

## Baúna Oil Reserves and Contingent Resource Update

Karoon Energy Ltd ('Karoon') is pleased to provide an update to the Reserves and Contingent Resources related to Santos Basin concession BM-S-40 containing the Baúna oilfield and Patola oil discovery. This announcement represents an update to the summary of the Competent Persons Report ('CPR') prepared by AGR Petroleum Services Reservoir Management Division ('AGR') announced to the ASX on 9 November 2020. Following completion of the Baúna acquisition, also announced on 9 November 2020, Karoon is 100% owner and Operator of the BM-S-40 concession.

The updated assessment, which is effective as of 1 January 2021, reflects that there has been no reduction in reserves (when compared to those announced to ASX on 9 November 2020), other than commensurate with oil production volumes during the period 1 July 2020 to 31 December 2020 reflecting asset performance that is in line with expectations. Production for the period 1 July 2020 to 31 December 2020 was 2.8MMbbl or 15.2kbpd. The assessed Contingent Resource volumes are unchanged from the previous announcement of 9 November 2020.

### AGR Assessed Reserves and Contingent Resources

Project	Reserves 31/12/2020*^		
	1P (MMbbl)	2P (MMbbl)	3P (MMbbl)
<b>Bauna current wells incl. intervention program</b>	31.9	36.4	50.4

\*These reserves are the results of stochastic summation of individual well reserves; and not arithmetic sum of the individual well reserves.

^All reserves are developed petroleum reserves.

Project	Contingent Resources 31/12/2020		
	1C (MMbbl)	2C (MMbbl)	3C (MMbbl)
<b>Patola Development</b>	9.6	13.2	18.6
<b>Bauna benefit from Patola</b>	1.2	1.5	1.6
<b>SPS-57</b>	1.9	4.2	8.3

### Reserves Estimates

The Baúna reserves estimates are based on the current development consisting of six oil production wells, three water injectors and one gas injector across the Baúna and Piracaba oil producing accumulations. The wells are tied back to a leased floating production, storage and off-loading

facility (FPSO), the Cidade de Itajaí. Baúna has a long production history which began in 2011 and has continued to perform strongly with 132.7MMbbl produced up to 31 December 2020.

AGR's updated independent assessment of the remaining reserves for the Baúna oil field is now estimated for the period from 1 January 2021 to predicted economic cut-off years derived individually for each category of Reserves (being 1P, 2P or 3P) under a US\$ 55/bbl scenario and taking into account (among other things) royalties, costs and inflation on costs (all on a pre-tax basis). Economic cut-off is defined as the end of the year with the maximum cumulative cashflow. This typically coincides with forecast timing of future rig based intervention campaign requirements which can become uneconomic at low production rates.

AGR has estimated Stock Tank Oil Initially-In-Place (STOIIP) and generated production forecasts, reserves and contingent resources. The CPR work process involved the following main parts:

1. Establish data base, review data, models and reports.
2. Analyse data, models, uncertainty studies and methodologies. Perform independent assessments.
3. Generate independent production forecasts and profiles for the existing wells, and generate estimate of ultimate recovery for the future well portfolio.
4. Review Karoon operation planning & assumptions.
5. Economic evaluation using generated production forecasts and capex and opex cost estimates.

The reference point for reserves calculation is at the fiscal metre situated on the FPSO Cidade de Itajaí. As announced to the ASX on 21 October 2019, an offtake and marketing agreement is currently in place with Shell Western Trading and Supply Limited.

### **Contingent Resource Estimates**

Exploration well SPS-91 confirmed the presence of oil at Patola in reservoir section of similar quality to currently producing zones within BM-S-40. AGR has determined the STOIIP for the Patola field discovery and utilised simulation studies to estimate oil recovery from a development comprised of two production wells tied back to the existing FPSO. A conversion of one production well to become a water injection well is assumed subsequent to first oil. Simulation studies also show that increased gas availability due to Patola production is expected to be beneficial to Baúna oil recovery.

AGR notes the following contingencies to be satisfied before "Patola Development" and "Baúna Benefit from Patola" resources can be re-classified as reserves:

- Documentation of a technically mature, feasible development plan
- A firm commitment from the owner to develop Patola within a reasonable time frame

- The project has to be economical with legal, contractual, environmental, regulatory, and government approvals in place or forthcoming
- A reasonable expectation that the financing will be in place at the time of final investment decision ('FID')

These contingencies are aligned with Karoon's internal requirements which are currently being addressed ahead of a potential FID in Q2 2021. No further appraisal drilling or evaluation work is required.

Also shown are estimates of the remaining potential of the SPS-57 well. SPS-57 was produced from the Piracaba accumulation during an Extended Well Testing phase in 2012 before the Baúna oil field was fully developed. SPS-57 was producing 6 kbopd at the conclusion of the Extended Well Test and subsequent wells are not expected to have effectively swept the area.

All Contingent Resources have been deterministically estimated from subsurface modelling and simulation studies.

### **SPE-PRMS Standards**

The review of historical resource estimates and historical reserves has been prepared using the guidelines of the Petroleum Resources Management System (SPE-PRMS) jointly published by the Society of Petroleum Engineers (SPE), World Petroleum Council (WPC), American Association of Petroleum Geologists (AAPG), Society of Petroleum Evaluation Engineers (SPEE), Society of Exploration Geophysicists (SEG), Society of Petrophysicists and Well Log Analysts (SPWLA), European Association of Geoscientists & Engineers (EAGE); Petroleum Resources Management System (PRMS) as revised in 2018 has been used as the basis for the classification and categorization of hydrocarbon volumes in this announcement.

Definitions are as follows:

**bbbl**: barrel of oil = 42 United States gallons; equivalent to approximately 159 litres.

**Kbpd**: thousand barrels per day.

**MMbbl**: million barrels.

**Reserves**: Those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of a given date) based on the development project(s) applied.

1P- Denotes low estimate of reserves (ie proved reserves).

2P- Denotes best estimate of reserves (ie the sum of proved plus probable reserves).

3P- Denotes high estimate of reserves (ie the sum of proved, probable and possible Reserves).

**Contingent Resources:** Those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable owing to one or more contingencies.

1C- Denotes low estimate scenario of contingent resources.

2C- Denotes best estimate scenario of contingent resources.

3C- Denotes high estimate scenario of contingent resources.

### **Competent Persons Statement**

AGR is an independent consultancy specializing in amongst others petroleum reservoir evaluation, reserves auditing and economic analysis. Except for the provision of professional services on a fee basis, AGR does not have a commercial arrangement with any other person or company involved in the interests that are the subject of this report. The evaluation was managed by Gudmund Olsen (MSc in Petroleum Engineering and a member of the Society of Petroleum Engineers), Reservoir Engineering Manager. Mr. Olsen, a Reservoir Engineer, has 30+ years of international and Norway experience, and is an expert on reserves and resource reporting. The report was reviewed by Mahmood Akbar (MSc in Petroleum Engineering and a member of the Society of Petroleum Engineers), AGR Advisor Reservoir Engineering. Mr. Akbar, a Reservoir Engineer, has 25+ years of experience, and is an expert on reserves and resource reporting. AGR has conducted valuations for many energy companies and financial institutions. Mr Olsen and Mr Akbar are employees of AGR.

This announcement is based on, and fairly represents, information and supporting documentation prepared by Mr Olsen and Mr Akbar.

### **About AGR**

AGR is a globally recognised expert consultancy group who provides Certified Reserves Audits and CPRs. Clients include national and international oil companies, government organisations, investment groups and banks. AGR performs studies to standards which are accepted among others by the ASX, London Stock Exchange, SEC, international commercial and institutional banks.

This announcement was authorised by the CEO and Managing Director of Karoon Energy Ltd.

## **Important Note**

Should investors have any questions or queries regarding the company, please contact James Wootton on 03 9616 7500 or [jwootton@karoonenergy.com.au](mailto:jwootton@karoonenergy.com.au). Media please contact Tim Duncan on 0408 441 122 or [tduncan@gracosway.com.au](mailto:tduncan@gracosway.com.au). All **holding** enquiries should be directed to our share register, Computershare on 1300 850 505.

## **About Karoon Energy Ltd**

Karoon Energy Ltd. is an international oil and gas production and exploration company with projects in Australia, Brazil and Peru and is an ASX listed company.

Karoon aims to be an agile and sustainable global energy company delivering profits through a high-quality portfolio of production, development and exploration assets. The company looks to provide energy to an ever-changing world, creating value for our shareholders and the broader community.

Karoon's strategic vision is to transform into a global E&P company with material production to underpin growth through a highly prospective exploration portfolio and entrepreneurial spirit.

## **Forward-looking Statements**

Petroleum exploration and production operations rely on the interpretation of complex and uncertain data and information which cannot be relied upon to lead to a successful outcome in any particular case. Petroleum exploration and production operations are inherently uncertain and involve significant risk of failure. All information regarding reserve and contingent resource estimates and other information in relation to Karoon's assets is given in light of this caution.

This announcement may contain certain "forward-looking statements" with respect to the financial condition, results of operations and business of Karoon and certain plans and objectives of the management of Karoon. Forward-looking statements can generally be identified by words such as 'may', 'could', 'believes', 'plan', 'will', 'likely', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties, which may include, but are not limited to, the outcome and effects of the subject matter of this announcement. Indications of, and guidance on, future earnings and financial position and performance, well drilling programs and drilling plans, estimates of reserves and contingent resources and information on future production are also forward-looking statements.

You are cautioned not to place undue reliance on forward-looking statements as actual outcomes may differ materially from forward-looking statements. Any forward-looking statements, opinions and estimates provided in this announcement necessarily involve uncertainties, assumptions, contingencies and other factors, and unknown risks may arise (including, without limitation, in respect of imprecise

reserve and resource estimates, changes in project schedules, operating and reservoir performance, the effects of weather and climate change, the results of exploration and development drilling, demand for oil, commercial negotiations and other technical and economic factors) many of which are outside the control of Karoon. Such statements may cause the actual results or performance of Karoon to be materially different from any future results or performance expressed or implied by such forward-looking statements. Forward-looking statements including, without limitation, guidance on future plans, are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. Such forward-looking statements speak only as of the date of this announcement.

Karoon disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise.