



## *QUPEX Presentation*

14 June 2022

ASX:EXR



1.

# The Company

# Company Overview

Elixir's main asset is its 100% owned Nomgon IX Coal Bed Methane (CBM\*) Production Sharing Contract (PSC) project in the South Gobi region of Mongolia

Highly experienced CSG team – first mover in taking Australia's leading skills to Mongolia

Located on Mongolian/Chinese border with excellent infrastructure, mines and planned pipelines

This location provides many market options – now including green hydrogen

Strong balance sheet funding aggressive exploration and appraisal program for years to come

\* Coal Seam Gas – CSG – is usually referred to as CBM outside Australia



# Capital Structure / Board

## Capital Structure

Current (pre-raise)

|                                |               |
|--------------------------------|---------------|
| No of Shares                   | <b>892M</b>   |
| Performance Shares & Options   | <b>32M</b>    |
| Market Capitalisation (at 15c) | <b>\$134M</b> |
| Cash (at 31st Mar - unaudited) | <b>\$25M</b>  |
| Enterprise Value               | <b>\$109M</b> |

## Share Price



## Highly experienced CSG team



### Richard Cottee

Non-Executive Chairman

Former Managing Director of CSG focused Queensland Gas Corporation (QGC), taking it from market cap of \$20M to \$5.7B  
Other former CEO positions include CS Energy, NRG Europe & Central Petroleum



### Neil Young

Managing Director

Former Business Development Manager at Santos, where he helped build Santos' CSG business  
Has worked in Mongolia since 2011



### Stephen Kelemen

Non-Executive Director

Extensive technical and commercial career at Santos, including managing its CSG business  
Current Non Executive Director at CSG focused Galilee Energy (GLL)



### Anna Sloboda

Non-Executive Director

Previous employers include Lehman Bros, Clough, Curtin University & Trans-Tasman Resources  
Ex-USSR background and experience of working in China





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## Nomgon CBM PSC

# 2022 Exploration/Appraisal Program

## Wells

- 2 Pilot Production Wells
- 22 Exploration & Appraisal Wells
- 1 short term pilot production test

## Seismic

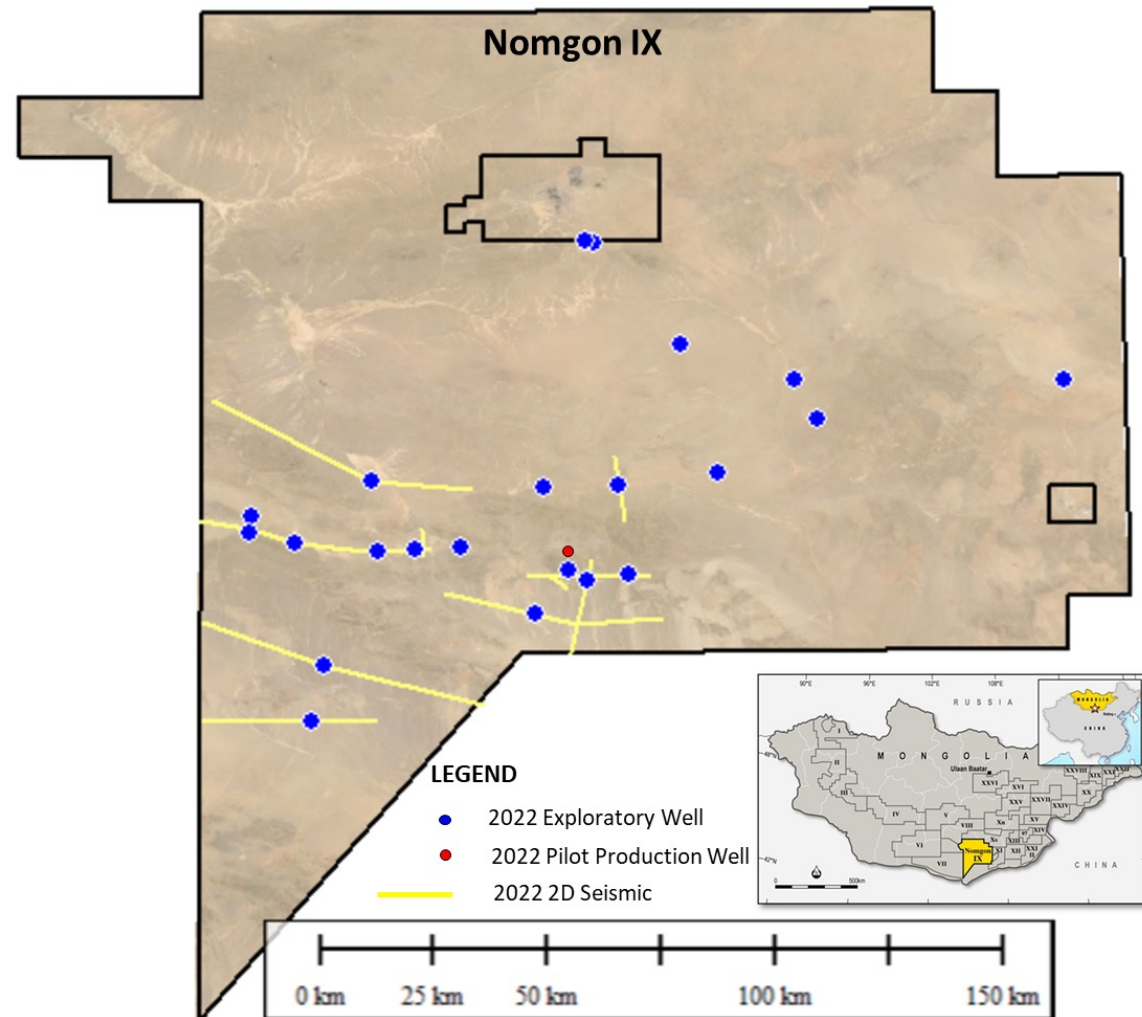
- 322 km 2D
- Seismic re-interpretation

## Commercial

- Progressing gas fired generation project with Government

## Field Work

- 3 field expeditions



# Extended Pilot Production Test

## Aim

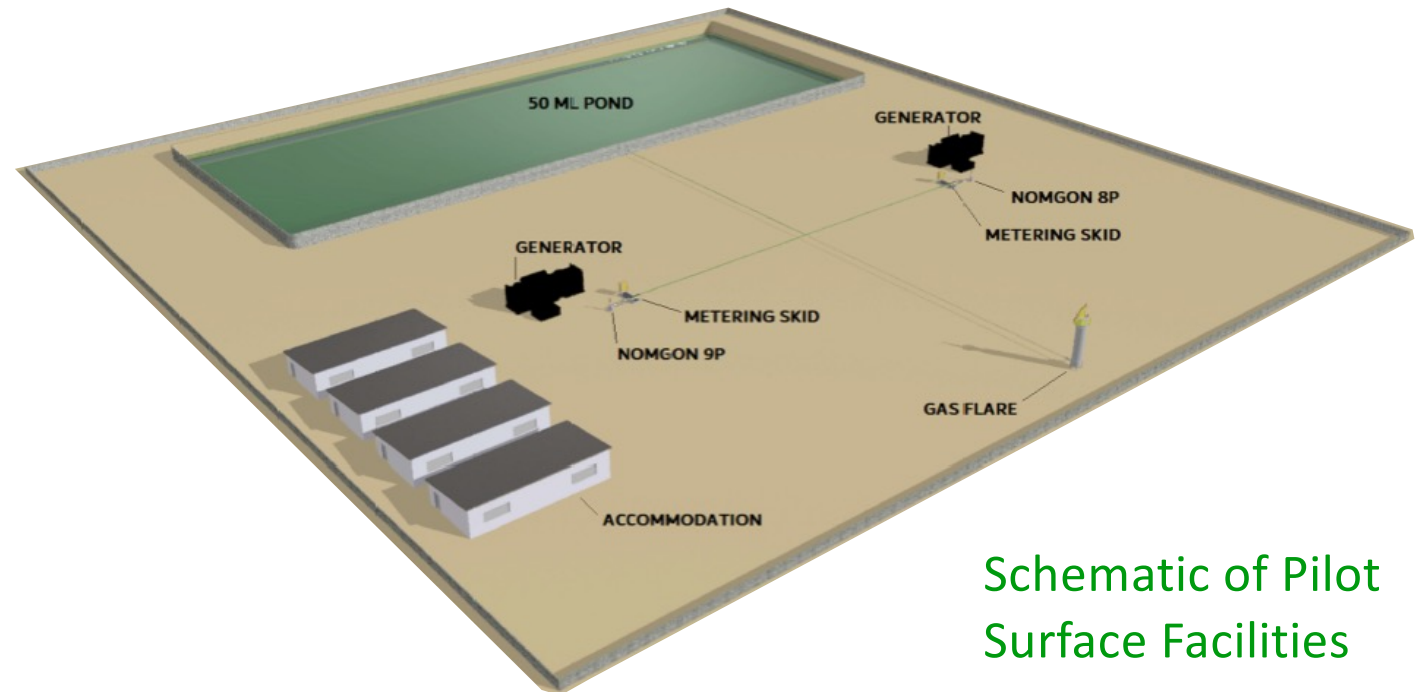
- Dewater coals and flow gas from the Nomgon CBM discovery
- Provide proof of concept for commercial development

## Wells

- 2 production wells 100m apart
- Depth to coal ~450m
- Pressure monitoring wells 110 and 400m along strike

## Production

- Water and gas production over a maximum 6 month period

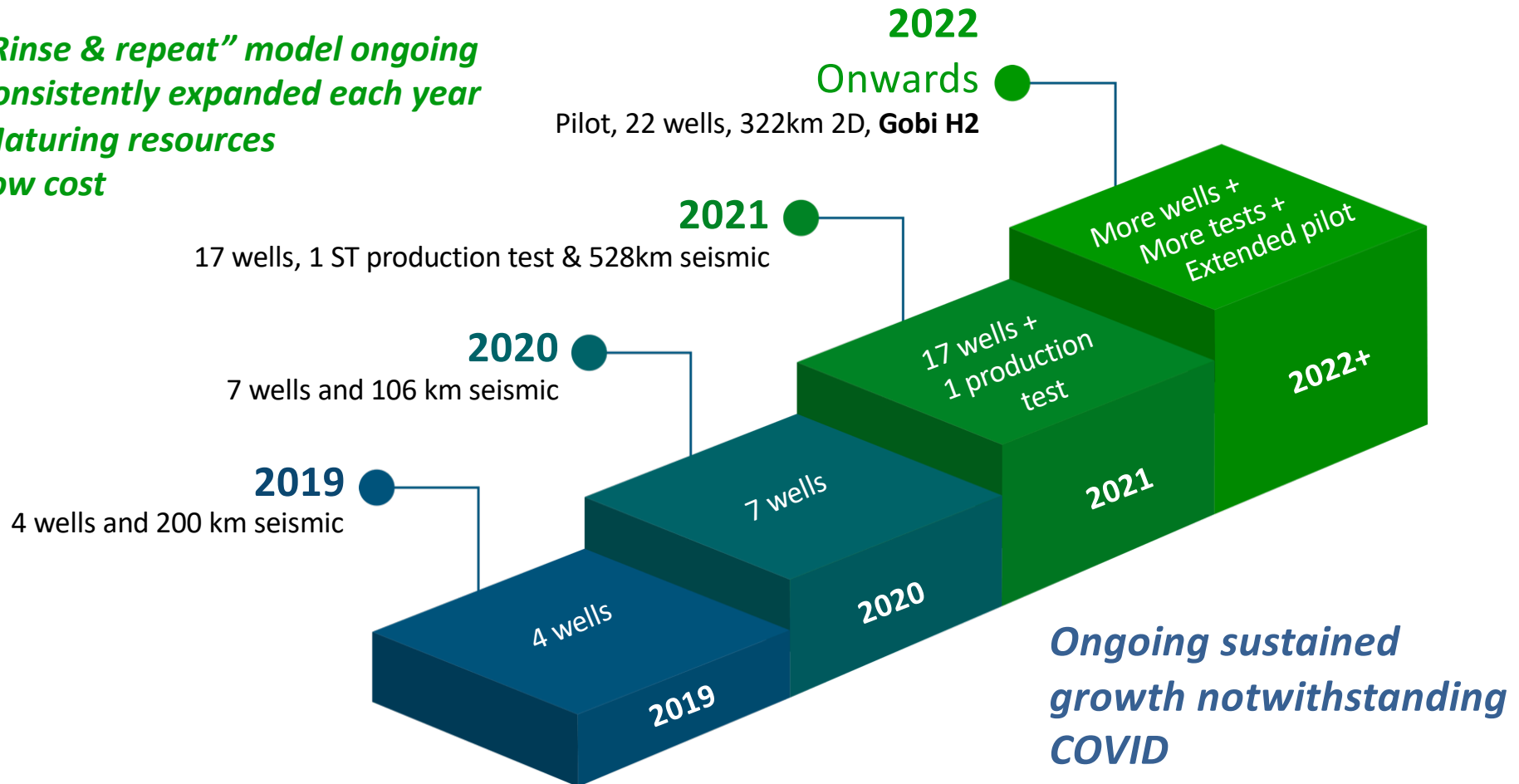


Schematic of Pilot Surface Facilities



# Work program continues to expand

- ✓ *“Rinse & repeat” model ongoing*
- ✓ *Consistently expanded each year*
- ✓ *Maturing resources*
- ✓ *Low cost*





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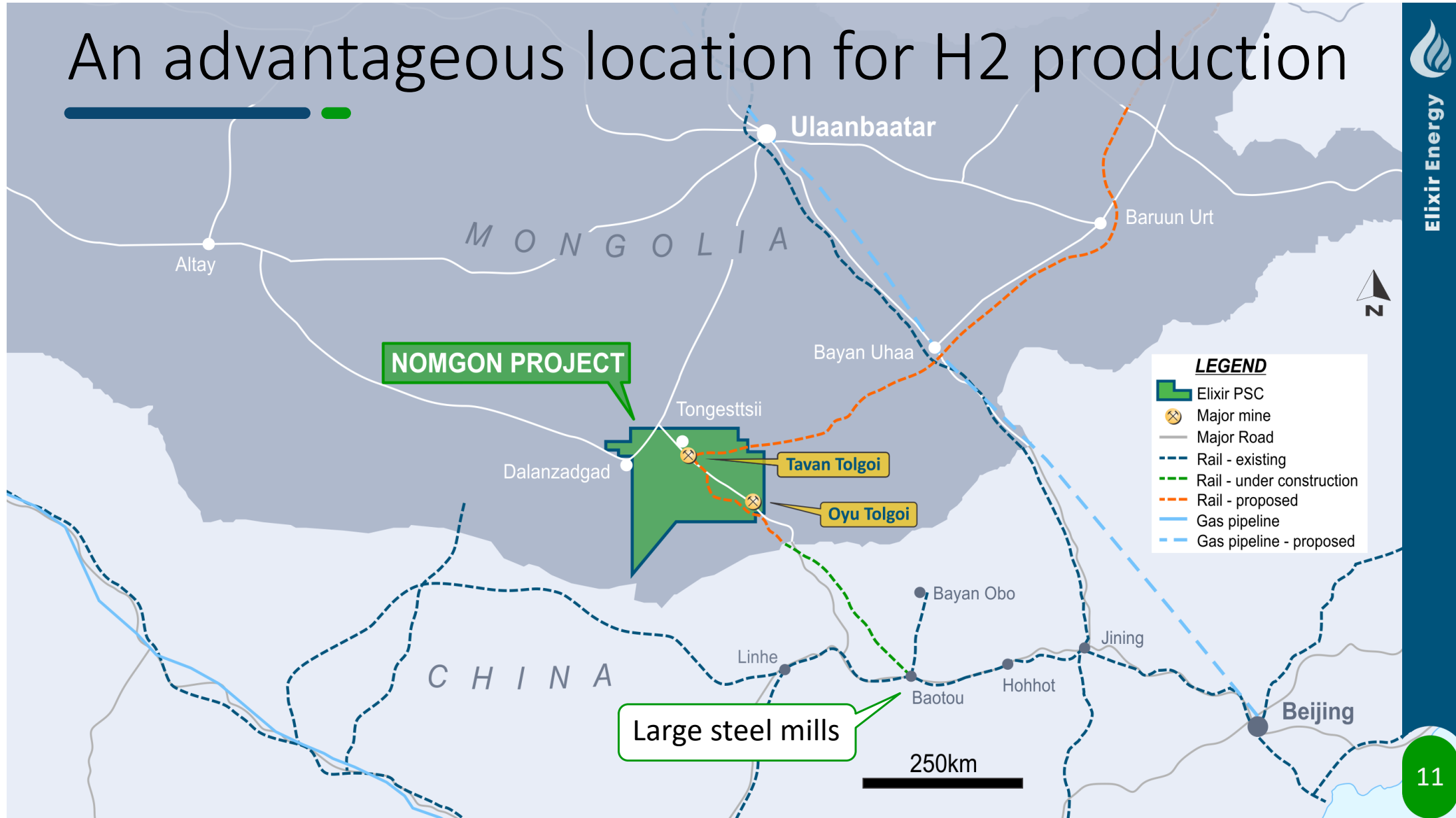
Gobi H2

# Gobi H2 Project

- Mongolia combines:
  - Exceptional renewable resources
  - A H2 market that can be reached by pipeline not boat
- These advantages make **Gobi H2** a potential globally Tier One green hydrogen export project
- Elixir is engaging with the multiple stakeholders required for a successful project
- Support has been incredibly strong
- The primary goal for 2022 is to materially advance a 10 MW pilot project



# An advantageous location for H2 production

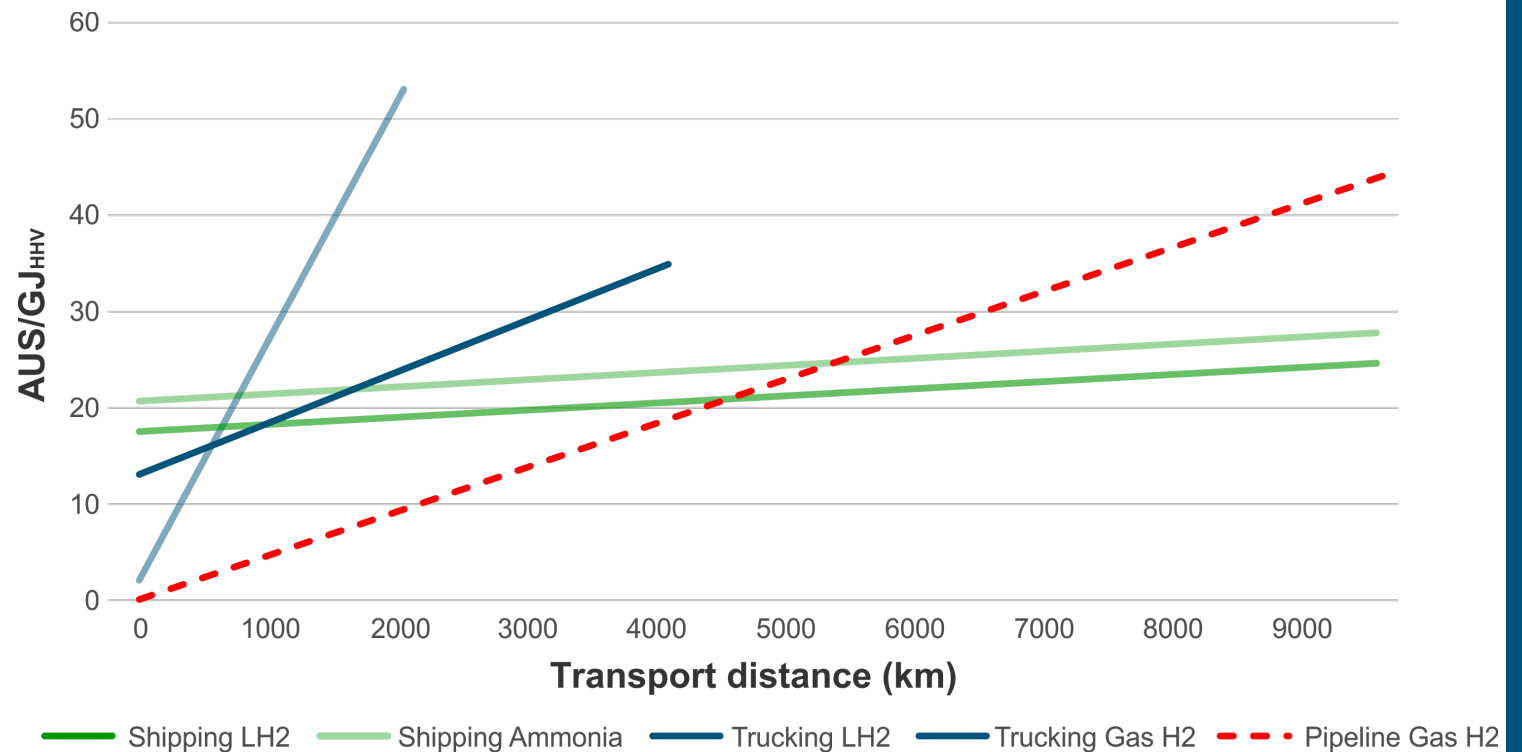


# Hydrogen Delivery Costs

- Around 2/3 of the cost of producing green H2 are the cost of renewables
- Shipping H2 by boat costs multiples (~\$20/GJ) of shipping the same energy as CH4 (~\$5/GJ)
- The delivered cost of H2 is therefore all about the quality of renewable energy **and the cost of delivery**
- Access to markets by pipeline is massively advantaged over seaborne supplies – **Mongolia can supply H2 to Chinese markets by pipeline**

## Cost of gas-to-gas hydrogen transportation, including conversion and reconversion - 2030s

For hydrogen production of ~15PJ/year



Source: Rystad Energy research and analysis commissioned by Elixir Energy -



# Pilot Project

- Gobi H2 will develop a pilot project in the medium term
- The pilot will serve to demonstrate viability and create confidence with multiple stakeholders: customers, policy makers, financiers, potential partners, local communities, etc
- A 10 MW electrolyser pilot is proposed – using renewable electricity generated in the Gobi region
- A number of possible foundation customers are under consideration – in Mongolia and the PRC
- Elixir plans to drill for local water sources in 2022
- The pilot project will be project financed – Elixir is working with the Mongolia Green Finance Corporation and interacting with various Ulaanbaatar based IFIs



# Complementary Capabilities

- Elixir's natural gas related operations in Mongolia require:
  - Good relationships with multiple levels of Government
  - Ongoing effective engagement with different energy related Ministries and regulators
  - Ensuring local Government bodies and their communities are supported and their potential concerns addressed
- Demonstrated local support given in recent years: annual cash contributions under PSC; COVID related donations; water wells drilled; livestock feed provided; community events sponsored; local economic injections from e.g. supplies for drilling camps; etc
- The Company's existing staff, relationships, knowledge and goodwill therefore provide it with a very strong local relationship platform on which to build Gobi H2
- At the national level, Elixir has H2 sharing relationships with various Ministries (e.g. MOU with Ministry of Energy)



*Minister G Yondon (right) presenting an investor award to our Country Manager, Mr B Achitsan*



*Donation of COVID PPE to local administration*

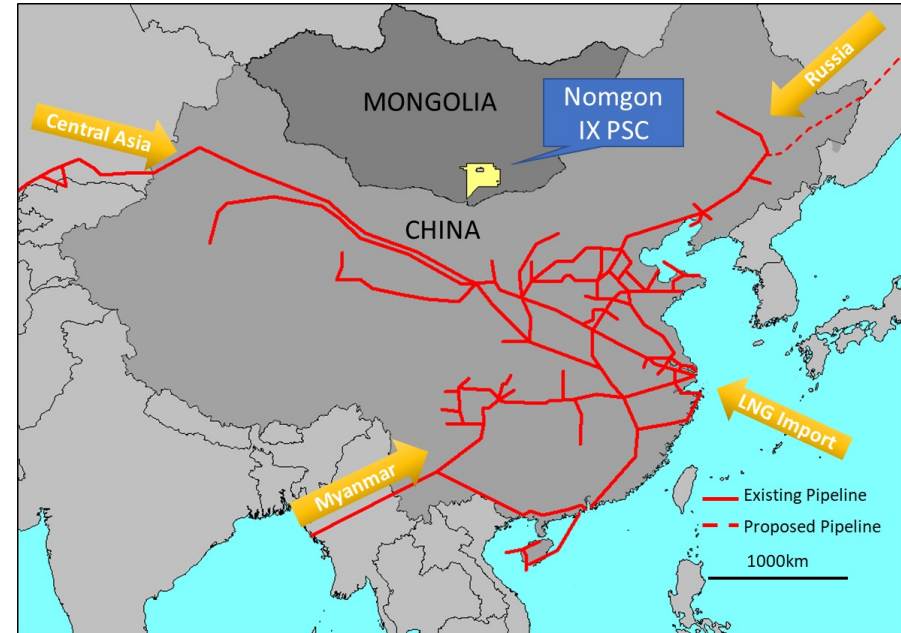


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Queensland/Mongolia

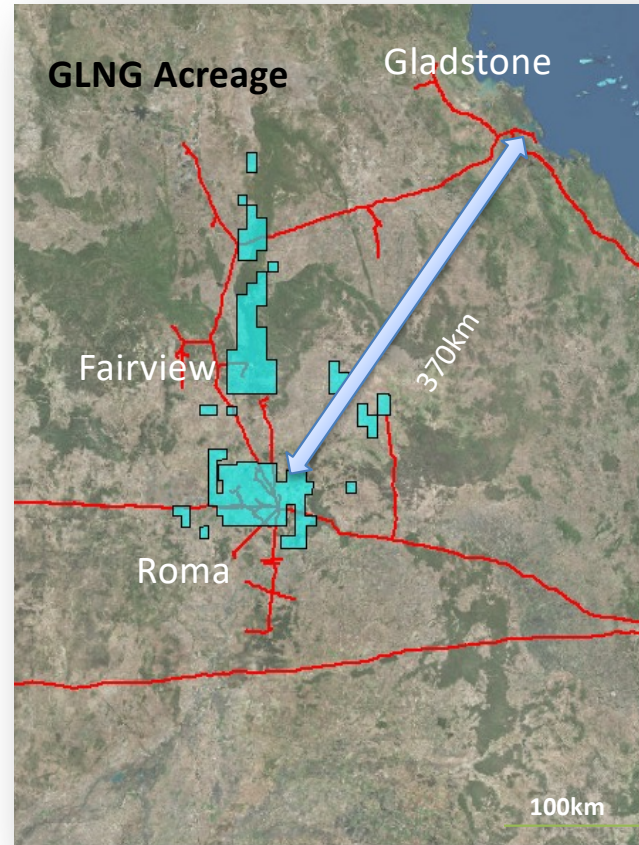
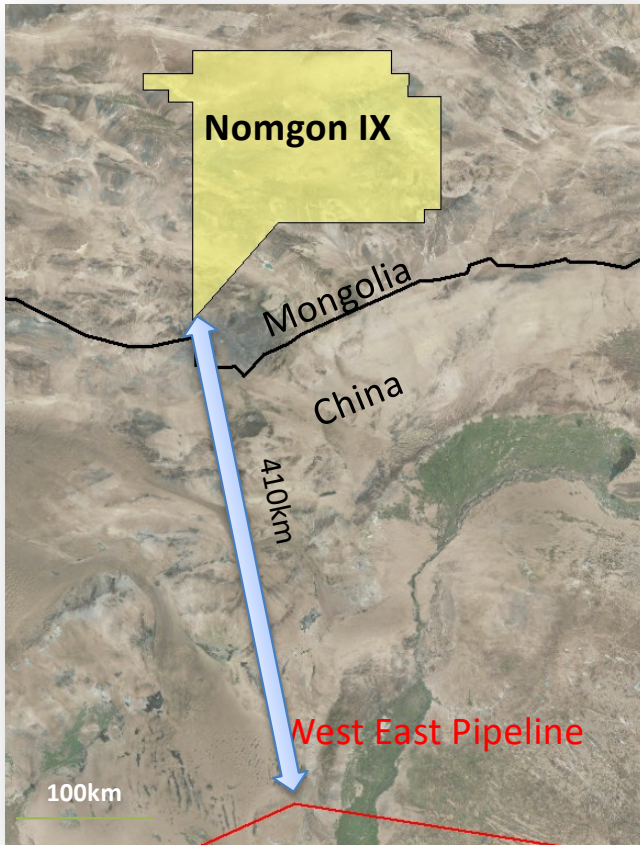
# Location, Location, Location

- Gases are very expensive to move to customers – and shipping H2 is considerably more expensive than for CH4
- Locational advantages in terms of proximity to the world's largest energy importer drove Elixir's initial CSG strategy – and underpin Gobi H2
- Queensland has sunk LNG infrastructure – with globally unusual spare capacity – and also an enduringly tight domestic market
- Mongolia needs new pipeline infrastructure - but costing \$100Ms, not \$10Bs
- Cost of capital generally lower in Australia – but for Chinese NOCs, etc, Mongolia is low sovereign risk





# Scale of licence area



# Geological comparisons

|                                 | Mongolia  | Queensland   |
|---------------------------------|---|--|
| <i>Coal thicknesses</i>         | Exceptional in places: 50 – 90 metres                             | Maximum of ~30 metres<br>Commerciality test much lower   |
| <i>Gas content</i>              | 5 – 15 m <sup>3</sup> /tonne measured to date                     | 7 – 14 m <sup>3</sup> /tonne in productive areas   |
| <i>Permeability</i>             | Variable to date<br>Sweet spot located at e.g. Nomgon sub-basin   | Highly variable<br>The most productive locations benefit from high natural permeability              |
| <i>Rank</i>                     | Sub—bituminous to bituminous                                      | Sub—bituminous to bituminous   |
| <i>Coal in CSG depth window</i> | Now confirmed in multiple sub-basins                              | Most productive coals typically less than 750 metres – but local conditions can extend depth windows |
| <i>Gas composition</i>          | Variable – with now multiple locations with ~pipeline gas quality | Productive areas (to date) tend to have pipeline quality composition                                 |



# Progress parallels Queensland ~ 20 years ago

- Elixir commenced Mongolia's CBM exploration in 2019. Since then:
  - All the geological ingredients required for success have been confirmed
  - Exploration has been highly capital efficient
  - The indigenous service sector has expanded
  - Other small-cap Operators have entered
- What Queensland's history suggests will happen next:
  - Production success – sustained economic flow rates
  - Resources expanded and confidence increased
  - Early stage markets led by power generation
  - Large company interest from multiple players
  - Substantial capital deployment in sub-surface and infrastructure



*Curtis Island – the centre of >\$50B invested in Qld CSG to date – based on the work of small caps ~20 years ago*



# Hydrogen comparison

- Australia is one of the global leaders in terms of Government support for, and industry interest in, green H2 - however, its lead is a year or so at best – not decades
- Location is a major disadvantage for Australia, given shipping H2 costs ~4 times more than shipping CH4 (and shipping costs are arguably not amenable to Moore's Law)
- Mongolia is closer to China's industrial centres in the East and North than any other potential green H2 source (Elixir's commissioned analysis for Rystad Energy which indicates the PRC will need to import H2 in the future)
- A low cost of capital (derived from its low sovereign risk) and high quality solar are Australia's primary advantages
- Mongolia arguably has a better ***combination*** of wind/solar than Australia (per independent analysis summarized in EXR's ASX of 14/10/21)
- Australia has to date attracted major international corporate interest in early stage H2 projects – it now needs to turn this into material investments
- Elixir is the first mover in green H2 in Mongolia with its Gobi H2 project – progress will beget more and more interest from larger balance sheets



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Conclusion

# “A Tale of Two Gases”

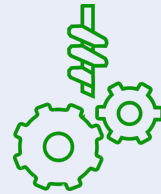
|   | Nomgon CBM – CH4                              | Gobi H2                             |
|---|---|-------------------------------------|
| <i>It was the best of times</i>               | Very high gas prices                          |                                     |
| <i>It was the worst of times</i>              |   | Transition needs new clean fuels    |
| <i>It was the age of wisdom</i>               | Natural gas a vital bridge                    |                                     |
| <i>It was the age of foolishness</i>          |   | Many H2 projects ignore the science |
| <i>It was the epoch of belief</i>             | Location underpins low cost supply into China |                                     |
| <i>It was the age of incredulity</i>          |   | H2 very expensive to ship by boat   |
| <i>It was the season of light</i>             | War reinforces value of security of supply    |                                     |
| <i>It was the season of Darkness</i>          |   | Hedging the pace of the transition  |
| <i>It was the spring of hope</i>              | Drilling program expanding                    |                                     |
| <i>It was the winter of despair</i>           |   | H2 can replace coking coal          |
| <i>We had everything before us</i>            | Fully funded multi-year work program          |                                     |
| <i>We had nothing before us</i>               |   | First mover in long term project    |
| <i>We were all going direct to Heaven</i>     | Economies rest on energy                      |                                     |
| <i>We were all going direct the other way</i> |   | Material carbon reduction project   |



# Corporate Highlights



First mover CSG company in Mongolia – now a growing industry attracting wider interest



Expanding program again in 2022 – growing and de-risking resources through a ~24 well program



Very strong balance sheet and 100% asset ownership provides maximum strategic optionality



Exceptional in country relationships, a strong local team, supported by Australian leading technical expertise



Gas market action in recent months supports the long term need for the product and Mongolia's great East Asian location



Elixir considers its *Gobi H2* Project is emerging as a potential world class green hydrogen export project



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The background of the slide is a photograph of a sunset over a flat, open landscape. In the foreground, several horses of various colors are running across the field. In the middle ground, there is an oil rig and some industrial equipment. The sun is low on the horizon, creating a warm orange and yellow glow. A large, semi-transparent blue and green flame graphic is overlaid on the left side of the image.

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