# **NEWS RELEASE**

# ORCA ENERGY GROUP INC. ANNOUNCES INDEPENDENT RESERVES EVALUATION FOR YEAR END 2022

## For Immediate Release

**TORTOLA, BRITISH VIRGIN ISLANDS** – February 27, 2023 – Orca Energy Group Inc. ("**Orca**" or the "**Company**" and includes its subsidiaries and affiliates) (TSX-V: ORC.A, ORC.B) announces the approval of its Independent Reserves Evaluation as at December 31, 2022. All currency amounts in this news release are in United States Dollars (\$) unless otherwise stated.

## INDEPENDENT RESERVES EVALUATION

The Company's conventional natural gas reserves as at December 31, 2022 for the period to the end of the primary (25 year) term of the production sharing agreement (the "Songo Songo PSA") with the Tanzanian Petroleum Development Corporation (the "TPDC") have been evaluated by independent petroleum engineering consultants McDaniel & Associates Consultants Ltd. ("McDaniel") in accordance with the definitions, standards and procedures contained in the Canadian Oil and Gas Evaluation Handbook ("COGE Handbook") and National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities ("NI 51-101"). The Songo Songo PSA expires upon the expiry of TPDC's Songo Songo licence in respect of the Songo Songo gas field (the "Songo Songo Licence") in October 2026. The preparation date of the independent reserves evaluation prepared by McDaniel is February 24, 2023 and the effective date of the evaluation is December 31, 2022 (the "McDaniel Report").

All the Company's reserves are located in Tanzania. Reserves included herein are stated on a Company gross reserves basis unless noted otherwise. Company gross reserves are the total of the Company's working interest share in reserves before deduction of royalties owned by others and without including any royalty interests of the Company, and are based on the Company's 92.07 percent ownership interest in the reserves following the transaction with Swala Oil & Gas (Tanzania) plc ("Swala") described in Note 3 to the tables below.

The Company's Board of Directors has reviewed and approved the McDaniel Report. Additional reserves information required under NI 51-101 is included in Orca's reports relating to reserves data and other oil and gas information under NI 51-101, which will be filed on its profile on SEDAR at <a href="https://www.sedar.com">www.sedar.com</a>. The following discussion is subject to a number of cautionary statements, assumptions, contingencies and risks as set forth in this news release.

# **HIGHLIGHTS**

- Total Proved ("1P") Gross Company conventional natural gas reserves at year ended December 31, 2022, were 141 billion standard cubic feet ("Bcf") compared to 160 Bcf at year end 2021, representing a 12% decrease.
- Total Proved plus Probable ("2P") Gross Company conventional natural gas reserves at year ended December 31, 2022, were 167 Bcf compared to 188 Bcf at year end 2021, representing an 11% decrease.
- The reduction in Gross Company 1P reserves from year end 2021 to year end 2022 was primarily attributed to 2022 gas production and the number of years remaining on the Songo Songo Licence. The reduction in reserves was attributed to a 21% reduction in the time remaining until the expiry of the current Songo Songo Licence (3.8 year remaining at year end 2022 versus 4.8 years at year end 2021), which was partially offset by increased Company conventional natural gas sales and forecasts (which will be classified as Additional Gas (as defined in the Songo Songo PSA) ("gas sales") until the expiry of the current Songo Songo Licence in October 2026).
- The Company had record gas sales of 29 Bcf in 2022, representing an increase of approximately 42% compared to year end 2021. With the installation and commissioning of inlet compression at the Songas Gas plant in March 2022, the Company was able to contribute to a significant increase in gas to power generation caused in part due to drought conditions in Tanzania throughout 2022 and the commissioning of the Kinyerezi 1 Power Plant extension in Q4 2022.
- Net Present Value of 1P future net revenue discounted at 10% was \$147.2 million at year end 2022, compared to \$177.8 million at year end 2021, representing a 17% decrease.
- Net Present Value of 2P future net revenue discounted at 10% was \$170.7 million at year end 2022, compared to \$209.9 million at year end 2021, representing a 19% decrease.

The reductions in net present values of 1P future net revenues from year end 2021 to year end 2022 was
primarily attributed to lower reserves at year end 2022 as a result of the reduced number of years
outstanding on the current Songo Songo Licence and an increased need for future development capital to
supply increased gas sales.

The following tables outline the Company's conventional natural gas reserves as at December 31, 2022 and the net present value of future net revenue attributable to such reserves as evaluated in the McDaniel Report utilizing McDaniel's forecast price and cost assumptions to the end of the Songo Songo Licence term in October 2026.

|                            | Company Gross Reserves           |                           |                            | Company Net Reserves             |                           |                            |
|----------------------------|----------------------------------|---------------------------|----------------------------|----------------------------------|---------------------------|----------------------------|
|                            | Light and<br>Medium<br>Crude Oil | Natural<br>Gas<br>Liquids | Conventional.  Natural Gas | Light and<br>Medium<br>Crude Oil | Natural<br>Gas<br>Liquids | Conventional.  Natural Gas |
|                            | Mbbl                             | Mbbl                      | MMcf                       | Mbbl                             | Mbbl                      | MMcf                       |
| Proved                     |                                  |                           |                            |                                  |                           |                            |
| <b>Developed Producing</b> | -                                | -                         | 123,776                    | -                                | -                         | 74,671                     |
| Developed Non-Producing    | -                                | -                         | -                          | -                                | -                         | -                          |
| Undeveloped                |                                  |                           | 16,786                     |                                  |                           | 15,294                     |
| Total Proved               | -                                | -                         | 140,561                    | -                                | -                         | 89,964                     |
| Probable                   |                                  |                           | 26,851                     |                                  |                           | 16,943                     |
| Total Proved plus Probable |                                  | _                         | 167,413                    |                                  |                           | 106,907                    |

Net Present Value of Future Net Revenue of Gas Reserves

|                            | Before/After Future Income Tax Expenses (9) Discounted at |         |         |         |         | Unit Value<br>Before/Afte<br>r Tax at 10% |
|----------------------------|---|---------|---------|---------|---------|---|
|                            | 0%  | 5%      | 10%     | 15%     | 20%     | \$/Mcf                                    |
| (\$'000)                   |   |         |         |         |         |   |
| Proved                     |   |         |         |         |         |   |
| Developed Producing        | 177,820   | 162,583 | 149,599 | 138,435 | 128,760 | 2.00                                      |
| Developed Non-Producing    | -   | -       | -       | -       | -       | -   |
| Undeveloped                | 2,094   | (408)   | (2,357) | (3,882) | (5,081) | (0.15)                                    |
| Total Proved               | 179,914   | 162,174 | 147,241 | 134,553 | 123,679 | 1.64                                      |
| Probable                   | 29,916  | 26,372  | 23,447  | 21,010  | 18,960  | 1.38                                      |
| Total Proved plus Probable | 209,830   | 188,546 | 170,689 | 156,563 | 142,639 | 1.59                                      |

#### Notes:

1. During the third quarter of 2015, The Petroleum Act, 2015, (the "Act") was passed into law by Presidential decree. The Act repeals earlier legislation, provides a regulatory framework over upstream, mid-stream and downstream gas activity, and as well consolidates and puts in place a single, effective and comprehensive legal framework for regulating the oil and gas industry in Tanzania. The Act also provides for the creation of an upstream regulator, the Petroleum Upstream Regulatory Authority. The mid and downstream petroleum as well as gas activities are proposed to be regulated by the current authority, the Energy and Water Utilities Regulatory Authority ("EWURA"). The Act also confers upon on the TPDC, the status of the National Oil Company, mandated with the task of managing the country's commercial interest in the petroleum operations as well as mid and downstream natural gas activities. The Act vests TPDC with exclusive rights in the entire petroleum upstream value chain and the natural gas mid and downstream value chain. However, the exclusive rights of TPDC do not extend to mid and downstream

- petroleum supply operations. The Act does provide grandfathering provisions upholding the rights of the Company under the Songo Songo PSA as it was signed prior to the passing of the Act.
- 2. On October 7, 2016, the Government of Tanzania issued the Petroleum (Natural Gas Pricing) Regulation made under Sections 165 and 258 (1) of the Act (the "Natural Gas Pricing Policy"). Article 260 (3) of the Act preserves the Company's pre-existing right with TPDC to market and sell natural gas together or independently on terms and conditions (including prices) negotiated with third party natural gas customers. To date, the Natural Gas Pricing Policy has not impacted the Company's ability to market and sell natural gas at prices freely negotiated with natural gas customers. The future impact of the Natural Gas Pricing Policy, if any, cannot be determined at this time.
- 3. On January 16, 2018 Orca sold (the "Swala Transaction") 7.933 percent of the Class A common shares (7,933 Class A common shares) of its wholly owned subsidiary PAE PanAfrican Energy Corporation ("PAEM"), a Mauritius registered Company and sole shareholder of PanAfrican Energy Tanzania Limited ("PAET") a Jersey registered Company, to a wholly owned subsidiary of Swala. The Songo Songo PSA is held by PAET. While Swala has no management or control of PAEM and no shareholding in, or management or control of PAET, the McDaniel Report was prepared based on Orca's ownership of 92.07 percent of PAET's gross reserves.
- 4. "Company Gross Reserves" are the total of the Company's working interest share in reserves before deduction of royalties owned by others and without including any royalty interests of the Company.
- "Company Net Reserves" are the total of the Company's working interest share in reserves after deducting the amounts attributable to royalties and Profit Gas owned by others (as defined in the PSA), plus the Company's royalty interests in such reserves.
- 6. Company Gross and Net Reserves are based on the Company's 92.07 percent ownership interest in the reserves following the Swala Transaction.

McDaniel employed the following gas sales, pricing and inflation rate assumptions as of December 31, 2022 in estimating the Company's reserves data using forecast prices and costs. The Company received an average gas price of \$4.38/Mcf in 2022 and \$4.00/Mcf net of the transportation tariff imposed by Songas Limited as determined by the energy regulator, EWURA.

|                     |                            | Song   |                      |                  |
|---------------------|----------------------------|--------|----------------------|------------------|
|                     | Brent crude <sup>(1)</sup> | Proved | Proved plus probable | Annual inflation |
| Year                | \$/bbl                     | \$/Mcf | \$/Mcf               | %                |
| 2023                | 84.00                      | 3.91   | 3.83                 | 2                |
| 2024                | 80.58                      | 3.96   | 3.89                 | 2                |
| 2025                | 79.59                      | 4.05   | 3.92                 | 2                |
| 2026                | 78.53                      | 4.02   | 3.86                 | 2                |
| 2027 <sup>(2)</sup> | 80.10                      | 4.19   | 3.95                 | 2                |

#### Notes:

(1) Brent price forecast based on the McDaniel January 1, 2023 price forecast.

(2) The Songo Songo PSA expires upon the expiry of the Songo Songo Licence in October 2026.

The price of gas for the Industrial sector is based on a formula related to discounts to heavy fuel oil prices and includes caps and floors. This has been reflected in the above pricing.

# **Orca Energy Group Inc.**

Orca is an international public company engaged in natural gas development and supply in Tanzania through its subsidiary PAET. Orca trades on the TSX Venture Exchange under the trading symbols ORC.A and ORC.B.

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## **Forward Looking Information**

Certain information regarding Orca set forth in this news release contains forward-looking information and statements as defined under applicable securities laws (collectively, "forward-looking statements" or "statements") that involve substantial known and unknown risks and uncertainties. The use of any of the words "plan", "expect", "prospective", "project", "intend", "believe", "should", "anticipate", "estimate" or other similar words, or statements that certain events or conditions "may" or "will" occur are intended to identify forward-looking statements. These statements are only predictions and actual events or results may differ materially. Although the Company's management believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance or achievement since such expectations are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause Orca's actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, Orca.

In particular, statements relating to "reserves" are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the resources described exist in the quantities predicted or estimated, and that the resources described can be profitably produced in the future. Additional forward-looking statements in this news release include statements regarding: expectations regarding demand for natural gas and the implications of increasing demand; the Company's gas sales forecasts; and expectations regarding 2023 sales of conventional natural gas, Additional Gas and associated cash flows.

These forward-looking statements are subject to numerous risks and uncertainties, including but not limited to risks and uncertainties regarding or associated with: drilling wells, including the costs of drilling and whether development drilling results in commercially productive quantities of oil and gas; the terms of Orca's future petroleum contracts, including potential obligations to drill wells and declare discoveries in order to retain Orca's exploration and production rights; Orca's local operational dependence and focus of its existing contracts; Orca's future control over the Songo Songo Licence areas and facilities, including its status as operator thereof, and the timing and extent of costs in association therewith; estimations of reserves and the present value of future net revenues derived from them; Orca's dependency on its management and technical team; Orca's business plan including the additional capital required to execute on it; commercializing Orca's interests in any hydrocarbons produced from future licence areas; Orca's ability to access appropriate equipment and infrastructure in a timely manner; the exploration and production of oil and natural gas, including but not limited to drilling and other operational and environmental risks and hazards; severe weather including but not limited to tropical storms and hurricanes; disagreements with TPDC regarding certain of Orca's rights and responsibilities under the Songo Songo PSA; the political and economic circumstances in the countries in which Orca operates; technological development; activism against oil and exploration and development; limitations on insurance coverage; Orca's operations in a litigious environment; global populism; Orca's future capitalization which may include additional indebtedness; acquisitions and the integration of any target entity or business into Orca's current business; cybersecurity and data breaches; disease; share price volatility and dilution; Orca's controlling shareholder and its control over key decision making as a result of its control of a majority of the voting rights attached to Orca's issued and outstanding securities; Orca's status as a holding company that's ability to declare and pay dividends and purchase its own securities is dependent upon the receipt of funds from Orca's subsidiaries by way of dividends, fees, interest, loans or otherwise; the impact of general economic conditions, including global and local oil and gas prices; industry conditions including changes in laws and regulations, and changes in how they are interpreted and enforced; competition; lack of availability of qualified personnel; risks related to obtaining required approvals of regulatory authorities; risks associated with negotiating with governments and other counterparties; fluctuations in foreign exchange or interest rates; risks associated with obtaining an extension to the Songo Songo PSA and related Songo Songo Licence or successfully renegotiating them; changes in income tax laws or tax rates; ability to access sufficient capital from internal and external sources; associated with the failure of counterparties to perform under the terms of their contracts, including collectability of Orca's receivables from such parties; reduced global economic activity as a result of the COVID-19 pandemic, including lower demand for natural gas and a reduction in the price of natural gas; the potential impact of the COVID-19 pandemic on the health of the Company's employees, contractors, suppliers, customers and other partners and the risk that the Company and/or such persons are or may be restricted or prevented (as a result of quarantines, closures or otherwise) from conducting business activities for undetermined periods of time; the impact of actions taken by Governments to reduce the spread of COVID-19, including declaring states of emergency, imposing quarantines, border closures, temporary business closures for companies and industries deemed non-essential, significant travel restrictions and mandated social distancing, and the effect on the Company's operations, access to customers and suppliers, availability of employees and other resources; and other factors, many of which are beyond the control of the Company. Readers are cautioned that the foregoing list of factors is not

Although the forward-looking statements contained in this news release are based upon assumptions which management believes to be reasonable, Orca cannot assure investors that actual results will be consistent with these forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements included in this news release, as there can be no assurance that the plans, intentions or expectations upon which the forward-looking statements are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will not occur. With respect to forward-looking statements contained in this news release, Orca has made assumptions regarding, among other things: continued and timely development of infrastructure in areas of new production; obtaining an extension to the Songo Songo PSA and related Songo Songo Licence on terms acceptable to Orca; accuracy of estimates of Orca's resource volumes; the impact of the COVID-19 pandemic on the demand for and price of natural gas, volatility in financial markets, disruptions to global supply chains and the Company's business, operations, access to customers and suppliers, availability of employees to carry out day-to-day operations, and other resources; commodity prices will not further deteriorate significantly; availability of skilled labour; availability of transactions to facilitate Orca's growth strategy; growth of demand and consumption of natural gas in Tanzania and throughout Africa; the impact of increasing competition; conditions in general economic and financial markets; effects of regulation by governmental agencies; receipt of partner, regulatory and community approvals; future operating costs; effects of regulation by

governmental agencies; that Orca's conduct and results of operations will be consistent with its expectations; current or, where applicable, proposed industry conditions, laws and regulations will continue in effect or as anticipated as described herein; and other matters. There are a number of assumptions associated with the development of the evaluated areas, including continued performance of existing wells, future drilling programs and performance from new wells, the growth of infrastructure, well density per section, and recovery factors and development necessary involves known and unknown risks and uncertainties, including those risks identified in this news release. Orca believes the material factors, expectations and assumptions reflected in the forward-looking information are reasonable but no assurance can be given that these factors, expectations and assumptions will prove to be correct.

Management has included the above summary of assumptions and risks related to forward-looking information provided in this news release in order to provide investors with a more complete perspective on Orca's current and future operations and such information may not be appropriate for other purposes. Orca's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do, what benefits Orca will derive. These forward-looking statements are made as of the date of this news release and Orca 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, other than as required by applicable securities laws. The forward-looking statements contained in this news release are expressly qualified by this cautionary statement.

#### Oil and Gas Advisory

The Company's conventional natural gas reserves as at December 31, 2022 disclosed herein were evaluated by McDaniel in accordance with the definitions, standards and procedures contained in the COGE Handbook and NI 51-101. The McDaniel Report had an effective date of December 31, 2022. The Company's conventional natural gas reserves as at December 31, 2021 disclosed herein were evaluated by McDaniel in accordance with the definitions, standards and procedures contained in the COGE Handbook and NI 51-101. Such report had an effective date of December 31, 2021.

Additional reserves information required under NI 51-101 are included in Orca's reports relating to reserves data and other oil and gas information under NI 51-101, which are filed on its profile on SEDAR at www.sedar.com.

This news release contains estimates of the net present value of Orca's future net revenue from the Company's reserves. The net present value of future net revenue attributable to the Company's reserves is stated without provision for interest costs and out of country general and corporate administrative costs, but after providing for estimated royalties, production costs, development costs, other income and future capital expenditures. It should not be assumed that the undiscounted or discounted net present value of future net revenue attributable to the Company's reserves estimated by McDaniel represent the fair market value of those reserves. Such amounts do not represent the fair market value of the Company's reserves. The recovery and reserve estimates of the Company's conventional natural gas reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. Actual reserves may be greater than or less than the estimates provided herein.