

- Carpentaria-2H achieved a peak flow rate of > 11 mmcf per day, an initial production rate over 30 days of 2.4 mmcf per day (normalized to 2.6 mmcf per day per 1,000m of stimulated horizontal section), and an initial production rate over 51 days of 2.2 million cubic feet per day (normalized to 2.4 mmcf per day per 1,000m of stimulated horizontal section)
- Carpentaria-3H drilling commenced on 13 October 2022 targeting a 2,000 metre horizontal section that is to be hydraulically stimulated and placed on extended production testing. The well has been successfully landed in the Middle Velkerri B shale and is drilling ahead
- Carpentaria-4V drilling is planned to commence immediately following the completion of Carpentaria-3H
- Land Access and Compensation Agreements (LACA) have been executed with a number of pastoralists to allow for planned activity within the Gas Discovery Area (GDA) in EP167 and EP168
- Empire received *Beetaloo Cooperative Drilling Program* progress payments totaling \$0.8 million in cash (ex-GST) during the Quarter
- Empire's US business operations continue to benefit from strong gas prices and reported a positive EBITDA for Q3 2022 of US\$1.66 million
- Cash at the end of the Quarter was \$32.6 million

Comments from Managing Director Alex Underwood:

"Empire has had another busy and successful Quarter, highlighted by an active Beetaloo field program with highly encouraging results from our Carpentaria-2H fracture stimulation and flow test, the largest stimulation executed in the basin to date with strong flow rates and relatively low decline rates compared to our peers. This bodes well for future economic development scenarios. We are applying the learning from the Carpentaria-2H work into the design of Carpentaria-3H, our next horizontal well that is drilling now and will be stimulated and flow tested in the lead up to Christmas.

Crisis conditions in energy markets globally underscore the critical role of our position in the Beetaloo Basin to provide energy security to the people of Australia and the broader region. It has been exciting to engage actively with potential gas customers who recognize the role we are playing in Australia's future gas supply mix. We are firmly focused on entering into production as soon as possible.

Thank you to our teams in the US, where we had a strong financial performance this quarter, and Australia, and to our shareholders for your ongoing support. We are working hard to bring the Beetaloo into production"

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Northern Territory Operations Update

Carpentaria-2H Hydraulic Stimulation and Extended Production Testing ("EPT")

Carpentaria-2H ("C-2H") horizontal well was hydraulically stimulated over 21 stages along a 927-metre horizontal section in July 2022. A range of stimulation fluids were trialed to assess the optimal system for future wells. The fluid systems successfully placed across the C-2H horizontal section were slickwater (7 stages), crosslink (8 stages), hybrid (slickwater-crosslink) (4 stages) and high viscosity friction reducer ("HVFR") (2 stages).

Flow back of stimulation fluids commenced on 1 August 2022, immediately following placement of the hydraulic stimulation stages. Gas flow commenced on 5 August 2022 with a period of significant but unmeasurable gas rates due to slug flow (fluctuating gas and water production). Gas flow measurement began on 7 August 2022 through 4 ½" casing. Artificial lift and production tubing were not required demonstrating strong reservoir pressure. A peak rate of >11 million standard cubic feet (mmscf) per day was achieved on 15 August following a 2-day shut-in to replace the hydraulic stimulation surface pipework with production pipework.

Over the first 30 days ("IP30") of the EPT C-2H had an average gas production rate of 2.4 (mmscf) per day, equating to a normalised rate of 2.6 mmscf per day per 1,000 metres of horizontal section. The well was producing at a rate of 2.1 mmscf per day on day 30.

After a total of 51 days, C-2H was shut-in to monitor pressure build-up and evaluate the impact on well productivity following a period of "soaking". Soaking is the practice of shutting in a well for a period following fracture stimulation to seek to improve long-term productivity through redistribution and/or interaction of the residual water with the rock. Productivity improvements have been achieved at other Beetaloo wells and in analogous US shale plays following the execution of such a strategy. The average gas production rate over the first 51 days prior to the planned shut-in was 2.2 mmscf per day (a normalised rate of 2.4 mmscf per day per 1,000 metres of horizontal section). C-2H was producing at a rate of 1.82 mmscf per day prior to the shut-in. C-2H well head pressure rapidly built up to over 1200 pounds per square inch ("psi") over both the initial 2-day shut-in and the recent shut-in.

Evaluation of production tracer data to understand the contribution of each of the 21 hydraulically stimulated stages at C-2H to the overall production has commenced. This aims to rank the fluids systems tested, along with other completion and reservoir parameters. Learnings acquired from C-2H will be applied and adapted at Carpentaria-3H ("C-3H") to optimise completion and fracture stimulation design.



The success of C-2H is an extremely encouraging step towards commerciality. It provided key information for future wells including:

- Beetaloo-specific horizontal well drilling methods;
- Enhancement of Beetaloo-specific hydraulic stimulation fluid selection, perforation strategy, proppant concentration and pumping techniques;
- refinement of the target window for landing a Velkerri B Shale horizontal section;
- understanding the high-calorific gas composition at Carpentaria; and
- further confirmation of the very low CO2 (0.88%) content of the produced gas.

Empire is using this technical data to develop an early production type curve for development planning.

Empire plans to recommence the C-2H EPT in the coming months.

Carpentaria-3H and Carpentaria-4V

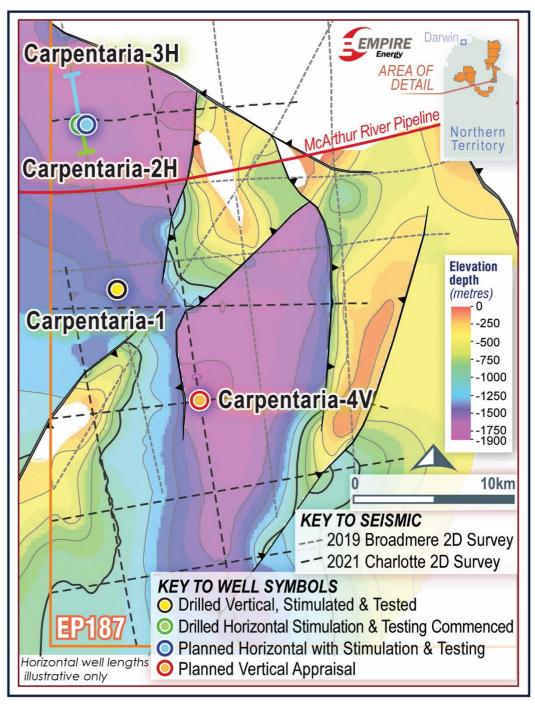
Empire has received Northern Territory Government approval for the renewal of the EP187 permit for a further five-year work program, commencing with the drilling of C-3H and Carpentaria ("C-4V").

Empire has contracted Schlumberger Land Rigs 185 to drill both wells within a single campaign. Drilling of the C-3H well commenced on 13 October 2022. C-3H will be a horizontal well with a planned 2,000-metre horizontal section that will be hydraulically stimulated and flow tested. C-3H is targeting the same B Shale of the Velkerri Formation from the same pad as C-2H but drilled in the opposite downdip direction. C-3H will seek to further de-risk the project and optimise production rates by applying learnings from the hydraulic stimulation and flow testing of C-2H.

C-4V well will be drilled in the Carpentaria East Area (an adjacent area defined by seismic coverage and interpretation). C-4V is targeting the Velkerri Formation shales to convert Prospective Resources to Contingent Resources and to further delineate the EP187 Velkerri Formation. Following extensive formation evaluation, the vertical well will be suspended as a potential future horizontal development well.

Civils works and delivery of long lead items is underway in preparation for the hydraulic stimulation and EPT of the C-3H well, that will follow current drilling operations.





EP187 location map illustrating drilling locations and depth to B Shale



Western Beetaloo Permits Update

During the quarter, Empire executed Land Access and Compensation Agreements (LACA) to allow for planned 2D seismic, drilling, and hydraulic stimulation activity to occur within the Gas Discovery Area (GDA) in EP167 and EP168.

Empire is progressing an Environment Management Plan (EMP) to gain NT regulatory approval for these activities.

A prospectivity review has been completed for EP169 in the southern Beetaloo Sub-basin and EP198 in the Birrindudu Basin. The review has high graded areas for future exploration activity.

Australian Government's Beetaloo Cooperative Drilling Program

Empire's wholly owned subsidiary, Imperial Oil & Gas Pty Limited, has three replacement grant agreements with the Australian Government under the Beetaloo Cooperative Drilling Program (the "Program"). 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, hydraulic stimulation and flow testing of three horizontal wells (C-2H, C-3H and C-4V) in EP187.

During the Quarter, Empire received progress payments totaling \$758,312 in cash (ex-GST) under the Program.

Empire Hosts Carpentaria-2H Site Visit for Northern Territory Government

Empire hosted a site visit to the Carpentaria-2H well pad on 19 July 2022 for a party of Northern Territory Government leaders and regulators which included Northern Territory Deputy Chief Minister and Minister for Mining and Industry, the Hon. Nicole Manison.

While onsite Minister Manison commented:

"What's exciting about this is they're very well advanced. There is no doubt Empire is leading the charge when it comes to producing first gas and getting to that point of production.";

"There's been a huge amount done by the other gas companies around the Beetaloo but when you have a look at the pace Empire's going, all doing it within the rules, conditions and regulations but you can see it is advancing very well"; and

"They are doing a good job and their confidence is justified about getting to the point of production and probably being the first serious gas producer in the Beetaloo coming online."

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¹ https://www.ntnews.com.au/business/nt-business/empire-building-project-on-track-with-production-timetable/news-story



Other Corporate News

Issue of Attaching Options

On 6 June 2022, Empire announced it had successfully raised \$27.5 million (gross) at \$0.22 per share through a strongly supported single-tranche placement of new fully paid ordinary shares ("Shares") to institutional and sophisticated investors ("Placement"). On 15 July 2022, Empire announced it had completed a fully underwritten Share Purchase Plan ("SPP") to raise \$2.5 million (gross) on the same terms as the Placement.

Additionally, Directors of Empire have invested a further \$520,000 in the Company on the same terms as the Placement, as approved by shareholders at the General Meeting described below.

Following receipt of shareholder approval at the General Meeting, Empire issued 69,227,558 attaching options on the basis of one attaching unlisted option for every two shares subscribed for by participants under the Placement, Director's placement and / or SPP ("Attaching Options") to shareholders who returned a completed acceptance form to the Company's share registry. The Attaching Options are exercisable at \$0.35 per share and expire on 14 June 2024 being two years from the date of allotment of Shares under the Placement.

General Meeting

All seven resolutions considered at the General Meeting of the Company held on 24 August 2022 to approve the Attaching Options, Directors' placement and ASX Listing Rule 7.1 / 7.1A were passed by shareholders by strong majorities. The Notice of Meeting and accompanying Explanatory Statement was released to the ASX and shareholders on 22 July 2022.

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 31 March 2022 can be found on the Empire website: https://app.sharelinktechnologies.com/announcement/asx/745aa1f85f40f73e86b855ad2a9a95cf



NT Petroleum Sector Update

- 13 October 2022: The AFR reported that gas flows along the Northern Gas Pipeline (NGP) connecting the Northern Territory to Mount Isa, Queensland had ceased in early September due to a sharp reduction in output at the offshore Blacktip Gas Field. Sources say the issues date back to 2021 but that the decline in the gas production from the field has only more recently slid so low as to mean Jemena, the owner of the NGP was unable to continue to safely operate the pipeline. Jemena indicated that they were working closely with key stakeholders including the NT Government and the NT Gas Taskforce in response to the evolving situation.²
- 20 September 2022: Bryan Sheffield (Sheffield) and Tamboran Resources (ASX: TBN) announced they had agreed to jointly (50% each) acquire Origin Energy's (Origin) 77.5% interest in three Beetaloo Basin permits (EP 98, 117 and 76) through a joint venture entity for an upfront cash consideration of \$60 million plus a future production royalty and a binding 10-year Gas Sales Agreement for up to 36.5 PJ per annum with Origin.
 - Tamboran also announced that the Amungee-2H well within the Origin acreage is planned to spud in October 2022 from the existing Amungee NW-1H well pad with the procured Silver City Rig No.40. Drilling of the Amungee-3H well will immediately follow the Amungee-2H well; and
 - Both wells will be fracture stimulated with up to 20 stages over a 1,000 metre horizontal section, with flow rates expected in early calendar year 2023, subject to weather conditions.³
- 5 September 2022: Tamboran announced that the Tanumbirini-2H (T2H) and Tanumbirini-3H (T3H) wells in EP 161 had both achieved 30-day (IP30) flow rates that exceeded Tamboran's assessed commerciality threshold for a 1,000 metre horizontal well within their Beetaloo Basin permits. The T2H and T3H wells delivered an average IP30 flow rate of 2.1 mmscf / day over a 660 metre completed horizontal section and 3.1 mmscf / day over a 600 metre completed horizontal section. 4

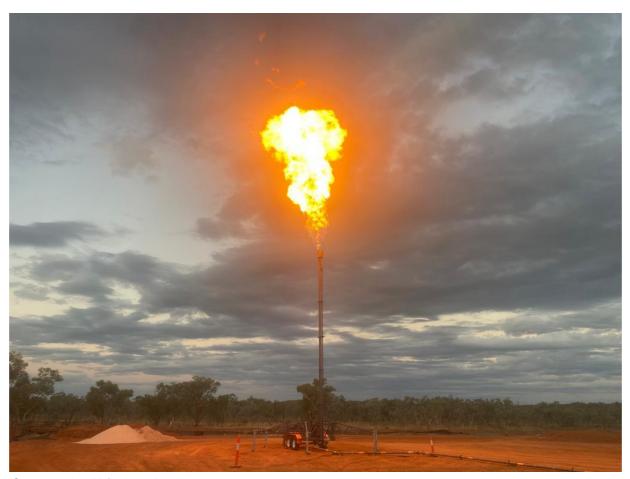
² https://www.afr.com/companies/energy/nt-gas-breakdown-adds-to-east-coast-energy-woes-20221012

³ Tamboran ASX release "Tamboran announced acquisition of Origin Energy's Beetaloo Assets, funded through a placement and strategic partnerships to raise up to ~\$195 million" dated 20 September 2022

⁴ Tamboran ASX release "Tanumbirini 2H and 3H 30-day normalised flow rates exceed estimated Beetaloo commerciality threshold" dated 5 September 2022



- 1 September 2022: Business News reported that the Northern Territory
 Government is suing the Perth-based subsidiary of ENI over its alleged failure to
 adhere to its 25-year agreement to supply gas from the offshore Blacktip Gas Field. The
 NT Government's owned utility, Power and Water Corporation claims ENI had promised to be
 forthcoming about any issues that might curtail, interrupt or suspend the delivery of natural gas. It
 claims that there have been ongoing issues since April last year. ⁵ EnergyQuest noted that Q2
 2022 Blacktip production was 54 TJ / day representing 50% of capacity of the Blacktip Yelcherr
 Gas Plant, located at Wadeye in the Northern Territory of 108 TJ / day. ⁶
- Santos announced in its 2022 Second Quarter Report that well operations had continued on Tanumbirini 2HST1 and Tanumbirini 3HST1 horizontal wells in the Beetaloo Basin.
 Santos indicated that it planned to install completions in both wells in July and then resume well testing operations to further define shale play performance.⁷



Carpentaria-2H flow testing

⁵ https://www.businessnews.com.au/article/NT-sues-ENI-over-gas-deal-breach

⁶ EnergyQuest's Energy Quarterly for September 2022

⁷ Santos 2022 Second Quarter Report



US Operations Update

Empire's US operations reported a positive EBITDA for Q3 2022 of US\$1,660k (Q2 2022: US\$1,543k). The larger EBITDA for the Quarter reflects a higher weighted average sales price for gas after hedging recorded of US\$6.35 / Mcf (Q3 2022: US\$6.27 / Mcf).

The average daily production for Q3 2022 was 4,700 Mcfe / day vs. Q3 2021 4,668 Mcfe / day, representing an increase of 0.7% year-on-year.

Description	3 months to	3 months to		00043/35
	30 Sep 2022	30 Sep 2021	2022 YTD	2021 YTD
Net Oil Production (Bbls)	1,028	738	2,180	2,000
Net Natural Gas Production (Mcf)	426,249	425,047	1,236,578	1,238,487
Net Gas Equivalent (Mcf):	432,417	429,475	1,249,658	1,250,487
Mcfe/d	4,700	4,668	4,578	4,580
Weighted Avg Sales Price (US\$/Mcfe)				
Before Hedge	6.35	3.46	5.52	2.86
After Hedge	6.35	3.46	5.52	2.90
Lifting Costs (incl. taxes):				
Total Natural Gas Equivalent (US\$/Mcfe)	1.30	1.23	1.32	1.19



NT Deputy Chief Minister and Minister for Mining and Industry Hon. Nicole Manison and Empire Managing Director Alex Underwood at NT Resources Week



Balance Sheet & Liquidity

Empire's cash balance as at 30 September 2022, was \$32.6 million, of which \$26.2 million was held in Australian dollars, and US\$3.1 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\$5,437,510.

Empire's 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 mmbtu/month	Hedge Type	Strike Price US\$/mmbtu	Premium US\$/mmbtu
Oct 22 to Dec 22	70,000	Put Options	\$3.25	\$0.29
Oct 22 to Dec 22	25,000	Put Options	\$2.50	\$0.35
Oct 22 to Dec 22	50,000	Put Options	\$2.50	\$0.41
Oct 22 to Feb 23	25,000	Swap	\$7.50	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 \$135,923. These payments comprised the Managing Director's salary and Non-Executive Directors' fees paid in cash.

Liquidity

Quarter Ended	30 Sep 2022	30 Jun 2022	31 Mar 2022	31 Dec 2021
Cash (A\$)	\$32,560,019	\$45,297,578	\$16,621,131	\$25,757,201
Debt (A\$) ⁸	\$(8,362,827)	\$(8,092,640)	\$(7,635,017)	\$(8,062,321)
Net Cash /(Debt)9	\$24,197,192	\$37,204,938	\$8,986,114	\$17,694,880

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)	\$417,245
	Production costs (wages, consultants, and other overheads)	\$290,887
	Other production costs	\$5,843
Total		\$713,975

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

⁸ Note: Debt is comprised of US\$5,437,510 owing under the Senior Secured Facility with Macquarie Bank Limited

⁹ Note: 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
Capitalised		
EP187	Drilling C-3H and C-4V including long-lead items	\$5,580,118
	Hydraulic stimulation C-2H and long-lead items for C-3H	\$8,926,462
	Civil construction for C-4V	\$1,103,477
	Other including project management and other consultants and laboratory fees	\$753,778
Total Capitalised		\$16,363,835
Expensed		
EP187	Technical consulting fees	\$305,957
	Environmental and cultural monitoring	\$91,625
	Other	\$32,229
EP167 and EP168 (Western Beetaloo)	Environmental consulting	\$29,361
EP184	Annual licensing fees (NLC and NT Government)	\$109,128
Total Expensed		\$568,300

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



NT Site visit of Carpentaria-2H held in July 2022. Pictured above are Empire Directors Peter Cleary and Lou Rozman, Empire Chief Financial Officer, Robin Polson, inGauge Energy Principal Engineer, Kelvin Wuttke, and NT Deputy Chief Minister and Minister for Mining and Industry Hon. Nicole Manison



Energy Markets Update

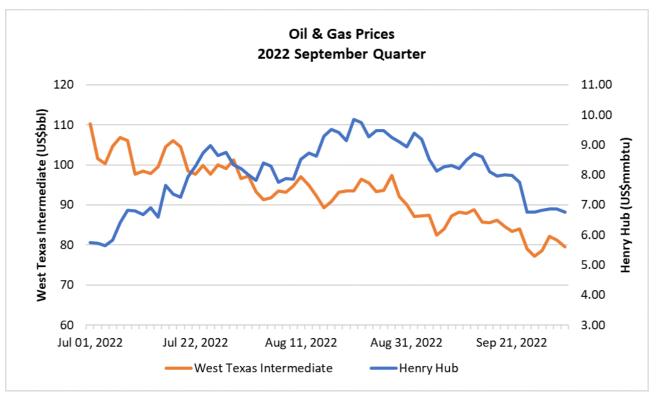
Europe and Asia are competing for LNG supplies in a tight global market.

The coming winter may result in further energy price spikes and fears of energy shortages.

The International Energy Agency's (IEA) Q4-2022 Gas Market Report suggests that Russia's continued curtailment of natural gas flows to Europe has pushed international prices to new highs, disrupted trade flows and led to acute fuel shortages in some emerging and developing economies, with the market tightness expected to continue well into 2023.

"Russia's invasion of Ukraine and sharp reductions in natural gas supplies to Europe are causing significant harm to consumers, businesses and entire economies – not just in Europe but also in emerging and developing economies," said Keisuke Sadamori, the IEA's Director of Energy Markets and Security.

The IEA forecasts that Europe's LNG imports will increase by over 60 billion cubic metres (bcm) this year (~44mt of LNG), or more than double the amount of global LNG export capacity additions. ¹⁰ Royal Dutch Shell plc Chief Executive Ben van Beurden said "It may well be that we will have a number of winters where we have to somehow find solutions," in relation to the gas and energy crisis now presenting in Europe. ¹¹



¹⁰ https://www.iea.org/news/natural-gas-markets-expected-to-remain-tight-into-2023-as-russia-further-reduces-supplies-to-europe

¹¹ https://www.reuters.com/business/energy/europes-gas-crisis-could-last-several-winters-shell-ceo-says-2022-08-29

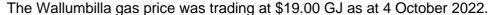


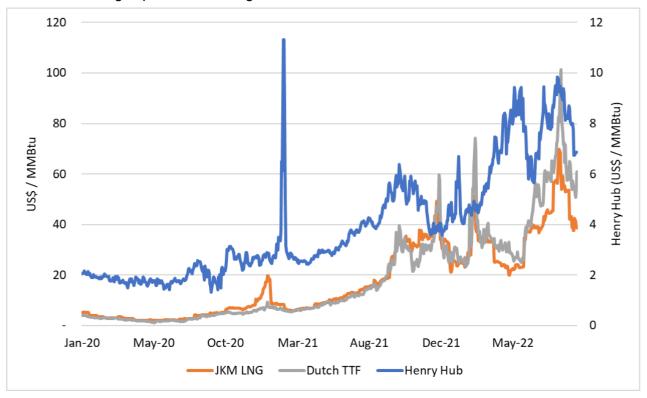
The Australian Competition and Consumer Commission's (ACCC) July 2022 Interim gas report forecasted that the east coast of Australia could face a shortfall of 56 PJ in 2023. The report raises concerns about the high level of market concentration, noting that LNG exporters and associates had influence over almost 90% of the proven and probable (2P) reserves in the east coast in 2021 through direct interests, joint ventures and exclusivity arrangements. ACCC Chair Gina Cass-Gottlieb said "Our latest gas report finds that the outlook for the east coast gas market has significantly worsened. To protect energy security on the east coast we are recommending the Resources Minister initiate the first step of the Australian Domestic Gas Security Mechanism (ADGSM)," .12

On 29 September 2022, the Australian Government signed a new Heads of Agreement with east coast LNG exporters to prevent a gas supply shortage. The new commitments from LNG exporters will lead to an extra 157 PJ for the domestic market in 2023, with the gas to be supplied in line with seasonal demand.

Minister for Resources and Northern Australia Madeleine King said:

"Given the agreement means the projected shortfall will be avoided, I am satisfied I do not need to take steps to activate the ADGSM at this time. This is a great outcome for Australia, will strengthen confidence in the domestic gas market and safeguard our global reputation as a stable and reliable energy exporter to our regional partners." 13





¹² https://www.accc.gov.au/media-release/Ing-exporters-must-divert-gas-to-the-domestic-market-to-avoid-shortfalls

¹³ https://www.minister.industry.gov.au/ministers/king/media-releases/australian-government-secures-gas-supply

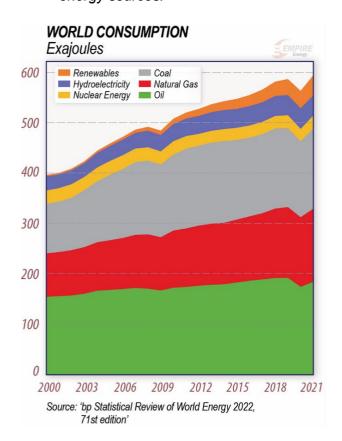


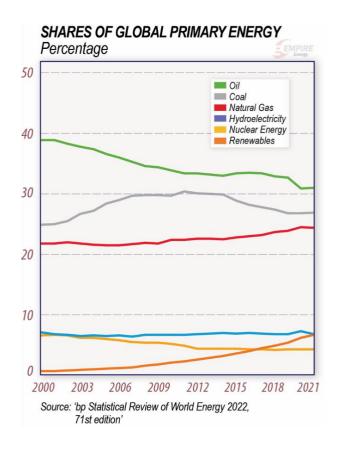
The role of Natural Gas in an Energy Transition World

During the Quarter, BP plc released its *Statistical Review of World Energy 2022*. The report highlights that global natural gas and LNG demand grew 5.3% and 5.6% in 2021 as the world rebounded post the COVID pandemic. Natural gas now represents 24% of global primary energy. BP notes that the challenges and uncertainties facing the global energy system are at their greatest since the last great energy shocks of the 1970s. The war in Ukraine threatens to lead to shortages in food and energy, which could detract materially from health and wellbeing across the globe. Present energy shortages and prices rises highlight the continuing energy trilemma: (i) security of supply; (ii) affordability; and (iii) reducing carbon emissions. Gas is well positioned to meet this global challenge through supporting the growth of renewable energy generation while ensuring security of energy supply to our growing planet. ¹⁴

The Hon. Madeleine King, Federal Minister for Resources and Northern Australia reinforced gas' crucial role in her recent address to the Queensland Resources Media Club:

"The coal and gas sectors will ensure secure and affordable energy supplies as economies make the move to clean energy sources as quickly as possible. The Government understands that natural gas is the ally of renewable energy and will support the addition of more intermittent energy sources." ¹⁵

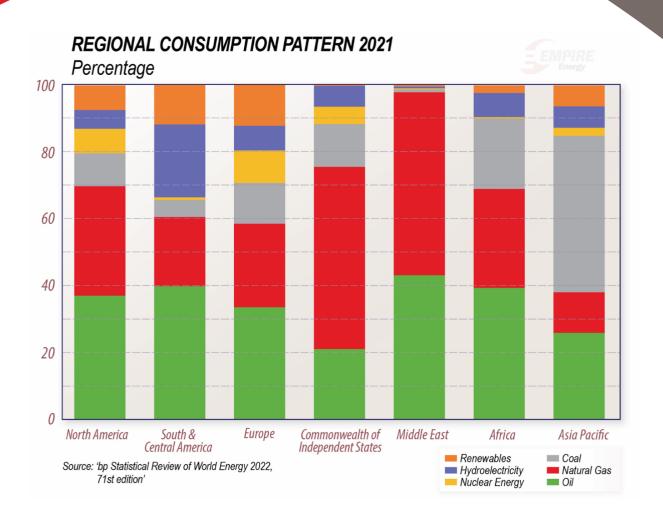




¹⁴ BP Statistical Review of World Energy 2022

¹⁵ https://www.minister.industry.gov.au/ministers/king/speeches/queensland-resources-media-club-address





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

This ASX release has been authorised by the Managing Director

For queries about this release, please contact:

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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.



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