# Highlights

Empire Energy Group Limited ("Empire" or the "Company") is pleased to announce that it expects to commence the fracture stimulation and flow testing of its Beetaloo Sub-basin vertical discovery well, Carpentaria-1, in early June, and is planning further seismic acquisition and horizontal appraisal drilling later in 2021 (subject to regulatory approvals).

#### Highlights include:

- Fracture stimulation contracts signed with Schlumberger Australia Pty Limited ("Schlumberger") following a rigorous tender process
- Long lead items including high quality manufactured proppant ordered and en route to site
- Empire plans to be in the field in early June 2021 to carry out the vertical fracture stimulation and flow testing program
- The program will target each of the four most prospective zones in the stacked Velkerri shale sequence (A, B, Intra A/B, C)
- Empire will seek to flow gas to surface and further understand gas composition including liquids with results expected in Q3 2021
- The vertical fracture stimulation and flow testing program has received all Northern
  Territory Government approvals and will be fully funded from existing cash at bank
- Approval processes for further appraisal work including additional seismic acquisition and fracture stimulated horizontal appraisal drilling are well advanced and now funded following the recent successful capital raise

#### Comments from Managing Director Alex Underwood:

"Carpentaria-1 was a significant liquids rich gas discovery which has captured the attention of major Australian and international industry players. The upcoming vertical fracture stimulation and flow testing program on the well will provide critical insights into the hydrocarbon composition and flow rate potential of the key Velkerri shale zones encountered during drilling. This will inform the fracture stimulation design and the zones of greatest interest as we plan for horizontal drilling later in the year.

Our team has been busy preparing approvals for that next stage, which is now fully funded following our recent capital raise. We welcome new shareholders to the register, including Pangaea (subject to shareholder approval), and thank existing shareholders for their strong support.

We are continuing to build our position as the leading independent in the basin, with the largest resource position and most active work programs. This further positions Empire to be the first company to commence commercial production from the Beetaloo in the success case."

## Key Vertical Stimulation and Flow Testing Goals

Carpentaria-1 will be stimulated in each of the four target zones within the Middle Velkerri formation stacked shale sequence (Velkerri A, Intra A/B, B and C). Once the well has dewatered (expected to take approximately one month), an extended production test will commence. Gas, condensate and stimulation fluids will be diverted through a three-stage separator on the surface with the following objectives:

- Flow gas to surface and ascertain the most productive target horizon(s);
- Understand target and depth dependent gas composition including the proportion of natural gas liquids and condensate;
- Assess design and execution of Beetaloo Sub-basin specific fracture stimulation techniques;
- Build Empire's contingent resource base; and
- Provide critical data for further appraisal and development planning for future horizontal wells.

### **Execution of Contracts**

Following detailed commercial and technical due diligence of suitable contractors in Australia and a competitive tender process, Empire has selected and engaged Schlumberger for the provision of pressure pumping fracture stimulation and associated services for the Carpentaria-1 well. Schlumberger will provide all stimulation equipment, laboratory testing facilities and technical support. Schlumberger is also providing Coil Tubing services and Wireline services as part of the fracture stimulation placement and flowback operations.

# Work Program Schedule

Empire expects to commence civil works (including well pad extension to accommodate fluid tanks) in the coming weeks.

Fracture stimulation of the target zones is expected to commence in early June.

Following fracture stimulation, which entails the injection of fluid and proppant into the target formation to open fracture pathways within the target zones, there will be a period of flowback of fluids which is likely to take approximately one month. A pump will be installed to remove sufficient fluid from the wellbore to allow for an unconstrained flow of hydrocarbons from the target zone.

Empire will advise shareholders as flow testing results are achieved, likely in early Q3 2021.

### Forward Work Program Planning

Consistent with Empire's proactive approach to forward work program planning, the Company has submitted an Environment Management Plan to the Northern Territory Government which, if approved, would allow Empire to carry out the following activities in EP187 over the next 5 years:

- 165km infill 2D seismic to further delineate the Velkerri shale
- Civil works including the construction of up to 6 well pads (a combination of single well and multi-well pads with the ability to drill up to 4 wells from each pad)
- Installation of water production and monitoring bores
- Drilling up to 7 wells including a horizontal section from the existing Carpentaria-1 vertical well and up to 6 new horizontal wells
- Evaluation, logging, testing and coring of each well including diagnostic fracture injection tests
- Hydraulic stimulation and flow testing of each well

This Environment Management Plan is the most comprehensive of its kind submitted by any Beetaloo operator under the new regulatory framework and will give Empire the flexibility to optimise its work programs in a timely manner as test results are received.

Following the recent \$30 million two-tranche placement to sophisticated and institutional investors, proposed \$1.2 million placement to Directors of the Company (subject to shareholder approval) and proposed \$3 million Share Purchase Plan, Empire is fully funded to carry out the infill 2D seismic program and its first fracture stimulated horizontal appraisal well.

This ASX release has been authorised by the Managing Director.

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