### Q1 2022 Highlights

- Substantial increase in resources independently assessed by Netherland, Sewell & Associates ("NSAI") for EP187 included:
  - 1,402% increase in 3C Contingent Resources from 86 BCF to 1,292 BCF;
  - 866% increase in 2C Contingent Resources from 41 BCF to 396 BCF;
  - Maiden 1C Contingent Resources of 81 BCF; and
  - 23% increase in best estimate P(50) Prospective Resources to ~4.3 TCF following identification of improved prospectivity across the block
- Regulatory approvals for 2D seismic acquisition and drilling, hydraulic stimulation and flow testing of up to six horizontal wells on six well pads in the Western Beetaloo (EP167 / EP168) under consideration by the Northern Territory Government
- Empire executed three replacement grant agreements with the Australian Government under the *Beetaloo Cooperative Drilling Program* for total grant funding of up to \$19.4 million. After the end of the Quarter, AusIndustry advised Empire that the first progress payments totalling \$2.9 million had been approved. Payment was not received during the March Quarter but is expected to be received soon.
- Multi-year high gas prices in the United States are resulting in strong cash flow generation from our Appalachian gas assets
- Empire continues to prepare for the hydraulic stimulation and extended production testing of Carpentaria-2H to commence late Q2 2022
- Cash at the end of the quarter was \$16.6 million

### **Comments from Managing Director Alex Underwood:**

"We have had another successful Quarter characterized by a substantial increase in our Northern Territory resource base, advanced preparations for the upcoming fracture stimulation of Carpentaria-2H utilizing leading expertise both in Australia and the US, and strong gas prices supporting a material improvement in the financial performance of our US business.

US gas prices are their highest since October 2008, 150% higher than a year ago, and LNG prices in Europe and Asia are near record highs, caused by the war in Ukraine and underinvestment in new gas supply in recent years.

It is now, and for decades to come will remain, critical for the energy security of Australia and the broader region that we maintain plentiful supplies of responsibly sourced gas.

The Beetaloo Sub-basin, which is by far the largest undeveloped gas resource onshore Australia, will play an important role in achieving this objective.

The upcoming drilling season, with multiple fracture stimulated horizontals planned by other operators and our imminent horizontal fracture stimulation and flow test of the recently drilled Carpentaria-2H well, will be key to moving the basin into development and production."

# Northern Territory Operations Update

#### **Carpentaria-2H Fracture Stimulation and Flow Testing**

Empire Energy Group Limited ("Empire" or the "Company") continues to prepare for the hydraulic stimulation and extended production testing ("EPT") of Carpentaria-2H ("C-2H") to commence late Q2 2022. The timing has been affected by current global supply chain issues particularly shipping cargo movements out of China.

As previously announced, the C-2H well was drilled during Q4 2021, reaching a Total Measured Depth of 3,150 metres, including a 1,345-metre horizontal section within a 10 metre Velkerri intra B Shale stratigraphic target window. The B Shale was selected for horizontal drilling following the successful production testing of the vertical Carpentaria-1 ("C-1") and petrophysics from the vertical hole sections of the C-1 and C-2H wells.

All regulatory approvals are in place for the commencement of hydraulic stimulation and production testing at C-2H. Baseline water testing, civil works, and equipment mobilisation are ongoing in preparation for stimulation and production testing operations.

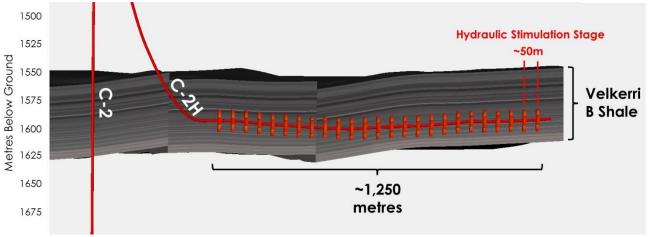
Multi-stage fracture stimulation will be performed via the Plug-and-Perf method. Hydraulic fracture stimulation stages will be spaced approximately 50 metres apart.

To accelerate the learning curve, various hydraulic stimulation strategies will be trialled in C-2H, and their performance compared in real-time during the operation and EPT. Several hydraulic stimulation fluid types will be utilised, including, in order of viscosity, slickwater, high viscosity friction reducer ("HVFR"), and crosslinked gel. Each fluid type may have a different perforation and pumping strategy design. All stimulation fluids have been rigorously tested to ensure environmental compliance.

A state-of-the-art rock-fluid interaction testing program is progressing at Houston-based W.D. Von Gonten Laboratories to enhance fluid selection for compatibility to the Velkerri shales. Empire will be proactive in monitoring the stimulation operations at C-2H and will remain agile in adapting procedures as the program is executed.

Undertaking multiple hydraulic stimulation approaches in one wellbore is part of Empire's strategy of optimising processes during the appraisal phase. As C-2H is Empire's first horizontal well and will be only the fourth Velkerri shale horizontal wellbore to be fracture stimulated and production tested in the Beetaloo Sub-basin, fracture stimulation and well completion practices are being refined. Continued refinement and development of Beetaloo Sub-basin specific drilling and fracture stimulation will benefit Empire's future horizontal wells.

A period of flowback of hydraulic stimulation fluids is anticipated prior to gas production as each of the treated stages progressively cleans up. Empire has regulatory approval to undertake an extended production test for up to 90 days. However, the timing may be modified and punctuated with pressure build-up tests to gather data for future operations.



Schematic illustrating the planned C-2H well completion. Each coloured disc indicates the location of a hydraulic stimulation stage.

#### **Substantial Increase in EP187 Resources**

On 16 February 2022, Empire announced that following its successful 2021 Beetaloo work program (production testing of Carpentaria-1, drilling of Carpentaria-2H and acquisition of the Charlotte 2D seismic survey) a substantial increase in resources independently assessed by Netherland, Sewell & Associates ("NSAI") for EP187 had resulted which included:

- 1,402% increase in 3C Contingent Resources from 86 BCF to 1,292 BCF;
- 866% increase in 2C Contingent Resources from 41 BCF to 396 BCF;
- Maiden 1C Contingent Resources of 81 BCF; and
- 23% increase in best estimate P(50) Prospective Resources to ~4.3 TCF following identification of improved prospectivity across the block.

Following completion of the updated NSAI EP187 independent resource assessment, Empire's total Northern Territory Contingent and Prospective Resources including its Western Beetaloo and Northern McArthur Basin properties are as follows:

| Zone          | Unrisked Net Contingent Resources Liquids (MMBBL) Estimate |              | Unrisked Net<br>Contingent<br>Resources<br>Sales Gas (BCF)<br>Estimate |             | Unrisked Net Prospective Resources Liquids (MMBBL) Estimate |              | Unrisked Net Prospective Resources Gas (BCF) Estimate |              |              |             |              |              |
|---------------|--|--------------|--|-------------|---|--------------|---|--------------|--------------|-------------|--------------|--------------|
|               | Low<br>(1C)  | Best<br>(2C) | High<br>(3C)   | Low<br>(1C) | Best<br>(2C)  | High<br>(3C) | Low<br>(1U)   | Best<br>(2U) | High<br>(3U) | Low<br>(1U) | Best<br>(2U) | High<br>(3U) |
| Kyalla*       | 8.0  | 3.0          | 11.1   | 0.8         | 4.5   | 27.7         | 88  | 378          | 1,571        | 184         | 857          | 4,891        |
| Mid Velkerri* | 0.1  | 0.5          | 3.0  | 138         | 549   | 1,680        | 82  | 419          | 2,062        | 10,744      | 31,018       | 89,217       |
| Barney Creek* | -  | -            | -  | -           | -   | -            | ı   | -            | -            | 1,633       | 11,053       | 45,380       |
| Total*        | 0.9  | 3.5          | 14.1   | 138.8       | 553.5   | 1,707.7      | 170   | 797          | 3,633        | 12,561      | 42,928       | 139,488      |

<sup>\*</sup>Empire derived arithmetic summation of previous and current NSAI probabilistic resources estimations



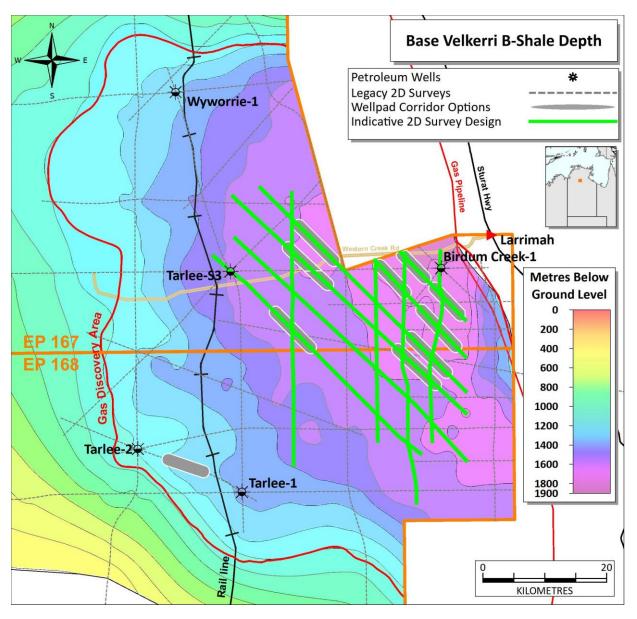
Carpentaria-2H well pad located in EP187

#### **Western Beetaloo Permits Update**

During the Quarter, Empire has continued stakeholder engagement with Pastoral Leaseholders and Traditional Owners in EP167 and EP168. Activities have included meetings with Pastoral Leaseholders to discuss planned work program activities, advancing Land Access Agreements with pastoralists, and organising Traditional Owner on-country meetings.

An Environment Management Plan for the acquisition of 2D seismic and drilling, hydraulic stimulation and flow testing of up to six horizontal wells on six well pads within the Gas Discovery Area in EP167 and EP168 is under consideration by the Northern Territory Government.

Empire has continued planning for the proposed infill 2D seismic survey and is currently in advanced discussions with seismic acquisition contractors. Location scouting for water extraction bores required for the planned activities in EP167 and EP168 occurred in March, and sub-surface mapping for preliminary well engineering design input has commenced. Empire presently intends to source its water needs from deeper aquifers than those utilised by pastoralists thereby reducing our impact on other competing industries and Northern Territory communities.



Western Beetaloo (EP167 / EP168) location map

### Australian Government's Beetaloo Cooperative Drilling Program

On 23 February 2022, Empire announced that its wholly owned subsidiary, Imperial Oil & Gas Pty Limited, had executed three replacement grant agreements with the Australian Government under the *Beetaloo Cooperative Drilling Program* (the "Program") on materially similar terms to the previous agreements. Total grant funding of up to \$19.4 million will be provided by the Australian Government which will offset 25% of the cost of seismic acquisition and the drilling, fracture stimulation and flow testing of three horizontal appraisal wells in EP187.

After the end of the Quarter, AusIndustry advised Empire that the first progress payments totalling \$2.9 million had been approved. Payment is expected to be received soon.

### Other Corporate News

#### **Broker Research Coverage**

Blue Ocean Equities, Morgans and Taylor Collison all generate research on Empire.

Research reports can be found on Empire's website <a href="https://empireenergygroup.net/research-analyst-reports/">https://empireenergygroup.net/research-analyst-reports/</a>

### **Empire Tenements**

A full list of tenements as at 31 March 2022 can be found on the Empire website:

https://app.sharelinktechnologies.com/announcement/asx/745aa1f85f40f73e86b855ad2a9a95cf

### **Beetaloo Sub-basin Projected 2022 Operations**

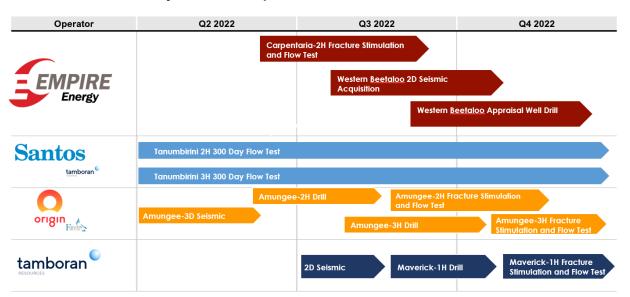


Chart reflects projected work program activities for Beetaloo joint ventures for the remainder of CY2022 Source: company disclosures and regulatory filings Certain activities are subject to regulatory approval

### NT Petroleum Sector Update

- On 1 February 2022, Tamboran Resources (ASX: TBN) announced an increase in EP161 Contingent Resources following successful gas flow to surface and 30-day flow testing of the Tanumbirini-2H and 3H wells. Unrisked 1C and 2C Contingent Resources increased to 189 BCF (gross) and 610 BCF (gross), respectively within the Mid-Velkerri "B" shale.<sup>1</sup>
- On 9 February 2022, INPEX Corporation released its "Long-term Strategy and Medium-term Business Plan INPEX Vision @2022". In the document, INPEX outlined plans to build a third train at the Ichthys onshore plant (located Darwin, NT). INPEX also confirmed plans for a Carbon Capture and Storage facility at the Ichthys LNG project, in conjunction with other participants including CSIRO and Santos. <sup>2</sup> The announcement was highlighted by the Northern Territory's Chief Minister, Michael Gunner:
  - "This announcement is so significant that I have instructed development of our newest suburbs – Holtze and Kowandi – to be brought forward by two years to 2024.... This will cater for the massive new demand for housing that this and other exciting projects in the Territory pipeline will create"; and
  - "INPEX continues to see the value in investing in the Territory and why wouldn't they."
- On 7 March 2022, the Australian Government announced it will provide the Northern Land Council ("NLC") with \$2.1 million to conduct on-country engagement with Traditional Owners and Native Title holders in the Northern Territory's Beetaloo Sub-Basin. Federal Minister for Resources and Water Keith Pitt commented:
  - "Our government is committed to ensuring that the social and economic benefits from Beetaloo gas development are maximised and realised locally, especially for Indigenous communities"; and
  - "This grant means the NLC will have additional capacity to undertake its functions in regard to development activities in the Beetaloo."

<sup>&</sup>lt;sup>1</sup> Tamboran ASX release "EP161 contingent resource upgrade" dated 1 February 2022

<sup>&</sup>lt;sup>2</sup> https://www.inpex.co.jp/english/company/midterm.html

<sup>&</sup>lt;sup>3</sup> https://www.ntnews.com.au/business/nt-business/japanese-energy-giant-to-build-third-lng-train/news-story/692a0b723a65fae6db1c546e09e0141b

<sup>&</sup>lt;sup>4</sup> https://www.minister.industry.gov.au/ministers/pitt/media-releases/government-funds-northern-land-council-deliver-beetaloo

- On 7 March 2022, Tamboran announced it had been awarded a grant of up to \$7.5 million through the Commonwealth Government's *Beetaloo Cooperative Drilling Program*. To support the drilling of the Maverick-1H well within Tamboran's 100 percent owned and operated EP136 permit.<sup>5</sup>
- On 29 March 2022, the Australian Government announced in the 2022-23 Budget \$300 million of new investment to support low emissions LNG and clean hydrogen production at Darwin, together with associated carbon capture and storage infrastructure.<sup>6</sup>
- On 12 April 2022, the Australian Government announced that it intends to invest up to \$1.5bn for new port infrastructure at Darwin in the Northern Territory. The plan includes facilities to manage LNG and hydrogen exports and critical mineral processing, as well as refinery capabilities. Barnaby Joyce said "Our investment will deliver this, supporting port infrastructure, including a wharf and offloading facility, and dredging of the shipping channel".<sup>7</sup>
- On 13 April 2022, the Australian and Northern Territory Governments announced that they had partnered to conduct a strategic assessment of the Middle Arm Sustainable Development Precinct located in Darwin Harbour under Australia's national environmental law, the Environment Protection and Biodiversity Conservation Act 1999. Northern Territory Government Minister for Environment, Hon Eva Lawler MLA said that the Middle Arm Sustainable Development Precinct will centralise and elevate the Territory's energy industries, to become a globally competitive, sustainable precinct focusing on low emissions, renewable hydrogen, and minerals processing. Federal Minister for the Environment, Sussan Ley, said that the strategic assessment will provide greater clarity for those seeking to submit development plans for economically significant projects from advance manufacturing, low emissions minerals processing, hydrogen and gas production and other land uses, while protecting the environmental values of the precinct.<sup>8</sup>

<sup>&</sup>lt;sup>5</sup> Tamboran ASX release "Tamboran awarded grant of up to \$7.5 million under the Beetaloo Cooperative Drilling Program" dated 7 March 2022

<sup>&</sup>lt;sup>6</sup> https://www.minister.industry.gov.au/ministers/taylor/media-releases/2022-23-budget-backs-australian-industry-energy-security-and-net-zero-emissions

<sup>&</sup>lt;sup>7</sup> https://www.argusmedia.com/en/news/2321145-australian-government-plans-new-lng-terminal-in-darwin

<sup>&</sup>lt;sup>8</sup> Eva Lawler media release "Supporting Low Emissions Energy and Protecting the Environment at Middle Arm" dated 13 April 2022

### **US Operations Update**

Empire's US operations reported a positive EBITDA for Q1 2022 of US\$554k (Q4 2021: US\$932k). The lower EBITDA for the Quarter reflects a lower weighted average sales price for gas after hedging of US\$4.43 / Mcf (Q4 2021: US\$5.25 / Mcf). Since the end of the Quarter, gas prices have increased materially to ~US\$7 / Mcf.

The average daily production for Q1 2022 was 4,217 Mcfe / day vs. Q1 2021 4,494 Mcfe / day, representing a decrease of 6.2% year-on-year. Empire continues to make efficiency improvements to enhance production such as well repairs and pipeline access points to maximise economic returns in the present high gas price environment.

Empire received US\$41,667 in renewable energy leasing payments during the quarter and an additional US\$70,000 will be received upon commencement of construction of a solar farm over Empire's oil & gas leases.

| Description                              | 3 months to<br>31 Mar 2022 | 3 months to<br>31 Mar 2021 | 2022 YTD | 2021 YTD |
|--|----------------------------|----------------------------|----------|----------|
| Net Oil Production (Bbls)                |                            |                            |          |          |
| Appalachia                               | 403                        | 241                        | 403      | 241      |
| Net Network Cos Bus desettes (Mef)       |                            |                            |          |          |
| Net Natural Gas Production (Mcf)         |                            |                            |          |          |
| Appalachia                               | 377,153                    | 402,982                    | 377,153  | 402,982  |
|  |                            |                            |          |          |
| Net Gas Equivalent (Mcf):                |                            |                            |          |          |
| Appalachia                               | 379,571                    | 404,428                    | 379,571  | 404,428  |
| Mcfe/d                                   | 4,217                      | 4,494                      | 4,217    | 4,494    |
|  |                            |                            |          |          |
| Weighted Avg Sales Price (US\$/Mcfe)     |                            |                            |          |          |
| Before Hedge                             | 4.43                       | 2.62                       | 4.43     | 2.62     |
| After Hedge                              | 4.43                       | 2.72                       | 4.43     | 2.72     |
|  |                            |                            |          |          |
| Lifting Costs (incl. taxes):             |                            |                            |          |          |
| Total Natural Gas Equivalent (US\$/Mcfe) | 1.41                       | 1.26                       | 1.41     | 1.26     |

# **Balance Sheet & Liquidity**

Empire's cash balance as at 31 March 2022, was \$16.6 million, of which \$15.5 million was held in Australian dollars, and US\$0.9 million was held in United States dollars.

During the Quarter, Empire made a debt repayment of US\$137,500 to the Macquarie Bank Credit Facility. The total outstanding balance at Quarter-end was US\$5,712,510.

Empire's prudent gas hedging policy as set out in the table below is weighted towards put options to provide for upside gas price exposure while ensuring downside price protection and a level of cash flow stability:

| Period           | Volume<br>mmbtu/month | Hedge<br>Type | Strike Price<br>US\$/mmbtu | Premium<br>US\$/mmbtu |
|------------------|-----------------------|---------------|----------------------------|-----------------------|
| Apr 22 to Dec 22 | 70,000                | Put Options   | \$3.25                     | \$0.29                |
| Apr 22 to Dec 22 | 25,000                | Put Options   | \$2.50                     | \$0.35                |
| Apr 22 to Dec 22 | 50,000                | Put Options   | \$2.50                     | \$0.41                |
| Apr 22 to Sep 22 | 50,000                | Swap          | \$4.21                     | N/A                   |
| Oct 22 to Mar 23 | 50,000                | Swap          | \$5.35                     | N/A                   |
| Jan 23 to Dec 23 | 25,000                | Put Options   | \$2.50                     | \$0.27                |
| Jan 23 to Dec 23 | 25,000                | Put Options   | \$2.50                     | \$0.41                |

During the Quarter, the Company made payments to related parties of \$117,449. These payments comprised the Managing Director's salary and Non-Executive Directors' fees paid in cash.

### Liquidity

| Quarter Ended                  | 31/03/2022    | 31/12/2021    | 30/09/2021    | 30/06/2021    |
|--------------------------------|---------------|---------------|---------------|---------------|
| Cash (A\$)                     | \$16,621,131  | \$25,757,201  | \$31,752,274  | \$41,899,250  |
| Debt (A\$)9                    | \$(7,635,017) | \$(8,062,321) | \$(8,785,959) | \$(8,604,233) |
| Net Cash /(Debt) <sup>10</sup> | \$8,986,114   | \$17,694,880  | \$22,966,315  | \$33,295,017  |

#### **Production and Development Expenditure (ASX Listing Rule 5.2.1)**

| Asset                     | Nature of Expenditure   | Amount    |
|---------------------------|---|-----------|
| New York and Pennsylvania |   |           |
|                           | Production costs (infield operations, gas processing, and transportation) | \$718,009 |
|                           | Production costs (wages, consultants, and other overheads)                | \$266,198 |
|                           | Other production costs  | \$10,181  |
| Total                     |   | \$994,388 |

<sup>&</sup>lt;sup>9</sup> Note: Debt is comprised of US\$5,712,510 owing under the Senior Secured Facility with Macquarie Bank Limited

<sup>&</sup>lt;sup>10</sup> Note: Net Cash / (Debt) is defined as AUD equivalent cash minus AUD debt for the purposes of this calculation

Empire did not incur production and development expenditure on its other assets during the Quarter.

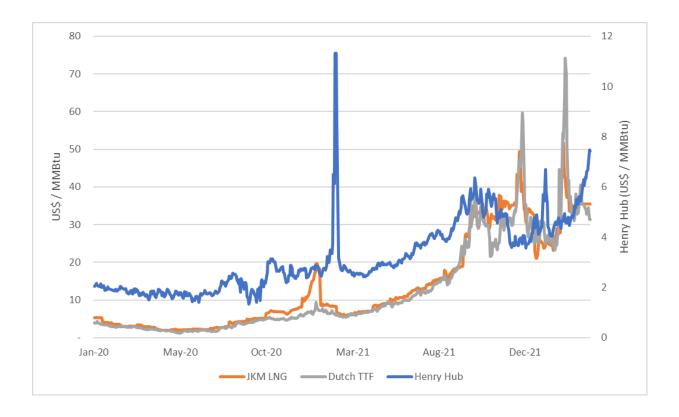
### **Exploration Expenditure (ASX Listing Rule 5.2.2)**

| Asset                    | Nature of Expenditure                           | Amount      |
|--------------------------|---|-------------|
| EP187 – Capitalised      |   |             |
|                          | Consulting fees (Operations and Technical)      | \$944,932   |
|                          | Carpentaria-2H drilling and hydraulic fracture  |             |
|                          | stimulation                                     | \$7,850,049 |
|                          | Carpentaria-1 hydraulic fracture stimulation    | \$118,548   |
|                          | Laboratory expenses                             | \$92,867    |
| Total                    |   | \$9,006,396 |
|                          |   |             |
| EP187 - Expensed         |   |             |
|                          | Northern Territory Government ("NTG") licensing | \$28,028    |
|                          | fees  |             |
|                          | Environmental monitoring                        | \$52,169    |
|                          | Consulting fees                                 | \$151,300   |
|                          | Other overheads (title fees, mapping, etc)      | \$6,290     |
| EP167 and EP168 (Western |   |             |
| Beetaloo) - Expensed     |   |             |
|                          | NTG licensing fees                              | \$394,009   |
|                          | NLC administration fees                         | \$51,737    |
|                          | Consulting fees                                 | \$62,818    |
|                          | Environmental monitoring                        | \$11,437    |
|                          | Archaeological survey                           | \$31,944    |
| Total                    |   | \$789,732   |

Empire did not incur exploration expenditure on its other assets during the Quarter.

# **Energy Markets Update**

The strategic importance of gas has been reinforced by current events in Europe and the resulting supply shortages and increases to oil & gas prices. Both JKM and TTF gas indices have traded at historical highs during Quarter. The Henry Hub settlement price for May was US\$7.27 / mmbtu, the highest settlement price since October 2008.



LNG producers stand to be major beneficiaries of the dislocation in gas markets resulting from the war in Ukraine. Research released by Credit Suisse suggests the market for LNG could end up 50mtpa tighter in the medium term and be 80mtpa to 100mtpa short by 2030. Credit Suisse analyst Saul Kavonic said: "Ukraine could have more than 10 times the impact of Fukushima and last much longer,", describing the Russia-Ukraine conflict as the "most structural bullish event" in LNG's history. <sup>11</sup>

12

<sup>&</sup>lt;sup>11</sup> https://www.smh.com.au/business/companies/bigger-than-fukushima-russia-s-war-to-leave-lasting-impact-on-lng-20220328-p5a8iu.html

Events during the Quarter which demonstrated the drive by Europe to diversify away from Russian gas supply to LNG included:

- Germany's commitment to "fast track" the construction of two LNG import terminals (one at Brunsbuttel and one at Wilhelmshaven) as part of a new long-term deal with the world's largest LNG exporter Qatar as it looks to reduce dependence on Russian gas.
  - German economy minister Robert Habeck said "Talks were not just about the short term either, but also on long-term energy policy. The good news is Qatar is ready. Now companies need to finalize the relevant contracts."
- Numerous European countries plan to build 26 new LNG terminals in the coming period to diversity its natural gas supply. In addition to Germany and Italy, France and Spain will add five units to their existing LNG terminals. Ireland 3, Estonia 2, Croatia, Finland, Denmark, Poland, Ukraine, Malta and the United Kingdom will each build 1 LNG terminal.<sup>13</sup>
- During April 2022, the United States Department of Energy granted authorization to two proposed US LNG projects, Golden Pass LNG (Qatar Petroleum and ExxonMobil) and Magnolia LNG (Glenfarne Group) to ship of gas to countries which do not have a free trade agreement with the USA, as the US seeks to counteract Russia's efforts to use gas as a weapon against Ukraine's allies. US Energy Secretary Jennifer Granholm said "We want to signal we want to partner and make sure our restrictions in the United States of permitting for non-free trade agreement entities like the EU are not a barrier".

Oil prices have also risen materially over the Quarter with both Brent and WTI trading above US\$100 / bbl. The US will release roughly ~1.0 mbbl / day from its reserves for six months beginning in May, a historic drawdown underscoring White House concern about rising oil prices and supply shortages following Russia's invasion of Ukraine. <sup>15</sup> Citi forecasts US shale explorers will also boost capital expenditure by almost 40% this year encouraged by high oil prices. <sup>16</sup>

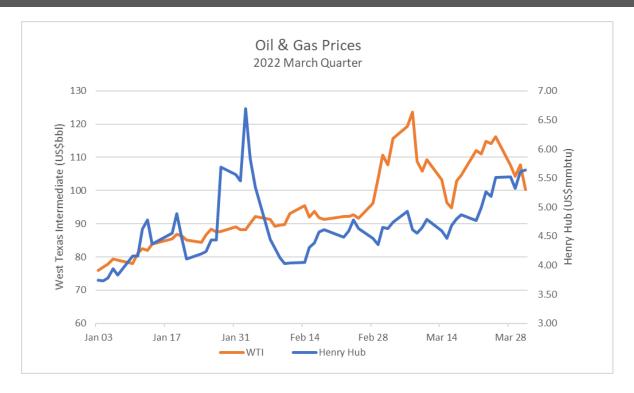
<sup>&</sup>lt;sup>12</sup> https://www.spglobal.com/commodity-insights/en/market-insights/latest-news/lng/032122-qatar-in-talks-to-provide-long-term-supply-of-lng-to-germany

<sup>&</sup>lt;sup>13</sup> https://www.aa.com.tr/en/economy/looking-to-replace-russia-europe-doesnt-use-lng-terminals-at-full-capacity/2548096

<sup>&</sup>lt;sup>14</sup> https://www.investing.com/news/economy/biden-approves-more-gas-export-projects-as-russia-cuts-supply-to-europe-2812160

<sup>&</sup>lt;sup>15</sup> https://news.bloomberglaw.com/environment-and-energy/biden-orders-record-oil-release-from-u-s-reserve-to-tame-prices

<sup>&</sup>lt;sup>16</sup> https://www.bloomberg.com/news/articles/2022-02-07/this-could-be-when-shale-driller-discipline-cracks-citi-warns



#### The role of Natural Gas in an Energy Transition World

During the Quarter, the Australian Energy Market Operator ("AEMO") released its *2022 Gas Statement of Opportunities*. AEMO forecasts that gas will have a continuing role in the integrated energy system, including a critical role for electricity generation in the National Electricity Market ("NEM"). AEMO noted that gas generation is projected to support and firm variable renewable energy generation as baseload coal generation retires, provide a dispatchable source of capacity to meet high demand conditions and provide power system services to support grid security and stability.<sup>17</sup>

AEMO executive general manager system design, Merryn York said:

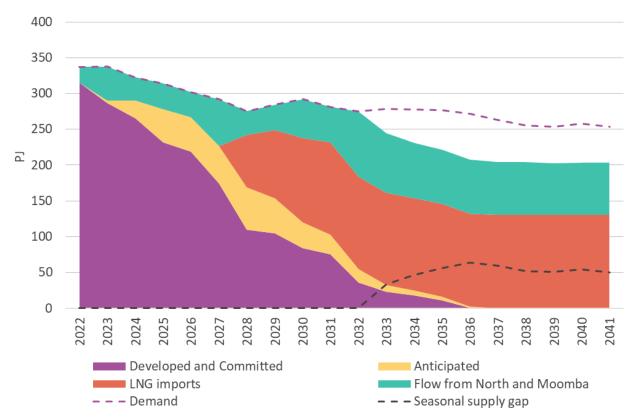
- "A shortfall risk in the south-eastern states in winter 2023 is forecast under extreme conditions, given ongoing production decline from Bass Strait, and pipeline capacity limits from northern Australia, including the Moomba to Sydney Pipeline and the South West Pipeline,"; and
- "Increasing 'peakiness' of gas demand is likely to require flexible solutions that support high, but infrequent, gas demand". 18

AEMO modelled forecast gas demand and supply for south-eastern Australia (ACT, New South Wales, Tasmania and Victoria) under the *Step Change* (assumes tangible and rapid change, with gas demand declining quickly and significant electrification – users switching from gas to electricity) and *Progressive Change* (assumes a slower transformation and gas consumption closer to historical levels). Both scenarios highlight the tightness in gas markets and that new supply such as LNG imports will be required to meet demand. Gas shortages are expected to be most acute in the peak winter months.

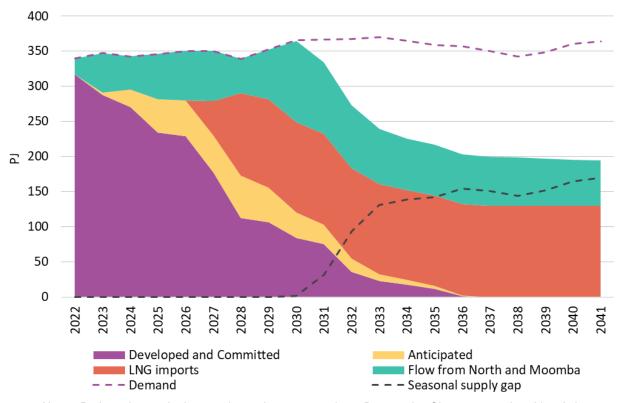
<sup>18</sup> https://www.afr.com/companies/energy/future-role-of-gas-in-australia-s-grid-is-uncertain-aemo-says-20220328

<sup>&</sup>lt;sup>17</sup> AEMO 2022 Gas Statement of Opportunities, March 2022

### **Quarterly Report for the period ending 31 March 2022**



Above: Projected annual adequacy in south-eastern regions, *Step Change* scenario, with existing, committed, and anticipated developments, 2022-41 (PJ)



Above: Projected annual adequacy in south-eastern regions, *Progressive Change* scenario, with existing, committed, and anticipated developments, 2022-41 (PJ)

Dollar amounts are in A\$ within the Quarterly Statement unless disclosed otherwise.



L to R: Cassey Schmidt (APPEA), Hon Nicole Manison MLA (Deputy Chief Minister of the Northern Territory) and Sonia Harvey (Empire VP Community & Government Relations) at the NT Cattleman's Association Conference in Darwin, March 2022.

This ASX release has been authorised by the Empire Board of Directors.

For queries about this release, please contact:

Alex Underwood, Managing Director

Ph: (02) 9251 1846

info@empiregp.net

# **About Empire Energy**

Empire Energy holds 28.9 million acres of highly prospective exploration tenements in the McArthur Basin and Beetaloo Sub-basins, Northern Territory. Work undertaken by the Company since 2010 demonstrates that the Eastern depositional Trough of the McArthur Basin, of which the Company holds around 80%, has enormous conventional and unconventional hydrocarbon potential. The Beetaloo Sub-basin, in which Empire holds a substantial position, has world-class hydrocarbon volumes in place and a ramp up in industry activity to appraise substantial discoveries already made by major Australian oil and gas operators is ongoing.

Empire announced the transformational acquisition of Pangaea Resources on 14<sup>th</sup> April 2021, further cementing Empire's position as a leading onshore Northern Territory oil and gas explorer and developer focused on the Beetaloo Sub-basin.

Empire Energy is an experienced conventional oil and natural gas producer with operations in the Appalachia region of the USA (New York and Pennsylvania). Empire has been successfully developing and producing oil and gas since 2006.



### **Registered Office**

Level 19, 20 Bond Street Sydney NSW 2000

Phone: +61 2 9251 1846 Facsimile: +61 4 9251 1022 Website: empireenergygroup.net

Media and Investor Enquiries Julian Malnic and Nick Kell Phone: +61 2 9251 1846 Empire Energy Group Limited ABN 29 002 148 361

**Securities Exchange** ASX: EEG

**Share Registry** 

Computershare Investor Services

Phone: 1300 850 505