHINA GAS MARKET UPDATE

## Natural Gas Demand Surges

The National Development & Reform Commission ("NDRC") reported natural gas consumption growth year over year in the second quarter of 22%, with year to date consumption up 15%. This significant growth acceleration has been driven by material coal to gas switching, increased use of natural gas for power generation and a surge in the gas fueled transportation sector.

**Year over Year Demand Growth**[2]




## Policy to Further Promote Natural Gas

The NDRC recently released a policy document entitled "Recommendations to Accelerate the Use of Natural Gas". The document reiterates China's target to increase natural gas' share of the primary energy mix to 10% by 2020 and 15% by 2030 to combat pollution and respond to climate change. Headline demand growth of ~10% per annum is forecast until the end of the decade .

**Key areas of policy support specific to Sino Gas include:**

- Elimination of industrial coal and switching to natural gas in Sino Gas' target market of Beijing-Tianjin-Hebei regions;
- Expansion of natural gas pipeline networks into key demand centers, improving third party access and reducing transportation costs;
- Accelerating use of natural gas in transportation, residential, power generation and distributed energy sectors; and
- Increased investment in exploration and development of domestic gas resource in order to meet rising demand.

1. 31.7% working interest in Linxing excludes Sino Gas' option to acquire up to an additional 7.5% (5.25% following partner back-in) in the PSC at ODP. If exercised and assuming full PSC Partner back-in, Sino Gas' net interest would be 37%.
2. Source: NDRC, Company estimates

## FINANCIAL

SGE second quarter gross gas sales were US$8 million, up 10% from the first quarter and triple 2Q 2016. Sino Gas' 49% share of gas sales in the second quarter was US$3.9 million, which generated a robust margin of ~US$4/Mscf[1].

The Company's share of 2Q SGE profit pre-shareholder financing costs was US$1.3 million[1].

Net capital expenditures in 2Q were approximately US$3 million.

During the quarter, SGE received all outstanding historical Sanjiaobei gas sales proceeds for pilot gas sales from the Sanjiaobei PSC between December 2014 and December 2016. Total receipts were ~US$2 million gross (US$1 million net). Refer to announcement 29 May 2017 for additional details.

SGE reinvested net cash flow from operations into the projects and Sino Gas paid US$2.6 million in the quarter to fund its 49% share of ongoing SGE capital expenditures.

At the end of the quarter, the Company held US$33 million and SGE separately held US$4.6 million.

## CORPORATE

### Linxing Option

In April, Sino Gas purchased an option to acquire an additional 5.25% participating interest in the Linxing PSC at Overall Development Plan ("ODP") approval. As previously reported, the purchase of the option has a number of strategic benefits as a low cost, value accretive option to acquire additional equity in the Linxing PSC and exercise additional influence over Linxing PSC decision making. Refer to the announcement of 18 April 2017 for additional details.

### Investor Relations & Marketing

During the second quarter, the company continued to meet regularly with the investment community with meetings held with investors, analysts and brokers in Australia and Asia. The Company participated in the JP Morgan China Gas Investor Roundtable in Hong Kong, the Deutsche Bank 2017 Access Asia Conference in Singapore and hosted our Annual General Meeting in Perth, Australia. The company also hosted analysts and investors on a field trip to the assets. Copies of presentations used can be found on our website at www.sinogasenergy.com.

### Share Register

The international portion (outside of Australia) of Sino Gas' shareholder register has increased from approximately 27% at the end of 2016 to 32% as of June 30, 2017. In particular, Sino Gas has attracted a growing Chinese domiciled shareholder base, increasing from approximately 2% since January to approximately 5% as of June 30, 2017. Interest in Sino Gas by Chinese firms has increased markedly in recent months due to strong China gas market fundamentals and Sino Gas' advantaged position in the market.

1. Please refer to non-IFRS Financial Information note on page 6

# SUPPLEMENTARY INFORMATION

## Historical testing results by zone (2006—Q2 2017)

| Zone | Well Tests | Average Thickness (m) | Average Test Length (Days) | Average Flow Rate (Mscf/d) | Max Flow Rate (Mscf/d) |
|---|---|---|---|---|---|
| **Upper Zone** | 23 | 6 | 8 | 852 | 2919 |
| **Mid-Upper Zone** | 33 | 7 | 11 | 404 | 3099 |
| **Middle Zone** | 14 | 6 | 22 | 226 | 708 |
| **Mid-Lower Zone** | 9 | 5 | 19 | 463 | 2534 |
| **Lower Zone** | 12 | 6 | 9 | 612 | 1663 |
| **Comingled** | 44 | 18 | 12 | 760 | 2569 |
| **Horizontal Wells (Middle Zone)** | 4 | 1145 | 3 | 5493 | 9775 |

Note: Results have been standardised to a standard field pressure of 200psi. Average thickness for horizontal wells represents section length.

# ABOUT SINO GAS & ENERGY HOLDINGS LIMITED

Sino Gas & Energy Holdings Limited ("Sino Gas" ASX: SEH) is an Australian energy company focused on developing natural gas assets in China. Sino Gas holds a 49% interest in Sino Gas & Energy Limited ("SGE") through a strategic partnership with China New Energy Mining Limited ("CNEML"). SGE has been established in Beijing since 2006 and is the operator of the Linxing and Sanjiaobei Production Sharing Contracts (PSCs) in the Ordos Basin, Shanxi province. Sino Gas also owns an option to acquire an additional 5.25% participating interest in the Linxing PSC.

SGE's interest in the Linxing PSC with CUCBM is 64.75% and 49% for the Sanjiaobei PSC held with PCCBM. SGE has a 100% working interest during the exploration phase of the PSC, with SGE's PSC partners being entitled to back-in upon Overall Development Plan (ODP) approval, by contributing development and operating costs in line with their PSC interest. Sino Gas holds an option to acquire an additional 5.25% participating interest (assuming full partner back-in) in the Linxing PSC at ODP by contributing 7.5% of historical back costs to SGE.

The PSCs are located in the Ordos Basin and cover an area of approximately 3,000km$^2$. The Ordos Basin is the largest gas producing basin in China. The region has mature field developments with an established pipeline infrastructure to major markets. Rapid economic development is being experienced in the province in which Sino Gas' PSCs are located and natural gas is seen as a key component of clean energy supply in China.

Sino Gas & Energy Holdings Limited (ASX: SEH) was admitted to the Official List of ASX in 2009.

## Sino Gas & Energy Holdings Limited

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Our latest announcements and presentations can be found on our website:

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# DISCLAIMERS

## Reserves and Resources

**Sino Gas' Attributable Net Reserves & Resources are summarised below:**

| SINO GAS' ATTRIBUTABLE NET RESERVES AND RESOURCES | 1P RESERVES (Bcf) | 2P RESERVES (Bcf) | 3P RESERVES (Bcf) | 2C CONTINGENT RESOURCES (Bcf) | P50 PROSPECTIVE RESOURCES[1] (Bcf) |
|---|---|---|---|---|---|
| **31 December 2016** (Announced 5 March 2017) | 385 | 579 | 778 | 899 | 821 |
| **31 December 2015** (Announced 10 March 2016) | 362 | 552 | 751 | 814 | 733 |
| CHANGE (+/-)% | | +5% (2P Reserves) | | +10% | +12% |
| **Total Project** 31 December 2015 | **1,377** | **2,147** | **2,951** | **3,171** | **3,499** |

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

### Resources Statement & Disclaimer

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 recognized oil and gas consultants RISC. 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. Reserves are based on a mid-case gas price of US$6.98/Mscf inflated at 2.5% per year and average lifting costs (opex+capex) inclusive of inflation of 2.5% per year of ~US$1.20/Mscf for 2P Reserves. All resource figures quoted are unrisked mid-case unless otherwise noted. Sino Gas' attributable net Reserves & Resources assumes PSC partner back-in upon ODP approval and does not include Sino Gas' option to acquire an interest of 5.25% in the Linxing PSC (by paying 7.5% of back costs) which was purchased in April 2017 but assumes exercise by a third party. 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.

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.

### Competent Persons Statement

Information on the Reserves and Resources in this annual report 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 is a qualified petroleum reserves and resources evaluator (QPPRE) as defined by ASX listing rules. Mr Stephenson consents to the inclusion of this information in this release. RISC believes that the reserve and resource assessment fairly represents the available data. RISC is an independent advisory firm that evaluates resources and projects in the oil and gas industry. RISC offers the highest level of technical, commercial and strategic advice to clients around the world. RISC services include the preparation of independent reports for listed companies in accordance with regulatory requirements. RISC is independent with respect to Sino Gas in accordance with the Valmin Code, ASX listing rules and ASIC requirements.

## Financial Terms

This announcement contains terms commonly used in the oil and gas industry which are not defined by or calculated in accordance with International Financial Reporting Standards ("IFRS"), such as margin and profit pre-shareholder financing costs, which are non-IFRS measures. These terms should not be considered an alternative to, or more meaningful than the comparable measures determined in accordance with IFRS. The measures provide additional information to evaluate SGE's financial performance per unit of production and before shareholder financing costs. The margin for the second quarter is calculated by dividing gross sales of US$8.0 million less operating expenses of US$1.8 million by total gross production of ~17 MMscf/d. The 2Q SGE profit pre-shareholder financing costs is calculated by excluding interest expense related to shareholder funding costs of US$2.9 million from the net loss in the quarter of US$0.2 million. Sino Gas' net share is calculated as 49% of such calculated profit. The non-IFRS measures have not been subject to audit or review by Sino Gas' external auditors. Sino Gas' determination of these measures may not be comparable to that reported by other companies.