

- **Empire acquired the Roslind Park Gas Plant (“RPGP”) from AGL Limited for \$2.5 million in cash, significantly accelerating the path to Carpentaria Pilot Project production and reducing the capital expenditure required to commence gas sales**
- **R&D Tax Offset for FY2022 of \$15.6 million in cash received. Proceeds applied to debt reduction and working capital including FID expenses**
- **Carpentaria Pilot Project is progressing towards a final investment decision (“FID”)**
- **A key Northern Territory gas field continues to produce below contracted volumes leaving the Northern Territory domestic market short of gas**
- **Ms. Karen Green appointed as an independent Non-Executive Director and Chair of the Audit & Risk Committee effective 17 November 2023**
- **Cash at the end of the Quarter was \$17.3 million**

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

"The acquisition of the Rosalind Park Gas Plant from AGL was a highlight of the Quarter. The plant has a design capacity of 42 TJ / day, which is well in excess of the capacity required for Empire's up to 25 TJ / day EP187 pilot project. Empire expects that it will be able to reduce the timeline to first gas by ~12 months and potentially save more than \$30 million compared to new build options given current global supply chain constraints.

The receipt of \$15.6 million in cash during the Quarter from the 2023 R&D tax refund bolstered Empire's cash balance and allowed the company to reduce outstanding debt. The funds remaining after debt repayment will be applied to the work Empire is doing to reach a final investment decision (“FID”) for the EP187 pilot project and towards the purchase of long-lead items.

The Empire team has commenced the new year with a key focus on reaching FID in the coming months. In the success case, this would see project construction activities occurring in the second half of calendar 2024 and first gas sales in 2025.

Gas sales negotiations are proceeding well, regulatory approval documentation will soon be submitted to the NT regulators, and community consultation is continuing.

Empire is focused on financing the pilot project in a manner that minimizes dilution of shareholders' interests in the company, with the potential to farming out an interest in the project, and securing project financing following execution of a gas sales agreement.

We look forward to updating shareholders as we progress these initiatives.”

## Northern Territory Operations Update

### Carpentaria Extended Production Testing (“EPT”)

The horizontal Carpentaria-3H (“C-3H”) well was shut-in on 5 October 2023 at the end of 63 days of extended production testing that followed a five-month period of soak and pressure buildup.

Following production testing, production results of both Carpentaria-2H and C-3H are being reviewed by Empire’s technical and operations team for ongoing optimisation of future fracture stimulation programs. The work being completed includes post stimulation review by Empire and third-party North American shale experts (Subsurface Dynamics Inc.) which has identified several opportunities for operational improvements for future wells.

### Acquisition of AGL Limited’s Rosalind Park Gas Plant (“RPGP”)

On 4 December 2023, Empire announced it had acquired the RPGP from AGL Limited for \$2.5 million in cash, significantly accelerating the path to Carpentaria Pilot Project (“Pilot Project”) production and reducing the capital expenditure required to commence gas sales.

The RPGP previously supported the Camden Gas Project (“Camden”) which had been producing natural gas from the Sydney Basin since 2004. The RPGP was located in Menangle, New South Wales, where natural gas was collected via low-pressure underground gathering lines, then dried, compressed, and transmitted into the Greater Sydney natural gas network. Decommissioning of Camden commenced in August 2023 and the site is now being progressively rehabilitated.

Empire has transported the entire equipment suite to storage facilities in Queensland. These storage facilities are proximal to service providers where the RPGP is being refurbished in advance of transportation and reassembly at the Pilot Project later this year (subject to regulatory approvals and Pilot Project final investment decision).

The benefits to Empire of the acquisition of the RPGP include:

- **Cost Saving:** Empire estimates that the acquisition of the RPGP may result in cost savings of more than \$30 million when compared with new build alternatives for midstream infrastructure;
- **Accelerated Timeline to First Gas:** Due to current global supply chain issues for gas compressors, procurement of either new or other used gas processing plant alternatives would add an additional ~12 months to the timeline to first gas;
- **RPGP has a design capacity of 42 TJ / day** providing throughput for additional gas volumes well in excess of Empire’s target of 25 TJ / day for the Pilot Project; and
- The acquisition package includes the physical assets as well as all historical maintenance / inspection records, engineering design documentation, operation / maintenance manuals and procedures.

Empire continues to work with APA Group (ASX: APA) under its Initial Agreement which may result in the funding of the engineering and construction of midstream infrastructure assets, if further approvals are obtained and long form agreements entered into.

## Carpentaria Pilot Project Update

Empire is focused on progressing the Pilot Project towards a final investment decision. The Pilot Project is targeting a sales gas production rate of up to 25 TJ per day utilising the existing McArthur River Pipeline to Daly Waters and the McArthur River Mine. Empire is making material progress on the Pilot Project, advancing:

- Field Development Planning, well pad and location selection;
- A formal gas sales marketing process has commenced. Initial feedback received from the gas market supports the view that the Northern Territory market is short of gas and there is strong demand for the forecast gas volumes to be produced from the Pilot Project. AEMO data as at 18 January 2024 showed that the Blacktip Gas field was producing ~12 TJ / day well below contracted volumes under the Power and Water and Eni gas sales agreement<sup>1</sup>;
- Pipeline access negotiations;
- Regulatory and indigenous approvals for which Empire expects to submit the Pilot Project package to the Northern Territory Government during February 2024; and
- Planning for project financing including the launch of a formal joint venture partnering process.



Managing Director Alex Underwood inspecting the newly acquired RPPG at the Camden Gas Project Site



Gas is delivered to the CGP via the buried gas gathering system at low pressures to maximise well deliverability

<sup>1</sup> <https://www.aemo.com.au/energy-systems/gas/gas-bulletin-board-gbb/data-gbb/data-dashboard>

## Other Corporate News

### Research and Development Tax Offset

The R&D Tax Incentive scheme is designed to encourage companies to undertake R&D activities and pioneer innovation in Australia. The scheme entitles companies with an aggregate global turnover of less than \$20 million to access a refundable tax offset of 43.5% of eligible expenditure on eligible R&D activities.

On 24 October 2023, Empire announced it had received an R&D Tax Offset for FY2022 of \$15.6 million in cash following finalisation of its 2022 tax return.

Proceeds from the R&D Tax Offset have been applied to:

- **Partial repayment of loan drawings, interest and fees under Facility A (Revolving Credit Facility) with Macquarie Bank (\$7.6 million):** Following the debt repayment the current outstanding loan amount of Facility A is \$1.827 million; and
- Working capital including financing Pilot Project FID costs.



Carpentaria-2H / 3H well pad and surrounding areas

## Changes to the Empire Board of Directors

On 17 November 2023, Empire announced that Mr Paul Fudge and Ms Jacqui Clarke had retired as a Non-Executive Director and Alternate Director, respectively of the Company. The Board and management extend their gratitude to Mr Fudge and Ms Clarke for their significant contributions to Empire during their tenure. Mr Fudge remains Empire's largest shareholder (18.1%) through his ownership of Beetaloo properties previously owned by Pangaea Resources which was acquired by Empire in 2021.

Empire also announced the appointment of Ms Karen Green as an independent Non-Executive Director and Chair of the Audit & Risk Committee effective 17 November 2023.

Ms. Green has 37 years' experience in business advisory services in Western Australia and Northern Territory ("NT"). She has lived in the NT since 1991 where she was an equity partner in the Deloitte Australian partnership for over 20 years. Ms. Green was the Office Managing Partner of Deloitte in the NT for several years and the 5th female ever to become a Partner in the Deloitte Australia partnership. Ms Green is currently a director of Advisory HQ which is a collective of highly respected long-term residents focused on delivering growth for Northern Australia.



## Empire Tenements

There were no changes to the petroleum tenements held by Empire and its subsidiaries during the Quarter.

**A full list of tenements as at 29 March 2023 can be found on the Empire website:**

<https://app.sharelinktechnologies.com/announcement/asx/abdb6b1722465c74923b427906ba9c71>

## NT Petroleum Sector Update

- **11 January 2024: INPEX Corporation (TYO: 1605) announced it intended to exercise its pre-emptive rights to acquire Tokyo Gas' 1.575% participating interest in the Ichthys LNG Project.** This agreement results from the October 2022 decision by Tokyo Gas to sell its share in Ichthys LNG to MidOcean Energy Holdings Pty Limited. Through the transaction, INPEX's participating interest in the Ichthys LNG Project will increase to 67.82%. Separately, Tokyo Gas continues to hold a 3.07% interest in the Darwin LNG Project.<sup>2</sup>
- **7 December 2023: Tamboran Resources (ASX: TBN) announced that it had successfully completed a 10-stage stimulation program over a 500 metre (1,640 foot) horizontal section of Mid-Velkerri B Shale within the Shenandoah South 1H ("SS-1H") well in Beetaloo Basin permit EP 117.** The stimulation program at SS-1H delivered a proppant intensity of 2,212 pounds per foot and achieved rates of 100 barrels per minute using slickwater.<sup>3</sup>
- **16 October 2023: Falcon Oil & Gas (TSXV: FO, AIM: FOG) announced that drilling operations on the Amungee NW 3H ("A3H") well in EP 98 had been successfully completed.** The A3H well was drilled, cased and cemented to a total measured depth of 3,837 metres, including a horizontal section of 1,100 metres in the Velkerri B Shale. Total costs for the drilling and cementing of the A3H well were \$12.6 million, representing a cost reduction of \$1.8 million compared to the Amungee-2H well, demonstrating cost learnings being achieved across the Beetaloo.<sup>4</sup>

## USA Operations Update

Empire's USA operations reported a positive EBITDA for Q4 2023 of US\$161k (Q3 2023: negative US\$(288)k).

The average daily production for Q4 2023 was 4,416 Mcfe / day vs. Q4 2022 4,477 Mcfe / day, representing a decrease of 1.4% year-on-year. During the Quarter, National Fuel Gas Company (NYSE: NFG), reopened a local gas pipeline which will positively impact Empire's gas sale volumes moving forward.

During the Quarter, Empire also received US\$88,000 in cash from three solar development proponents for the use of surface rights in which Empire holds oil & gas leases.

<sup>2</sup> <https://www.inpex.co.jp/english/news/assets/pdf/20240111.pdf>

<sup>3</sup> Tamboran Resources ASX release "EP 117 Operational Update: Successful completion of SS-1H stimulation program, preparing to commence flow back and IP30 testing" dated 7 December 2023

<sup>4</sup> Falcon Oil & Gas release "Operational Update including the Successful Drilling of Amungee NW 3H Horizontal Well" dated 16 October 2023

Description	3 months to	3 months to	2023	2022
	31 Dec 2023	31 Dec 2022		
<b>Net Oil Production (Bbls)</b>	451	524	2,722	2,797
<b>Net Natural Gas Production (Mcf)</b>	403,540	418,629	1,355,860	1,666,980
<b>Net Gas Equivalent (Mcf):</b>	406,246	421,773	1,372,192	1,683,762
<b>Mcf/d</b>	<b>4,416</b>	<b>4,584</b>	<b>3,759</b>	<b>4,613</b>
<b>Weighted Avg Sales Price (US\$/Mcf)</b>				
Before Hedge	2.45	5.43	2.58	5.46
After Hedge	2.45	5.43	2.61	5.46
<b>Lifting Costs (incl. taxes):</b>				
Total Natural Gas Equivalent (US\$/Mcf)	1.68	1.86	1.71	1.46

## Balance Sheet & Liquidity

Empire's cash balance as at 31 December 2023, was \$17.3 million, of which \$11.9 million was held in Australian dollars, and US\$3.7 million was held in United States dollars.

Empire's total available liquidity as at 31 December 2023, was \$17.7 million, comprising total cash of \$17.3 million and \$0.4 million undrawn under Facility A (Revolving Credit Facility) with Macquarie Bank. Empire also has the \$5.0 million Facility B (Performance Bond Facility) with Macquarie Bank which is available to meet environmental bonding obligations which was undrawn at quarter end.

Following receipt of the R&D Tax Offset for FY2022, Empire made a debt repayment of \$7.4 million and paid interest and associated fees of \$0.2 million under Facility A, resulting in borrowings under Facility A of \$1.827 million as at 31 December 2023. In addition, Empire also executed a Voluntary Commitment Cancellation of \$7.75 million under Facility A, reducing the committed amount of Facility A to \$2.25 million. The reduced commitment will save Empire \$0.2 million in commitment fees for 2024. The commitment may be increased at a later time, subject to bank approvals.

During the Quarter, Empire made a debt repayment of US\$137,500 to the US Macquarie Bank Credit Facility secured against the Company's US gas production assets. The total outstanding balance under the US credit facility at Quarter-end was US\$4,750,010.

Empire's US production was unhedged as at 31 December 2023.

## Payments to Related Parties of the Company and their Associates:

Item 6.1: Appendix 5B description of payments to related parties of the Company:

Director Fees	\$56,625
Managing Director and Related Parties <sup>5</sup> Remuneration	\$156,224
<b>Total (Item 6.1)</b>	<b>\$212,849</b>

## Liquidity

Quarter Ended	31 Dec 2023	30 Sep 2023	30 Jun 2023	31 Mar 2023
Cash (A\$)	\$17,309,597	\$15,043,386	\$23,329,677	\$15,107,820
Debt (A\$) <sup>6</sup>	\$(8,771,459)	\$(15,068,148)	\$(15,079,200)	\$(7,691,463)
<b>Net Cash /(Debt)<sup>7</sup></b>	<b>\$8,538,138</b>	<b>\$(24,762)</b>	<b>\$8,250,477</b>	<b>\$7,416,357</b>

## 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)	482,390
	Production costs (wages, consultants, and other overheads)	243,750
	Other production costs	14,385
<b>Total</b>		<b>\$740,525</b>

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

<sup>5</sup> The Managing Director's spouse, Melissa Underwood earns consulting fees under an arm's length contract approved by the Audit and Risk Committee of the Board

<sup>6</sup> Debt is comprised of US\$4,750,010 owing under the USA Senior Secured Facility and A\$1,827,000 owing under Facility A (Revolving Credit Facility) with Macquarie Bank Limited

<sup>7</sup> Net Cash / (Debt) is defined as AUD equivalent cash minus AUD debt for the purposes of this calculation

### Exploration Expenditure (ASX Listing Rule 5.2.2)

Asset	Nature of Expenditure	Amount
<b>Capitalised</b>		
EP187	C-2H & C-3H Extended Production Testing	774,258
<b>Total Capitalised</b>		<b>\$774,258</b>
<b>Expensed</b>		
EP184	Consulting and advisory expenses	18,374
EP187	Environmental, compliance and cultural monitoring	671,764
	Carpentaria Pilot Project - FEED	1,021,355
	Consulting and advisory expenses	439,076
	Other expenses	294,348
EP167 and EP168 (Western Beetaloo)	Project management	90,103
<b>Total Expensed</b>		<b>\$2,535,020</b>

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



Empire on a recent visit to the Elliott Community, NT



Empire on a recent visit to the MAWA Community, NT

## Global 2024 LNG Outlook

On 19 December 2023, *Reuters* reported that analysts forecast a “finely balanced” LNG market for 2024. Some of the key thematics for 2024 identified include:

### New LNG Supply

- New gasification terminals coming online by the end of 2023 will drive global LNG production to 379 million tonnes in 2024 (2023: 367 million tonnes), according to Rystad Energy. These new projects include the Greater Tortue Ahmeyim project between Senegal and Mauritania, the Congo floating LNG project, the Altamira plant in Mexico and train 3 of Indonesia's Tangguh LNG project.
- The market is expected to be undersupplied by ~4 million tonnes.

### China Demand

- Chinese LNG imports are seen rebounding to ~72 million tonnes next year, from about 63 million tonnes in 2023, according to ICIS and Rystad forecasts. Demand growth, however, will depend on LNG prices, coal and renewables usage, and the availability of domestic production and piped gas imports.
- "China will be the bright spot in driving LNG demand but there is a big segment there that is price-sensitive," said ICIS analyst Alex Siow, adding demand will depend on how low prices get, and how long they remain low. Other price-sensitive Asian buyers will also continue curtailing gas consumption, using coal and diesel instead, he said.

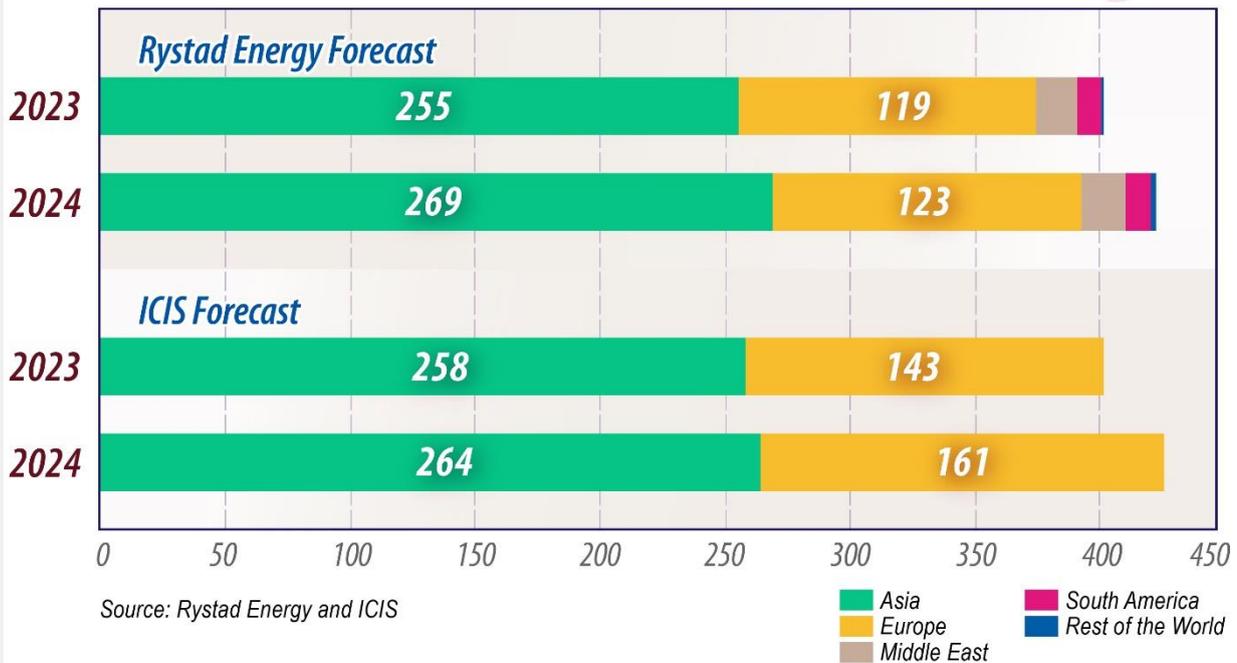
### Shipping Problems

- A severe drought cutting vessel traffic through the Panama Canal this year has restricted the number of LNG vessels going from the US to east Asia, which is expected to continue into 2024.
- The number of U.S. LNG vessels transiting the Panama Canal to Asia halved in November versus a year ago. Only 22 ships are allowed to pass each day, and that will be reduced to 18 from 1 February 2024.
- Concerns surrounding the Suez Canal also persist, as several vessels traversing the Red Sea have come under attack amid Israel-Gaza war tensions.<sup>8</sup>

<sup>8</sup> <https://www.nasdaq.com/articles/global-lng-markets-seen-finely-balanced-in-2024-as-demand-under-control>

## GLOBAL LNG DEMAND IS SET TO RISE IN 2024

A mild northern hemisphere winter and high inventories however could limit demand next year  
MTPA



This ASX release has been authorised by the Board of Directors

For queries about this release, please contact:

Alex Underwood, Managing Director

Ph: (02) 9251 1846

## 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 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.



Part of the newly acquired RPGP - Low pressure gas is compressed to sales gas pressure using gas engine driven reciprocating compressors

### Registered Office

Level 5, 6-10 O'Connell Street  
Sydney NSW 2000

Phone: +61 2 9251 1846

Facsimile: +61 4 9251 1022

Website: [empireenergygroup.net](http://empireenergygroup.net)

### Media and Investor Enquiries

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