Empire Energy Group Ltd: Beetaloo Operations Deliver Strong Gas Flow Rates

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Sydney, Australia - Empire Energy Group Ltd. (ASX:EEG) (OTCMKTS:EEGUF) has completed Carpentaria-2H flow testing following continued strong gas rates.

- Carpentaria-2H ("C-2H") has produced a total of 323 Terajoules ("TJ") (281 mmscf) over 127 days

- Gas composition has remained consistent with high calorific value and extremely low CO2

- This equates to a normalized rate of 2.75 TJ (2.4 mmscf) per day per 1,000 metres for the entire test period

- The post-soak 2023 IP30 is now confirmed at 3.5 TJ (3.0 mmscf) per day per 1,000 metres following updated gas composition analysis

- C-2H has been shut-in for availability as a future gas producer

- Carpentaria-3H ("C-3H") will be reopened for flow testing once the soak period concludes

- Development planning for pilot project final investment decision continues. Multiple parties are expressing strong interest in purchasing Empire's Beetaloo gas in both the pilot phase and full development phase

- NSAI updated resources report on track to be released prior to 30 May 2023 AGM

Comments from Managing Director Alex Underwood:

"We are pleased to share the continued strong gas flow rates achieved at C-2H as they provide further confidence that an economic development in EP187 may be achievable.

The cumulative production of 323 TJ over 127 days from C-2H would equate to over 1,000 TJ cumulative production for an equivalent 3km horizontal development well over the same period. This is despite the unoptimized nature of the C-2H well that has tested multiple completion methodologies. If we assumed a gas price of $10 / GJ, which is less than half the spot price at Wallumbilla on 22nd May 2023, on this basis an equivalent 3km development well could generate over $10 million in gross revenue (before royalties) over an equivalent first 127 days of commercial production without any further well optimization (see Appendix B* for further details). Such a level of gross revenue so early in the life of development wells may support field level economics.

Following recent regulatory implementation by the NT Government giving the Beetaloo a 'green light' to move into commercial production, and an extremely tight domestic gas market, line of sight towards commercialisation is getting clearer by the day."

Carpentaria-2H Flow Rates

C-2H has flowed for 76 days following re-opening for ongoing extended production testing ("EPT"). During this period the well produced high calorific gas at an average rate of 2.55 TJ per day (2.2 mmscf per day), with a final rate of 1.85 TJ per day (1.6 mmscf per day). These flows were through 4 1/2" casing and the well has not required production tubing or artificial lift at any time during testing.

Earlier in the testing period, Empire announced a material increase in C-2H average flow rate over 30 days ("IP30") to 2.81 mmscf per day, which was 17% higher than the IP30 achieved during the initial 51-day EPT undertaken during Q3 2022. Prior to re-opening C-2H, the well had been shut-in for 5 months for C-3H drilling and stimulation operations, soaking and pressure build up.

The purposes of re-opening the well for continued EPT were multifold:

- to examine the benefits of "soaking" in the Beetaloo;

- to further refine the production type curves for pilot project planning and final investment decision; and

- to better understand the flow characteristics of the Velkerri B shale for future completion design.

These objectives have been fulfilled with positive results and Empire continues advancing its Beetaloo specific learning curve.

The table* below summarises all of the C-2H results to date in both mmscf and TJ.

Empire intends to commence reporting gas volumes in Terajoules ("TJ") and Petajoules ("PJ") going forward, reflecting the basis on which Australian gas contracts are negotiated. Empire expects the high calorific value of its gas to attract a price premium over dry gas (i.e. methane only).

Carpentaria Gas Composition

C-2H gas composition data has been obtained from gas sampled at the surface gas and water separator. The gas samples taken are from the combined flow from all the 21 hydraulic stimulation stages located within the Velkerri B shale. The gas composition data has remained stable across the testing periods.

Following compositional analysis, a conversion factor of 1.15 TJ per mmscf has been determined reflecting the high calorific value of Empire's EP187 gas.

The conversion factor for dry gas is 1.055 TJ per mmscf.

Water and gas samples have been collected throughout the flow testing period for tracer analysis to determine stage contribution. This data is being modelled with existing stage contribution analysis from both C-2H and C-3H to further optimise Empire's well completion strategy.

Preliminary tracer analysis indicates that some stimulated stages are generating a greater proportion of overall gas production than others, providing an opportunity for future optimization.

C-2H and C-3H are both currently shut-in and front-end engineering and design ("FEED") for the Carpentaria Pilot Project final investment decision is ongoing.

*To view tables and figures, please visit:
https://abnnewswire.net/lnk/76P161C5

About Empire Energy Group Ltd:

Empire Energy (ASX:EEG) (OTCMKTS:EEGUF) holds over 14.5 million acres of highly prospective exploration tenements in the McArthur and Beetaloo 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 80% has very considerable conventional and unconventional hydrocarbon potential. The Beetaloo sub-Basin, in which Empire holds a substantial position, has independently assessed world class hydrocarbon volumes in place with a major ramp up in industry activity underway to appraise substantial discoveries already made by major Australian oil and gas operators.

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

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