

# Maximizing our positive contribution for all stakeholders as a long term partner to Tanzania

Annual Report & Accounts 2022



Welcome

# Supporting the growth of Tanzania through the development of natural gas resources

## Our Purpose

We exist to enable Tanzania's development and economic growth by providing reliable natural gas supply to the power and industrial sectors in support of the transition towards a lower carbon economy. This guides everything we do and as such our main goal is to create long-term sustainable value for our investors, partners, communities, and employees. We believe it is our responsibility to maximize our positive contribution to our stakeholders and the local communities that we serve and to minimize the environmental impact of our operations.

### Responsibility:

We aim to play a pivotal role in Tanzania's development and achievement of its sustainability goals. We aspire to leave Tanzania in a better condition for future generations to inherit.

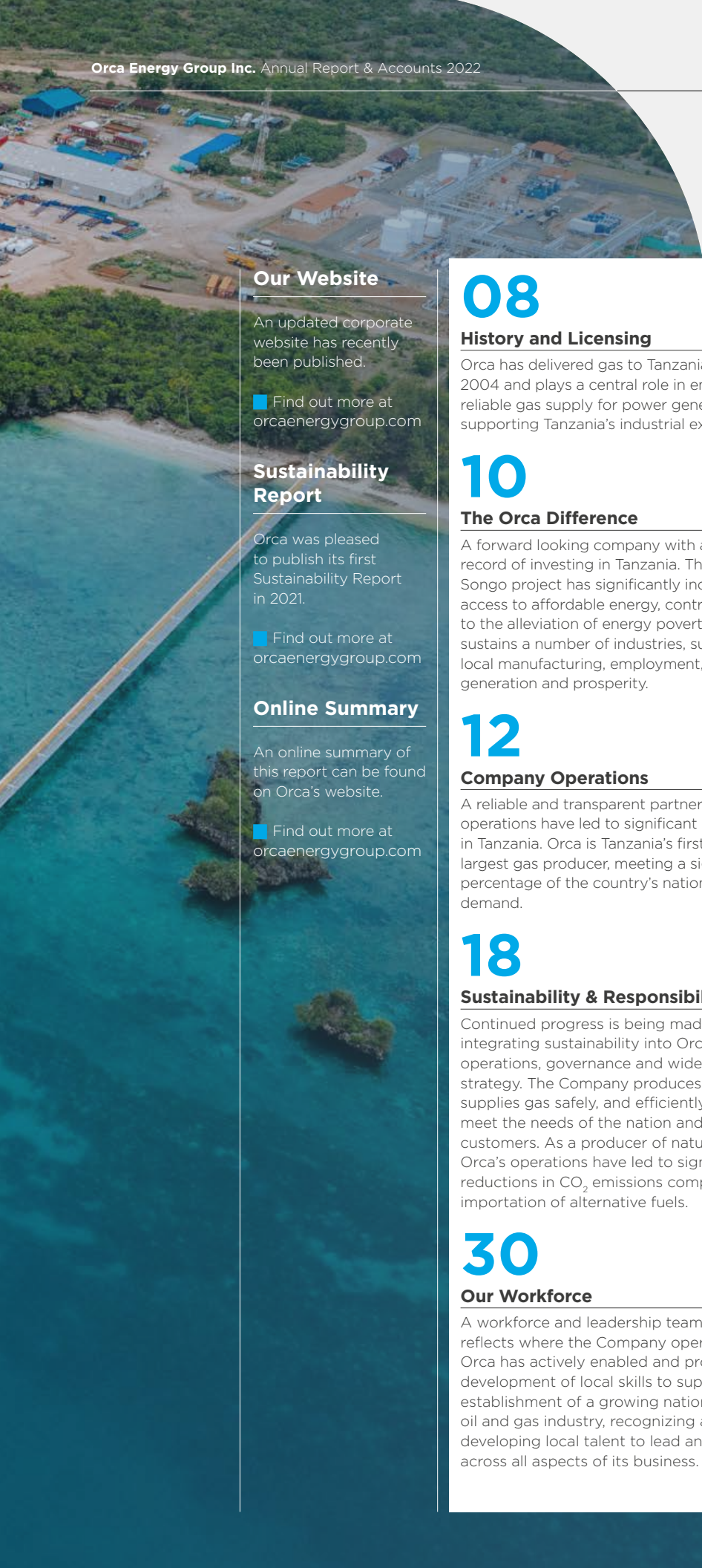
### Authenticity:

We strive to be genuine and transparent about our ambitions. We are open and honest about our decisions and plans, communicating clearly, honestly and on time.

### Ethics:

Strong business ethics is non-negotiable and is embedded throughout all facets of the Company.





### Our Website

An updated corporate website has recently been published.

Find out more at [orcaenergygroup.com](http://orcaenergygroup.com)

### Sustainability Report

Orca was pleased to publish its first Sustainability Report in 2021.

Find out more at [orcaenergygroup.com](http://orcaenergygroup.com)

### Online Summary

An online summary of this report can be found on Orca's website.

Find out more at [orcaenergygroup.com](http://orcaenergygroup.com)

## 08



### History and Licensing

Orca has delivered gas to Tanzania since 2004 and plays a central role in ensuring reliable gas supply for power generation, supporting Tanzania's industrial expansion.

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### The Orca Difference

A forward looking company with a track record of investing in Tanzania. The Songo Songo project has significantly increased access to affordable energy, contributing to the alleviation of energy poverty. Orca sustains a number of industries, supporting local manufacturing, employment, revenue generation and prosperity.

## 12



### Company Operations

A reliable and transparent partner whose operations have led to significant benefits in Tanzania. Orca is Tanzania's first and largest gas producer, meeting a significant percentage of the country's national energy demand.

## 18



### Sustainability & Responsibility

Continued progress is being made integrating sustainability into Orca's operations, governance and wider strategy. The Company produces and supplies gas safely, and efficiently to meet the needs of the nation and its customers. As a producer of natural gas, Orca's operations have led to significant reductions in CO<sub>2</sub> emissions compared to importation of alternative fuels.

## 30



### Our Workforce

A workforce and leadership team that reflects where the Company operates. Orca has actively enabled and promoted development of local skills to support establishment of a growing national oil and gas industry, recognizing and developing local talent to lead and operate across all aspects of its business.

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## Highlights

Who we are  
in numbers

## Financial Highlights

<b>Revenue</b>	+37%
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# \$118.1m

(2021: \$86.0m)

<b>Net income attributable to shareholders</b>	+69%
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# \$27.7m

(2021: \$16.4m)

<b>Net income attributable to shareholders per share</b>	+72%
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# \$1.39

(2021: \$0.81)

<b>Working capital<sup>(1)</sup></b>	+47%
--------------------------------------	------

# \$61.6m

(2021: \$41.8m)

<b>Net cash flows from operating activities</b>	+69%
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# \$67.7m

(2021: \$40.1m)

<b>Cash and cash equivalents</b>	+32%
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# \$96.3m

(2021: \$73.0m)

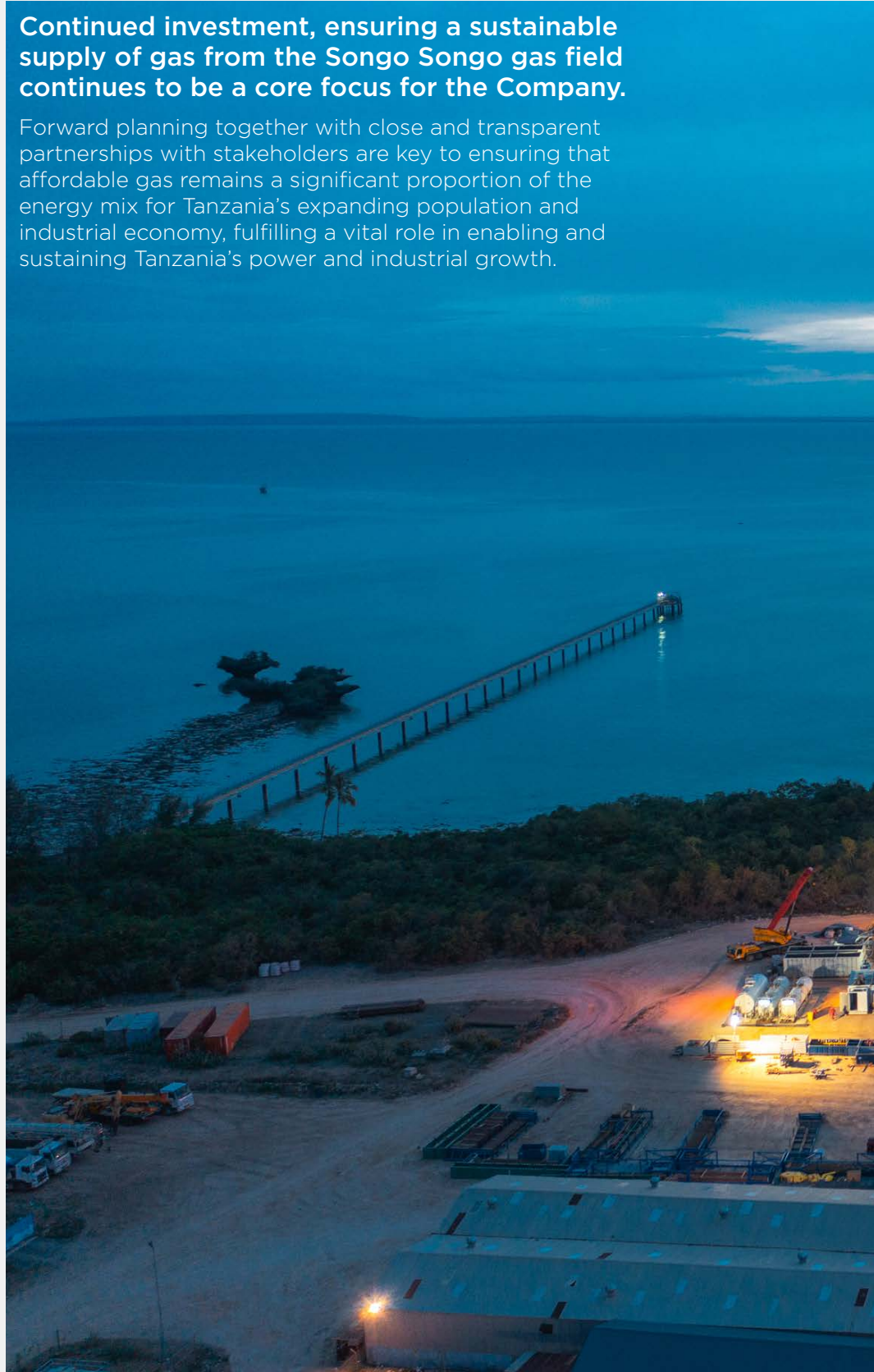
## Glossary

\$	US dollar
MMcfd	Million standard cubic feet per day
\$m	Million US dollar

<sup>(1)</sup> "Working capital" is a non-GAAP financial measure that does not have a standardized meaning under IFRS and may not be comparable to similar financial measures disclosed by other issuers. See "Working Capital" and "Non-GAAP Financial Measures and Ratios" in the 2022 Annual Management's Discussion & Analysis for information relating to this non-GAAP financial measure, which information is incorporated by reference into this document.

## Continued investment, ensuring a sustainable supply of gas from the Songo Songo gas field continues to be a core focus for the Company.

Forward planning together with close and transparent partnerships with stakeholders are key to ensuring that affordable gas remains a significant proportion of the energy mix for Tanzania's expanding population and industrial economy, fulfilling a vital role in enabling and sustaining Tanzania's power and industrial growth.



## Company Highlights

Gas sales +42%

# 86.8MMcfd

(2021: 61.1MMcfd)

Orca and PanAfrican Energy employees

# 110

Staff Turnover

# 0%

Percentage of Tanzanian employees

# 90%

(99% within Tanzania)

Experience operating the Songo Songo gas field and related infrastructure

# 18

years

At a Glance

## Creating opportunity in Tanzania

Through its subsidiary PanAfrican Energy Tanzania Limited (“PAET”), Orca is the operator of the Songo Songo Production Sharing Agreement (“PSA”), as part of the integrated gas to power project in Tanzania.

The Songo Songo gas to electricity project was the first of its kind in Tanzania and wider East Africa. Conceived by the Government of Tanzania, following thorough economic evaluation and extensive contract negotiations, spanning a decade.

The Company operates the natural gas field with a total area of approximately 170km<sup>2</sup> containing the Songo Songo reservoir, which is located on and slightly offshore of Songo Songo Island. Songo Songo Island is located approximately 15km off the coast and 200km south of Dar es Salaam in the shallow waters of the continental shelf. The license is operated under a PSA with the Government of Tanzania and the Tanzania Petroleum Development Corporation (“TPDC”).

### What makes us different:

- Proactive investor
- Fully integrated operator
- Key contributor to the national energy mix
- Facilitator of industrial expansion
- Low carbon fuel supplier

Read more on page 10.



Songo Songo Island




SS-9

“The Company is committed to supporting Tanzania with the provision of gas to power generation and industrialization, and in doing so making a positive impact for the economic and social fabric of the country.”

### Generating value for all stakeholders



Delivering value by the sustainable development of the Songo Songo gas field remains a core priority.

■ Read more on page 06.

### Powering Tanzania’s growing economy since 2004

Gas production from Songas and National Natural Gas processing facilities on Songo Songo Island continues to play a significant role in Tanzania’s energy infrastructure. The Songo Songo gas field is responsible for supplying gas to generate a significant percentage of all the electrical power in Tanzania.

■ Read more on page 08.

### Significant resource remains in place

In addition to the gross 167 billion cubic feet (“Bcf”) of Proved plus Probable reserves (2P) independently assigned to the Songo Songo gas field at year end 2022, considerable contingent and prospective resource has been independently evaluated for potential future exploration and development.

■ Read more on page 16.

### Achieving operational excellence



Ensuring safe and reliable operations, coupled with delivering on the milestones we set for ourselves will ensure that value is created for all involved in the license.

■ Read more on page 12.

### Orca remains focused on Tanzania



The Company has refined its understanding of the complexities of the Songo Songo gas field through extensive studies and improved modeling. This will be further improved through the 3D seismic acquisition.

■ Read more on page 07.



## CEO's Statement

# A forward planning business to provide for the future

**During 2022 we witnessed an improved macro-economic backdrop, with global energy markets having recovered from the COVID-19 pandemic.**

In Tanzania, we saw demand for domestic natural gas grow significantly. This was in part due to the increase in gas powered generation capacity and the continued strong growth of Tanzania's industrial economy. Weather patterns also impacted Tanzania's energy mix with the reduction in the country's overall hydro power output as a result of drought conditions. In the last three years we have seen increased demand for natural gas in Tanzania and, taking into account the country's rapid growth trajectory, we expect this trend to continue.

As a team, we continually plan ahead to enable Orca to increase its gas output as new demand appears.

I am pleased to report that in 2022 our total production volumes were 42% higher than in 2021, which shows our commitment to the nation of Tanzania, but also demonstrates our ability to execute projects to meet growing demand. We continue to witness sustained high and growing levels of demand and are therefore targeting average gross gas sales of 95.0MMcfd during 2023, a 9% increase on our 2022 sales and a 55% increase over the Company's 2021 sales. In order to achieve this, significant capital investments need to be made on the Songo Songo natural gas field. Due to the anticipated longer term high levels of gas demand, we are currently reviewing this plan as we believe a longer-term investment program may be justified to meet further increases in gas demand in the future.

In response to record gas demand and sales during 2022, the Company is working with TPDC to enable continued investment in the Songo Songo Natural Gas field and infrastructure prior to end of the current license term in October 2026. The Company has requested that TPDC initiate the process of renewal of the Songo Songo Development License.



**> Jay Lyons**  
Chief Executive Officer



The Company works collaboratively with TPDC to optimize near term investments to support Tanzania's growing economy and efficiently, as seen by the work program which commenced in the second half of 2022.

This initially features a \$23.2 million 3D seismic acquisition program, over an area of 180km<sup>2</sup> of marine, transition and land over Songo Songo Island which is designed to de-risk future field development activities. We anticipate that the acquisition of data will be complete in Q3 2023 to be followed by data processing in Q4 2023. Following this, the Company will prepare the future development plan for the field with its partners in Tanzania to optimize the exploitation of the asset for the benefit of all stakeholders.

“Our total production volumes were 42% higher than in 2021, which shows our commitment to the nation of Tanzania.”

A number of additional operational projects were completed in 2022, including the first inlet stage compression project at the Songas Limited gas plant and the SS-3, SS-4 and SS-10 well workover program.

I am pleased to report that Orca continues to benefit from a robust balance sheet, and is balancing investment in production growth initiatives with achievement of good returns to investors during the period. As at 31 December 2022, cash and cash equivalents balance were \$96.3 million and long-term loans of \$49.8 million, of which \$10.0 million is current. As at April 26, 2023, the Company has in excess of \$93 million of cash and cash equivalents. We maintained our quarterly dividend during 2022, which yielded 8% for our investors, paying out \$6.2 million during the year. In addition, in July 2022, we commenced a normal course issuer bid (“2022 NCIB”) to purchase Class B Shares through the facilities of the TSXV and alternative trading systems in Canada, and this program continues to be in place.

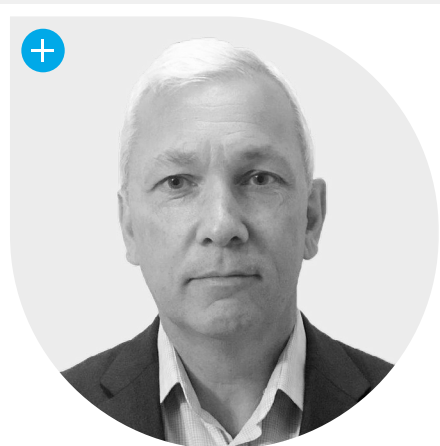
It is worth noting that in light of the potentially significant capital investments needed to sustain and increase production at the Songo Songo natural gas field over the coming years, our value returns program to shareholders will be kept under constant review. While we don't envisage making any changes in the immediate term, if a license renewal is agreed and a more fulsome capital spending program is required, this may be reviewed.

2022 saw the Company publish its first Sustainability Report, which is available on our website. Our main driver for creating this document was to evidence to our stakeholders the positive steps we have taken in recent years around Environmental, Social, and Corporate Governance (“ESG”) practices and to map out the trajectory for the coming years. While we are cognizant of the fact that Orca is a producer of natural gas, the use of which ultimately emits greenhouse gases (“GHG”), we always strive to improve our ESG approach. For Orca this means a focus on the management of ESG issues within our operations and by highlighting the role that natural gas plays within the Tanzanian energy mix, as a transition fuel to displace alternatives with a higher carbon footprint. Later in this document, and our subsequent Sustainability Report, we will also detail the work we carried out in 2022 and plan for 2023, to make sure that the Sustainability Strategy we have put in place is the right one for us as a business going forward.

We have a track record of being a forward thinking organization that has been able to consistently increase production from the Songo Songo natural gas field to meet the needs of the growing Tanzanian economy. We aim to continue to achieve this going forward and as a Board and Management team, we are highly focused on further developing the asset to meet the real demand for sustainable transition energy for the benefit of the people of Tanzania. In closing, I would like to thank our hosts, the Government of Tanzania, our team, partners and shareholders for their continued support and we look forward to updating the market on further developments in 2023.

(signed) "Jay Lyons"

**Jay Lyons**  
Chief Executive Officer  
April 26, 2023



### Welcoming our new Chief Operating Officer, Ewen Denning

Ewen Denning brings over 35 years of international energy industry experience to Orca Energy Group.

During his career he has worked for BP, BG Group and Glencore and had assignments across five continents. Since 2011 he has worked extensively in Africa on a variety of projects in Cameroon, Chad, Equatorial Guinea, Nigeria and Tunisia. Most recently on the Logbaba integrated gas project in Cameroon. He has wide technical and commercial experience having held senior positions managing operational assets in established areas and commercializing new ventures in frontier areas.

Ewen holds a B.Eng. in Mechanical Engineering from Sheffield University and an MBA from Heriot-Watt University in the United Kingdom. He is a Chartered Engineer and Fellow of the (UK) Institution of Mechanical Engineers and also a Member of the Society of Petroleum Engineers.

## History and Licensing

# Our history of investment in Tanzania

**Following the discovery of the gas field by Azienda Generale Italiana Petroli (“AGIP”) in 1974, and seven years of subsequent field appraisal by TPDC, which included the drilling of eight more wells, Ocelot, the corporate predecessor of Orca, submitted proposals to the then Ministry of Water, Energy and Minerals for the development of Songo Songo natural gas.**

At that time, the Government of Tanzania was reviewing its energy policy, with a desire to diversify from hydro and imported petroleum products while encouraging more foreign direct investment to boost economic growth.

In 1992, 14 international energy companies (including British Gas, BP, Enron, Exxon, Statoil and Total) were invited to submit proposals for implementing the envisaged project, so that there would be competitive selection of investors. Ocelot, which had previously submitted an unsolicited proposal, formed a consortium with TransCanada Pipelines and the two companies jointly submitted a new proposal. Ultimately, the bid from Ocelot/TransCanada Pipelines was selected as the best option for Tanzania and a period of negotiations commenced.

The negotiations took five years, so the full range of technical, economic, commercial, political and stakeholder issues could be addressed. This was followed by a similar period of approvals and revisions, during which TransCanada Pipelines withdrew from the project. Ultimately, following cabinet reviews and an independent review by the Commonwealth Secretariat, the 18 agreements that comprised the project were signed by 12 different parties on October 11, 2001.

On the same date, the Songo Songo Development License was granted to TPDC for an initial period of 25 years, extendable for a further twenty years. TPDC’s rights under the Development License were transferred to Songas and PAET via creation of the current PSA. This included the right to conduct exploration and development operations in the development area, and to sell the petroleum recovered including natural gas.

Since the Development License was awarded, and following a short period of project implementation and construction, the Company has produced and supplied natural gas without significant interruption. In doing so it has developed a downstream market comprising a number of Tanzania’s major industries, as well as supporting the increased availability of affordable energy through gas supply that generates around 45% of all power generated in Tanzania today.

“Since the Development License was awarded, and following a short period of project implementation and construction, the Company has produced and supplied natural gas without significant interruption.”

## History of investment in Tanzania

The Company has played a central role in ensuring reliable gas supply for power generation and to support industrial expansion in Tanzania. This has required proactive investment and mutual trust between the Company and its partners to ensure demand is met through timely development, while also ensuring that the economic requirements of the PSA are met. The following are recent key investment and development milestones that have enabled us to meet our obligations.

Find out more at [orcaenergygroup.com](https://orcaenergygroup.com)





## Latest decade of operational investment in Tanzania

### 2013 to date

- Since 2013 investment of approximately \$13m in establishing flowline connections from new wells to the Songas and National Natural Gas Infrastructure plants to ensure gas delivery for processing and onward transportation and sales.
- Investment of almost \$5m in capital projects to expand the downstream distribution network, to efficiently connect gas supply to an increasing number of customers.

### 2015

Workover of three offshore wells (SS-5, SS-7 and SS-9) at a cost of \$33m to address well safety issues, restore production potential and ensure project production obligations could be met.

### 2016

Investment of approximately \$33m to drill offshore well SS-12 to meet increased demand as advised by TPDC and address declining reservoir pressure and production potential.

### 2019

\$8.5m spent to install closed loop refrigeration on the Songas gas processing facility. This was necessary to overcome lost gas cooling effect through the plant's JT/LTS system due to feed gas pressure decline. Refrigeration ensured gas could continue to be processed to requisite specifications.

### 2022

- Completed installation and commissioning of feed gas compression on the Songas processing facility, costing \$43.3m. This was necessary to overcome reduced reservoir and gas arrival pressure at the inlet manifold. Compression restored the plant's production potential to nameplate capacity and ensured the Company could meet significantly increased demand.
- \$31.6m to workover three onshore wells (SS-3, SS-4 and SS-10) to return the wells to production in a safe operating state to meet increased demand.
- The Company commits \$23.2m to an extensive 3D seismic acquisition program across 180km<sup>2</sup> of the Songo Songo field to inform future field development activities.
- A further \$1.4m is committed for the processing of the acquired 3D seismic data.

The Orca Difference

# A long term commitment to investing in Tanzania

**The value and impact of the Songo Songo Gas to Electricity Project can be measured by much more than just the revenues generated and shared between its stakeholders.**

Its effects are far greater and wider ranging including employment generation, revenues and taxes, positive environmental impacts, training and development of the local workforce and extensive social programs.



## 01. Proactive investor

Over the last 20 years, the Company has continuously invested in developing the business.

This has resulted in access to a reliable and affordable fuel source for Tanzania with a stable price. This has significantly accelerated industrialization and economic development. Many industrial customers, whose products make an impact in many people's daily lives, now use gas as a fuel or feedstock to run their businesses in Tanzania.

The Company has made total investments of over \$300 million in the drilling of wells, reservoir studies, offshore and onshore wells workovers, installation of refrigeration and compression equipment. This has increased gas production to the current level of 140MMcfd and made it possible to supply a range of additional customers.

The Company has, on average over the past 10 years, made further investment of \$480,000 per annum contributing to social development in the areas around its operations. Programs have been focused on education and healthcare, positively affecting many thousands of residents in the Kilwa District.

Total capital investment

**>\$300m**

Since 2020

**\$78m**

## 02. Key contributor to the national energy mix

Utilization of its own natural resources for power generation and industrial heating has significantly reduced Tanzania's dependency on foreign imports.

Under the National Energy Policy formulated in 2003, Tanzania had sought to diversify from reliance on imported fossil fuels and hydropower.

Songo Songo natural gas was first delivered to the Songas owned power generation facility in Dar es Salaam in July 2004, displacing the four jet fueled turbines in use since 1995. The plant formed part of the first gas to electricity project in East Africa, initially generating around 145MW of reliable, clean and affordable energy. This was expanded in 2005 to around 190MW through the addition of two more turbines, and is today responsible for generating a significant percentage of Tanzania's electricity needs.

Gas for electricity generation has increased further in the past decade, with the introduction of the Kinyerezi plants, adding a further 400MW. Today, the amount of power produced in Tanzania from natural gas, although seasonally dependent, is estimated to range from 50% to 75% of the c.1,600MW of installed capacity. Songo Songo natural gas currently contributes 60% to 70% of this volume.

% of Tanzanian domestic gas being produced from the Songo Songo field

**60%** (approx.)

% of all power generated in the country by the Songo Songo field

**45%** (approx.)

### 03. Facilitator of industrial expansion

**Stable, affordable gas prices have undoubtedly supported industrial expansion.**

Assisting the Government of Tanzania’s aim of becoming a semi-industrialized country by 2025 has been a key feature of the Songo Songo project. Marketing and supplying gas to industries was a core condition when the project agreements were signed.

Following construction of the high pressure transmission pipeline owned and operated by Songas, the first gas reached Dar es Salaam in July 2004 when the Songo Songo Gas to Electricity Project commenced commercial operations. Alongside the gas supplied to Songas for power generation, the first industrial customers added were a glass bottle producer (Kioo Limited), and one of the largest breweries in Tanzania (TBL Limited) who had a large demand for locally produced glass bottles. Other customers have been steadily added to the network as the value of the gas supply became apparent.

The Tanzania Portland Cement Company (TPCPLC) was among the first large scale non-power natural gas consumers in the country having been connected to the high-pressure transmission line in May 2004. Natural gas was used to displace Heavy Fuel Oil (HFO) in the factory’s kiln. The current gas consumption at the factory is 12.5MMcfd making TPCPLC the Company’s largest non-power natural gas consumer. TPCPLC has supplied cement to the majority of Tanzania’s national strategic projects, including the Julius Nyerere Hydro Power Project, the Tanzanite Bridge in Dar es Salaam and numerous roads and major infrastructure developments in Dodoma.

The higher quality, lower cost cement produced as a result of utilizing natural gas for its kilns has undoubtedly enabled TPCPLC to grow into the successful business it has become today.

In line with increasing industrialization, gas demand for other industries increased from less than 0.25MMcfd in 2004, to around 8 to 10MMcfd in 2022. Alongside this the gas distribution network was expanded from a few kilometers to more than 55km as more customers have required connection. This mostly utilizes Low-Pressure High-Density Polyethylene (HDPE) pipe, which today is also manufactured locally.

CNG (Compressed Natural Gas) supply and usage in Tanzania has also been a major development in the local natural gas market. The Company has developed and operates a CNG mother station at Ubungu, to meet demand which has grown exponentially since 2008, and today supplies more than 300 NGVs/day. Additionally, three daughter stations have been built to supply gas to hospitality, industrial and motor vehicle customers via virtual pipelines for process heating and internal combustion engines.

#### Downstream Network – Number of Customers

9	(2004)
26	(2008)
43	(2016)
49	(2022)

### 04. Tanzania First

**From the outset of the project it was recognized that the key to success in Tanzania was the early, deep and broad development of local talent.**

In the early years of the project this was not straightforward as the local, relevant skill sets were in short supply. In areas such as accounting, HR and logistics, the experience was not necessarily aligned to the Oil and Gas industry and so considerable expatriate oversight was necessary. Nonetheless, the Company set about recruiting heavily and investing in training and development to ensure transition could take place as soon as reasonable and safely as possible. The Company devised a practical succession plan with the following objectives:

- Develop skilled nationals to meet the needs of the business
- Recruit, engage and retain national staff in the private sector, industry and market
- Successfully align appropriate training with the Company workforce requirements
- Deliver the nationalization program within an acceptable period
- Continue to explore and develop career and succession planning strategies
- Grow nationals as future leaders for the Oil and Gas industry
- Attract nationals to a non-traditional career within the Energy sector in Tanzania

The Company implemented plans to meet the objectives defined above without compromising personnel and operational safety, or the efficient running of the gas processing plant and the field. It required however, considerable investment in training and development, as well as skills transfer from the expatriate workforce. Each year, more than \$200,000 is spent on staff training at training establishments around the world. This has included developmental training, continuous education and compliance training. The successful transition was made from an expatriate workforce of 8% to less than 1% today. Tanzanian staff are now in leadership positions in all PAET departments and the operations teams are entirely Tanzanian.

## Company Operations

# Operational update

**Operationally, 2022 was another progressive year. Although the effects of the global pandemic had begun to subside, it continued to disrupt global logistics, manufacturing, availability of personnel and ultimately the cost of doing business.**

With major development work in progress through the turn of the year, the team has worked continuously to deliver. The importance of the installation of low pressure compression on the Songas gas plant, and the workover of three onshore wells early in the year was increased as Tanzania faced drought conditions through the highly anticipated seasonal periods of rain. This impacted hydro power generation and demand for gas to meet the power generation shortfall significantly increased while TANESCO (Tanzanian Electric Supply Company) brought on new gas fired power generation facilities which increased it further. With other gas suppliers at their limits, the timing and effectiveness of our development projects drew significant political and domestic attention.



## Upstream

The upstream focus for 2022 was the installation of low pressure compression and the workover of three onshore wells.

Having been asked by the Government of Tanzania to delay mechanical tie-in and commissioning from the end of 2021, the environmental conditions and increased demand saw renewed pressure to bring the system on-line in early 2022. Ultimately, the system was fully commissioned by March 18, significantly ahead of the project's original schedule and demand soared from an average of 108MMcfd to over 130MMcfd, ultimately peaking above 153MMcfd. The coordination and effort to achieve this significant milestone was considerable and demonstrative of the Company's record of proactive development.

The onshore workovers were successful in returning two of the three wells to production. Logistical challenges and a service industry coming out of a long period of inactivity led to significant delays and increased costs for the work, while down-hole technical issues further complicated the project. Ultimately, wells SS-3 and SS-10 were returned to production, SS-3 having not produced since 2012. Importantly, SS-3 produces from the Cenomanian layer in the Eastern compartment of the field. The workover of SS-4 involved an open hole sidetrack to a location 80m away from the original well bore. This proved to be a considerably more challenging operation with the reservoir being encountered deep to prognosis. On completion of the work, the well appeared to be liquid loaded and, although gas has been produced following a coiled tubing nitrogen lift operation the well is not able to flow stably to the production facility. As a result, SS-4 remains shut in subject to further testing and logging.

The Company also proceeded with a range of maintenance activities to sustain and increase deliverability through what turned out to be a critical year. In recent years the facilities had experienced a number of isolated pinhole leaks due to corrosion or erosion in some of the flowlines and valves. Recognizing the potential impact of this on production and safety, the Company implemented a range of mitigation measures, including smart pigging of the flowlines to evaluate wall thickness and define repair requirements.

Additionally, two well-head de-sanding units and two acoustic sand detectors were purchased as contingencies to measure any sand being produced and protect the inlet to the facilities in the event of an ongoing issue.

The smart pigging operation identified a number of isolated areas in two flowlines which required attention, and repairs were carried out successfully without affecting production or downstream gas supply. Further limited work will be conducted through 2023 to replace several other less critically affected sections. Through the year, extremely limited amounts of sand have been produced and the system's overall integrity remains intact and well protected.

In parallel with ongoing production and maintenance operations, the Company has embarked upon a 3D seismic project, to acquire 180km<sup>2</sup> of new data across the full Songo Songo License area. African Geophysical Services (AGS) was contracted to execute the project, with mobilization commencing in the final quarter of the year. Several logistical and technical issues affected mobilization, due to commence in 2022. Mobilization is now largely complete and we expect acquisition to commence in Q2 and conclude in Q3 2023, with fast tracked process data sets available in Q4 2023. The Company has contracted Downunder Geosolutions (DUG) to undertake processing of the acquired data. This will be used to inform long term field development planning.



## Company Operations cont.

### Downstream

Downstream demand continued to increase through 2022, driven primarily by increased power generation requirements and low hydropower production.

Notwithstanding this, and despite the time remaining on the current development license and PSA, industrial demand for Songo Songo gas continued to grow. Over the course of the year, two new customers were connected to the downstream distribution network. The downstream team, supported by our legal and compliance departments worked with various stakeholders and regulators to ensure contracts were in place, approvals attained and construction completed to satisfy customer requirements. By the end of the year, one customer was connected and consuming gas, while the second was connected but completing its own internal piping works prior to commencing consumption. Discussions and negotiations were held, and in some cases Gas Sales Agreements (GSAs) signed with several other customers seeking Piped Natural Gas (PNG) and CNG, and we expect to connect them in 2023.

One of the GSAs entered into was with an Egypt based company called TAQA ARABIA for the supply of PNG for the generation of CNG for vehicles. This contract will increase the CNG to vehicle services in Tanzania by around 30%, further underpinning the value and availability of the service to customers, which in turn is expected to accelerate an already growing market. The Company is currently working on the wayleaves from the relevant Government authorities. It is envisaged that this connection will be completed by end of Q2 2023.

As ever, in a municipality that is growing and developing at extraordinary rates, the Company has worked effectively with Government partners and private companies to relocate its downstream facilities to pave the way for Government construction projects, particularly the ongoing Standard Gauge Railway (SGR) and the Bus Rapid Transportation Systems which will bring considerable congestion relief to Dar es Salaam, while increasing access to Tanzania's regions. Three major relocations of the downstream network were carried out, achieved without gas curtailment to customers.

Downstream CNG operations are rapidly becoming a critical service we provide to the citizens of Dar es Salaam. With an ever increasing number of domestic and industrial transportation customers, as well as a number of off-network industries supported through virtual pipelines, the demand for CNG has increased considerably.

Russia's invasion of Ukraine, and the subsequent and significant rise in Tanzanian domestic fuel prices, coupled with an increase in awareness of CNG as a vehicular fuel, has resulted in rapid growth of Natural Gas Vehicles (NGVs) and by extension a 400% increase in revenues generated from the CNG station over the past five years. To ensure system availability to meet demand, the Company has continued its program of preventative maintenance and improvement at its sole service station in Ubungo. This included a 20,000 hour CNG compressor overhaul. However, system availability and increased demand also necessitated an increase in personnel to operate the facility 24/7, and the Company hired three new CNG operators to ensure that the service for which we have become known is not impacted.

Alongside downstream development and realignment, the Company continued to ensure the operational integrity of the downstream infrastructure which is vital to power demand and industrial efficiency. Cathodic protection testing, leakage testing and odorant concentration measurements were carried out throughout the year and found to be within the specified operational limits defined in national and international legislation and guidelines.







## Gas Reserves

## 2022 Independent Evaluation

The Company's natural gas reserves as at December 31, 2022 for the period to the end of its license in October 2026 were evaluated by McDaniel & Associates Consultants Ltd. ("McDaniel") in accordance with the definitions, standards and procedures contained in the Canadian Oil and Gas Evaluation Handbook and National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities ("NI 51-101"). The 2022 independent reserves evaluation prepared by McDaniel (the "McDaniel Report") is dated February 24, 2023 with the effective date of December 31, 2022.

On a gross Company basis there has been a 12% decrease in 1P reserves, and a 11% decrease in the 2P reserves compared to 2021. Total gas production in 2022 was 29.2Bcf and taking this into account results in a 5% increase in 1P reserves and a 3% increase in 2P reserves.

There has been a 19% decrease in the 2P present value at a 10% discount basis from \$209.9 million to \$170.7 million compared to 2021. The decrease is predominately a consequence of production in 2022 which leads to lower 2P reserves to the end of the license.

Reserves included herein are stated on a Company gross basis (92.07%) unless noted otherwise.

All the Company's reserves are conventional natural gas reserves and are located in Tanzania. 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 have been filed on its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and can also be found on our website [www.orcaenergygroup.com](http://www.orcaenergygroup.com).

The Reserves Committee of the Board of Directors has reviewed the qualifications and appointment of the independent reserves evaluator and the procedures for providing information to the evaluators.

Company Conventional Natural Gas Reserves (Bcf)	2022		2021	
	Gross <sup>1</sup>	Net <sup>2</sup>	Gross	Net
<b>Independent reserves evaluation</b>				
Proved producing	123.8	74.7	159.8	97.3
Proved developed non-producing	-	-	-	-
Proved undeveloped	16.8	15.3	-	-
Total proved (1P)	140.6	90.0	159.8	97.3
Probable	26.8	16.9	28.3	18.3
Total proved and probable (2P)	167.4	106.9	188.1	115.6

<sup>1</sup> Gross equals the gross reserves that are available for the Company based on its effective ownership interest.

<sup>2</sup> Net equals the economic allocation of the gross reserves to the Company as determined in accordance with the PSA.

Company share of Net Present Value (\$ millions)	2022			2021		
	5%	10%	15%	5%	10%	15%
Proved producing	162.6	149.6	138.4	201.4	177.8	158.4
Proved developed non-producing	-	-	-	-	-	-
Proved undeveloped	(0.4)	(2.4)	(3.9)	-	-	-



## Background to the 2022 year end reserves evaluation

The Company continued the comprehensive review of the Songo Songo subsurface field mapping, reservoir simulation modeling and well performance in 2022, which was initiated in 2020 to better understand the remaining potential of the Songo Songo natural gas field to the end of the license and assess the remaining resource potential beyond October 2026.

The 2022 studies included a slick line campaign, to monitor sand production and to retrieve downhole pressure data, a Multi Well Pressure Test Analysis ("PTA") to match the well pressure data with the well performance up to 2022, together with the development of a multi tank reservoir model.

Forecast Gas Prices and Sales Volumes<sup>1</sup>

	1P Weighted Average Gas Price \$/mcf	1P Gross Gas Volumes MMcfd	2P Weighted Average Gas Price \$/mcf	2P Gross Gas Volumes MMcfd
2023	3.91	97.15	3.83	109.93
2024	3.96	111.34	3.89	122.32
2025	4.05	121.57	3.92	148.49
2026 <sup>2</sup>	4.02	113.37	3.86	150.92

<sup>1</sup> The weighted average gas price, reflects the well head price received for power generation the delivered price for industrial customers after the processing and transportation tariffs.

<sup>2</sup> 2026 is a partial year expiring on October 11, 2026



# Committed to ongoing and consistent engagement with our stakeholders

We believe that engagement is fundamental for transparency, and that our strategy considers what our stakeholders' needs and priorities are.

We regularly engage with different stakeholder groups to address these in the best way possible.



## Our approach to sustainability

Since the beginning of our Sustainability Strategy formalization and our inaugural 2021 Sustainability Report, the Company has made progress integrating sustainability into its operations, governance and strategy.

Our sustainability strategy and performance is reviewed on an ongoing basis.

It is important to highlight that our Sustainability Strategy is a long-term endeavor, with the Company still at the beginning of implementation. We look to make progress wherever possible, whilst also remaining realistic with what can be achieved. We also continue to monitor and better understand the needs of and the impact of our business on our stakeholders and the environment, with our approach being reviewed on an ongoing basis. We are currently in the process of updating our materiality analysis in light of domestic and international developments that have occurred in 2022.

### Progress we would like to highlight:

- Establishing an on the ground ESG Oversight Team within Tanzania.
- Providing ESG training sessions for the team on the Company's Sustainability Strategy.
- Updating all of Orca's policies, in September 2022, pertinent to the Sustainability Strategy.
- Recruitment of an Environmental Officer in Tanzania.
- Conducting an Environmental Impact Assessment as part of the firm's seismic acquisition program.
- Reporting in line with the Taskforce on Climate-Related Financial Disclosures (TCFD) Framework, to be released in our 2022 Sustainability Report.
- Developing a formalized community grievance policy for Songo Songo Island locals.
- Working on a Company mental health program.
- Running the Company's internship program, with five full-time jobs offered and accepted.

### Sustainable activities roadmap

- 1. Stakeholder Engagement**
- 2. Materiality Analysis**
- 3. Strategy Definition**
- 4. Objective & Target Setting**
- 5. Progress Review**



**Sustainability Report**

Find out more at [orcaenergygroup.com](http://orcaenergygroup.com)

Sustainability & Responsibility cont.

## Environment

The Company remains committed to maximizing the socio-economic potential of its asset, whilst operating it in a manner which reduces its negative environmental impact.

In 2022, we hired an Environmental Officer, with the primary focus on supporting the Company to understand, manage and report on our material environmental topics.



### SDG 13: Climate action

- 13.1 Strengthen resilience and adaptive capacity to climate related disasters
- 13.2 Integrate climate change measures into policies and planning
- 13.3 Build knowledge and capacity to meet climate change

## Climate Change

When we think about climate change as a business, we understand both how our natural gas production and operational activities impact on climate change, and how climate change has the potential to impact our business activities. We have assessed our business in further depth against physical and transition risks, which have been tailored around our 'Tanzania first' lens.

### Overview of Representative Concentration Pathways (RCP)

RCP	Description	Predicted Temperature Rise (2046-2065) °C
2.6	Low-emissions or "optimistic" scenario, which requires emissions to be falling from 2020.	1.0 (0.4-1.6)
4.5	Intermediate scenario with higher levels of mitigation	1.4 (0.9-2.0)
6.0	Intermediate scenario with low levels of mitigation	1.3 (0.8-1.8) <sup>2</sup>
8.5	Assumes the highest emission concentration without serious policy interventions.	2.0 (1.4-2.6)



### Physical Risks

As part of our commitment to ensuring all infrastructure is assessed for their ability to withstand extreme weather events by 2026, we looked to better understand Tanzanian specific climate-related risks, temperature rise, sea level rise and increased precipitation, each of which can occur concurrently and carry risk implications for the Company. Physical climate risks have been assessed based on representative concentration pathways (RCPs). These are used by the International Panel on Climate Change (IPCC) and specify the "concentrations of GHG that will result in total radiative forcing increasing by a target amount by 2100, relative to pre-industrial levels".

As some of the Company owned or utilized infrastructure is located in the ocean close to Songo Songo Island, or in the littoral on mainland Tanzania, in places it is vulnerable to coastal erosion, flooding, and saltwater intrusion, all of which combine to increase the degradation of pipelines and infrastructure, increasing equipment breakdown, repair costs and the overall asset lifetime. It may therefore require investments in mitigation measures such as strengthening coatings, improving drainage systems or raising the elevation of critical infrastructure. There is also a view that rainfall is likely to become erratic and heavier over a fewer number of days. The impact of such heavy precipitation can also lead to increased likelihood of flooding and storm surges. Again, this can impact the Company's natural gas assets through soil saturation, impacting the integrity of natural gas pipelines.

1 <https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp18-guidance--representative-concentration-pathways.pdf>

2 The reason why RCP 6.0 has a lower predicted temperature rise is that RCP4.5 assumes a greater total anthropometric forcing occur during the predicted time period, whilst RCP6.0 expects this to continue increasing.

## Transition Risks

Tanzania only accounts for 0.01% of global cumulative CO<sub>2</sub> emissions. However, Tanzania has committed to setting GHG emission reduction targets, as part of their Paris Agreement Nationally Determined Contributions (NDCs). Tanzania's NDC states that it will "reduce GHG emissions economy-wide between 30-35% relative to the Business-As-Usual (BAU) scenario by 2030". This was an increase from the previous 10-20% reduction aim, with the current target equating to "138-153 Million tons of Carbon dioxide equivalent (MtCO<sub>2</sub>e)-gross emissions" being reduced. Tanzania's reduction scenarios are split into "low" (30% relative to BAU) and "high" (35% relative to BAU) ambition.

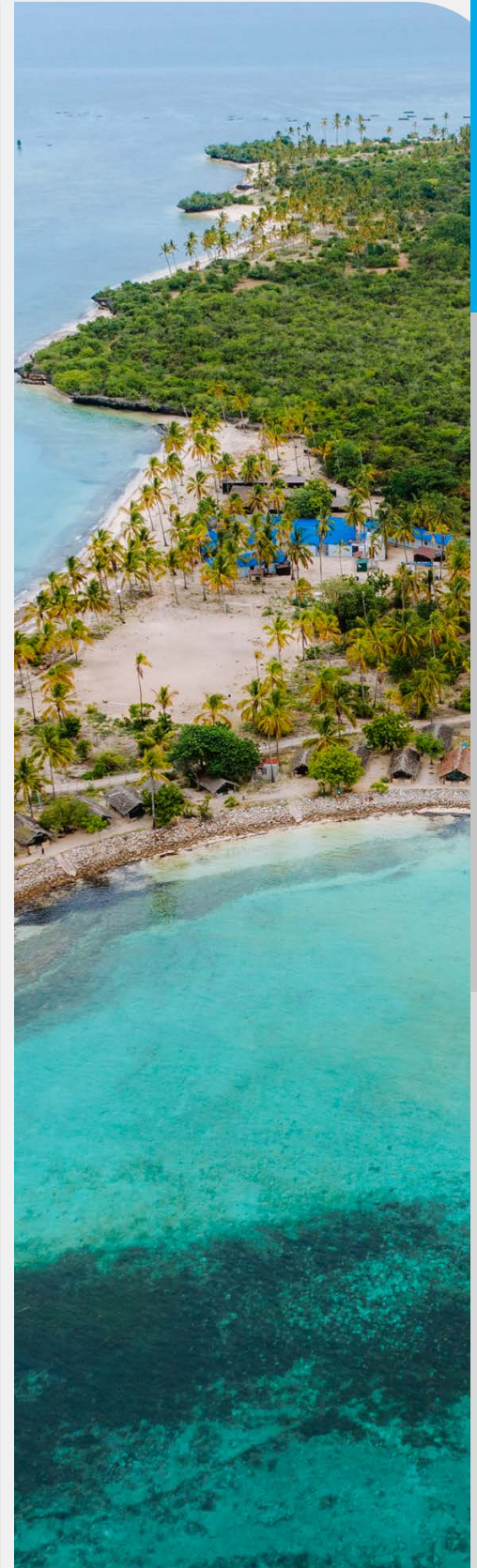
Tanzania's NDCs identified four priority sectors: energy, transport, forestry and waste, which contribute the most to Tanzania's GHG emissions, and will be critical for Tanzania to "embark on a low emission growth pathway, while achieving the desired sustainable development".

Within the Energy sector, Tanzania has committed to the following targets:

- Exploring options for improved clean power inter connection with neighboring countries.
- Promoting clean technologies for power generation and diverse renewable sources such as geothermal, wind, hydro, solar and bioenergy.
- Expanding the use of natural gas for power production, cooking, transportation and thermal services through improvement of natural gas supply systems throughout the country.
- Promoting climate-smart rural electrification, including development of micro and mini-grid renewable generation for improved rural electrification.
- Reducing the consumption of charcoal in urban and rural areas by promoting affordable alternative energy sources through a regulation policy for charcoal production and use.
- Promoting climate proofing of existing and new critical infrastructure for energy, transport, water supply, health, and other relevant sectors.

Tanzania has stated that it aims to use more natural gas and renewable energy sources such as solar, hydro, geothermal and wind to meet its NDC. Even though natural gas is a fossil fuel, Tanzania's energy is dominated by charcoal, which in 2020, accounted for 82% of the country's total energy supply and 83% of the country's total final energy consumption. This is something also recognized in Tanzania's NDC, which states that "whilst natural gas contributes to increasing climate change, it results in half the CO<sub>2</sub> emissions as charcoal, which is a current large fuel source". Other higher emitting carbon fuel sources that our product helps to alleviate include coal and heavy liquid fuels.

However, we understand the debate around natural gas's status as a transitional fuel source. Here, our Tanzania first lens, through the Company supplying natural gas to the Tanzanian domestic market, means we feel it is appropriate to be guided in line with the Tanzanian Government's interpretation on natural gas. Tanzania's context may even present an opportunity for the Company's natural gas product, as physical climate risks may also present threats to other renewable sources of energy. For example, the previously discussed temperature rises and unpredictable rainfall will impact the ability for Tanzania to meet its growing energy demands through hydropower. This is an ever-evolving field, and we are committed to continuing monitoring Tanzanian sentiment around natural gas.

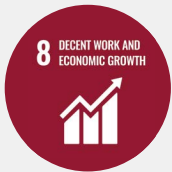


Sustainability & Responsibility cont.

## People

Firmly focused that our workforce and leadership teams reflect the community where we operate.

We are proud of the progress that we have made to diversify our workforce, having successfully adapted the Company from a broad expatriate management organization to one that is largely founded on Tanzanians. Our employees are our core asset, we inspire, protect, and nurture our team.



### SDG 8: Decent Work and Economic Growth

- 8.4 Improve resource efficiency in consumption and production
- 8.5 Full employment and decent work with equal pay
- 8.6 Promote youth employment, education and training
- 8.7 End modern slavery, trafficking and child labor
- 8.8 Protect labor rights and promote safe working environments

### Our key priorities

- Employee engagement
- Safe work environment
- Right to form or join trade unions
- Training and development
- Tanzanian first
- Employee health and wellbeing
- Inclusive work culture

In 2010, the Company committed to its stakeholders to implement a succession plan to replace some expatriate roles with Tanzanians, the ratio of expatriates to local staff was 1:12. After meeting its commitments in full, the Company took the transition further and offered the Deputy Managing Directors role and the hugely significant, Operations Manager role to local employees. Ten years after PAET made its commitment to the Government, the ratio of expatriates to local employees is less than 1%.

## Graduate Intern Program

The Company recognizes not only the importance of developing staff for progression, but giving opportunities to future generations to be exposed to the industry and help prepare them for future careers, be that either nationally or internationally.

The Company runs a graduate intern program for up to ten students each year to gain vital exposure to the industry, improve their skills, explore their fields of study and hone talents ready to enter the market and pursue future careers.

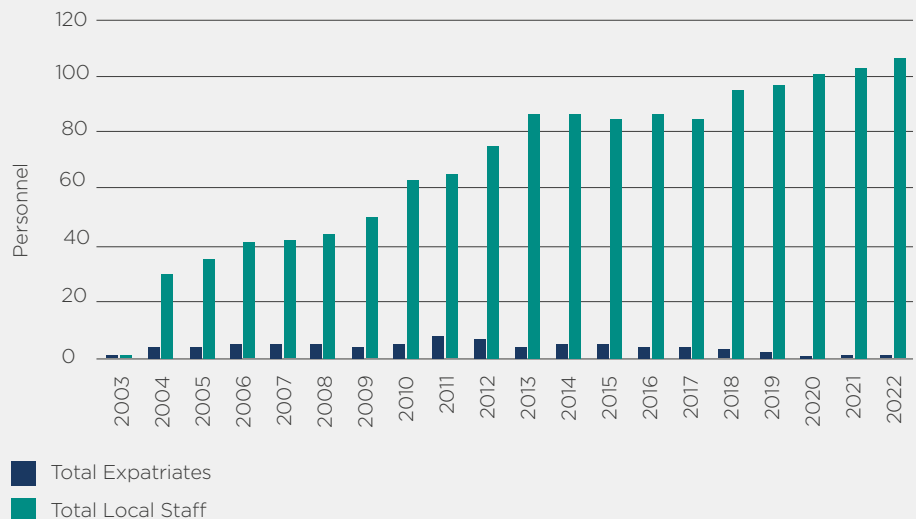
The program, lasting 12 months, focused on engineering graduates, and particularly petroleum engineers. However, more recently the program has been opened up to graduates in the other disciplines that are vital to sustaining oil and gas companies, such as HR, and legal functions. Greater emphasis has also been placed on opportunities for female graduates with an interest in the industry, seeking to rebalance the gender ratios where possible.

The internship program has helped to develop not only the traditional skills sets but also the mental strength of interns through teamwork, exposure to real life challenges, and operating in different conditions. The intent of the program is to develop people that can compete for appropriate roles in the industry, and immediately start adding value on employment.

“Staff at PanAfrican Energy are very supportive, they are willing to help you get something on your résumé. Everyone is amazing, helping me to bring out the best of my skills and experiences.”



### Developing Local Tanzanian Talent Expatriate/Local Talent







### Christopher MwaminiMungu

Christopher MwaminiMungu, was born in the Kibondo district in Kigoma region, located in the far North West of Tanzania and close to the border with Burundi. After several moves, he now resides in the Geita region on the southern shores of Lake Victoria. Educated in Musangila and Namonge primary and secondary schools in Bukombe district, he attained a place at the Tabora boys secondary school for advanced secondary education, an institution that can boast several senior political figures amongst its alumni. Later, Christopher attended the University of Dar es Salaam for undergraduate studies, majoring in petroleum engineering.

It was following high school pre-graduation career awareness sessions that Christopher developed a passion for the oil and gas industry, with a particular interest in drilling. A determined young man with a clear vision, it was this moment which ultimately led him to pursue the path he finds himself on today.

Christopher's talents were recognized early by the Company, nearing graduation from University, he won a final year project presentation competition organized by the Society of Petroleum Engineers – University of Dar es Salaam chapter. The Company seeks to attract this sort of talent and Christopher was immediately offered a six-month internship.

The opportunity this presented to Christopher set out a clear pathway to what he considers to be his dream career. "Considering PanAfrican Energy is the leading producer of natural gas in Tanzania with operations across all aspects of the oil and gas industry, it was an opportunity I could not ignore" said Christopher.

Despite his obvious talents and appetite for hard work, the Company was unable to retain Christopher in a fully technical role on completion of his internship. However, a job opportunity arose for an operator at the Company's Compressed Natural Gas filling station in Ubungo, Dar es Salaam.

"Although I had higher academic credentials than were required for the job, I still applied as I knew it was an opportunity for me to demonstrate my ability and potential" he said.

Following a number of interviews, it was clear Christopher was an individual the Company wished to retain, seeing considerable potential in him. He was offered the position and happily for both parties he accepted the role.

Despite his ambitions to achieve more, Christopher worked as a CNG operator for three years, hoping an opportunity would arise. In 2022, his time came when the Company created several trainee positions to start the development of the next generation of technical experts. The Company was seeking a trainee Reservoir Engineer, Facilities Engineer, Production Engineer and importantly for Christopher, a drilling engineer.

"I knew it was my time to go for my dream job" said Christopher. "More importantly, it was an opportunity to be trained by and work with senior drilling engineers, where I knew a combination of my ambition, appetite and the mentoring they would offer would lead to shared success." he said.

He went on to say "I wanted to work for PanAfrican Energy because I believed it was a place I could get practical skills of various sectors in the petroleum industry, and could fulfill my dream of becoming a drilling engineer as it is unfolding today."

Despite rigorous competition for the role, Christopher demonstrated in the interview, and through his internship and recent employment, that he had the drive, intellect and commitment to succeed, and was offered the opportunity which he readily accepted.

Today, Christopher works alongside other technical staff in the head office in Dar es Salaam, with mentoring provided by an array of experienced industry personnel from within the Group, and additional training to be provided from highly respected institutions. His story is one of determination, fixed goals and a recognition that opportunities do not come without hard work and commitment.

## Employee Wellbeing

### Physical Health

To ensure the physical wellbeing of our employees, we continued to conduct a variety of safety related training programs for all personnel, such as a First Aid Refresher and Fire Fighting Refresher Training. Other specialized training for key personnel included an "Asset Management in the Oil and Gas industry" session. Despite the increase in operating activity, we are glad to report on another year without any fatalities, lost time incidents, first aid incidents, whilst the number of medical treatment cases stayed the same as 2021.

We also take the health & safety procedures of our contractors seriously, and throughout 2022, engaged with them to ensure that they were operating in a manner aligned with our own expectations.

### Mental Health

Mental health is a topic that we take seriously and is something that has been identified as being a strategic priority of ours. In 2022, we worked on a mental health program and we are looking to onboard an external vendor to provide mental health services to PAET employees.

We will look to provide more granular data on employee wellbeing in the 2022 Sustainability Report.

"The support I have always received from everyone I work with is incredible. My career path is promising and I look forward to it with great anticipation."

Sustainability & Responsibility cont.

## Community Focus

The Company continues to ensure that the benefits of its operations are not only for customers and employees, but also to communities surrounding the operational area.

Songo Songo Island and its ever increasing community, is at the heart of the Company's operations, with many community members fully integrated into the Company. Recognizing the importance of returning value to the Songo Songo Island community, and also their separation from many of the benefits of mainland living in Tanzania, the Company invests regularly in social projects to enhance health and education.

### Education

#### Songo Songo Island Kindergarten

**Cost:** \$47,000

**Constructed:** 2011

**Capacity:** 135

**Attendees:** Over 1,200 to date

**Facilities:** 2 classrooms, toilets, office, library and a play area

**Ongoing Support:** Educational materials and books

**Impact:** Delivering a significant increase in the availability of pre-school education in key remote communities, providing the fundamental first step in improving educational prospects for the children living on Songo Songo Island.

#### Scholarship Program

**Commenced:** 2011

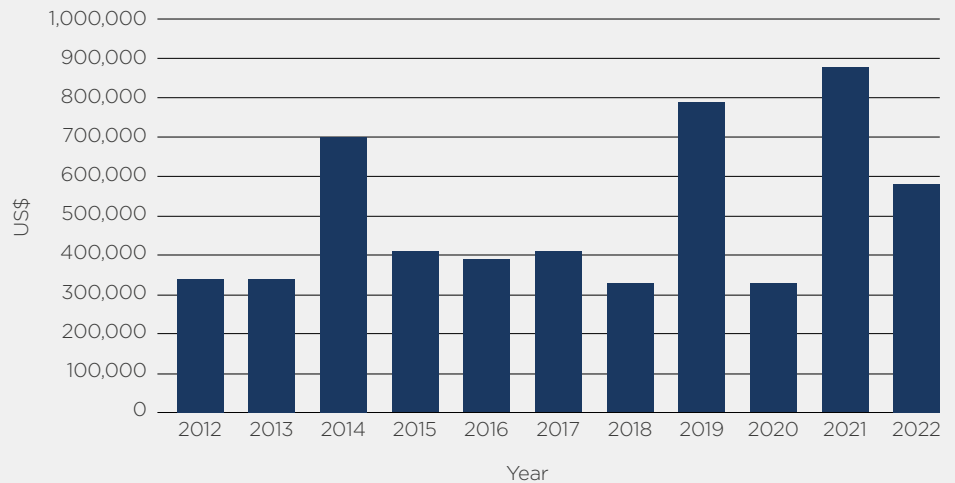
**Total Number of Scholarships Awarded:** 65 (31 Female, 34 Male)

**Support Provided:** traveling costs, school fees, boarding costs, uniform, textbooks, and all other school requirements

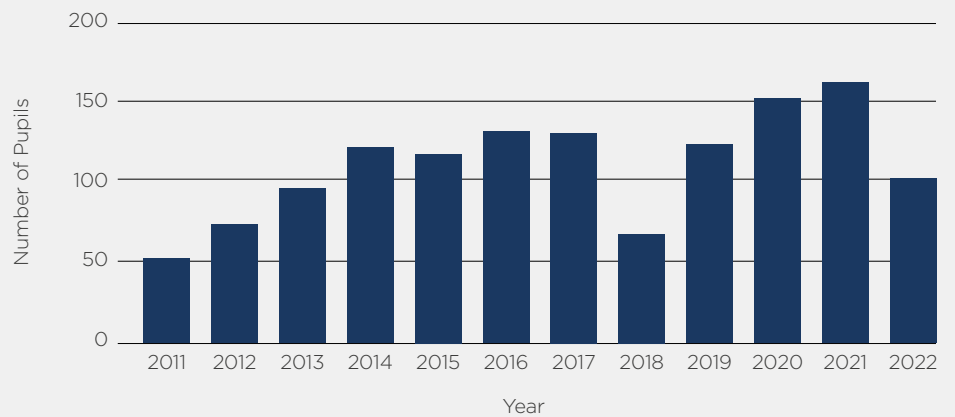
#### Invested in community projects

**\$5.5m**

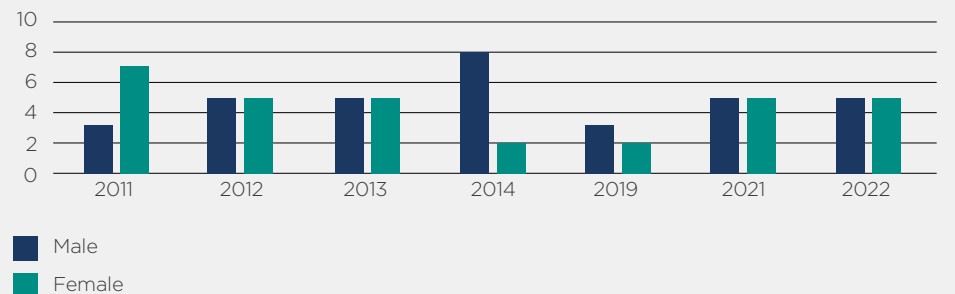
Amount Invested in Community Related Development Projects



Pupils enrolled at the Songo Songo Island Kindergarten



Scholarships Awarded to Songo Songo Island Students



**Number of students using Science Lab at the Songo Songo Island Secondary School**

Year	
2015	66
2016	74
2017	71
2018	74
2019	114
2020	193
2021	194
2022	133
Total	919

**Number of female students using the Songo Songo Island Girls Dormitory**

Year	
2015	20
2016	32
2017	28
2018	36
2019	42
2020	29
2021	52
2022	49
Total	288

**Girls Dormitory**

The construction of the girls dormitory on Songo Songo Island in 2012, provides a valuable opportunity for young girls on the Island to remain in a learning environment, focus on their studies and attain qualifications that may open up new employment opportunities.

It also relieved the distractive burden of family responsibilities that they would normally face if they returned home each evening after school.

In 2022, the Company carried out a review of the facility, which resulted in the funding for improvement works to take place of the dormitory's toilet and washing areas. It is imperative to the Company that the conditions offered by the project, are well maintained and are conducive to good health and a happy learning environment.

**Total invested in the Girls Dormitory**

**\$73,000**

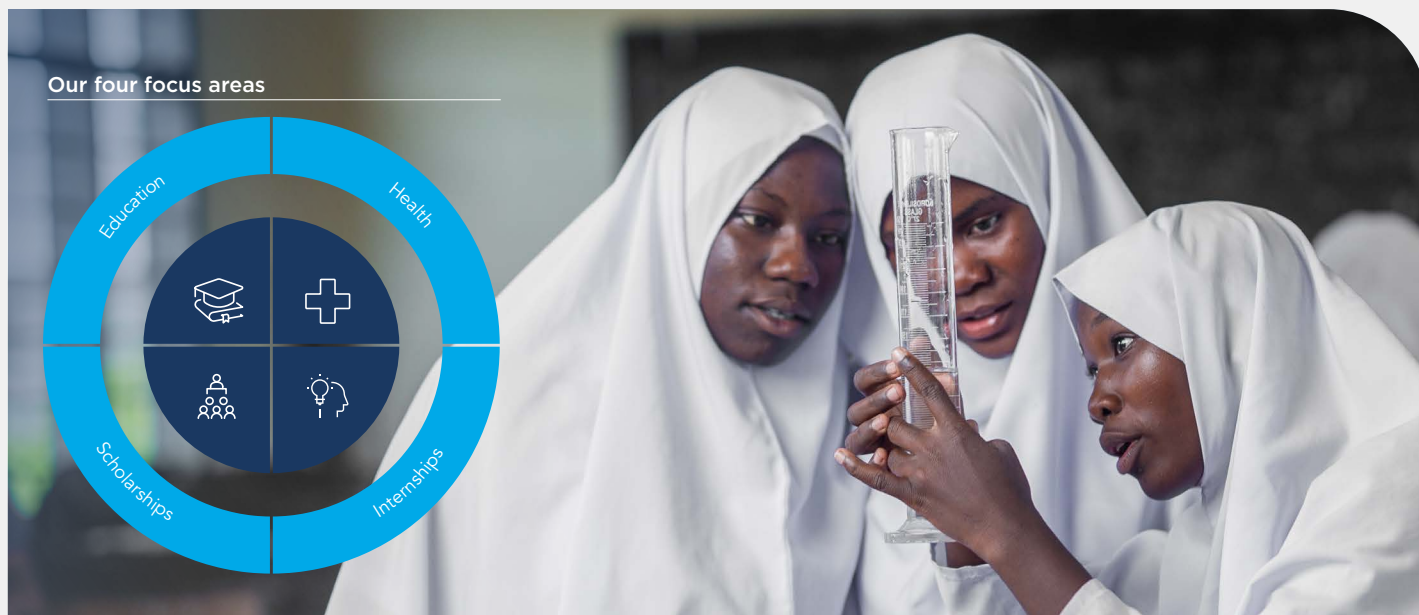
“The presence of this dormitory in our school has brought many great benefits. Students get a good time of calm and rest after the lessons and their mind calms down and they can study well and understand the lessons well. Also, the presence of the dormitory makes the students get time to learn freely and ask questions to everyone while they are in school and after school because the teachers are there most of the time.

“The dormitory also enables students to build a sense of independence by being aware of their study time and taking care of their study materials such as notebooks, pens and books.

“A student who lives in a boarding school has more discipline than a student who lives at home/ day school because boarding students live under the rules and procedures of the respective place all the time they are at school.”

**Mr. Mohamed Issa Dadi**

Songo Songo Island's Village Chairman, Mr. Mohamed Issa Dadi



Our four focus areas



Sustainability & Responsibility cont.

## Health

The Company continues to support the Government of Tanzania's efforts to improve health service delivery and has played an important role in developing and implementing health programs that support communities on Songo Songo Island and in the Kilwa District.

The Company invests to develop accessible, clean, well equipped and well-staffed medical facilities in the areas surrounding its operations, working with community and district leaders to identify and prioritize sustainable health projects in locations where the maximum benefit will be felt.

### Songo Songo Island Health Center

Investment has been made in the construction of a health centre on Songo Songo Island, which will be completed and handed over to the community in May, 2023. The new facility will serve an estimated population of 7,000 people.

Until the Health Centre is completed, medical facilities on the island currently comprise of a dispensary providing limited primary health care services. Specialists such as surgeons, cardiologists, dermatologists, and urologists cannot be accessed at the dispensary, and the nearest referral facility is 27km away at Kinyonga District Hospital.

It was clear to the Company and local leadership on Songo Songo Island, that this construction was essential to deliver more accessible medical services to the community.

Following successful implementation in other parts of Kilwa District, the Company and local leaders agreed upon the construction of an outpatient department, maternity ward, surgical theatre, laboratory, mortuary, and laundry, funded by the Company ensuring the residents on the Island and other surrounding islands would have greater access to quality health services.

The aim of this project is to transform the range of healthcare available, and the way such services are delivered on the island, enhancing considerably the local's quality of life while dramatically increasing the ability to provide to them, lifesaving medical support when required. There is little doubt in the view of all stakeholders involved that the project will have a positive, lasting impact on the island and its inhabitants.

"We consider ourselves to be incredibly fortunate to have a health center built right here in our village. For too long, we've had to travel long distances to Mtwara, Lindi, and Dar es Salaam to access quality health services. Pregnant women have all too often been forced to travel to Kinyonga hospital for specialist care, due to the lack of services in our dispensary. Now, with the presence of a health center, we have faith that medical professionals and equipment will arrive. This way, we will be able to access superior health services from the comfort of our village. We look forward to the day that this health center is handed over. Not only will our own community benefit, but also our colleagues from nearby islands, such as Nyuni, Njovi, and Ukuza. The construction of this magnificent health center will be life-changing for all of us."

#### Mr. Mohamed Issa Dadi

Songo Songo Island's Village Chairman, Mr. Mohamed Issa Dadi

**People who will benefit from the enhanced medical facilities**

**7,000**





### Chumo Health Center

Chumo is one of the most densely populated wards in Kilwa District, with five villages and a population of approximately 30,000.

In order to provide community members with high-quality health care, construction of the health center commenced in 2022. The project was contracted locally, utilizing local artisans and materials during the construction. The facility is expected to be handed over to the Kilwa District Council for use in Q2, 2023.

The facility has an outpatient department, maternity ward, surgical theater, laboratory, mortuary, and laundry provide more immediate medical support to community members, and have the same capabilities as the major health center constructed by the Company in Somanga. It is hoped that this will also benefit surrounding communities, who may be able to access the center.

The availability of a health center in a remote area such as the Chumo Ward will provide numerous benefits such as easy access to medical services, prompt diagnosis, treatment of illnesses and improved health outcomes, reduced travel time and costs for patients, increased productivity due to better health, and a boost to the local economy by creating jobs for healthcare professionals.

Chumo Ward Executive, Mr. Marachius Mutalemwa said "the availability of a health center in Chumo area will have far-reaching positive impacts on both individual and community health, as well as on the social and economic development of the ward. This can ultimately contribute to the achievement of universal health coverage and the Sustainable Development Goals related to health".

**Total Investment in the  
Chumo Health Center**

**\$445,000**

## Board of Directors



1

**1. David W. Ross****Chairman**

Non-Executive Director and  
Chair of Remuneration/  
Compensation Committee

**Appointed 2004**

**Experience**

David Ross has extensive experience in international tax law and is a partner in the Calgary-based law firm of Burnet Duckworth & Palmer. He has served as Secretary to the Board since the Company was formed in 2004.

**2. Jay Lyons****Executive Director**

Chief Executive Officer and  
Chair of Reserves Committee

**Appointed 2019**

**Experience**

Jay Lyons joined the Company in May 2019 as a Non-Executive Director and took on the role of Interim Chief Executive Officer in 2020 and Chief Executive Officer in June 2021. Jay is a private investor with considerable experience in the oil and gas industries in both Canada and the United States. He has worked in a range of roles for both private and public companies in the upstream and downstream sectors. Jay Lyons has a strong familiarity and understanding of the Songo Songo project and the Tanzanian operating environment.



2



3

**3. Lisa Mitchell****Executive Director**

Chief Financial Officer

**Appointed 2022**

**Experience**

Lisa Mitchell joined the Company as Chief Financial Officer in November, 2021. Lisa was the CFO and Executive Director of San Leon Energy plc (AIM: LSE), a Nigeria focused oil and gas company listed in London, and previously the CFO and Executive Director of Lekoil Limited (AIM: LEK), an Africa focused oil and gas Company with interests in Nigeria. Lisa has also held senior roles at Ophir Energy plc (LSE: OPHR), a former FTSE 250 energy Company, CSL Limited (ASX top 50) and Mobil Oil Australia. Lisa is a FCPA (Australia) and holds a Bachelor of Economics from La Trobe University, Melbourne and a Graduate Diploma in Applied Corporate Governance from the Governance Institute of Australia.

**4. Dr Frannie Léautier****Non-Executive Director**

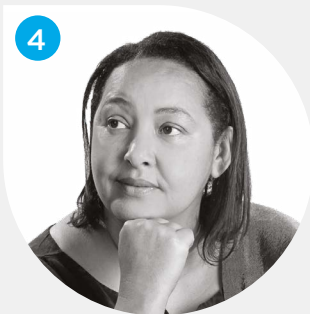
Chair of ESG Committee

**Appointed 2019**

**Experience**

Dr Léautier is a globally respected development expert and has extensive African and global experience in the public and private sectors. Dr Léautier is a Senior Partner at SouthBridge Group, she is also the Founder and Managing Partner of the Fezembat Group and was previously Senior Vice President of the African Development Bank, where she led efforts to improve the bank's overall operational effectiveness. Other roles include: Chief Operating Officer for the Trade and Development Bank based in Nairobi, Infrastructure Director, World Bank, Vice President and Head of the World Bank Institute.

Dr Léautier holds a PhD in Infrastructure Systems and a Master's in Transportation from the Massachusetts Institute of Technology.



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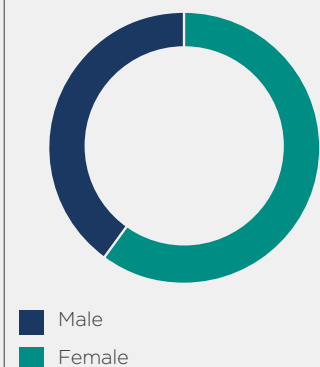
**5. Linda Beal****Non-Executive Director**

Chair of Audit and Risk  
Committee

**Appointed 2019**

**Experience**

Linda Beal was a tax partner with PricewaterhouseCoopers in the UK for 16 years and then with Grant Thornton UK LLP. Linda has significant experience of advising natural resources groups operating in Africa and internationally.

**Board Diversity**

## How we manage our Company

### The Board

- Provides independent oversight that ensures the integrity of the business
- Provides the Company with strategic direction
- Responsible for monitoring risk management framework for the Company

### Executive Management

- Responsible for managing the Company's core operations at the Songo Songo field
- Delivering value for all stakeholders
- Ensure the successful implementation of the Company's corporate strategy

### Audit and Risk Committee

- Responsible for providing oversight of the financial reporting process
- Provide independent assessment of audit process
- Ensure compliance with laws and regulations
- Responsible for overseeing the management of internal controls and risk management

### ESG Committee

- Ensures ESG principles are adopted
- Provides guidance for the implementation of ESG principles
- Provides a systems check on safety, environmental and governance associated risks

### Remuneration/ Compensation Committee

- Reviews and decides the overall remuneration of Executive Management and other key employees

### Reserves Committee

- Reviews the Company's procedures to ensure that disclosure of reserves complies with security regulation
- Meets with the independent reserves evaluator to determine there have been no restrictions placed by management on the ability to report the reserves and associated valuations
- Ensure oversight of the Songo Songo gas field reserves and to review associated reservoir and technical risk associated with extraction of reserves and the ability to report the reserves and associated valuations

### ESG oversight

A critical element of the Company's ESG approach lies within our ESG Oversight. Previously, our ESG Oversight existed only at the Board level, with the ESG Committee comprising of the following Board personnel:

**Frannie Léautier**  
Non-Executive Director (Chair)

**Jay Lyons**  
Chief Executive Officer

However, given daily operations are carried out, we recognize that there are multiple stakeholder groups, across different verticals, responsible for the implementation of the Sustainability Strategy. Therefore, we felt it was appropriate to also institute a Group ESG Committee.

- The ESG Committee comprises of:
- Rebecca Framp**  
ESG Manager
  - Shuli Mrengo**  
Health & Safety/ESG Manager
  - Rehema Shija**  
Local Content & Compliance Manager
  - Andrew Kashingaki**  
Corporate Social Responsibility Manager
  - Doreen Rwelamila**  
Environmental & ESG Specialist

The primary role of the ESG Committee is to develop, communicate, refine, and ensure implementation of the Company's sustainability strategy. The Committee meet regularly, and report to senior management on a monthly basis. All members of the ESG Committee are currently undergoing specialized ESG Training.

The purpose of instituting this committee is to support facilitating the implementation of the Company's Sustainability Strategy, whilst ensuring that all relevant stakeholders are kept informed, thereby creating a truly Group-wide approach towards sustainability and its implementation.

## Our Workforce

## Executive Management Team



**Jay Lyons**  
**Chief Executive Officer**  
 Executive Director

**Appointed 2019**

**Experience**

Jay Lyons joined the Company in May 2019 as a Non-Executive Director and took on the role of Interim Chief Executive Officer in 2020 and Chief Executive Officer in June 2021. Jay is a private investor with considerable experience in the oil and gas industries in both Canada and the United States. He has worked in a range of roles for both private and public companies in the upstream and downstream sectors. Jay has a strong familiarity and understanding of the Songo Songo project and the Tanzanian operating environment.



**Lisa Mitchell**  
**Chief Financial Officer**  
 Executive Director

**Appointed 2021**

**Experience**

Lisa Mitchell joined the Company as Chief Financial Officer in November, 2021. Lisa was the CFO and Executive Director of San Leon Energy plc (AIM: LSE), a Nigeria focused oil and gas company listed in London, and previously the CFO and Executive Director of Lekoil Limited (AIM: LEK), an Africa focused oil and gas Company with interests in Nigeria. Lisa has also held senior roles at Ophir Energy plc (LSE: OPHR), a former FTSE 250 energy Company, CSL Limited (ASX Top 50) and Mobil Oil Australia.

Lisa is a FCPA (Australia) and holds a Bachelor of Economics from La Trobe University, Melbourne and a Graduate Diploma in Applied Corporate Governance from the Governance Institute of Australia.



**Ewen Denning**  
**Chief Operating Officer**

**Appointed 2022**

**Experience**

Ewen Denning brings over 35 years of international energy industry experience to Orca Energy Group. During his career has he has worked for BP, BG Group and Glencore and had assignments across five continents. Since 2011 he has worked extensively in Africa on a variety of projects in Cameroon, Chad, Equatorial Guinea, Nigeria and Tunisia. Most recently on the Logbaba integrated gas project in Cameroon. He has wide technical and commercial experience having held senior positions managing operational assets in established areas and commercializing new ventures in frontier areas.

Ewen holds a B.Eng. in Mechanical Engineering from Sheffield University and an MBA from Heriot-Watt University. He is a Chartered Engineer and Fellow of the Institute of Mechanical Engineers and also a Member of the Society of Petroleum Engineers.



**Andy Hanna MBE**  
**Managing Director**  
 PanAfrican Energy Tanzania Limited

**Appointed to Managing Director 2019**

**Experience**

Andy Hanna has worked with Orca and PAET in various management roles for the past ten years, being appointed Managing Director of PAET in 2019. He joined the Company following a career in the public sector where he led engineering, logistics and security projects around the world. Since joining, he has played an integral role in the development and delivery of strategic and operational plans for PAET, while taking a lead role in the management of complex senior stakeholder issues in Tanzania.

Andy has a strong background in electronic and civil engineering and has a Master's Degree in Military Science from Cranfield University. He is a Fellow of the Chartered Management Institute and a Member of the Institute of Royal Engineers.

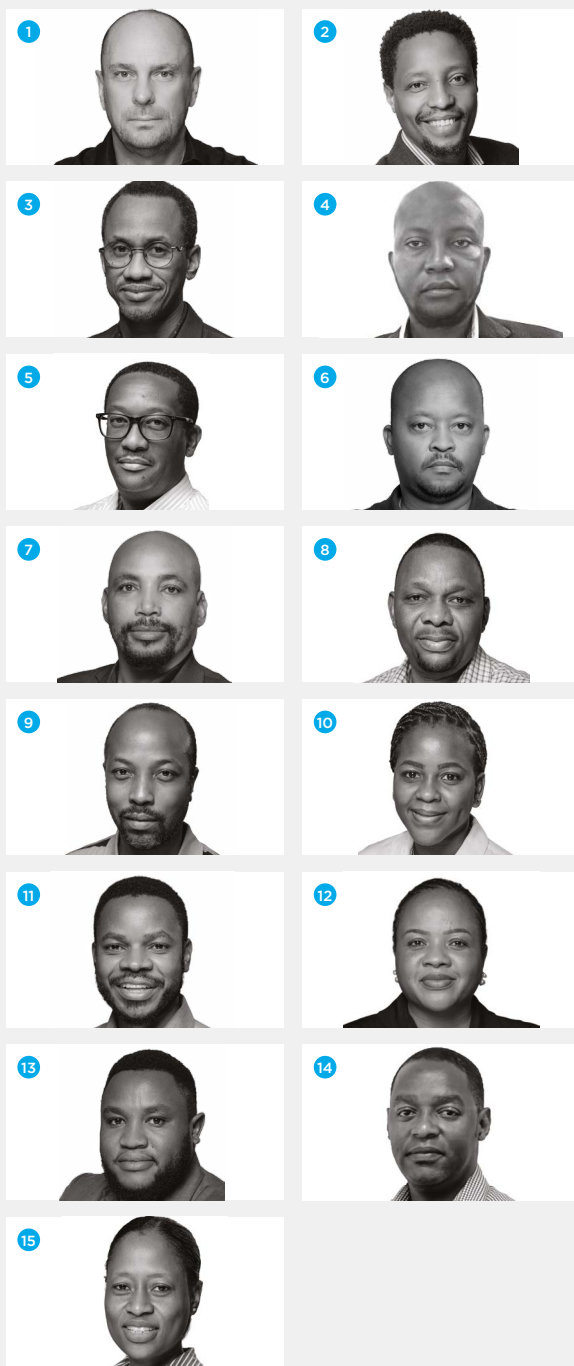
Andy is pursuing a Master's in Business Administration, specializing in Oil and Gas Management, through Robert Gordon University, Aberdeen.



## Tanzanian Management Team

The Company aspires to provide all employees with long term and rewarding careers, The majority of our Tanzanian management team have been trained and promoted from roles within the Company. It is through their professionalism, skill and diligence that the Company is able to continually raise its standards and quality.

Our operational workforce in 2022 remained at 99% local staff, with 20% of our in-country management team being female.



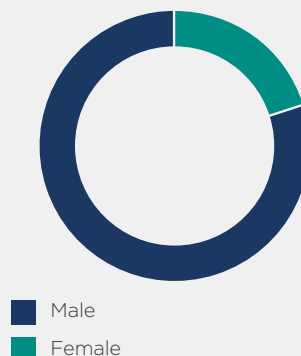
## Senior Management

1. **Andy Hanna**  
Managing Director
2. **Bizimana Ntuyabaliwe**  
Deputy Managing Director
3. **Mwinshehe Said**  
Finance Director
4. **Peter Sololo**  
Operations Manager

## Management

5. **Andrew Kashangaki**  
CSR Manager
6. **Brown Mollel**  
IT Manager
7. **Gasper Mkomba**  
HR/Office Manager
8. **John Samwel**  
Downstream Stakeholder Relations Manager
9. **Obeid Kitalima**  
Finance Manager
10. **Rehema Shija**  
Local Content Compliance Manager
11. **Revocatus Kashesi**  
Head of Technical
12. **Ritha Mohele**  
Legal and Document Control Manager
13. **Sabas Oisso**  
Downstream Manager
14. **Shuli Mrengo**  
HSE Manager
15. **Stella Ndossi**  
Logistics Manager

## Management Team Diversity



## Welcoming Revocatus Kasheshi to the Management Team

For the past eight years, Revocatus Kasheshi has been PanAfrican Energy's local Reservoir Engineer, leading management and supporting development of the Songo Songo gas field.

Revocatus has used his skills and ever increasing experience to monitor wells and reservoir performance, advise management on asset development planning and supporting the annual reserve and resource audits through modeling and analysis.

Revocatus is highly respected amongst his peers, with his standing enhanced through his participation in panels and provision of technical presentations at various meetings and congresses.

Recognizing Revocatus' professional and technical capability, but also his innate personal skills, the Company recently promoted him to the role of 'Head of Technical', where he has taken responsibility for the in-county leadership of a growing technical team, charged with the delivery of a range of technical support work required to enable efficient development of the field on a short to long-term basis. As the team leader he is responsible for allocation of work, prioritization, verification and ensuring the work is carried out to recognized industrial standards. His role involves ensuring the technical team collaborate closely with other technical support functions, including various consultants both inside and outside Tanzania.

Revocatus' promotion demonstrates the Company's commitment to recognizing, developing and rewarding local talent. As a highly motivated, highly capable engineer, Revocatus' work ethic, professionalism and commitment has rightly earned him this promotion. We wish him luck in his new role and we look forward to supporting him through his continued career progression.

## Management's Discussion & Analysis

**THIS MANAGEMENT'S DISCUSSION AND ANALYSIS ("MD&A") OF OUR FINANCIAL CONDITION AND RESULTS OF OPERATIONS SHOULD BE READ IN CONJUNCTION WITH THE AUDITED CONSOLIDATED FINANCIAL STATEMENTS AND NOTES FOR THE YEAR ENDED DECEMBER 31, 2022. THIS MD&A IS BASED ON THE INFORMATION AVAILABLE ON April 26, 2023. ALL AMOUNTS ARE REPORTED IN US DOLLARS ("\$\$") UNLESS OTHERWISE NOTED.**

**THIS MD&A CONTAINS NON-GAAP FINANCIAL MEASURES AND RATIOS AND FORWARD-LOOKING INFORMATION. READERS ARE CAUTIONED THAT THIS MD&A SHOULD BE READ IN CONJUNCTION WITH THE DISCLOSURE BELOW UNDER THE HEADINGS "NON-GAAP FINANCIAL MEASURES AND RATIOS", "FORWARD-LOOKING STATEMENTS" AND "GLOSSARY" INCLUDED AT THE END OF THIS MD&A.**

### Nature of Operations

The principal asset of Orca Energy Group Inc. ("Orca" or the "Company") is its interest in the Production Sharing Agreement ("PSA") with the Tanzanian Petroleum Development Corporation ("TPDC") and the Government of Tanzania ("GoT") in the United Republic of Tanzania. This PSA covers the production and marketing of natural gas from the Songo Songo license offshore of Tanzania. The PSA defines the gas produced from the Songo Songo gas field as "Protected Gas" and "Additional Gas". The Protected Gas is owned by TPDC and is sold under a 20-year gas agreement (until July 31, 2024) to Songas Limited ("Songas") and Tanzania Portland Cement PLC ("TPCPLC"). Songas is the owner of the infrastructure that enables the gas to be treated and delivered to Dar es Salaam, which includes a gas processing plant on Songo Songo Island (collectively, the "Songas Infrastructure").

Songas utilizes the Protected Gas as fuel for its gas turbine electricity generators and for onward sale to customers while TPCPLC uses the Protected Gas to fire kilns for the production of cement. A small amount of Protected Gas is also reserved for village electrification. The Company receives no revenue for the Protected Gas delivered to Songas or other recipients and operates the original wells and gas processing plant on a 'no gain no loss' basis. Under the PSA, the Company has the right to produce and market all gas in the Songo Songo gas field in excess of the Protected Gas requirements set forth in the PSA ("Additional Gas") until the PSA expires in October 2026.

The Tanzanian Electric Supply Company Limited ("TANESCO") is a parastatal organization wholly owned by the GoT with oversight by the Ministry of Energy ("MoE"). TANESCO is responsible for the majority of electricity generation, transmission and distribution throughout Tanzania. Natural gas has become an integral component of TANESCO's power generation fuel mix as a more reliable source of supply over seasonal hydropower as well as a more cost-effective and lower CO<sub>2</sub> intensive alternative to liquid fuels. The Company and TPDC as joint sellers currently supply Additional Gas directly to TANESCO by way of the Portfolio Gas Supply Agreement ("PGSA") and indirectly through the supply of Protected Gas and Additional Gas to Songas, which in turn generates and sells power to TANESCO. The Company also supplies Additional Gas to TPDC through a long-term gas sales agreement ("LTGSA") utilizing the National Natural Gas Infrastructure ("NNGI").

In addition to supplying gas to TPDC, Songas and TANESCO, the Company has developed 49 contracts to supply gas to Dar es Salaam's industrial market.

### Outlook - COVID-19

There has been no significant change in the Company's business during the year ended December 31, 2022 as a result of the ongoing coronavirus pandemic ("COVID-19"). Tanzanian government restrictions and vaccination program appear to have largely controlled the spread of COVID-19. Given the steps already taken by the Company, no significant impact on our operations or business results has occurred a result of COVID-19. However, COVID-19 has been a contributing factor in a reduction of foreign currency flowing into the country and the risk remains that in the future the Company may not be able to convert Tanzanian shillings to United States dollars as and when required.

## Financial and Operating Highlights for the Three Months and Year Ended December 31, 2022

(Expressed in \$'000 unless indicated otherwise)	Three Months ended		% Change Q4/22 vs Q4/21	Year ended December 31		% Change Ytd/22 vs Ytd/21																																
	December 31 2022	2021		December 31 2022	2021																																	
<b>OPERATING</b>																																						
<b>Daily average gas delivered and sold</b> (MMcfd)	<b>95.5</b>	71.1	34%	<b>86.8</b>	61.1	42%																																
Industrial	<b>15.0</b>	14.9	1%	<b>14.0</b>	13.4	4%																																
Power	<b>80.5</b>	56.2	43%	<b>72.8</b>	47.7	53%																																
<b>Average price (\$/mcf)</b>																																						
Industrial	<b>8.21</b>	8.58	(4)%	<b>8.52</b>	8.09	5%																																
Power	<b>3.60</b>	3.41	6%	<b>3.59</b>	3.47	3%																																
Weighted average	<b>4.33</b>	4.50	(4)%	<b>4.38</b>	4.48	(2)%																																
<b>Operating netback</b> (\$/mcf) <sup>1</sup>	<b>2.42</b>	3.08	(21)%	<b>2.62</b>	2.93	(11)%																																
<b>FINANCIAL</b>																																						
<b>Revenue</b>	<b>31,877</b>	24,819	28%	<b>118,089</b>	86,022	37%																																
<b>Net income attributable to shareholders</b>	<b>2,325</b>	1,548	50%	<b>27,726</b>	16,370	69%																																
per share – basic and diluted (\$)	<b>0.12</b>	0.08	50%	<b>1.39</b>	0.81	72%																																
<b>Net cash flows from operating activities</b>	<b>15,438</b>	18,521	(17)%	<b>67,660</b>	40,110	69%																																
per share – basic and diluted (\$) <sup>1</sup>	<b>0.78</b>	0.93	(16)%	<b>3.40</b>	1.97	73%																																
Capital expenditures <sup>1</sup>	<b>3,615</b>	12,496	(71)%	<b>22,406</b>	26,610	(16)%																																
<b>Weighted average Class A and Class B shares</b> ('000)	<b>19,893</b>	19,969	0%	<b>19,923</b>	20,317	(2)%																																
<table border="1"> <thead> <tr> <th></th> <th>December 31, 2022</th> <th>As at December 31, 2021</th> <th>% Change</th> </tr> </thead> <tbody> <tr> <td><b>Working capital (including cash)</b><sup>1</sup></td> <td><b>61,553</b></td> <td>41,776</td> <td>47%</td> </tr> <tr> <td><b>Cash and cash equivalents</b></td> <td><b>96,321</b></td> <td>72,985</td> <td>32%</td> </tr> <tr> <td><b>Long-term loan</b></td> <td><b>39,762</b></td> <td>49,603</td> <td>(20)%</td> </tr> <tr> <td colspan="4"><b>Outstanding shares</b> ('000)</td> </tr> <tr> <td>  Class A</td> <td><b>1,750</b></td> <td>1,750</td> <td>0%</td> </tr> <tr> <td>  Class B</td> <td><b>18,126</b></td> <td>18,203</td> <td>0%</td> </tr> <tr> <td><b>Total shares outstanding</b></td> <td><b>19,876</b></td> <td>19,953</td> <td>0%</td> </tr> </tbody> </table>								December 31, 2022	As at December 31, 2021	% Change	<b>Working capital (including cash)</b> <sup>1</sup>	<b>61,553</b>	41,776	47%	<b>Cash and cash equivalents</b>	<b>96,321</b>	72,985	32%	<b>Long-term loan</b>	<b>39,762</b>	49,603	(20)%	<b>Outstanding shares</b> ('000)				Class A	<b>1,750</b>	1,750	0%	Class B	<b>18,126</b>	18,203	0%	<b>Total shares outstanding</b>	<b>19,876</b>	19,953	0%
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<b>RESERVES<sup>2</sup></b>																																						
<b>Gross Reserves</b> (Bcf)																																						
Proved	<b>141</b>	160	(12)%																																			
Probable	<b>26</b>	28	(7)%																																			
Proved plus probable	<b>167</b>	188	(11)%																																			
<b>Net Present Value, discounted at 10%</b> (\$ million) <sup>2,3</sup>																																						
Proved	<b>147</b>	178	(17)%																																			
Proved plus probable	<b>171</b>	210	(19)%																																			

<sup>1</sup> Please refer to the Non-GAAP Financial Measures and Ratios section of the MD&A for additional information.

<sup>2</sup> Please refer to the Oil and Gas Advisory section of the MD&A for additional information.

<sup>3</sup> In accordance with the PSA with the TPDC and the GoT in the United Republic of Tanzania, the Company is able to recover income tax and consequently there is no significant difference between the NPV of reserves on a before and after tax basis. Any capitalized terms otherwise not defined within the Financial and Operating Highlights are defined in the MD&A.

## Management's Discussion &amp; Analysis cont.

**Financial and Operating Highlights for 2022 and Q4 2022**

- Revenue increased by 28% for Q4 2022 and by 37% for the year ended December 31, 2022 compared to the same prior year periods. The increases were primarily a result of increased sales to customers in the power sector. Gas deliveries increased by 34% for Q4 2022 and by 42% for the year ended December 31, 2022 compared to the same prior year periods. The increase in gross sales volume was primarily due to the increase in gas deliveries to the power sector customers, TPDC and TANESCO.
- Net income attributable to shareholders increased by 50% for Q4 2022 and by 96% for the year ended December 31, 2022 compared to the same prior year periods, primarily a result of the increased revenues and increased reversal of loss allowances related to the higher collection of arrears from TANESCO.
- Net cash flows from operating activities decreased by 17% for Q4 2022 and increased by 69% for the year ended December 31, 2022 compared to the same prior year periods. The decrease for Q4 2022 over the comparable prior year period was primarily a result of changes in non-cash working capital. The increase for the year ended December 31, 2022 was primarily a result of the increased revenue.
- Capital expenditures decreased by 71% for Q4 2022 and by 16% for the year ended December 31, 2022 compared to the same prior year periods. The capital expenditures in 2022 primarily related to completion of the well workover program for the SS-3, SS-4 and SS-10 wells, the compression project and the commencement of the 3D seismic acquisition program.
- The Company completed installation and commissioning of feed gas compression on the Songas gas processing plant in March 2022. This extended the Company's ability to supply current demand at the maximum capacity of the Songas Infrastructure (being the infrastructure that enables the gas to be delivered to Dar es Salaam, which includes a gas processing plant on Songo Songo Island) of approximately 100 MMcfd. The sustainability of this deliverability will be impacted by ongoing total demand including any additional volumes flowing through the NNGI plant.
- In April 2022, the drilling rig was released having completed the planned well workover program on wells SS-3, SS-4 and SS-10. The \$31.6 million program included the reactivation of the SS-3 well and the sidetrack of the SS-4 well to a new bottom hole location, along with the installation of corrosion resistant production tubing on all three of the wells. The SS-3 well was placed on production on February 15, 2022 and the SS-10 well was returned to production on April 18, 2022. The SS-4 well was unable to flow naturally due to liquid loading. A coiled tubing nitrogen lift and further testing was conducted on SS-4, however as of year end it remains shut in pending further analysis of reservoir conditions.
- The installation of compression facilities and conduct of the workovers increased short term field production potential to approximately 155 MMcfd by routing some production through the adjacent NNGI facilities also located on the Songo Songo Island. This enabled the Company to meet higher average demand levels in excess of 130 MMcfd from Q2 2022.
- The Company is currently carrying out a 3D seismic acquisition program, budgeted at \$23.2 million in order to further evaluate the current reserves and contingent resources as well as the potential of prospective resources. This will be used to de-risk future development drilling opportunities and to evaluate the potential for future exploration drilling. The Company awarded and signed a contract with African Geophysical Services LLP on July 7, 2022, to acquire approximately 181 square kilometers of 3D shallow marine, transition zone and land based seismic over the Songo Songo license area. We anticipate that the acquisition of data will be completed by Q3 2023 and fast track data processing will be completed by Q4 2023.
- The Company successfully completed smart pigging of the SS-3, SS-4, SS-5, SS-7 and SS-9 flowlines, identifying a number of areas of corrosion and/or erosion. Immediate, low cost repairs of sections of flowline have been conducted and wells returned to operations with minimal impact on overall production. Further work will be conducted throughout 2023 to replace several other less critically affected sections.
- The Company exited the period in a strong financial position with \$61.6 million in working capital (December 31, 2021: \$41.8 million), cash and cash equivalents of \$96.3 million (December 31, 2021: \$73.0 million) and long-term debt of \$39.8 million (December 31, 2021: \$49.6 million). The decrease in long-term debt was related to reclassification of \$10.0 million of long-term debt into current liabilities as it becomes due in April and October 2023. Subsequent to December 31, 2022 the Company made a payment of \$5.0 million, representing the second semi-annual repayments of its long-term debt.
- As at December 31, 2022 the current receivable from TANESCO was \$3.7 million (December 31, 2021: \$2.0 million). TANESCO's long-term trade receivable as at December 31, 2022 was \$22.0 million with a provision of \$22.0 million (December 31, 2021: \$26.5 million with a provision of \$26.5 million). Subsequent to December 31, 2022 TANESCO paid the Company \$11.1 million and the Company invoiced TANESCO \$6.9 million for 2023 gas deliveries. In addition, subsequent to December 31, 2022 TANESCO paid the Company \$3.3 million against the 2020 take or pay invoice.
- On February 24, 2022, May 20, 2022, September 28, 2022 and November 16, 2022 the Company declared dividends of CDN\$0.10 per share on each of its Class A common voting shares ("Class A Shares") and Class B subordinate voting shares ("Class B Shares") for a total of \$6.2 million to the holders of record as of March 31, 2022, June 30, 2022, October 14, 2022 and December 31, 2022 (paid on April 15, 2022, July 15, 2022, October 28, 2022 and January 13, 2023, respectively). Subsequent to December 31, 2022, on February 24, 2023 the Company declared a dividend of CDN\$0.10 per share on each of its Class A Shares and Class B Shares for a total of \$1.5 million to holders of record as of March 31, 2023 paid on April 14, 2023.

## Financial and Operating Highlights for 2022 and Q4 2022 cont.

- On July 11, 2022 the Company commenced a normal course issuer bid ("2022 NCIB") to purchase Class B Shares through the facilities of the TSXV and alternative trading systems in Canada. As at December 31, 2022 the Company had repurchased 47,200 Class B shares at a weighted average price of CDN\$4.87 per share pursuant to the 2022 NCIB.
- On August 8, 2022, the Company issued a redemption notice to Swala Oil & Gas (Tanzania) plc ("Swala TZ"), requesting that Swala TZ redeem 20% of the outstanding Swala TZ convertible preference shares ("Preference Shares") by August 23, 2022, which were issued to the Company in accordance with the investment agreement dated December 29, 2017 (the "Investment Agreement"), between the Company, the Company's subsidiary PAE PanAfrican Energy Corporation ("PAEM") and Swala's TZ subsidiary, Swala (PAEM) Limited ("Swala UK"). Swala TZ has responded to the Company's redemption notice and is disputing its obligation to redeem the Preference Shares. On January 31, 2023, the Company issued a further redemption notice to Swala TZ, requesting that Swala TZ redeem a further 20% of the outstanding Preference Shares by February 15, 2023. As at December 31, 2022 and April 26, 2023, the redemption notice requests of the Company remain outstanding.
- On April 3, 2023, Swala TZ announced that a meeting of its creditors held on March 31, 2023, resolved that Swala TZ be placed into liquidation. Also, on March 31, 2023, Apex Corporate Trustees (UK) Limited appointed representatives of Grant Thornton UK LLP as administrators of Swala UK. The Company is evaluating its rights and options in response to Swala TZ being put into liquidation and Swala UK being put into administration.
- On August 5, 2022, the Fair Competition Commission of the United Republic of Tanzania ("FCC") issued Provisional Findings with respect to an investigation the FCC initiated against Orca, PAEM, PanAfrican Energy Tanzania Limited ("PAET") and Swala UK and Swala TZ in response to a letter Swala TZ sent the FCC on March 31, 2022. In the Provisional Findings, the FCC claims that Orca's sale of investment shares held in PAEM to Swala UK pursuant to the Investment Agreement amounted to a notifiable merger whose non-notification infringed the provisions of the Fair Competition Act, 2003 and the Fair Competition Rules, 2018. In September 2022, the Company responded to the FCC's Provisional Findings submitting that the transactions did not amount to a prohibited merger and that, if the transactions were notifiable, it was Swala UK who had the obligation to notify the authorities of the merger and not Orca, PAEM and PAET. On November 11, 2022, the FCC issued another letter to Orca, PAEM and PAET requesting a settlement plan to be submitted to the FCC. The Company is optimistic that there is no merit to the allegations of the FCC against the Company and that the matter can be settled soon.
- Total proved conventional natural gas reserves ("1P") and total proved plus probable conventional natural gas reserves ("2P") decreased by 12% and 11%, respectively, at December 31, 2022 compared to the prior year. The decrease is predominantly due to gross property Additional Gas production in 2022 of 31.7 Bcf (2021: 22.3 Bcf). The net present value of estimated future cash flows from 2P reserves at a 10% discount rate decreased by 19% compared to the previous year. This is mainly the result of the shorter time period remaining to the end of the Songo Songo license together with an increase in forecasted capital costs. Under the terms of the PSA, the Company is required to pay Tanzanian income tax which is fully recovered through the profit sharing arrangements with TPDC. Income tax has no material impact on the cash flows emanating from the PSA and accordingly there is no significant difference between the net present value of reserves on a before and after tax basis.
- 2023 production started strongly, with gross gas sales averaging 94 MMcfd in Q1 2023. We anticipate our gross gas sales to average between 90 and 100 MMcfd during 2023, with a midpoint of 95 MMcfd.
- With the emergence of longer term high levels of gas demand, we are currently reforecasting our capital program to align with a potential longer term investment program. In the short term the 2023 forecast capital expenditure has been reduced to circa \$38 million.

### Oil and Gas Advisory

The Company's conventional natural gas reserves as at December 31, 2022 disclosed herein were evaluated by McDaniel & Associates Consultants Ltd. ("McDaniel"), independent petroleum engineering consultants, 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 independent reserves evaluations prepared by McDaniel had an effective date of December 31, 2022 and December 31, 2021 and preparation date of February 24, 2023 and February 24, 2022 respectively. All of the reserves presented herein are conventional natural gas 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 administrative costs, but after providing for estimated royalties, production costs, development costs, other income and future capital expenditures for only those wells assigned reserves by McDaniel. 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. All of the reserves referenced herein are based on McDaniel's forecast pricing as at December 31, 2022 and December 31, 2021, as applicable.

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% ownership interest in the reserves following the transaction with Swala TZ. 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 are filed on its profile on SEDAR at [www.sedar.com](http://www.sedar.com).

## Management's Discussion &amp; Analysis cont.

**Financial and Operating Highlights for 2022 and Q4 2022 cont.****Oil and Gas Advisory** cont.

"BOEs" may be misleading, particularly if used in isolation. A BOE conversion ratio of 6,000 cubic feet of natural gas to one barrel of oil equivalent (6Mscf: 1 bbl) is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. As the value ratio between natural gas and crude oil based on the current prices of natural gas and crude oil is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

For certainty, all references herein to "production", "gross daily sales", "gas sales" and "Additional Gas sales" are references to conventional natural gas production, conventional natural gas daily sales, conventional natural gas sales and conventional natural gas sales, which are classified as Additional Gas in accordance with the PSA, respectively.

**Operating Volumes**

The average gross daily sales volume increased by 34% for Q4 2022 and by 42% for the year ended December 31, 2022 over the comparable prior year periods. The increase in gross sales volume was primarily due to increased sales to the power sector.

The Company's gross sales volumes were split between the Industrial and Power sectors as detailed in the table below:

	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
<b>Gross sales volume (MMcf)</b>				
Industrial sector	1,384	1,371	5,098	4,882
Power sector	7,402	5,168	26,579	17,430
<b>Total volumes</b>	<b>8,786</b>	6,539	<b>31,677</b>	22,312
<b>Gross daily sales volume average (MMcfd)</b>				
Industrial sector	15.0	14.9	14.0	13.4
Power sector	80.5	56.2	72.8	47.7
<b>Gross daily sales volume average total</b>	<b>95.5</b>	71.1	<b>86.8</b>	61.1

**Industrial Sector**

Industrial sector gross daily sales volumes increased by 1% for Q4 2022 and by 4% for the year ended December 31, 2022 over the comparable prior year periods. The increases were a result of increased consumption by industrial customers due to a higher demand for services and products.

**Power Sector**

Power sector gross daily sales volumes increased by 43% for Q4 2022 and by 53% for the year ended December 31, 2022 over the comparable prior year periods. The increases were primarily due to increased gas sales to TPDC through the NNGI and to TANESCO.

**Protected Gas Volumes**

Protected Gas volumes increased by 1% to 3,890 MMcf (42.3 MMcfd) for Q4 2022 compared to 3,854 MMcf (41.9 MMcfd) for Q4 2021 and by 5% to 13,883 MMcf (38.0 MMcfd) for the year ended December 31, 2022 compared to 13,255 MMcf (36.3 MMcfd) for the year ended December 31, 2021. The Company receives no revenue for Protected Gas volumes, however the volumes are required to calculate total gas produced from the reservoir and the allocation of certain production, distribution and transportation expenses between Protected Gas and Additional Gas.

**Commodity Prices**

The commodity prices achieved in the different sectors during the year are detailed in the table below:

	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
\$/mcf				
<b>Average sales price</b>				
Industrial sector	8.21	8.58	8.52	8.09
Power sector	3.60	3.41	3.59	3.47
<b>Weighted average price</b>	<b>4.33</b>	4.50	<b>4.38</b>	4.48

## Commodity Prices cont.

### Industrial Sector

The average industrial sales price decreased by 4% for Q4 2022 and increased by 5% for the year ended December 31, 2022 over the comparable prior year periods. The decrease in prices for Q4 2022 is primarily due to the underlying decrease in the price of heavy fuel oil against which most of the industrial customer contracts are priced. Similarly, the increase in prices for the year ended December 31, 2022 is due to the increase in the price of heavy fuel oil for the year.

### Power Sector

The average power sector sales price increased by 6% for Q4 2022 and by 3% for the year ended December 31, 2022 compared to the same prior year periods. The average power sector sales price varies depending on whether gas is delivered and sold through the NNGI or the Songas Infrastructure. Sales through the NNGI are to TPDC and do not include processing and transportation tariffs which are included in gas delivered through the Songas Infrastructure.

## Revenue

Under the terms of the PSA the Company is responsible for invoicing, collecting and allocating the revenue from Additional Gas sales (see "Principal Terms of the PSA and Related Agreements").

The Company is entitled to recover all costs incurred on the exploration, development and operations of the project ("Cost Gas revenue") up to a maximum of 75% of the net field revenue (gross field revenue less the tariff for processing and pipeline infrastructure) prior to allocating the remaining net field revenue between TPDC and the Company ("Profit Gas revenue"). Any costs not recovered in a period are carried forward for recovery out of future revenues. Once the Cost Gas revenue has been recovered, TPDC is able to recover any pre-approved marketing costs. Currently there are no pre-approved marketing costs for TPDC.

The Company is liable for income tax in Tanzania, but under the terms of the PSA, TPDC's share of revenue is reduced by the current tax payable grossed up at 30% ("income tax adjustment"). Revenue as presented on the Company's Consolidated Statements of Comprehensive Income is calculated by adjusting the Company's operating revenue by the income tax adjustment.

The reconciliation of gross field revenue to Company operating revenue and revenue is detailed below:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Industrial sector	11,356	11,764	43,437	39,477
Power sector	26,659	17,649	95,388	60,445
<b>Gross field revenue</b>	<b>38,015</b>	29,413	<b>138,825</b>	99,922
TPDC share of revenue	(11,921)	(6,010)	(37,841)	(22,285)
<b>Company operating revenue</b>	<b>26,094</b>	23,403	<b>100,984</b>	77,637
Current income tax adjustment	5,783	1,416	17,105	8,385
	<b>31,877</b>	24,819	<b>118,089</b>	86,022

Revenue increased by 28% for Q4 2022 and by 37% for the year ended December 31, 2022 over the comparable prior year periods. The increases are primarily a result of increased sales to the power sector partially offset by a higher TPDC share of revenue as a result of increased gross field revenue.

The average Additional Gas sales volumes for the quarters and for the years ended December 31, 2022 and December 31, 2021 were above 50 MMcf which entitled the Company to a 55% share of Profit Gas revenue. The Company was allocated a total of 66% of the Additional Gas net field revenue for Q4 2022 (Q4 2021: 76%) and a total of 70% of the Additional Gas net field revenue for the year ended December 31, 2022 (year ended December 31, 2021: 75%).

Management's Discussion & Analysis cont.

## Production, Distribution and Transportation Expenses

The production, distribution and transportation costs are detailed in the table below:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Operating costs	<b>916</b>	560	<b>3,218</b>	2,042
Tariff for processing and pipeline infrastructure	<b>3,270</b>	2,437	<b>12,140</b>	8,222
Ring-main distribution costs	<b>613</b>	259	<b>2,653</b>	1,989
	<b>4,799</b>	3,256	<b>18,011</b>	12,253

Operating costs include well maintenance costs, PSA license costs, regulatory fees, insurance, certain costs associated with evaluation of the reserves and the costs of personnel not recoverable from Songas. Operating costs are allocated between Protected Gas (recoverable from Songas) and Additional Gas in proportion to their respective volumes during the period. Operating costs increased by 64% for Q4 2022 and by 58% for the year ended December 31, 2022 compared to the same prior year periods, primarily as a result of a reclassification of insurance costs from ring-main distribution costs from Q1 to Q4 2022 and following the completion of smart pigging in Q2 and Q3 2022. The amount paid under the tariff for processing and pipeline infrastructure increased by 34% for Q4 2022 and by 48% for the year ended December 31, 2022 compared to the same prior year periods, primarily as result of increased gas volumes processed and delivered through the Songas Infrastructure. Ring-main distribution costs increased by 137% for Q4 2022 and by 33% for the year ended December 31, 2022 compared to the same prior year periods, primarily as a result of a tariff adjustment in Q4 2021 and higher maintenance costs for the distribution network which transports the gas to industrial customers. This was partially offset by reclassification of insurance costs from ring-main distribution costs to operating costs.

## Operating Netback

The operating netback per mcf before general and administrative expenses, tax and additional profits tax ("APT") is detailed in the table below (see "Non-GAAP financial measures and ratios"):

\$/mcf	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Gas price – Industrial	<b>8.21</b>	8.58	<b>8.52</b>	8.09
Gas price – Power	<b>3.60</b>	3.41	<b>3.59</b>	3.47
<b>Weighted average price for gas</b>	<b>4.33</b>	4.50	<b>4.38</b>	4.48
TPDC Profit Gas entitlement	<b>(1.36)</b>	(0.92)	<b>(1.19)</b>	(1.00)
Production, distribution and transportation expenses	<b>(0.55)</b>	(0.50)	<b>(0.57)</b>	(0.55)
<b>Operating netback</b>	<b>2.42</b>	3.08	<b>2.62</b>	2.93

The operating netback decreased by 21% for Q4 2022 and by 11% for the year ended December 31, 2022 over the comparable prior year periods. The decreases are mainly due to the decrease in the weighted average price for natural gas as a result of an increased share of sales to the power sector as well as the increases in TPDC's Profit Gas revenue as a result of increased revenues.



## General and Administrative Expenses

General and administrative expenses are split between the Company's head office and Tanzania. A significant percentage of general and administration expenses relate to office and management costs that support the Company's operations in Tanzania and are cost recoverable under the PSA.

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Tanzania	2,356	1,891	8,029	6,946
Corporate	1,464	1,423	5,519	5,042
	3,820	3,314	13,548	11,988

General and administrative expenses are detailed in the table below:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Employee and related costs	1,996	1,833	7,408	6,919
Office costs	913	785	3,668	2,716
ESG, marketing and business development costs	137	327	472	967
Reporting, regulatory and corporate	774	369	2,000	1,386
	3,820	3,314	13,548	11,988

General and administrative expenses averaged \$1.3 million per month during Q4 2022 (Q4 2021: \$1.1 million) and \$1.1 million per month for the year ended December 31, 2022 (year ended December 31, 2021: \$1.0 million). The 7% increase in employee and related costs for the year ended December 31, 2022 over the comparable prior year period was mainly a result of additions in the headcount. The 35% increase in office costs for the year ended December 31, 2022 over the comparable prior year period was a result of increased costs related to business travel and logistical services in Tanzania. The 51% decrease in ESG, marketing and business development costs for the year ended December 31, 2022 over the comparable prior year period was a result of higher ESG expenditures incurred in 2021 in relation to the construction of the Chumo Health Centre and the NAHAMA dispensary in Tanzania. The 44% increase in reporting, regulatory and corporate costs for the year ended December 31, 2022 over the comparable prior year period was due to increase in costs related to professional and legal services.

## Stock-Based Compensation

The breakdown of the costs incurred in relation to stock based compensation is detailed in the table below:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Stock appreciation rights ("SARs")	-	(123)	23	(585)
Restricted stock units ("RSUs")	(1)	24	(143)	9
	(1)	(99)	(120)	(576)

As at December 31, 2022 a total of 14,000 SARs were outstanding (December 31, 2021: 746,166). No new SARs were issued, 54,000 SARs were forfeited, and 678,166 SARs were exercised during 2022. As at December 31, 2022 a total of 2,833 RSUs were outstanding (December 31, 2021: 76,366 RSUs). No new RSUs were issued or forfeited, and 73,533 RSUs were exercised during 2022.

As SARs and RSUs are settled in cash, they are revalued at each reporting date using the Black-Scholes option pricing model with the resulting liability being recognized in trade and other liabilities. In the valuation of stock appreciation rights and restricted stock units as at December 31, 2022, the following assumptions have been made: a risk free rate of interest of 1.0% (December 31, 2021: 1.0%), stock volatility of 25.4% (December 31, 2021: 24.6% to 37.8%), 5% forfeiture (December 31, 2021: 5%) and a closing stock price of CDN\$4.68 (December 31, 2021: CDN\$5.40) per Class B share. The valuation of the SARs and RSUs awards is increased to reflect the amount of dividends paid between the award date to the time of exercise.

As at December 31, 2022 a total accrued liability of \$0.02 million (December 31, 2021: \$1.1 million) has been recognized in relation to SARs and RSUs which is included in other payables. In 2022, the Company recognized a recovery for the year of \$0.1 million (2021: \$0.6 million) on stock based compensation.

## Management's Discussion &amp; Analysis cont.

## Depletion and Depreciation

Natural gas properties are depleted using the unit of production method based on the production for the period as a percentage of the total future production from the Songo Songo proved reserves. As at December 31, 2022 the estimated proved reserves remaining to be produced over the term of the PSA as determined by McDaniel in their report dated February 24, 2023 with an effective date of December 31, 2022 and prepared in accordance with NI 51-101 and the COGE Handbook were 141 Bcf (December 31, 2021: 160 Bcf). The average depletion rate was \$0.91/mcf for the year ended December 31, 2022 compared to \$0.71/mcf for the comparable prior year.

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Oil and natural gas interests	<b>9,886</b>	4,646	<b>29,174</b>	15,779
Office and other	<b>25</b>	6	<b>70</b>	37
Right-of-use assets	<b>69</b>	72	<b>284</b>	290
	<b>9,980</b>	4,724	<b>29,528</b>	16,106

The depletion charge for natural gas interests increased by 113% for Q4 2022 and by 85% for the year ended December 31, 2022 over the comparable prior year periods. The increases were due to increased gas produced and sold, additional capital expenditure, and a reduction in estimated proved reserves.

## Finance Income and Expense

Finance income is detailed in the table below:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Interest income	<b>300</b>	25	<b>613</b>	133
	<b>300</b>	25	<b>613</b>	133

Finance expense is detailed in the table below:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Base interest expense	<b>1,276</b>	1,476	<b>5,678</b>	5,982
Participation interest expense	<b>1,150</b>	372	<b>2,936</b>	920
Lease interest expense	<b>4</b>	9	<b>23</b>	43
Interest expense	<b>2,430</b>	1,857	<b>8,637</b>	6,945
Net foreign exchange loss	<b>157</b>	274	<b>470</b>	628
Interest on tax assessment	-	588	-	588
Indirect tax	<b>331</b>	212	<b>1,103</b>	1,826
	<b>2,918</b>	2,931	<b>10,210</b>	9,987

## Finance Income and Expense cont.

Base interest expense and participation interest expense relate to the long-term loan ("Loan") from the International Finance Corporation ("IFC") to PAET, the Company's subsidiary operating in Tanzania. Base interest on the Loan is payable quarterly in arrears at 10% per annum on a "pay-if-you-can-basis" using a formula to calculate the net cash available for such payments as at any given interest payment date. The participation interest expense is paid annually in arrears. It equates to 6.4% of PAET's net cash flows from operating activities less the net cash flows used in investing activities for the year. Such participation interest will continue until October 15, 2026 regardless of whether the Loan is repaid prior to its contractual maturity date. The increase in participation interest expense is primarily a result of the increase in PAET's net cash flows from operating activities, less the net cash used in investing activities, for the three and twelve months ended December 31, 2022 over the comparable prior year periods.

Net foreign exchange losses are the result of transactions in foreign currencies recorded at the rate of exchange prevailing on the date of such transactions. Monetary assets and liabilities in foreign currencies are translated at period-end rates. Non-monetary items are translated at historic rates, unless such items are carried at market value, in which case they are translated using the exchange rates that existed when the values were determined. These foreign exchange gains and losses are recorded in finance expense.

The indirect tax includes value added tax ("VAT") on the invoices to TANESCO under the take or pay provisions within PGSA and on the invoices to TANESCO for interest on late payments. No take or pay invoice was issued in 2022 whereas the take or pay invoice for the net amount of \$6.7 million was issued in 2021 resulting in a higher indirect tax expense during the year ended December 31, 2021. The interest on tax assessment in 2021 represents the Company's share of the amount in dispute with respect to interest on depreciation disallowed by the Tanzanian Revenue Authority ("TRA") for expenditures in relation to completing well SS-10 in 2009 and 2010 and well SS-12 in 2015 and 2016.

## Reversal of Loss Allowance

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Reversal of loss allowance	<b>(2,528)</b>	-	<b>(10,150)</b>	(3,762)
Loss allowance	<b>3,240</b>	1,188	<b>3,435</b>	1,188
	<b>712</b>	1,188	<b>(6,715)</b>	(2,574)

The reversal of loss allowance in 2022 follows: (i) collection of TANESCO arrears of \$5.6 million (2021: \$1.1 million) which had been previously allowed for and represents the excess of receipts over gas sales invoiced during the year; and (ii) indirect taxation of \$4.6 million related to the TANESCO 2017 and 2018 take or pay invoices that were paid in 2022 and had not previously been recognized (2021: \$0.8 million related to TANESCO 2016 take or pay invoice). In addition, the reversal of loss allowance in 2021 includes collection of Songas operatorship arrears of \$1.9 million which had been previously allowed for.

The loss allowance of \$3.4 million in 2022 represents (i) \$3.2 million with respect to impairment of Swala TZ Preference Shares; and (ii) the net amount of \$0.5 million previously allowed for in Q4 2021 with respect to the dispute with the TRA on the issue of withholding tax on services performed outside Tanzania by non-resident persons in 2010 and 2015-16; and (ii) \$0.7 million representing the settlement amount with respect to the above withholding tax dispute. In 2022 the Company, with advice from its legal counsel, agreed to settle the dispute and made the payment to TRA on August 24, 2022. The loss allowance of \$1.2 million in 2021 is for: (i) \$0.7 million with respect to impairment of Swala TZ Preference Shares; and (ii) \$0.5 million being the amount in dispute with the TRA with respect to withholding tax on services performed outside Tanzania by non-resident persons in 2010 and 2015-16.

## Management's Discussion &amp; Analysis cont.

**Tax****Income Tax**

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Current tax	5,752	3,736	15,488	10,192
Deferred tax (recovery) expense	(993)	2,743	1,213	6,534
	4,759	6,479	16,701	16,726

Under the terms of the PSA with TPDC and the GoT, the Company is liable for income tax in Tanzania at the corporate tax rate of 30%. However, the PSA provides a mechanism by which income tax payable is recovered from TPDC by reducing TPDC's share of Profit Gas revenue and increasing the allocation to the Company. This is reflected in the accounts by increasing the Company's share of revenue by an amount equivalent to current year income taxes payable grossed up by 30%.

As at December 31, 2022 there were temporary differences between the carrying value of the assets and liabilities for financial reporting purposes and the amounts used for taxation purposes under the Income Tax Act 2004. Applying the 30% Tanzanian tax rate, the Company has recognized a deferred tax liability of \$26.3 million (December 31, 2021: \$25.0 million). The deferred tax has no impact on cash flow until it becomes a current income tax, at which point the tax is paid and recovered from TPDC's share of Profit Gas revenue.

**Additional Profits Tax**

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
APT	2,270	1,214	7,613	4,609

Under the terms of the PSA, APT is payable when the Company has recovered its costs plus a specified return out of Cost Gas revenue and Profit Gas revenue. As a result: (i) no APT is payable until the Company recovers its costs out of Additional Gas revenue plus an annual operating return under the PSA of 25% plus the percentage change in the United States Industrial Goods Producer Price Index ("PPI"); and (ii) the maximum APT rate is 55% of the Company's Profit Gas revenue when costs have been recovered with an annual return of 35% plus the percentage change in PPI.

The timing and the effective rate of APT depends on the realized value of Profit Gas revenue which in turn depends on the level of expenditure. The Company provides for APT by annually forecasting the total APT payable in the future as a proportion of the forecast Profit Gas revenue over the term of the PSA. The forecast takes into account the timing of future development capital spending. As at December 31, 2022 the current portion of APT payable was \$13.1 million (December 31, 2021: \$8.5 million) with a long-term APT payable of \$15.3 million (December 31, 2021: \$20.9 million). APT of \$8.5 million was paid in Q1 2022 based on the 2021 results (Q1 2021: \$11.5 million based on 2020 results).

The effective APT rate of 15.6% (Q4 2021: 17.3%) has been applied to the Company's share of Profit Gas revenue of \$14.6 million for Q4 2022 (Q4 2021: \$6.8 million), and an average effective rate of 16.8% (2021: 17.3%) has been applied to the Company's share of Profit Gas revenue of \$45.4 million for the year ended December 31, 2022 (year ended December 31, 2021: \$26.7 million). Accordingly, \$2.3 million for the quarter ended December 31, 2022 (Q4 2021: \$1.2 million) and \$7.6 million for the year ended December 31, 2022 (year ended December 31, 2021: \$4.6 million) of APT has been recorded in the Consolidated Statements of Comprehensive Income.

## Working Capital

Working capital as at December 31, 2022 was \$61.6 million (December 31, 2021: \$41.8 million) and is detailed in the table below (also see "Non-GAAP financial measures and ratios"):

\$'000	As at December 31		
	2022	2021	
<b>Cash and cash equivalents</b>	<b>96,321</b>	72,985	
<b>Trade and other receivables</b>			
Songas	12,640	8,776	
TPDC	4,694	5,603	
TANESCO	3,736	2,042	
Industrial customers and other receivables	15,207	15,487	
Loss allowance	(1,177)	35,100	30,731
<b>Prepayments</b>	<b>1,551</b>	1,133	
	<b>132,972</b>	104,849	
<b>Trade and other liabilities</b>			
TPDC share of Profit Gas revenue <sup>1</sup>	19,440	21,911	
Songas	2,933	1,899	
Deferred income - take or pay contracts <sup>2</sup>	10,665	5,215	
Other trade payables and accrued liabilities	10,154	17,751	
Current portion of long-term loan	10,000	5,000	
Current portion of APT	13,146	66,338	60,237
<b>Tax payable</b>	<b>5,081</b>	2,836	
	<b>71,419</b>	63,073	
<b>Working capital</b>	<b>61,553</b>	41,776	

1 The balance of \$19.4 million payable to TPDC is the liability for TPDC's share of Profit Gas revenue, primarily related to unpaid gas deliveries to TANESCO. The majority of the settlement of this liability is dependent on receipt of payment from TANESCO for arrears. For their allocation of Profit Gas revenue, the Company paid TPDC \$23.9 million in 2022 (2021: \$15.6 million).

2 In Q2 2022 TANESCO paid the take or pay invoice of \$13.4 million for the 2016-2017 contract year for gas to be taken by June 30, 2022. In 2022 the Company reached an agreement with TANESCO to extend by 12 months the time period for the previously untaken gas to be taken prior to the end of Q2 2023. The deferred income amount was fully released to the Company's Statements of Comprehensive Income as revenue in 2022 as the contractual volumes were consumed by TANESCO in full.

In Q4 2022 TANESCO paid the take or pay invoice of \$16.6 million for the 2017-2018 contract year for gas to be taken by June 30, 2023. The Company agreed to extend by 12 months the time period for the previously untaken gas to be taken prior to the end of Q2 2024. The deferred income amount will be released to the Company's Statements of Comprehensive Income as revenue either as gas is taken or in Q2 2024 should TANESCO be unable to take sufficient gas volumes to recover the full take or pay amount.

## Financial Instruments

Current financial instruments of the Company include cash and cash equivalents, trade and other receivables, trade and other liabilities and tax payable. The carrying values of the financial instruments approximate fair values due to their relatively short periods to maturity. The risks associated with the Company's financial instruments are primarily attributed to the inherent riskiness of cash, and the risk that trade and other receivables may not be paid when due. The Company mitigates these risks by (i) holding the majority of its cash outside of Tanzania in reputable international financial institutions primarily in Jersey and Mauritius which reduces geo-political risk; and (ii) monitoring and reviewing the trade and other receivables on a regular basis to determine if allowances are required for overdue amounts or action is required to restrict deliveries on past due accounts to reduce exposure on outstanding receivables. There are no restrictions on the movement of cash from Jersey, Mauritius or Tanzania.

Financial assets and liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument. Financial assets are derecognized when the rights to receive cash flows from the assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership.

## Management's Discussion &amp; Analysis cont.

**Working Capital cont.****Working Capital Requirements**

The Company expects to have sufficient cash flow from operating activities to maintain adequate working capital to cover both short-term and long-term obligations, including forecasted debt and interest payments (\$18.1 million) and capital expenditure (\$38 million) for 2023. The Company has not incurred any losses from debtors in 2022. The Company maintains adequate cash and cash equivalents on hand to ensure it can meet all its capital expenditure obligations and deal with possible fluctuations in liquidity from operational problems. The Company does not anticipate any circumstances that are reasonably likely to occur that could significantly impact the Company's cash flows and liquidity, however, it has been more difficult for the Company to convert Tanzanian shillings to United States dollars as of Q4 2022, and there is a risk that in the future the Company may not be able to convert Tanzanian shillings to United States dollars as and when required. It is unknown how long the difficulty of the Company converting Tanzanian shillings to United States dollars will continue.

**TANESCO Receivable**

As at December 31, 2022 the current receivable from TANESCO was \$3.7 million (December 31, 2021: \$2.0 million). During 2022 the Company invoiced TANESCO \$29.8 million (2021: \$23.9 million) for gas deliveries and received \$33.7 million (2021: \$22.9 million) in payments. Based on the consistent payments from TANESCO, the Company: (i) recognized all amounts invoiced for gas deliveries in 2022 and 2021 as revenue; and (ii) recognized \$5.6 million during the year (2021: \$1.1 million) as a reversal of loss allowance relating to the amounts collected during the year that were applied towards the long-term TANESCO receivables previously allowed for. In addition, during 2022 TANESCO paid the Company \$30.0 million against the 2017 and 2018 take or pay invoices. \$14.7 million of this amount was released to the Company's Statements of Comprehensive Income as revenue in 2022; the remaining \$10.7 million of the deferred income amount will be released to the Company's Statements of Comprehensive Income as revenue either as gas is taken in 2023 or in Q2 2024 should TANESCO be unable to take sufficient gas volumes to recover the full take or pay amount. \$4.6 million, being the VAT component of the 2017 and 2018 take or pay invoices, was reversed out of loss allowance in 2022.

The TANESCO long-term receivable as at December 31, 2022 was \$22.0 million with a provision of \$22.0 million compared to \$26.5 million (with a provision of \$26.5 million) as at December 31, 2021. Subsequent to December 31, 2022 the Company has invoiced TANESCO \$6.9 million for 2023 gas deliveries and TANESCO has paid the Company \$11.1 million. In addition, subsequent to December 31, 2022 TANESCO paid the Company \$3.3 million against the 2020 take or pay invoice.

**Capital Expenditures**

The capital expenditures (see "Non-GAAP financial measures and ratios") in 2022 primarily related to the well workover program and the initial costs of the 3D seismic acquisition program. The capital expenditures in 2021 primarily related to the installation of compression facilities and well workover planning and design.

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Pipelines, well workovers and infrastructure	3,604	12,494	22,125	26,596
Other capital expenditures	11	2	281	14
	3,615	12,496	22,406	26,610

**Capital Requirements**

Except as described below, there are no contractual commitments for exploration or development drilling or other field development, either in the PSA or otherwise agreed, which would give rise to significant capital expenditure at Songo Songo Island. Any additional significant capital expenditure in Tanzania is discretionary.

As at the date of this report, the Company's only significant contractual commitment is in relation to the 3D seismic acquisition and processing program to acquire approximately 181 square kilometers of 3D marine, transition and land based seismic over the Songo Songo license area. This program is intended to de-risk future development drilling and to evaluate the prospective resource potential for future exploration drilling. The Company is currently mobilizing to carry out a 3D seismic acquisition program in Q2 and Q3 2023, budgeted at \$23.2 million including associated management, support and QA/QC costs, estimated to be approximately \$1.9 million. As of December 31, 2022, \$1.9 million of the seismic contracts has been paid, the remaining capital expenditures of \$21.3 million is forecasted to be paid by Q3 2023. Seismic processing contracts in the amount of \$1.4 million are expected to be paid by Q4 2023.

The Company concluded the onshore well remediation program comprising three wells (SS-3, SS-4 and SS-10) in April 2022. The SS-3 well was shut-in in 2012 due to excessive corrosion and sustained annulus pressure. Having returned to production on February 15, 2022, the SS-3 well is now producing at rates up to 10 MMcf/d. The SS-4 well was suspended in 2019 after it started producing sand. Following a well sidetrack, a coiled tubing unit was mobilized to lift liquids from the wellbore to in an effort to return the SS-4 well to production. The SS-10 well was affected by progressive corrosion of its production tubing which would have ultimately threatened its safe operation and was worked over to replace the corroded tubing. The workover of the SS-10 well was completed on April 7, 2022, and the SS-10 well was returned to production on April 18, 2022. The total gross cost for the workover program was \$31.6 million; this was fully paid by Q4 2022.

Low pressure compression was installed on the Songas processing plant and commissioned in March 2022, restoring the plant's gas production potential to maximum capacity. The total cost for the low pressure compression was \$43.4 million; this was fully paid by Q4 2022.

## Capital Expenditures cont.

### Capital Requirements cont.

The Company also successfully completed smart pigging of the SS-3, SS-4 SS-5, SS-7 and SS-9 flowlines, identifying a number of areas of corrosion or erosion in accordance with the Company's integrity management system. Low cost repairs of sections of flowlines have been conducted and wells returned to operations with minimal impact on overall production. Further work is planned to be conducted through 2023 to replace several other less critically affected sections.

In 2020, the Company undertook modeling to predict sand production from the Songo Songo gas field, with some wells predicted to produce sand as early as 2022. To mitigate this the Company installed downhole sand control in the SS-4 and SS-10 wells during their recent workovers. It also purchased and installed one fixed acoustic detector at the inlet manifold of the Songas gas plant, and one mobile acoustic detector which can be aligned to individual wells as necessary. The Company undertook a sand production testing program, individually aligning all wells, with the exception of the SS-12 well which is permanently aligned to the NNGL plant, and the SS-4 and SS-7 wells, which are currently not producing, to the test separator to assess each for sand production. All wells aligned and tested produced some sand over the course of their 10-day tests. Consequently, a cyclonic de-sanding unit was installed at the SS-10 wellhead, with a second unit ready for installation should sand production occur in significant volumes in another well. Although the current assessment indicates that significant sand production is unlikely to occur, the Company has also proposed the purchase of an additional desanding units in 2023 to mitigate the risk of future sand production from the Songo Songo gas field.

## Long-term Receivables

\$'000	As at December 31	
	2022	2021
VAT – Songas workovers	2,205	2,205
Lease deposit	10	10
	2,215	2,215

In 2017, based on agreement with TPDC, \$12.3 million relating to the Songas share of workover costs of the SS-5 and SS-9 wells was transferred to the cost pool enabling the Company to recover the costs via the PSA cost recovery mechanism. This resulted in \$2.2 million relating to VAT on the workovers that had already been paid being reclassified as a long-term receivable. Following implementation of measures to recover workover costs from Songas, Songas proposed a settlement agreement which was recently approved by the Company and the GoT. The details of the settlement are now being finalized between Songas and the Company.

The following table details the amounts receivable from TANESCO that do not yet meet revenue recognition criteria and therefore are not recorded in the consolidated financial statements:

\$'000	As at December 31	
	2022	2021
Total amounts invoiced to TANESCO	92,547	119,168
Trade receivable – TANESCO	(3,736)	(2,042)
Unrecognized amounts not meeting revenue recognition criteria <sup>1</sup>	(66,793)	(90,634)
Loss allowance	(22,018)	(26,492)
	-	-

<sup>1</sup> The amount includes invoices for interest on late payments and invoices relating to differences between gas contracted for delivery versus gas taken by TANESCO. In May and June 2022 TANESCO paid the take or pay invoice of \$13.4 million for the 2016-2017 contract year for gas to be taken by June 30, 2022 which the Company has extended by 12 months to June 30, 2023. TANESCO took all the gas related to the 2016-2017 contract year by 31 December 2022. In Q4 2022 TANESCO paid the take or pay invoice of \$16.6 million for the 2017-2018 contract year for gas to be taken by June 30, 2023 which the Company has extended by 12 months to June 30, 2024.

## Management's Discussion &amp; Analysis cont.

**Long-term Loan**

In 2015 PAET took out the Loan with the IFC, a member of the World Bank Group, for \$60 million. The Loan was fully drawn down in 2016.

The Loan is to be paid out through six semi-annual payments of \$5.0 million starting October 15, 2022, for which initial payment was paid by the Company subsequent to October 15, 2022, and one final payment of \$25.2 million will be due on October 15, 2025. The Company may voluntarily prepay all or part of the Loan but must simultaneously pay any accrued base interest costs related to the principal amount being prepaid. The Loan is an unsecured subordinated obligation of PAET and was guaranteed by the Company to a maximum of \$30.0 million. The guarantee may only be called upon by IFC at maturity in 2025 and, subject to IFC approval and receipt of all required regulatory approvals, the Company, at its discretion, may issue shares in fulfillment of all or part of its guarantee obligation in 2025. Pursuant to the sale of a non-controlling interest in PAEM, the parent company of PAET, the Company agreed with the IFC to reduce the outstanding amount of the Loan by the percentage interest sold of 7.9% (\$4.8 million) before the fourth anniversary of the first drawdown. PAET made this payment on October 16, 2019.

Dividends and distributions from PAET to PAEM are restricted at any time whenever amounts of interest, principal or participating interest are due and outstanding. All amounts under the Loan have been paid when due.

**Outstanding Shares**

The Class A Shares are convertible at any time at the option of the holder into Class B Shares on a one-for-one basis. Subject to the terms and conditions of conversion specified in the memorandum of association and articles of association of the Company, the Class B Shares are convertible into Class A Shares on a one for one basis if an offer is made to purchase Class A Shares that: (i) must, by reason of applicable securities legislation or the requirements of a stock exchange on which the Class A Shares are listed, be made to all or substantially all of the holders of Class A Shares; and (ii) is not made concurrently with an offer to purchase Class B Shares that is identical to the offer to purchase Class A Shares and that has no condition attached other than the right not to take up and pay for shares tendered if no shares are purchased pursuant to the offer for Class A Shares. The conversion right does not come into effect under certain events specified in the memorandum of association of the Company, including, without limitation, the prior delivery to the Company's transfer agent and to the Secretary of the Company of a certificate signed by one or more shareholders owning more than 50% of the then outstanding Class A Shares.

Pursuant to the substantial issuer bid of CDN\$40.0 million completed in January 2021 ("2021 SIB") the Company purchased and canceled 6,153,846 Class B Shares. Pursuant to the normal course issuer bid commenced on June 21, 2021 ("2021 NCIB"), the Company repurchased and canceled a total of 60,900 Class B Shares at a weighted average price of CDN\$5.18.

On July 11, 2022 the Company commenced a normal course issuer bid ("2022 NCIB") to purchase Class B Shares through the facilities of the TSXV and alternative trading systems in Canada. As at December 31, 2022 the Company had repurchased 47,200 Class B Shares at a weighted average price of CDN\$4.87 per share pursuant to the 2022 NCIB. As at April 26, 2023 the Company had repurchased 81,000 Class B Shares at a weighted average price of CDN\$4.89 per share pursuant to the 2022 NCIB. 1,750,495 Class A Shares and 18,125,514 Class B Shares were outstanding as at December 31, 2022; 1,750,495 Class A Shares and 18,091,714 Class B Shares were outstanding as at April 26, 2023. See "Substantial Issuer Bid, Normal Course Issuer Bid and Dividends" in this MD&A.

**Cash Flow Summary**

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
<b>Operating activities</b>				
<b>Net income</b>	<b>3,014</b>	1,915	<b>30,280</b>	17,963
Non-cash adjustments	<b>15,018</b>	12,016	<b>42,342</b>	30,074
Interest expense	<b>2,430</b>	1,857	<b>8,637</b>	6,945
Changes in non-cash working capital <sup>1</sup>	<b>(5,024)</b>	2,733	<b>(13,599)</b>	(14,872)
<b>Net cash flows from operating activities</b>	<b>15,438</b>	18,521	<b>67,660</b>	40,110
<b>Net cash used in investing activities</b>	<b>(4,082)</b>	(13,629)	<b>(25,731)</b>	(24,985)
<b>Net cash used in financing activities</b>	<b>(8,136)</b>	(3,269)	<b>(18,690)</b>	(45,949)
<b>Increase (decrease) in cash</b>	<b>3,220</b>	1,623	<b>23,239</b>	(30,824)

<sup>1</sup> See Consolidated Statements of Cash Flows



## Cash Flow Summary cont.

The Company's net cash flows from operating activities decreased by 17% for Q4 2022 and increased by 69% for the year ended December 31, 2022 over the comparable prior year periods. The decrease for Q4 2022 over the comparable prior year period was primarily a result of changes in non-cash working capital. The increase for the year ended December 31, 2022 over the comparable prior year period was primarily a result of increased revenue. The decrease in net cash used in investing activities for the three months ended December 31, 2022 over the comparable prior year period were mainly a result of higher expenditure in Q4 2021 in relation to the installation of compression facilities. The increase in net cash used in financing activities for Q4 2022 over the comparable prior year period was mainly a result of the repayment of the initial installment of the long-term loan in Q4 2022. The decrease in net cash used in financing activities for the year ended December 31, 2022 over the comparable prior period was primarily a result of the 2021 SIB of CDN\$40.0 million.

## Related Party Transactions

The Chair of the Company's Board of Directors is counsel to Burnet, Duckworth & Palmer LLP, a law firm that provides legal advice to the Company and its subsidiaries. Fees for services provided by this firm totaled \$0.1 million for the quarter ended December 31, 2022 (Q4 2021: \$0.1 million) and \$0.5 million for the year ended December 31, 2022 (year ended December 31, 2021: \$0.3 million).

As at December 31, 2022 the Company had a total of \$0.1 million (December 31, 2021: \$0.1 million) recorded in trade and other liabilities in relation to related parties.

## Substantial Issuer Bid, Normal Course Issuer Bid and Dividends

During Q1 2021 the Company repurchased and canceled 6,153,846 Class B Shares at a weighted average price of CDN\$6.50 per Class B Share under the 2021 SIB. This resulted in an aggregate purchase of CDN\$40.0 million of Class B Shares representing 25.2% of the Company's issued and outstanding Class B Shares and 23.5% of the total number of the Company's issued and outstanding shares. Total cash payments of \$31.9 million were applied to the capital stock and accumulated income accounts.

On June 21, 2021 the Company commenced the 2021 NCIB to purchase Class B Shares through the facilities of the TSXV and alternative trading systems in Canada. Purchases pursuant to the 2021 NCIB were made by Research Capital Corporation ("Research Capital") on behalf of the Company and were not to exceed 500,000 Class B Shares, representing approximately 2.74% of the total outstanding Class B Shares. The 2021 NCIB was in effect until June 21, 2022. As of July 7, 2022, an aggregate of 60,900 Class B Shares were repurchased by the Company pursuant to the 2021 NCIB at an average price per Class B Share of CDN\$5.18. Shareholders may obtain a copy of the notice regarding the 2021 NCIB filed with the TSXV from the Company without charge.

On July 5, 2022 the Company announced the 2022 NCIB to purchase Class B Shares through the facilities of the TSXV and alternative trading systems in Canada. Purchases pursuant to the 2022 NCIB will be made by Research Capital on behalf of the Company and will not exceed 500,000 Class B Shares, representing approximately 2.75% of the total outstanding Class B Shares as of July 4, 2022. The 2022 NCIB will be in effect from July 11, 2022 until July 11, 2023 (or until such time as the maximum number of Class B Shares have been purchased). Purchases of Class B Shares will be made by Research Capital based on the parameters prescribed by the TSXV and applicable securities laws. The acquisition price of Class B Shares under the 2022 NCIB will not exceed the market price of the Class B Shares at the time of acquisition and the funds available to acquire the Class B Shares will come from the Company's working capital and cash flow. All Class B Shares purchased under the 2022 NCIB will be canceled. As at December 31, 2022 the Company had repurchased 47,200 Class B Shares at a weighted average price of CDN\$4.87 per share pursuant to the 2022 NCIB. As at April 26, 2023 the Company had repurchased 81,000 Class B Shares at a weighted average price of CDN\$4.89 per share pursuant to the 2022 NCIB. Shareholders may obtain a copy of the notice regarding the 2022 NCIB filed with the TSXV from the Company without charge.

All issued capital stock is fully paid.

## Dividend Summary

Declaration date	Record date	Payment date	Amount per share (CDN\$)
February 24, 2023	March 31, 2023	April 14, 2023	0.10
November 16, 2022	December 31, 2022	January 13, 2023	0.10
September 28, 2022	October 14, 2022	October 28, 2022	0.10
May 20, 2022	June 30, 2022	July 15, 2022	0.10
February 24, 2022	March 31, 2022	April 15, 2022	0.10
November 9, 2021	December 31, 2021	January 15, 2022	0.10
September 9, 2021	September 29, 2021	October 15, 2021	0.10
June 4, 2021	June 30, 2021	July 15, 2021	0.10
February 23, 2021	March 31, 2021	April 15, 2021	0.10

## Management's Discussion &amp; Analysis cont.

**Consolidation**

The companies which are being consolidated for the purposes of this MD&A are:

<b>Subsidiary</b>	<b>Incorporated</b>	<b>Holding</b>
Orca Energy Group Inc.	British Virgin Islands	Parent Company
Orca Exploration UK Services Limited	United Kingdom	100%
PAE PanAfrican Energy Corporation ("PAEM")	Mauritius	92%
PanAfrican Energy Tanzania Limited	Jersey	92%

**Non-Controlling Interest**

The Company sold 7.9% (7,933 Class A common shares) of PAEM to a wholly owned subsidiary of Swala TZ in 2018 for \$15.4 million cash and \$4.0 million of Swala TZ's Preference Shares pursuant to a share purchase agreement. The Preference Shares entitle the Company to a 10% per annum distribution payable 15 days after each quarter end commencing from the closing date, January 16, 2018. Payment of the quarterly distributions is at the discretion of Swala TZ based on funds available, however, the liability accrues if any amount is unpaid when due. For any distributable amount remaining unpaid at December 31, 2021, the Company may demand settlement and Swala TZ is obligated to comply by transferring and returning the Class A common shares of PAEM sold to Swala TZ. The aggregate value of these shares will equal the amount of the outstanding distributions. As at December 31, 2022, the Company has not received any distributions or recorded any amount receivable related to the Preference Shares.

Swala TZ is obligated to redeem 20% of the Preference Shares for cash annually starting from December 31, 2021 until all shares are redeemed. If at any time Swala TZ does not redeem in cash the required number of Preference Shares, Swala TZ is obligated to redeem the Preference Shares by transferring and returning the Class A common shares of PAEM sold to Swala TZ. The aggregate value of these Class A common shares will equal the amount of any outstanding redemption. On August 8, 2022, the Company issued a redemption notice to Swala TZ, requesting that Swala TZ redeem 20% of the outstanding Preference Shares by August 23, 2022. Swala TZ has responded to the Company's redemption notice and is disputing its obligation to redeem Swala TZ's Preference Shares. As at December 31, 2022, this matter remains in dispute between Swala TZ and the Company and the redemption notice request remains outstanding. As of December 31, 2021, the Company had recorded \$0.7 million as a loss allowance with respect to Preference Shares. In Q4 2022, the Company fully impaired the \$3.9 million investment recording an additional \$3.2 million as a loss allowance. On January 31, 2023 the Company issued a further redemption notice to Swala TZ, requesting that Swala TZ redeem a further 20% of the outstanding Swala TZ's Preference Shares by February 15, 2023.

A reconciliation of the non-controlling interest is detailed below:

\$'000	As at December 31	
	2022	2021
Balance, beginning of year	<b>3,116</b>	1,523
Net income attributable to non-controlling interest	<b>2,554</b>	1,593
Balance, end of year	<b>5,670</b>	3,116

## Contingencies

### Taxation

Amounts in \$'millions					As at December 31	
					2022	2021
Area	Period	Reason for dispute	Principal	Interest and penalties	Total	Total
Income tax	2008-09, 2011-20	Deductibility of capital expenditures and expenses (2012, 2015 and 2016), additional income tax (2008, 2011 and 2012), foreign exchange rate application (2013 to 2015, 2018 to 2020), underestimation of tax due (2014, 2016 and 2020) and methodology of grossing up income taxes paid (2015 to 2017).	19.9	14.3	34.2 <sup>(1)</sup>	32.7
Tax on repatriated income	2012-21	Applicability of withholding tax on repatriated income (2012 to 2021).	21.9	3.0	24.9 <sup>(2)</sup>	19.0
VAT	2012-18	VAT already paid (2012 to 2014), VAT on imported services (2015 and 2016); interest on VAT decreasing adjustments and input VAT on services (2017 and 2018).	0.3	1.3	1.6 <sup>(3)</sup>	1.4
Withholding tax ("WHT")	2005-09	WHT on services performed outside of Tanzania by non-resident persons.	-	-	-	1.6 <sup>(4)</sup>
Pay-As-You-Earn ("PAYE") tax	2008-10	PAYE tax on grossed-up amounts in staff salaries which are contractually stated as net.	-	-	-	0.3 <sup>(5)</sup>
			42.1	18.6	60.7	55.0

In Q4 2022, the TRA issued seven assessments for tax on repatriated income (\$10.6 million) for the years of 2015 to 2021. The Company objected to the assessments on the grounds of the assessments lacking merit; additionally, the assessments for the years of 2015 and 2016 were time-barred. The Company is awaiting TRA's response. In Q4 2022, the Company also recorded an additional provision of approximately \$1.1 million (Q4 2021: \$2.2 million).

In Q4 2022, the TRA issued six assessments for income tax and for ensuing interest on deemed delayed payments (\$0.5 million) for the years of 2018 to 2020. The Company objected to the assessments on the grounds of incorrect disallowance of expenses and use of exchange rates. The Company is awaiting TRA's response.

In Q4 2022, the Company also recorded an additional provision of approximately \$1.1 million (Q4 2021: \$2.2 million).

In Q3 2022, TRA and the Company agreed to settle outstanding WHT disputes for the years of income of 2010 and 2015-16. The Company agreed to pay the principal amount of \$0.7 million of the assessments foregoing the interest component of \$0.5 million. Pursuant to the legal procedures, deeds of settlement signed by both parties were accepted by the Tanzania Revenue Appeals Board ("TRAB") and the Tax Revenue Appeals Tribunal ("TRAT"), the payment was made by the Company to the TRA, and such matters are now formally closed.

During Q1 2022, following the expiry of the statutory deadline for the TRA to respond to the Company's objections, the Company filed notices of intention to appeal to the TRAB against the corporate income tax assessments for the years of 2012-16, tax on repatriated income for the years of 2012-14, and VAT for the years of 2015-16. On several occasions during 2022, these matters came for hearing and, at the request from the TRA, the TRAB granted an order that these matters be withdrawn to allow the TRA to further review and issue determination letters. The matters are now expected to appear for status review on May 17, 2023.

During 2021 the Company paid the TRA \$1.8 million as a deposit against the disputed taxes including PAYE tax, WHT, income tax and VAT for the years 2012-16, an amount agreed upon in order for TRA to admit the outstanding tax objections. In 2021, the Court of Appeal of Tanzania ("CAT") delivered its judgment on an appeal instituted by the Company on the appealability of a one-third deposit required to admit objections for the 2012 year of income. The CAT decided that the matters were not tax decisions and were therefore not appealable. Aggrieved by the decision, the Company filed a notice of motion for review of the decision at the same court. In Q3 2022, the CAT agreed with the Company and the matter was resolved and withdrawn from the CAT.

During 2021 the TRA issued a new assessment with regards to 2017 income tax (\$6.4 million). The Company objected to the TRA's incorrect methodology of grossing up income taxes already paid (\$6.4 million) and the issue of imposing interest on deemed delayed payment (\$0.1 million) and is awaiting a TRA response.

Management, with advice from its legal counsel, has reviewed the Company's position on the objections and appeals related to the disputed amounts and has concluded that no further provision is required. However, if the TRA reassesses the Company's tax returns for open taxation years on a similar basis, the Company may be required to make future deposits to object such assessments.

## Management's Discussion &amp; Analysis cont.

## Contingencies cont.

## Taxation cont.

The process of appealing assessments issued by the TRA starts by initially filing an appeal with the TRA. If this is not successful, claims can be taken to higher authorities starting with the TRAB, followed by an appeal to the TRAT and finally to the CAT. Below is a summary of the status of the various assessments:

- (1) (a) 2008 (\$0.6 million): The Company objected to the TRA assessment that did not recognize a tax loss carried forward and is awaiting a response;
- (b) 2009 (\$0.8 million): The Company objected to an amended assessment from the TRA for being time-barred and arbitrary and is awaiting a TRA response;
- (c) 2011 (\$1.7 million): The Company is awaiting a TRAT decision following the TRAB ruling in favor of the TRA;
- (d) 2012 (\$10.6 million): The Company appealed to the TRAB objecting to the TRA assessment with respect to understated revenue, timing of deductibility of capital expenditures and expenses;
- (e) 2013 (\$2.0 million): The Company appealed to the TRAB objecting to the TRA assessment as being time-barred and without merit;
- (f) 2014 (\$5.1 million): The Company appealed to the TRAB objecting to the TRA assessment on the ground that the TRA assessment incorrectly disallowed certain expenses and applied erroneous foreign exchange rates;
- (g) 2015-16 (\$6.1 million): The Company appealed to the TRAB as to TRA's assessments on the ground that the TRA assessments failed to recognize provisional tax payments, incorrectly disallowed certain expenses and applied erroneous foreign exchange rates;
- (h) 2017 (\$6.8 million): The TRA issued an assessment for corporation tax which questioned the Company's methodology of grossing up already paid corporation tax (\$6.7 million) and raised the issue of imposing interest on deemed delayed payment (\$0.1 million). The Company filed an objection and is awaiting the TRA's response;
- (i) 2018 (\$0.02 million): The TRA issued an assessment for corporation income tax in respect of disallowed expenses. The Company filed an objection and is awaiting the TRA's response;
- (j) 2018-20 (\$0.5 million): The TRA issued a series of assessments for corporation income tax in respect of disallowed expenses and for interest on deemed delayed payment of the taxes. The Company filed an objection and is awaiting the TRA's response;
- (2) (a) 2012 (\$3.1 million): The Company objected to the TRA assessment as being without merit and, following expiry of the statutory deadline for the TRA to respond, filed an appeal at the TRAB;
- (b) 2013 (\$7.8 million): The Company objected to the TRA assessment as being time-barred and without merit and, following expiry of the statutory deadline for the TRA to respond, filed an appeal at the TRAB;
- (c) 2014 (\$3.5 million): The Company objected to the TRA assessment as being without merit and, following expiry of the statutory deadline for the TRA to respond, filed an appeal at the TRAB;
- (d) 2015-16 (\$3.6 million): New assessments issued in Q4 2022 for the years of income of 2015 and 2016 have overridden the existing assessments for \$5.3 million. The Company objected to the TRA assessments and is awaiting the admission of the objections;
- (e) 2017-21 (\$6.9 million): The Company objected to the TRA assessments for the year of income of 2017 (\$1.6 million), 2018 (\$1.2 million), 2019 (\$1.6 million), 2020 (\$1.1 million) and 2021 (\$1.4 million) and is awaiting the admission of the objections;
- (3) (a) 2012-16 (\$0.2 million): The Company filed an objection to a TRA assessment with respect to disallowing VAT on certain services and is awaiting a response;
- (b) 2017-18 (\$1.3 million): The Company filed an objection to a TRA assessment and is awaiting a response. The Company objected to incorrect imposition of interest on VAT decreasing adjustments in respect of delayed TANESCO payment (\$1.2 million) and disallowing input VAT claimed in certain services (\$0.1 million);
- (c) 2019-20 (\$0.1 million): The Company filed an objection to a TRA assessment and is awaiting a response. The Company objected to disallowing input VAT claimed;
- (4) (a) 2005-2009 (\$nil; 2021: \$1.6 million): In 2018 the CAT ruled in favor of the Company that no WHT was required on services performed outside Tanzania by non-resident persons. The Company, with advice from its legal counsel, assessed that there is a remote chance for the TRA to successfully file an application for review of judgment and, as a consequence, the dispute is no longer represented in the table above;
- (5) (a) 2008-10 (\$nil; 2021: \$0.3 million): In 2020, the Company lost an appeal with CAT on the principal amount of PAYE tax and filed an application for judicial review at CAT. The TRA instructed PAET's commercial bank to transfer the full principal amount in dispute to TRA. Subsequent to December 31, 2022, the Company, with advice from its legal counsel, successfully applied to remove the matter from the CAT registry. Consequently, the dispute is no longer represented in the table above.

In 2016 the TRA introduced significant changes in relation to the income tax treatment of the extractive sector with separate new chapters in Part V of the Income Tax Act 2004 ("ITA, 2004") for mining and for petroleum to be effective commencing in 2018. Further changes were subsequently made by the Written Laws (Miscellaneous Amendments) Act, 2017 ("WLMAA, 2017") and in particular section 36(a)(ii) of the WLMAA, 2017. The WLMAA, 2017 amended section 65M and 65N of the ITA 2004 to exclude cost oil/cost gas from inclusion in both income and expenditure. The Company continues to review the tax effects of the changes as there are a number of uncertainties and ambiguities as to the interpretation and application of certain provisions of the WLMAA, 2017. In the absence of guidance on these matters, the Company has used what it believes are reasonable interpretations and assumptions in applying the WLMAA, 2017 for purposes of determining its tax liabilities and the results of operations, which may change as it receives additional clarification and implementation guidance. The Company does not expect a significant impact from the changes as it is able to recover taxes payable from the TPDC Profit Gas revenue entitlement under the terms of the PSA.

## Accounting Changes

The following pronouncements from the International Accounting Standards Board (the "IASB") became effective or were amended for financial reporting periods beginning on or after January 1, 2022. There has been no impact on the Company.

- COVID-19 Related Rent Concessions beyond 30 June 2021 (Amendment to IFRS 16).
- Onerous contracts – Cost of fulfilling a contract (Amendments to IAS 37).
- Annual Improvements to IFRS Standards 2018-2020.
- Property, Plant and Equipment: Proceeds before Intended Use (Amendments to IAS 16).
- Reference to the Conceptual Framework (Amendments to IFRS 3).

The following standards have been issued but are not yet effective:

- IFRS 17 Insurance Contracts.
- Amendments to IFRS 17.
- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2).
- Definition of Accounting Estimate (Amendments to IAS 8).
- Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction (Amendments to IAS 12).
- Initial Application of IFRS 17 and IFRS 9 Comparative Information (Amendments to IFRS 17).

The Company intends to adopt these standards when they become effective and is currently evaluating the potential impact.

## Disclosure Controls and Procedures and Internal Controls over Financial Reporting

The Company's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") have designed, or caused to be designed under their supervision, disclosure controls and procedures ("DC&P") for Orca. DC&P, as defined in National Instrument 52-109, *Certification of Disclosure in Issuers' Annual and Interim Filings*, are designed to provide reasonable assurance that information required to be disclosed in reports filed with, or submitted to, securities regulatory authorities is recorded, processed, summarized and reported within the time periods specified under Canadian securities law and include controls and procedures designed to ensure that information required to be so disclosed is accumulated and communicated to management, including the CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure. The CEO and CFO of Orca evaluated the effectiveness of the design and operation of the Company's DC&P. Based on the evaluation, the officers concluded that Orca's DC&P were effective as at December 31, 2022.

## Quarterly Results Summary

The following is a summary of key results for the Company for the last eight quarters:

Figures in '\$'000 except where otherwise stated	2022				2021			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	<b>31,877</b>	30,537	28,223	27,452	24,819	22,271	20,301	18,631
Net income attributable to shareholders	<b>2,325</b>	11,443	6,567	7,391	1,548	7,613	3,246	3,963
Earnings per share								
- basic and diluted (\$)	<b>0.12</b>	0.57	0.33	0.37	0.08	0.38	0.17	0.18
Net cash flows from operating activities	<b>15,438</b>	19,544	28,601	4,077	18,521	12,132	10,251	(794)
Capital expenditures	<b>3,615</b>	1,222	3,306	14,263	12,496	3,715	10,167	232

Revenue increased during Q2 2021 as a result of increased sales to the industrial sector and lower TPDC share of revenue as an outcome of increased capital expenditures and higher Cost Gas revenue recoveries by the Company. Revenue increased during Q3 2021 as a result of increased sales to the power sector which was partially offset by increased TPDC share of revenue as an outcome of reduced capital expenditures and lower Cost Gas revenue recoveries by the Company. Revenue increased during Q4 2021 as a result of increased sales to the industrial sector. Revenue increased in Q1 2022 as a result of increased sales to the power sector and decreased TPDC share of revenue as a result of increased capital expenditures. Revenue increased in Q2 2022 as a result of increased sales to the power sector. Revenue increased in Q3 2022 as a result of increased sales to the power sector and a higher current income tax adjustment. Revenue increased in Q4 2022 as a result of a further increase in sales to both industrial and the power sector and a higher current income tax adjustment.

## Management's Discussion &amp; Analysis cont.

**Quarterly Results Summary cont.**

Net income attributable to shareholders was affected by several factors, other than changes in revenue, including:

- the decrease in Q2 2021 was a result of a lower collection of TANESCO arrears;
- the increase in Q3 2021 was a result of lower general and administrative expenses and lower indirect tax as compared to Q2 2021;
- the decrease in Q4 2021 was a result of higher general and administrative expenses and higher loss allowance for receivables compared to Q3 2021;
- the increase in Q1 2022 was a result of recording loss allowance for receivables in Q4 2021;
- the decrease in Q2 2022 was a result of increased finance expense;
- the increase in Q3 2022 was a result of a collection of TANESCO arrears and;
- the decrease in Q4 2022 was a result of no collection of TANESCO arrears compared to Q3 2022 and the impairment of the investment in Swala TZ in Q4 2022.

In addition to the factors impacting net income attributable to shareholders, net cash flows from operating activities were primarily affected by the timing and amount of payments received from TANESCO. The increases in Q2, Q3 and Q4 2021 were mainly a result of the annual 2020 current liability associated with APT paid in Q1 2021. The decrease in Q1 2022 was primarily a result of the payment of the annual 2021 current APT liability. Correspondingly, the increase in Q2 2022 was a result of the payment of the current APT liability in the previous quarter and changes in non-cash working capital. The decrease in Q3 2022 was primarily a result of the changes in non-cash working capital, namely the decrease in accounts payable related to deferred income on take or pay contracts. The decrease in Q4 2022 was primarily a result of the changes in the non-cash working capital, namely the decrease in tax payable.

Capital expenditures in Q1 2021 were mainly related to well workover planning and design. Capital expenditures in Q2 2021 mainly relate to the installation of compression. Capital expenditures in Q3 and Q4 2021 and Q1 and Q2 2022 were mainly related to the well workover program. Capital expenditures in Q3 2022 were mainly related to the well workover program and the 3D seismic acquisition program. Capital expenditures in Q4 2022 were mainly related to the 3D seismic acquisition program.

**Selected Annual Financial Information**

Selected annual financial information derived from the audited consolidated financial statements for the years ended December 31, 2022, 2021 and 2020 is set out below:

Figures in \$'000 except per share amount	2022	2021	2020
Revenue	<b>118,089</b>	86,022	77,874
Net income attributable to shareholders	<b>27,726</b>	16,370	27,761
Earnings - basic and diluted (\$ per share)	<b>1.39</b>	0.81	1.00
Cash dividends declared (CDN\$ per Class A and B Shares)	<b>0.40</b>	0.40	0.28
Net cash flows from operating activities	<b>67,660</b>	40,110	46,505
Total non-current liabilities	<b>81,378</b>	95,744	98,008
Total assets	<b>248,083</b>	230,271	242,612

The 10% increase of revenue in 2021 compared to 2020 was a result of increased sales to TANESCO, TPDC and industrial customers as well as a higher current income tax adjustment. The 37% increase of revenue in 2022 compared to 2021 was primarily a result of increased sales to the power sector partially offset by a higher TPDC share of revenue as a result of increased gross field revenue.

The decrease in net income attributable to shareholders in 2021 was primarily a result of decreased reversal of loss allowances related to the collection of TANESCO arrears. The increase in net income attributable to shareholders in 2022 was a result of higher revenue and increased reversal of loss allowances related to the collection of TANESCO arrears.

In 2020 the Company approved quarterly dividends, CDN\$0.06 per share for Q1 and Q2 and CDN\$0.08 per share for Q3 and Q4. In 2021 the Company approved quarterly dividends, CDN\$0.10 per share for Q1, Q2, Q3 and Q4. In 2022 the Company approved quarterly dividends, CDN\$0.10 per share for Q1, Q2, Q3 and Q4. Please refer to the table in the Substantial Issuer Bid, Normal Course Issuer Bid and Dividends section of this MD&A.

The changes in net cash flows from operating activities are primarily related to the changes in non-cash working capital primarily associated with variations in prepayments, trade and other receivables and trade and other liabilities.

The \$2.3 million decrease in total non-current liabilities in 2021 compared to 2020 and the \$14.4 million decrease in total non-current liabilities in 2022 compared to 2021 were primarily a result of the repayment of a portion of the APT and the reclassification of \$5.0 million of the long-term loan as a current liability in 2021 and the reclassification of another \$5.0 million of the long-term loan as a current liability in 2022.

Total assets decreased by 5% in 2021 compared to 2020. The decrease was mainly a result of the 2021 SIB. Total assets increased by 8% in 2022

compared to 2021. The increase was primarily a result of increases in cash and cash equivalents and trade and other receivables.

## Non-GAAP Financial Measures and Ratios

In this MD&A, the Company has disclosed the following non-GAAP financial measures, non-GAAP ratios and supplementary financial measures: capital expenditures, operating netback, operating netback per mcf, working capital, net cash flows from operating activities per share and weighted average Class A and Class B Shares.

These non-GAAP financial measures and ratios disclosed in this MD&A do not have any standardized meaning under IFRS and may not be comparable to similar financial measures disclosed by other issuers. These non-GAAP financial measures and ratios should not, therefore, be considered in isolation or as a substitute for, or superior to, measures and ratios of Company's financial performance defined or determined in accordance with IFRS. These non-GAAP financial measures and ratios are calculated on a consistent basis from period to period.

## Non-GAAP Financial Measures

### Capital expenditures

Capital expenditures is a useful measure as it provides an indication of our investment activities. The most directly comparable financial measure is net cash from (used in) investing activities. A reconciliation to the most directly comparable financial measure is as follows:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Pipelines, well workovers and infrastructure	3,604	12,494	22,125	26,596
Other capital expenditures	11	2	281	14
<b>Capital expenditures</b>	<b>3,615</b>	<b>12,496</b>	<b>22,406</b>	<b>26,610</b>
Right of use	-	-	51	-
Change in non-cash working capital	467	1,133	3,274	(1,625)
<b>Net cash used by investing activities</b>	<b>4,082</b>	<b>13,629</b>	<b>25,731</b>	<b>24,985</b>

### Operating netback

Operating netback is calculated as revenue less processing and transportation tariffs, TPDC's revenue share, and operating and distribution costs (see "Operating Netback"). The operating netback summarizes all costs that are associated with bringing the gas from the Songo Songo Gas field to the market, and is a measure of profitability. A reconciliation to the most directly comparable financial measure is as follows:

\$'000	Three Months ended December 31		Year ended December 31	
	2022	2021	2022	2021
Revenue	31,877	24,819	118,089	86,022
Production, distribution and transportation expenses	(4,799)	(3,256)	(18,011)	(12,253)
<b>Net Production Revenue</b>	<b>27,078</b>	<b>21,563</b>	<b>100,078</b>	<b>73,769</b>
Less current income tax adjustment (recorded in revenue)	(5,783)	(1,416)	(17,105)	(8,385)
<b>Operating netback</b>	<b>21,295</b>	<b>20,147</b>	<b>82,973</b>	<b>65,384</b>
<b>Sales volumes MMcf</b>	<b>8,786</b>	<b>6,539</b>	<b>31,677</b>	<b>22,312</b>
<b>Netback \$/mcf</b>	<b>2.42</b>	<b>3.08</b>	<b>2.62</b>	<b>2.93</b>

## Non-GAAP Ratios

### Operating netback per mcf

Operating netback per mcf represent the profit margin associated with the production and sale of Additional Gas and is calculated by taking the operating netback and dividing it by the volume of Additional Gas delivered and sold. This is a key measure as it demonstrates the profit generated from each unit of production.

## Management's Discussion & Analysis cont.

### Supplementary Financial Measures

#### Working capital

Working capital is defined as current assets less current liabilities, as reported in the Company's Consolidated Statements of Financial Position. It is an important measure as it indicated the Company's ability to meet its financial obligations as they fall due.

#### Net cash flows from operating activities per share

Net cash flows from operating activities per share is calculated as net cash flows from operating activities divided by the weighted average number of shares, similar to the calculation of earnings per share. Net cash flow from operations is an important measure as it indicates the cash generated from the operations that is available to fund ongoing capital commitments.

#### Weighted average Class A and Class B Shares

In calculating the weighted average number of shares outstanding during any period the Company takes the opening balance multiplied by the number of days until the balance changes. It then takes the new balance and multiplies that by the number of days until the next change, or until the period end. The resulting multiples of shares and days are then aggregated and the total is divided by the total number of days in the period.

#### Use of Estimates and Judgments

The preparation of consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. The reader is referred to Orca's December 31, 2022 audited consolidated financial statements for a description of estimates and judgments.

### Business Risks

#### Industry and Business Conditions

##### Competition and operational risk

The natural gas industry is intensely competitive and the Company competes with other companies which possess greater technical and financial resources. Natural gas drilling and production operations are subject to all the risks typically associated with such operations, including but not limited to risks of fires, blowouts, spills, cratering and explosions, mechanical and equipment problems, uncontrolled flows or leaks of oil, well fluids, natural gas, brine, toxic gas or other pollutants or hazardous materials, marine hazards with respect to offshore operations, formations with abnormal pressures, adverse weather conditions, natural or man-made disasters, premature decline of reservoirs and invasion of water into producing formations.

Drilling wells is speculative and involves significant costs that may be more than estimated and may not result in any discoveries or additions to our future production or reserves. Operational activities have numerous inherent risks and our license area is located on an island, 25 km offshore mainland Tanzania, and partially in shallow water. This generally increases the operating costs, chances of delay, planning time, technical challenges and risks associated with production activities. Our inability to access appropriate equipment and infrastructure in a timely manner may hinder our access to natural gas markets or delay our natural gas production.

The development of oil and natural gas projects, including the availability and cost of drilling rigs, equipment, supplies, personnel and oilfield services, is subject to delays and cost overruns. The Company may be affected by the inability to respond to changing technological developments and remain competitive. Slower economic growth rates may materially adversely impact our operating results and financial position. Any material inaccuracies in drilling costs, estimates or underlying assumptions will materially affect our business.

#### COVID-19

The emergence of COVID-19 resulted in travel bans, mandatory and self-imposed quarantines and isolations, social distancing and the closing of non-essential businesses which has had a negative impact on economies worldwide, including more volatile commodity prices, currency exchange rates, interest rates and inflation rates. The Company originally took appropriate action to protect employees such as social distancing, working from home where possible and ensuring staff who work on rotation at our operational site on Songo Songo Island were tested for COVID-19, and placed into quarantine prior to receiving their results and before resuming regular duties. The Company has since returned to office based working. The Company's business, operations and financial condition have not been significantly adversely affected by COVID-19 and without a further escalation in the severity of the virus do not anticipate there being a significant adverse impact in the future.

#### Russian-Ukraine Conflict

Russia's invasion of Ukraine in February 2022 has had wide-ranging consequences on the peace and stability of the region and the world economy. Certain countries, have imposed strict financial and trade sanctions against Russia which may have far reaching effects on the global economy. Disruption of supplies of commodities from Russia had and may continue to have a significant impact on worldwide commodity prices. The long-term impacts of the conflict and the sanctions imposed on Russia remain uncertain. Any negative impact on economic conditions and global markets from these developments could adversely affect our business, financial condition and liquidity. The conflict has not directly impacted the Company's operations. Nevertheless, the ongoing war induces greater uncertainties in global financial markets and supply chain systems which could lead to volatility in oil and gas prices, inflation rates, interest rates, financing costs, and shortage or delays for certain goods or services. The Company continues assessing its exposure.

#### Key staff

Our performance and success are largely dependent on the ability, expertise, judgment and discretion of our management and the ability of our technical team to identify, discover, evaluate and develop reserves. We are dependent on members of our management and technical team that may not be easily replaced.



## Business Risks cont.

### Industry and Business Conditions cont.

#### Effects of climate change

Risks related to climate change may have an impact on the Company's operations and the Company may be subject to additional disclosure requirements in the future. The International Sustainability Standards Board issued an IFRS Sustainability Disclosure Standard with the objective to develop a global framework for environmental sustainability disclosure. In addition, the Canadian Securities Administrators also issued a proposed National Instrument 51-107 Disclosure of Climate-related Matters which sets forth additional reporting requirements for Canadian reporting issuers. We continue to monitor developments on these reporting requirements and the impact they may have on the Company's financial position and results of operating activities in future periods.

The oil and natural gas industry is subject to varying environmental regulations and evolving views on climate change in each of the jurisdictions in which the Company may operate. Environmental regulations place restrictions and prohibitions on emissions of various substances produced concurrently with oil and natural gas and can impact the selection of drilling sites and facility locations, potentially resulting in increased capital expenditures.

The Company operates in Tanzania, where extreme hot weather, heavy rains and floods or other severe weather conditions may cause operational difficulties, including downtime and increased costs of maintenance and construction. Extreme weather conditions may also impact workovers of existing wells and drilling of new wells.

As of the date of this report, it is difficult to estimate the effect of the climate change-related legislations on our business or whether additional evolving climate-change legislation, regulations or other measures will be adopted in Tanzania. There are uncertainties regarding timing and effects of the emerging climate-change regulations, making it difficult to accurately determine the cost impacts and effects on the Company's operations.

#### Contractual

We operate in a litigious environment which could result in title or contractual disputes during the ordinary course of business. The inability of one or more third parties who contract with us to meet their obligations to us may adversely affect our financial results.

#### Marketability and pricing

The marketability and price of natural gas which may be acquired, discovered or marketed by the Company will be affected by numerous factors beyond its control. The natural gas market in Tanzania is developing and there is currently limited access to infrastructure with which to serve potential new markets beyond that being constructed by the Company, Songas and TPDC. The ability of the Company to market any natural gas from current or future reserves in Tanzania may depend upon its ability to develop natural gas markets in Tanzania and the surrounding region, obtain access to the necessary infrastructure to process gas and to deliver sales gas volumes, including acquiring capacity on pipelines which deliver natural gas to commercial markets. The Company is also subject to market fluctuations in the prices of natural gas, uncertainties related to the delivery and proximity of its reserves to pipelines and processing facilities and extensive government regulation relating to prices, taxes, royalties, land tenure, allowable production, the export of oil and gas and many other aspects of the oil and gas business.

The prices that the Company receives for its natural gas affect the Company's revenue, profitability, access to capital and future growth rate. Historically, the oil and natural gas markets have been volatile and will likely continue to be volatile in the future. Oil prices have experienced significant and sustained declines in the past and may continue to be volatile in the future; though gas prices are less volatile, they may also be significantly affected in the longer run.

The natural gas prices the Company receives from its industrial customers fluctuate with the price of heavy fuel oil against which most of the Company's industrial customer contracts are priced. Prices can also be affected by gas on gas competition from other producers in Tanzania. There have been significant onshore and offshore discoveries of gas in Tanzania over the last ten years and it is expected that the development of these discoveries will increase competition in the future. There is also scope for greater government intervention on gas prices as TPDC owns and operates the majority of the gas processing and pipeline infrastructure in Tanzania.

A substantial or extended decline in both global and local oil and natural gas prices may adversely affect our business, financial condition and results of operations. Localized competition with other gas producers and alternative power sources such as hydropower could adversely impact our financial results.

#### Cyber attack

The oil and gas industry has become increasingly dependent on digital technologies to conduct day-to-day operations including certain exploration, development and production activities. For example, software programs are used to interpret seismic data, manage drilling rigs, conduct reservoir modeling and reserves estimation, and to process and record financial and operating data. A cyber incident could result in information theft, data corruption, operational disruption, and/or financial loss. There can be no assurance that we will not be the target of cyber attacks in the future or suffer such losses related to any cyber incidents.

#### Financial

##### Cost of capital

Our business plan requires substantial additional capital that we may be unable to fund out of working capital and cash flow generated from operations or raise on acceptable terms or at all in the future and which may in turn limit our ability to develop our appraisal, development and production activities. The Company's ability to meet its financing obligations or to arrange financing in the future will depend in part upon the prevailing capital market conditions as well as the Company's business performance. There can be no assurance that the Company would be successful in its efforts to meet its current commitments or arrange additional financing on terms satisfactory to the Company.

## Management's Discussion & Analysis cont.

### Business Risks cont.

#### Financial cont.

##### Collectability of receivables

The Company evaluates the collectability of its receivables on the basis of payment history, frequency and predictability, as well as Management's assessment of the customer's willingness and ability to pay. In the past, the Company has recorded loss allowances for receivables that did not meet the criteria for revenue recognition however no allowances have been recorded for the past three years relating to revenue.

##### Foreign exchange

The Company operates internationally and is exposed to foreign exchange risk arising from currency fluctuations against the US dollar when transactions and recognized assets and liabilities of the Company are denominated in a currency that is not the US dollar functional currency. The main currencies to which the Company has an exposure are Tanzanian shillings, Euros, British pounds sterling, and Canadian dollars.

The majority of the expenditure associated with the operation of the gas distribution system is denominated in Tanzanian shillings. Whilst conversion of Tanzanian shillings into US dollars or Euros is unrestricted, the foreign exchange market for Tanzanian shillings is limited and not highly liquid, reducing the Company's ability to convert large amounts of Tanzanian shillings into US dollars or Euros at any given time. To mitigate the risk of Tanzanian shilling devaluation, the Company regularly converts Tanzanian shilling receipts into US dollars or Euros to the extent practicable. Capital stock, equity financing and any associated stock based compensation are denominated in Canadian dollars. The operational revenue and the majority of capital expenditures are denominated in US dollars.

Fluctuations in currency exchange rates could adversely impact the Company's financial results.

##### Debt financing

From time to time the Company may enter into transactions to acquire assets or the shares of other companies. These transactions may be financed in part or in whole with debt, which may temporarily increase the Company's debt levels above industry standards. PAET, the Company's subsidiary operating in Tanzania, currently has a long-term loan that includes covenants that, among other things, restrict the incurrence of additional indebtedness, payment of dividends under certain conditions, granting of liens, mergers and sale of all or a substantial part of our business or license.

#### Foreign operations and concentration risk

##### Asset concentration

The Company's natural gas reserves are currently limited to one producing property, the Songo Songo gas field, and the productive potential from this field is limited. There is no assurance that the Company will have sufficient deliverability through the existing wells to provide Protected and Additional Gas volumes, and there may be significant capital expenditures associated with any remedial work, workovers, or new drilling required to achieve optimal deliverability. In addition, any difficulties relating to the operation or performance of the Songo Songo gas field would have a material adverse effect on the Company. A loss or material reduction in production capabilities will have a material adverse effect on the total production and funds flow from operating activities of the Company.

##### Access to infrastructure

The Company is dependent upon access to the Songas Infrastructure and the GoT owned NNGI to deliver gas to customers. The Company operates the Songas Infrastructure however Songas is the owner of the facilities including the 12-inch subsea and the 16-inch surface pipeline systems which transport natural gas from Songo Songo Island to Dar es Salaam. There are agreements in place to allow the Company to process and transport gas, but there is no assurance that these rights could not be challenged or access curtailed. The inability to access infrastructure would materially impair the Company's ability to realize revenue from natural gas sales.

##### Reputational

Our Tanzanian operations are anticipated to be the sole source of the Company's near-term revenue earnings. Due to our asset concentration, the success of our operations is dependent on positive commercial relationships with a small number of organizations (including states and parastatal organizations) and certainty with respect to our rights and obligations arising from those relationships. Any damage to our reputation due to the actual or perceived occurrence of any number of events, such as environmental incidents, could negatively impact the Company. Reputation loss may result in negative publicity and diminished or adversarial stakeholder relationships, which could lead to increased challenges in developing and maintaining community relations, decreased investor confidence, and would likely impede our overall ability to advance our projects, thereby having a material adverse impact on financial performance, cash flows and growth prospects.

##### Country risk

The geographic location of the Songo Songo license offshore Tanzania exposes us to an increased risk of loss of revenue or curtailment of production as a result of factors generally associated with foreign operations or arising from factors specifically affecting the area in which we operate or may operate. Tanzania may be considered to be politically and/or economically unstable. Development and operational activities in Tanzania may require protracted negotiations with host governments, national oil companies and third parties, and are frequently subject to economic and political considerations, such as, the risks of war, actions by terrorist or insurgent groups, expropriation, nationalization, emerging nationalization, renegotiation or nullification of existing contracts and production sharing agreements, taxation policies, foreign exchange restrictions, changing political conditions, international monetary fluctuations, currency controls and foreign governmental regulations that favor or require the award of drilling and construction contracts to local contractors or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction. In addition, if a dispute arises with foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts.

In Tanzania the state retains ownership of its minerals and consequently retains control of the exploration and production of hydrocarbon reserves.

## Business Risks cont.

### Foreign operations and concentration risk cont.

#### Country risk cont.

The GoT has historically been supportive of foreign investment in resource development projects in Tanzania however it has recently adopted a more conservative approach toward foreign involvement in the extractive sector, including the production, transmission, processing and marketing of natural gas. Factors such as changes in government, an increased nationalist sentiment and pressure to preserve development opportunities for local enterprises can result in legal and regulatory changes that can impact our ability to maintain our business operations.

Countries in Africa are susceptible to outbreaks of disease and may lack the resources to effectively contain such an outbreak quickly. Such outbreaks may impact our ability to explore for natural gas, develop or produce our license areas by limiting access to qualified personnel, increase costs associated with ensuring the safety and health of our personnel, restricting transportation of personnel, equipment, supplies and natural gas production to and from our areas of operation and diverting the time, attention and resources of government agencies which are necessary to conduct our operations. In addition, any losses we experience as a result of such outbreaks of disease which impact sales or delay production may not be covered by our insurance policies. If travel bans are implemented or extended to the countries in which we operate, or contractors or personnel refuse to travel to such locations, we could be adversely affected. If services are obtained, costs associated with those services could be significantly higher than planned which could have a material adverse effect on our business, results of operations, and future cash flow.

#### Corruption

Tanzania ranks 94 out of 180 on the 2022 Transparency International Corruption Index (2021: 93 out of 180). Having assessed the Company's exposure to corruption in Tanzania, it has been concluded that the risk of the Company and/or its subsidiaries violating applicable laws prohibiting corrupt activities are mitigated or unlikely given the Company's controls relating to such risks and their effective operation. However, there is exposure to liabilities under anti-money laundering and/or anti-corruption laws, and any determination that we violated such laws could have a material adverse effect on our business. There can be no assurance that corruption may not indirectly affect or otherwise impair the Company's ability to operate in Tanzania and effectively pursue its business plan in that country.

### Contractual, regulatory and legislation risk

#### Contracts and regulations

The Company's operations are subject to regulation and control by the GoT (see "Principal Terms of the PSA and Related Agreements"). The Company has operated in Tanzania for a number of years and believes that it has had reasonably good relations with the current GoT. Under the principal agreements the Company has the right to market and sell Additional Gas provided that such sales do not jeopardize the priority right of Songas to sell or otherwise dispose of Protected Gas. There is a risk that Songas could exercise its contractual rights, which may curtail our ability to sell Additional Gas if there is insufficient natural gas available for the required volumes of Protected Gas. There can be no assurance that present or future administrations in Tanzania will honor all principal agreements which could materially adversely affect the Company's operations or future cash flows.

PSA operations are regulated by national and parastatal organizations including the energy regulators (the Petroleum Upstream Regulatory Authority ("PURA"), the Energy and Water Utilities Regulatory Authority ("EWURA"), and TPDC). Under the terms of the Gas Agreement (as defined below) with the GoT, TPDC and Songas, the Company has the right to market and sell Additional Gas. The ARGAs (as defined below) provided clarification of the Protected Gas volumes and removes all terms dealing with the security of the Protected Gas. The ARGAs were initiated by all parties but remains unsigned as at the date of this report. In certain respects, the parties thereto are conducting themselves as though the ARGAs are in effect. In 2017 the AGP2 (as defined below) was signed further delineating the rights of the Company to market and sell Additional Gas. If our relationships with these counterparties were to deteriorate, they might choose to exercise their contractual rights under our agreements differently and in a manner that is adverse to our interests. Management does not foresee a material risk with the conduct of the Company's business with an unsigned ARGAs at this time (see "Principal Terms of the PSA and Related Agreements").

We have had, and continue to have, disagreements with TPDC and the GoT regarding certain of our rights and responsibilities under the PSA. Pursuant to the PSA, the Company plans for development and is required to submit annual work programs to TPDC for comment and subsequently to PURA who, under the Petroleum Act, 2015 ("Petroleum Act"), insist on the right to approve the budget. TPDC has also challenged our rights to cost recover a number of items under the PSA including the costs of our downstream operations; however, there are currently no disagreements that have risen to the level of a formal dispute.

There can be no assurance that all of these disagreements will be resolved in our favor or that future disagreements will not arise in Tanzania or with any host government and/or national oil companies in future projects elsewhere that may have a material adverse effect on our exploration or development activities, ability to operate, rights under our licenses and local laws or rights to monetize our interests.

## Management's Discussion & Analysis cont.

### Business Risks cont.

#### Contractual, regulatory and legislation risk cont.

##### Legislation

The GoT has passed several new laws in the past seven years impacting the Company's operation in Tanzania.

The National Energy Policy (2015) and the Petroleum Act, passed in 2015 provided regulatory framework over upstream, mid-stream and downstream gas activity. The Petroleum Act created PURA, a new regulator to oversee the upstream sectors and conferred upon TPDC the status of "National Oil Company" as the sole aggregator of natural gas in the country. Article 260(3) of the Petroleum Act preserves the Company's pre-existing right with TPDC to market and sell Additional Gas together or independently on terms and conditions (including prices) negotiated with third party natural gas customers. There remain differences of opinion between the Company and TPDC on the effect of certain provisions within the Petroleum Act and their application to the Company.

On October 7, 2016, the GoT issued the Petroleum (Natural Gas Pricing) Regulation made under Sections 165 and 258(I) of the Petroleum Act, which may give rise to additional uncertainty. Changes resulting from this regulation could impact the Company's ability to set gas pricing and the introduction of regulated gas pricing could result in operations becoming uneconomical and anticipated revenues could be materially affected. While the PSA has been grandfathered under the Petroleum Act, we can provide no assurances that this situation will remain unchanged in the future.

On July 15, 2017 the GoT passed into law the Natural Wealth and Resources (Permanent Sovereignty) Act, 2017, the WLMAA 2017, and the Natural Wealth and Resources Contracts (Review and Renegotiation of Unconscionable Terms) Act, 2017 ("NWRCA"). The first and second of these acts are forward looking and only apply to agreements entered into on or after July 15, 2017. The GoT may argue that the NWRCA has retrospective effect in terms of its ability to renegotiate pre-existing contracts. On January 31, 2020, the government released the Natural Wealth and Resources Contracts (Review and Renegotiation of Unconscionable Terms) Regulations, 2020 which set out further guidance as to how contracts may be renegotiated. These acts contain new regulations including but not limited to regulations that all arbitration processes must be heard within Tanzania and potentially restrict the ability to move funds out of Tanzania.

In 2016, the TRA introduced significant changes to the income tax treatment of the extractive sector with separate new chapters in Part V of the ITA, 2004 for mining and for petroleum to be effective commencing in 2018. Subsequent to this, further changes were made by the WLMAA, 2017 to exclude cost oil/cost gas from inclusion in both income and expenditure. We are still evaluating the tax effects of the changes as there are a number of uncertainties and ambiguities as to the interpretation and application of certain provisions of the WLMAA, 2017 as there is an absence of regulations and guidance from TRA on the implementation of the changes. In the absence of guidance on these matters, we will continue to use what we believe are reasonable interpretations and assumptions in applying the WLMAA, 2017 for purposes of determining our tax liabilities and filing our tax returns, which interpretations and assumptions may change as we receive additional clarification and implementation guidance. As necessary, we will seek adjustments to the PSA to preserve our economic benefits. In addition, the Natural Wealth and Resources (Permanent Sovereignty) Act, 2017 (the "Permanent Sovereignty Act, 2017") and the WLMAA 2017 restrict the ability of companies to repatriate funds out of Tanzania and it is possible that the GoT will seek to argue at some stage that these provisions apply to the Company even though the Company's contracts with the GoT permit the repatriation of funds out of Tanzania.

Intervening policy and legislative changes such as those described above may conflict with our pre-existing rights under the PSA and other agreements, though it remains unclear how such legislative actions will be implemented and whether and to what extent they will impact us. We are unable to predict what legislation may be proposed that might affect our business or when any such proposals, if enacted, might become effective. Such changes could require increased capital and operating expenditure and could prevent or delay certain of our operations. If, for reasons beyond our control, we are unable to maintain compliance with any legislative changes, whether in the future or past, we may have to cease operations in certain locations.

## Principal Terms of the PSA and Related Agreements

The principal terms of the PSA and related agreements are as follows:

### Obligations and Restrictions

- (a) The PSA covers two blocks within the Songo Songo gas field where there are gas reserves (“Discovery Blocks”). The Company has the right to conduct petroleum operations on the Discovery Blocks, market and sell all Additional Gas produced and share the net revenue with TPDC for a term of 25 years, expiring in October 2026.
- (b) No sale of Additional Gas may be made from the Discovery Blocks if in the Company’s reasonable judgment such sales would jeopardize the supply of Protected Gas. Any Additional Gas contracts entered into are subject to interruption. Songas has the right to request that the Company and TPDC obtain security reasonably acceptable to Songas prior to making any sales of Additional Gas from the Discovery Blocks to secure the Company’s and TPDC’s obligations in respect of Insufficiency (as defined in (c) below).
- (c) “Insufficiency” occurs if there is insufficient gas from the Discovery Blocks to supply the Protected Gas requirements or if the gas is so expensive to develop that its cost exceeds the market price of alternative fuels at Ubungo.

Where there have been third party sales of Additional Gas by the Company and TPDC from the Discovery Blocks prior to the occurrence of the Insufficiency, the Company and TPDC shall be jointly liable for the Insufficiency and shall satisfy their related liability by either replacing the Indemnified Volume (as defined in (d) below) at the price for Protected Gas with natural gas from other sources; or by paying monetary damages equal to the difference between: (a) the market price for a quantity of alternative fuel that is appropriate for the five gas turbine electricity generators at Ubungo without significant modification together with the costs of any modification; and (b) the sum of the price for such volume of Protected Gas (at \$0.55/MMbtu escalated) and the amount of transportation revenues previously credited by Songas to the state electricity utility, TANESCO, for the gas volumes.

- (d) The “Indemnified Volume” means the lesser of the total volume of Additional Gas sales supplied from the Discovery Blocks prior to an Insufficiency and the Insufficiency Volume. “Insufficiency Volume” means the volume of natural gas determined by multiplying the average of the annual Protected Gas volumes for the three years prior to the Insufficiency by 110% and multiplied by the number of remaining years (initial term of 20 years) of the power purchase agreement entered into between Songas and TANESCO in relation to the five gas turbine electricity generators at Ubungo from the date of the Insufficiency.

### Access and Development of Infrastructure

- (e) The Company is able to utilize the Songas Infrastructure including the gas processing plant and main pipeline to Dar es Salaam. Access to the Songas Infrastructure is open and can be utilized by any third party that wishes to process or transport gas.

### Revenue Sharing Terms and Taxation

- (f) 75% of the gross field revenues derived from the Discovery Blocks, less processing and pipeline tariffs and direct sales taxes in any year (“field net revenue”), can be used to recover past costs incurred. Costs recovered out of field net revenue are termed “Cost Gas”.

The Company pays and recovers costs of exploring, developing and operating the Additional Gas with two exceptions: (i) TPDC may recover reasonable market and market research costs as defined under the PSA; and (ii) TPDC has the right to elect to participate in the drilling of at least one well for Additional Gas in the Discovery Blocks for which there is a development program as detailed in an Additional Gas plan (“Additional Gas Plan”) as submitted to the MoE, provided that TPDC may elect to participate in a development program only once and TPDC pays a proportion of the costs of such development program by committing to pay between 5% and 20% of the total costs (“Specified Proportion”). If TPDC does not notify the Company within 90 days of notice from the Company that the MoE has approved the Additional Gas Plan, then TPDC is deemed not to have elected to participate. If TPDC elects to participate, then it will be entitled to a ratable proportion of the Cost Gas and their profit share percentage increases by the Specified Proportion for that development program.

To date, TPDC has neither elected to back in within the prescribed notice period nor contributed any costs associated with backing in. The Company has therefore determined that to date there has been no working interest earned by TPDC. For the purpose of the reserves certification as at December 31, 2022, there are no planned drilling activities to the end of the license.

- (g) The Company’s long-term gas price to the Power sector as set out in the ARGAs between the GoT, TPDC and Songas and the PGSA is based on the price of gas at the wellhead. As at the date of this report, the ARGAs remain an initialed agreement only and the parties are not in agreement with all the terms in the ARGAs, however the parties are conducting themselves in terms of pricing as though the ARGAs are in force.

In Q3 2017 the Company received approval of the Additional Gas Plan 2 (“AGP2”) from the MoE to produce and sell increased volumes of Additional Gas. Currently the SS-10, SS-11 and SS-12 wells are connected to the NNGI and the SS-12 well started flowing gas through the NNGI in December 2018.

In May 2019 the Company and TPDC signed the LTGSA, initially for volumes up to 20 MMcfd which was increased subsequently to 30 MMcfd on a best endeavors basis. In 2020 the parties established a 12-month renewable agreement for the supply of volumes above 30 MMcfd on an ad hoc basis, allowing TPDC to meet fluctuating demand and compensate for shortfalls in production from their Madimba plant without being penalized due to a higher, fixed contractual limit and the subsequent take-or-pay penalties should the demand reduce again. The agreement has allowed the Company to supply volumes in excess of 50 MMcfd on occasion, increasing average sales volumes and revenues.

## Management's Discussion &amp; Analysis cont.

**Principal Terms of the PSA and Related Agreements cont.****Revenue Sharing Terms and Taxation cont.**

(h) Profits on sales from the Proven Section ("Profit Gas") are shared between TPDC and the Company, the proportion of which is dependent on the average daily volumes of Additional Gas sold or cumulative production.

The Company receives a higher share of the field net revenue after cost recovery, based on the higher of the cumulative production or the average daily sales. The Profit Gas share available to the Company is a minimum of 25% and a maximum of 55%.

Average daily sales of Additional Gas MMcfd	Cumulative sales of Additional Gas Bcf	TPDC's share of Profit Gas %	Company's share of Profit Gas %
0 - 20	0 - 125	75	25
> 20 <= 30	> 125 <= 250	70	30
> 30 <= 40	> 250 <= 375	65	35
> 40 <= 50	> 375 <= 500	60	40
> 50	> 500	45	55

For Additional Gas produced outside of the Proven Section, the Company's Profit Gas share is 55%.

Where TPDC elects to participate in a development program, its profit share percentage increases by the Specified Proportion (for that development program) with a corresponding decrease in the Company's percentage share of Profit Gas.

The Company is liable for income tax in Tanzania. Where income tax is payable, the Company pays the tax and there is a corresponding deduction in the amount of the Profit Gas payable to TPDC.

- (i) APT is payable when the Company recovers its costs out of Additional Gas revenues plus an annual operating return under the PSA of 25%, plus the percentage change in the PPI. The maximum APT rate is 55% of the Company's Profit Gas when costs have been recovered with an annual return of 35% plus PPI return. The PSA is, therefore, structured to encourage the Company to develop the market and the gas fields with the knowledge that the Profit Gas share can increase with larger daily gas sales and that the costs will be recovered with a 25% plus PPI annual return before APT becomes payable. APT can have a significant negative impact on project economics if only limited capital expenditure is incurred.
- (j) The Company is appointed to develop, produce and process Protected Gas and operate and maintain the Songas Infrastructure, including the staffing, procurement, capital improvements, contract maintenance, maintenance of books and records, preparation of reports, maintenance of permits, waste handling, liaison with the GoT and taking all necessary safety, health and environmental precautions, all in accordance with good oilfield practices. In return, the Company is paid or reimbursed by Songas so that it neither benefits nor suffers a loss as a result of its performance.
- (k) In the event of loss arising from Songas' failure to perform, and the loss is not fully compensated by Songas or through insurance coverage, then the Company is liable to a performance and operational guarantee of \$2.5 million when (i) the loss is caused by the gross negligence or willful misconduct of the Company, its subsidiaries or employees, and (ii) Songas has insufficient funds to cure the loss and operate the project.

**Protected Gas**

Under the terms of the Gas Agreement for the Songo Songo project ("Gas Agreement"), in the event that there is a shortfall/insufficiency in Protected Gas as a consequence of the sale of Additional Gas, the Company is liable to pay the difference between the price of Protected Gas (\$0.55/MMbtu escalated) and the price of an alternative feedstock multiplied by the volumes of Protected Gas up to a maximum of the volume of Additional Gas sold (289 Bcf as at December 31, 2022). The Company did not have a shortfall during the reporting period and does not anticipate a shortfall arising during the term of the Protected Gas delivery obligation to July 2024.

## Principal Terms of the PSA and Related Agreements [cont.](#)

### Re-Rating Agreement

In 2011 the Company, TPDC and Songas signed the Re-Rating Agreement which evidenced an increase to the gas processing capacity of the Songas Infrastructure to a maximum of 110 MMcfd (the pipeline and delivery pressure requirements at the Ubungo power plant restrict the infrastructure capacity to a maximum of 102 MMcfd). Under the terms of the Re-Rating Agreement, the Company paid additional compensation of \$0.30/mcf for sales between 70 MMcfd and 90 MMcfd and \$0.40/mcf for volumes above 90 MMcfd by issuing credit notes to TANESCO. This was in addition to the tariff of \$0.59/mcf payable to Songas as set by the energy regulator, EWURA.

Although Songas notified the Company in 2014 that the Re-Rating Agreement was terminated, the parties have continued to produce, transport and sell gas volumes in line with the re-rated plant capacity. In May 2016 the Company notified TANESCO and Songas that the additional compensation for sales over 70 MMcfd would no longer be paid effective June 2016. The additional compensation was always intended to be temporary in nature until the expansion of the Songas Infrastructure, at which time Songas would apply to EWURA to obtain approval of a new tariff for the processing of volumes over 70 MMcfd. The PGSA provides for passing on to TANESCO any tariff charged to the Company should a new tariff be approved.

The parties to the Re-Rating Agreement are in the process of negotiating a replacement agreement which may address the additional compensation paid. In the interim, the processing capacity at the Songas Infrastructure remains unaltered and is fully available for utilization by the Company. This capacity is in addition to the capacity available within the NNGI.

### Portfolio Gas Supply Agreement

In June 2011 the PGSA was signed (term to June 30, 2023) between TANESCO (as the buyer) and the Company (through its subsidiary PAET) and TPDC (collectively as the seller). TANESCO requested a change to the PGSA maximum daily quantity ("MDQ") which PAET and TPDC approved effective January 29, 2018. In accordance with the PGSA, when calculating aggregate excess, extra and overtake gas through the supply period, the MDQ was reduced and the seller is now obligated, subject to infrastructure capacity, to sell a maximum of approximately 16 MMcfd (previously 26 MMcfd) for use in any of TANESCO's current power plants, except those operated by Songas at Ubungo. Under the agreement, the basic wellhead price of approximately \$2.98/mcf increased to \$3.04/mcf on July 1, 2018, to \$3.10/mcf on July 1, 2019, \$3.14/mcf on July 1, 2020, \$3.20/mcf on July 1, 2021 and \$3.32/mcf on July 1, 2022.

### Long-term Gas Sales Agreement

On May 14, 2019 the Company and TPDC signed the LTGSA for an initial delivery of 20 MMcfd through the NNGI, at a price of \$3.10/MMbtu as at January 1, 2019, (escalating 2% per annum) exclusive of any processing and transportation tariff associated with the NNGI. The LTGSA was amended on September 24, 2019 to increase the volumes supplied through the NNGI up to a MDQ of 30 MMcfd. In 2020 the parties established a 12-month renewable agreement for the supply of volumes above 30 MMcfd on an ad hoc basis, allowing TPDC to meet fluctuating demand and compensate for shortfalls in production from their Madimba plant without being penalized due to a higher, fixed contractual limit and the subsequent take-or-pay penalties should the demand reduce again. The agreement has allowed the Company to supply volumes in excess of 50 MMcfd on occasion, increasing average sales volumes and revenues. All volumes above 20 MMcfd are supplied on a best endeavors basis until compression facilities are added to the Songas Infrastructure.

### TPDC Back-in

TPDC has the rights under the PSA to "back in" to the Songo Songo field development and to convert this into a carried working interest in the PSA. The current terms of the PSA require TPDC to provide formal notice in a defined period and contribute a proportion of the costs of any development, sharing in the risks in return for an additional share of the gas. To date, TPDC has neither provided notice nor contributed any costs and the definition period has closed.

## Management's Discussion & Analysis cont.

### Forward-Looking Statements

This MD&A contains forward-looking statements or information (collectively, "forward-looking statements") within the meaning of applicable securities legislation. All statements, other than statements of historical fact included in this MD&A, which address activities, events or developments that Orca expects or anticipates to occur in the future, are forward-looking statements. Forward-looking statements often contain terms such as may, will, should, anticipate, expect, continue, estimate, believe, project, forecast, plan, intend, target, outlook, focus, could and similar words suggesting future outcomes or statements regarding an outlook. More particularly, this MD&A contains, without limitation, forward-looking statements pertaining to the following; anticipated production for 2023 including midpoint production; the Company's average gross sale volume forecasts; the ability for short-term production through the Songas Infrastructure to be sustained as a result of the installation of feed gas compression; the ability for the SS-4 well to flow following further testing; anticipated production volumes and increased well deliverability as a result of the installation of compression on the Songas Infrastructure and the completion of the well workover program; the Company's expectations regarding timing and cost for the completion of the 3D seismic acquisition program, including the completion of data acquisition and fast track data processing and the payment of seismic contracts and seismic processing contracts; the availability of suitable weather windows to conduct the 3D seismic acquisition program; the Company's expectation that further work will be conducted on flowline of applicable wells; the timing and cost associated with the full flowline repairs required on the applicable wells; the timing and results of the test separator's assessment of sand production on the applicable wells; the Company's proposal to acquire additional de-sanding units in 2023; the timing of payment for the remaining balance owing in connection with the well workover program; the Company's expectations regarding supply and demand of natural gas; the Company's expectations as to the efficacy of the compression and its ability to maintain gas production at existing levels to the end of Orca's license; the requirement to further develop the Songo Songo gas field to sustain production to the end of Orca's license; current and potential production capacity of the Songo Songo gas field, including the Company's expectation that there will be no shortfall of Protected Gas during the term of the Protected Gas delivery obligation; the possibility that increased production rates will result in additional reserves being upgraded from contingent resources; the receipt of the payment of arrears from TANESCO and the reflection of such receivables on the Company's future Statement of Comprehensive Income; the Company's expectation that there will continue to be no restrictions on the movement of cash from Jersey, Mauritius or Tanzania; the Company's expectations that it will be able to convert Tanzanian shillings into US dollars; all planned capital expenditures can be funded from cash flow generated by current operations; the Company's expectations that no circumstances will significantly impact the Company's cash flow or liquidity; the Company's expectation that it will maintain adequate working capital to cover the Company's long-term and short-term obligations; the timing and effective rate of the APT payable by the Company; the Company's ability to produce additional volumes; the potential impact on the Company resulting from the further spread of COVID-19; the Company's expectation that its Tanzania operations will be the sole source of the Company's near term revenue earnings; the Company's assessment of the merits of the FCC claim; the Company's expectations regarding changes to its tax liabilities and the results of its operations as a result of amendments made to the ITA, 2004, the WLMAA, 2017 and the implementation of further legislation; the Company's obligation to make future deposits to object the TRA's assessments; and expectations in respect of the timing and results of its appeals on, and responses to, the decisions of the TRA and TRAB and other statements under "Contingencies – Taxation" in this MD&A. In addition, statements relating to "reserves" are by their nature forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the reserves described can be produced profitably in the future. The recovery and reserve estimates of the Company's reserves provided herein are estimates only and there is no guarantee that the estimated reserves will be recovered. As a consequence, actual results may differ materially from those anticipated in the forward-looking statements. Although management believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, access to resources and infrastructure, performance or achievement since such expectations are inherently subject to significant business, economic, operational, competitive, political and social uncertainties and contingencies.

These forward-looking statements involve substantial known and unknown risks and uncertainties, certain of which are beyond the Company's control, and many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking statements made by the Company, including, but not limited to: production for 2023 including midpoint production are lower than anticipated; the Company's gross gas sale volumes are lower than forecasted; failure to receive payments from TANESCO; risks related to the implementation of potential financing solutions to resolve the TANESCO arrears; risk of a lack of access to Songas processing and transportation facilities; risk that the Company may be unable to complete additional field development to support the Songo Songo production profile through the life of the license; risk that the Company may be unable to develop additional supply or increase production volumes; risk of reduced current and potential production capacity of the Songo Songo gas field; risks associated with the Company's ability to complete sales of Additional Gas; inaccuracies respecting the assessment of sand production on the applicable wells; the Company's inability to obtain additional de-sanding units in 2023; negotiations with potential industrial customers for Additional Gas contracts are not successful; negative effect on the Company's rights under the PSA and other agreements relating to its business in Tanzania as a result of recently enacted legislation, as well as the risk that such legislation will create additional costs and time connected with the Company's business in Tanzania; risks regarding the uncertainty around evolution of Tanzanian legislation; incorrect assessment by the Company of the merits of the FCC claim; risk that the Company will not be successful in appealing claims or decisions made by the TRA or TRAB and may be required to pay additional taxes and penalties; the risk of unanticipated effects regarding changes to the Company's tax liabilities and its operations as a result of amendments made to the ITA, 2004, the WLMAA, 2017, the implementation of further legislation and the Company's interpretation of the same; the impact of general economic conditions in the areas in which the Company operates; civil unrest; the susceptibility of the areas in which the Company operates to outbreaks of disease; industry conditions; changes in laws and regulations including the adoption of new environmental laws and regulations, impact of local content regulations and variances in the interpretation and enforcement of such regulations; increased competition; the lack of availability of qualified personnel or management; fluctuations in commodity prices, foreign exchange or interest rates; the lack of availability of US dollars; the Company's inability to convert Tanzanian shillings into US dollars as and when required; occurrence of circumstance or events which significantly impact the Company's cash flow and liquidity and the Company's ability cover its long-term and short-term obligations; stock market volatility; competition for, among other things, capital, oil and gas field services and skilled personnel; failure to obtain required equipment for field development; delays in development plans; failure to obtain expected results from the drilling or workover of wells and the installation of compression on the Songas Infrastructure;



## Forward-Looking Statements cont.

effect of changes to the PSA on the Company as a result of the implementation of new government policies for the oil and gas industry; changes in laws; imprecision in reserve estimates; incorrect forecasts in production and growth potential of the Company's assets; obtaining required approvals of regulatory authorities; failure to recommence production from SS-4; failure to complete the 3D seismic acquisition program, including the completion of data acquisition and fast track data processing and the payment of seismic contracts and seismic processing contracts, on the timeline or at the cost anticipated; not having an appropriate weather window in which to conduct the 3D seismic program; further work not conducted on flowline of applicable wells as planned; risks associated with negotiating with foreign governments; inability to satisfy debt conditions of financing; failure to successfully negotiate agreements; risk that the Company will not be able to fulfill its contractual obligations; risk that trade and other receivables may not be paid by the Company's customers when due; the risk that the Company's Tanzanian operations will not provide near term revenue earnings; reduced global economic activity as a result of the continuing impacts of COVID-19, including lower demand for natural gas and a reduction in the price of natural gas; incorrect assessment that there will be no material adverse impacts on the Company resulting from future spread of COVID-19 and any incorrect assumptions regarding potential future impact of continuing effects of COVID-19 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; and the impact of actions taken by governments to reduce any potential future 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 such additional risks listed under "Business Risks" in this report. In addition, there are risks and uncertainties associated with oil and gas operations, therefore the Company's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurances can be given that any of the events anticipated by these forward-looking statements will transpire or occur, or if any of them do so, what benefits the Company will derive therefrom. Readers are cautioned that the foregoing list of factors is not exhaustive.

Such forward-looking statements are based on certain assumptions made by the Company in light of its experience and perception of historical trends, current conditions and expected future developments, as well as other factors the Company believes are appropriate in the circumstances, including, but not limited to, the Company's anticipated production for 2023 are in line with the forecasts; the Company's average gross gas sale volumes are in line with forecasts; the ability of the Company to negotiate Additional Gas contracts with industrial customers; the ability of the Company to complete additional developments and increase its production capacity; forecasts of the current and potential production capacity of the Songo Songo gas field; the timeline and actual costs to complete the Company's 3D seismic acquisition program, including the acquisition of data and fast track data processing and the payment of seismic contracts and seismic processing contracts, are in line with estimates; further work will be conducted on flowline of applicable wells as planned; the accuracy and timeliness of test programs and modelling on sand production on applicable wells; the Company's ability to acquire additional de-sanding units; the Company will receive payment of arrears from TANESCO and record such receivables on the Company's future Statement of Comprehensive Income as anticipated; correct assessment of the merits of the FCC claim by the Company; the Company's assessment of the merits of its appeal or claims before the TRA and TRAB regarding tax assessments and penalties; the Company's interpretation and prediction of the effects regarding changes to the Company's tax liabilities and its operations as a result of amendments made to the ITA, 2004, the WLMAA, 2017, the implementation of further legislation; that there will continue to be no restrictions on the movement of cash from Mauritius, Jersey or Tanzania; the Company will continue to be able to convert Tanzanian shillings into US dollars; absence of circumstances or events that significant impact the Company's cash flow and liquidity; that the Company will have sufficient cash flow, debt or equity sources or other financial resources required to fund its capital and operating expenditures and requirements as needed; the Company's ability to obtain revenue earnings from its operations, particularly its Tanzanian operations; the continuing impact of COVID-19 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; that the Company will successfully negotiate agreements; receipt of required regulatory approvals; the ability of the Company to increase production as required to meet demand; infrastructure capacity; commodity prices will not deteriorate significantly; the ability of the Company to obtain equipment and services in a timely manner to carry out exploration, development and exploitation activities; future capital expenditures; availability of skilled labour; timing and amount of capital expenditures; uninterrupted access to infrastructure; the impact of increasing competition; conditions in general economic and financial markets; effects of regulation by governmental agencies; that the Company's appeal of various tax assessments will be successful; current or, where applicable, proposed industry conditions, laws and regulations will continue in effect or as anticipated as described herein; the effect of new environmental and climate-change related regulations will not negatively impact the Company; the Company's ability to maintain strong commercial relationships with the GoT and other state and parastatal organizations; the current and future administration in Tanzania continues to honor the terms of the PSA and the Company's other principal agreements; the IASB pronouncements will not have any impact on the Company's consolidated financial statements; and other matters.

The forward-looking statements contained in this MD&A are made as of the date hereof and the Company undertakes no obligation to update publicly or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise, unless so required by applicable securities laws.

## Additional Information

Additional information relating to the Company is available on SEDAR at [www.sedar.com](http://www.sedar.com)

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## Glossary

**mcf** Thousand standard cubic feet

**MMcf** Million standard cubic feet

**Bcf** Billion standard cubic feet

**Tcf** Trillion standard cubic feet

**MMcfd** Million standard cubic feet per day

**MMbtu** Million British thermal units

**1P** Proven reserves

**2P** Proven and probable reserves

**kWh** Kilowatt hour

**MW** Megawatt

**\$** US dollars

**CDN\$** Canadian dollars

## Management's Report to Shareholders

The accompanying consolidated financial statements of Orca Energy Group Inc. are the responsibility of Management. The financial and operating information presented in this Annual Report is consistent with that shown in the consolidated financial statements.

The consolidated financial statements have been prepared by Management, on behalf of the Board, in accordance with the accounting policies disclosed in the notes to the consolidated financial statements. Where necessary, management has made informed judgments and estimates in accounting for transactions which were not complete at the balance sheet date. In the opinion of management, the consolidated financial statements have been prepared within acceptable limits of materiality and are in accordance with International Financial Reporting Standards ("IFRS") as adopted by the International Accounting Standards Board ("IASB") appropriate in the circumstances.

Management maintains appropriate systems of internal controls. Policies and procedures are designed to give reasonable assurance that transactions are properly authorised, assets are safeguarded and financial records are properly maintained to provide reliable information for the preparation of financial statements. An independent firm of Chartered Professional Accountants, as appointed by the Shareholders, audited the consolidated financial statements in accordance with the Canadian Generally Accepted Auditing Standards to enable them to express an opinion on the fairness of the consolidated financial statements in accordance with IFRS as adopted by the IASB.

The Board of Directors carries out its responsibility for the financial reporting and internal controls of the Company principally through an Audit Committee. The committee has met with the independent auditors and Management in order to determine if Management has fulfilled its responsibilities in the preparation of the consolidated financial statements. The consolidated financial statements have been approved by the Board of Directors on the recommendation of the Audit Committee.

*(signed) "Jay Lyons"*

**Jay Lyons**  
Chief Executive Officer  
April 26, 2023

*(signed) "Lisa Mitchell"*

**Lisa Mitchell**  
Chief Financial Officer  
April 26, 2023

## Independent Auditors' Report

### To the Shareholders of Orca Energy Group Inc.

#### Opinion

We have audited the consolidated financial statements of Orca Energy Group Inc. (the Entity), which comprise:

- the consolidated statements of financial position as at December 31, 2022 and December 31, 2021
- the consolidated statements of comprehensive income for the years then ended
- the consolidated statements of changes in shareholders' equity for the years then ended
- the consolidated statements of cash flows for the years then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated financial position of the Entity as at December 31, 2022 and December 31, 2021, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

#### Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our auditor's report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the year ended December 31, 2022. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We have determined the matters below to be the key audit matters to be communicated in our auditor's report.

#### Assessment and recognition of income tax provision related to positions taken in tax filings in Tanzania

##### Description of the matter

We draw your attention to note 3, note 4 (c), note 5(h), and note 21 to the financial statements.

The Entity operates in Tanzania where tax authorities may audit income tax filings and the resolution of such audits may span multiple years. Tax law in Tanzania is complex and often subject to changes and to varied interpretations; accordingly, the ultimate outcome with respect to positions taken on income tax filings may differ from the amounts recognized. The Entity has taken certain positions in its tax filings and these tax filings are subject to audit and potential reassessment after the lapse of considerable time. Accordingly, the actual income tax impact may differ significantly from that estimated and recorded by management.

The Entity's assessment of whether it is probable that the position taken by the Entity will be accepted by tax authorities in Tanzania is a significant management judgment. The Entity will record a tax provision where management concludes it is probable the filing position taken by the Entity will not be accepted by the relevant taxing authority. At December 31, 2022, the Entity estimated that the total unrealized tax contingencies related to uncertain income tax filing positions with Tanzanian tax authorities is \$60.7 million.

##### Why the matter is a key audit matter

We identified the assessment and recognition of income tax provision related to positions taken in tax filings in Tanzania as a key audit matter. This matter represented an area of significant risk of material misstatement. In addition, significant auditor judgment and specialized skills and knowledge were required to evaluate the Entity's assessment of the probability of the taxation authorities accepting the tax filing positions taken by the Entity.

**How the matter was addressed in the audit**

The primary procedures we performed to address this key audit matter included the following:

We involved income tax professionals in Canada and Tanzania with specialized skills and knowledge who assisted in evaluating the Entity's tax filing positions including interpretation of income tax legislation by:

- Developing an independent assessment of the Entity's tax filing positions based on their understanding and interpretation of tax laws in Tanzania and comparing it to the Entity's assessment
- Inspecting the Entity's correspondence with Tanzanian tax authorities and evaluating the implications of the matters raised by such authorities
- Inspecting evaluations and opinions provided by the Entity's legal counsel

We assessed whether it was probable that the tax filing positions taken by the Entity would be accepted by the Tanzanian tax authorities by obtaining legal enquiry letter responses from law firms engaged by the entity related to identified tax claims and contingencies.

**Assessment of the impact of estimated proven natural gas reserves on depletion expense****Description of the matter**

We draw attention to note 3, note 4 and note 13 to the financial statements. The Entity amortizes its costs associated with tangible natural gas assets using the unit of production method by reference to the ratio of production in the period to the related proven gas reserves, taking into account estimated forecasted future development costs necessary to bring those reserves into production. The Entity recorded depletion expense related to its tangible natural gas assets of \$29.2 million for the year ended December 31, 2022.

The estimated proven gas reserves includes significant assumptions related to:

- Forecasted natural gas prices
- Forecasted production rates
- Forecasted operating costs
- Forecasted future development costs
- Forecasted cost recovery provisions and royalties

The Entity engages independent petroleum engineers to evaluate the proven natural gas reserves and the related cash flows.

**Why the matter is a key audit matter**

We identified the assessment of the impact of estimated proven natural gas reserves on depletion expense as a key audit matter. Significant auditor judgement was required to evaluate the results of our audit procedures regarding the estimate of proven natural gas reserves.

**How the matter was addressed in the audit**

The primary procedures we performed to address this key audit matter include the following:

We assessed the depletion expense calculation for compliance with IFRS as issued by the IASB.

With respect to the estimate of proven natural gas reserves:

- We evaluated the competence, capabilities and objectivity of the independent petroleum engineers engaged by the Entity
- We compared the 2022 actual production rates, operating costs, royalties, and future development costs of the Entity to those estimates used in the prior year's estimate of proven natural gas reserves to assess the Entity's ability to accurately forecast
- We evaluated the appropriateness of forecasted natural gas prices, forecasted production rates, forecasted operating costs, forecasted cost recovery provisions and royalties, and forecasted future development cost assumptions by comparing to 2022 actual results. We took into account changes in conditions and events affecting the Entity to assess the adjustments or lack of adjustments made by the Entity in arriving at the assumptions.

## Other Information

Management is responsible for the other information. Other information comprises the information included in Management's Discussion & Analysis and in the document entitled "Annual Report" filed with the relevant Canadian Securities Commissions.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in Management's Discussion & Analysis and in the Annual Report filed with the relevant Canadian Securities Commissions as at the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditor's report.

We have nothing to report in this regard.

## Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

## Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.
- Determine, from the matters communicated with those charged with governance, those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our auditor's report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this auditor's report is Jason Grodziski.

The image shows a handwritten signature in black ink that reads "KPMG LLP". The letters are stylized and slanted to the right.

Chartered Professional Accountants  
Calgary, Canada  
April 26, 2023

## Consolidated Statements of Comprehensive Income

\$'000	Note	Years ended December 31	
		2022	2021
<b>Revenue</b>	7	<b>118,089</b>	86,022
Production, distribution and transportation		<b>18,011</b>	12,253
<b>Net production revenue</b>		<b>100,078</b>	73,769
<b>Operating expenses</b>			
General and administrative		<b>13,548</b>	11,988
Stock-based compensation recovery	17	<b>(120)</b>	(576)
Depletion	13	<b>29,174</b>	15,779
Reversal of loss allowance	12	<b>(6,715)</b>	(2,574)
Finance income	9	<b>(613)</b>	(133)
Finance expense	9	<b>10,210</b>	9,987
<b>Income before tax</b>		<b>54,594</b>	39,298
Income tax expense - current	10	<b>15,488</b>	10,192
Income tax expense - deferred	10	<b>1,213</b>	6,534
Additional Profits Tax	11	<b>7,613</b>	4,609
<b>Net income</b>		<b>30,280</b>	17,963
Net income attributable to non-controlling interest	24	<b>2,554</b>	1,593
<b>Net income attributable to shareholders</b>		<b>27,726</b>	16,370
Foreign currency translation loss from foreign operations		<b>(95)</b>	(6)
<b>Comprehensive income</b>		<b>27,631</b>	16,364
<b>Net income attributable to shareholders per share (\$)</b>			
Basic and diluted	18	<b>1.39</b>	0.81

See accompanying notes to the consolidated financial statements.



## Consolidated Statements of Financial Position

\$'000	Note	As at December 31	
		2022	2021
<b>ASSETS</b>			
<b>Current assets</b>			
Cash and cash equivalents		96,321	72,985
Trade and other receivables	12	35,100	30,731
Prepayments		1,551	1,133
		<b>132,972</b>	104,849
<b>Non-current assets</b>			
Long-term receivables	15	2,215	2,215
Investments	24	-	3,240
Capital assets	13	112,896	119,967
		<b>115,111</b>	125,422
<b>Total assets</b>		<b>248,083</b>	230,271
<b>EQUITY AND LIABILITIES</b>			
<b>Current liabilities</b>			
Trade and other liabilities	14	43,192	46,776
Tax payable		5,081	2,836
Current portion of long-term loan	16	10,000	5,000
Current portion of Additional Profits Tax	11	13,146	8,461
		<b>71,419</b>	63,073
<b>Non-current liabilities</b>			
Deferred income taxes	10	26,256	25,043
Lease liabilities	13	13	176
Long-term loan	16	39,762	49,603
Additional Profits Tax	11	15,347	20,922
		<b>81,378</b>	95,744
<b>Total liabilities</b>		<b>152,797</b>	158,817
<b>SHAREHOLDERS' EQUITY</b>			
Capital stock	17	47,257	47,454
Accumulated other comprehensive loss		(272)	(177)
Accumulated income		42,631	21,061
Non-controlling interest	24	5,670	3,116
		<b>95,286</b>	71,454
<b>Total equity and liabilities</b>		<b>248,083</b>	230,271

See accompanying notes to the consolidated financial statements.

Nature of operations (Note 1); Contractual obligations (Note 20); Contingencies (Note 21); Subsequent events (Note 25). The consolidated financial statements were approved by the Board on April 26, 2023.

(signed) "Jay Lyons"  
**Jay Lyons**  
 Chief Executive Officer  
 April 26, 2023

(signed) "Lisa Mitchell"  
**Lisa Mitchell**  
 Chief Financial Officer  
 April 26, 2023

## Consolidated Statements of Cash Flows

\$'000	Note	Years ended December 31	
		2022	2021
<b>OPERATING ACTIVITIES</b>			
<b>Net Income</b>		<b>30,280</b>	17,963
Adjustment for:			
Depletion and depreciation	13	<b>29,528</b>	16,106
Indirect tax	9	<b>1,103</b>	1,826
Stock based compensation recovery	17	<b>(120)</b>	(576)
Deferred income taxes	10	<b>1,213</b>	6,534
Additional Profits Tax	11	<b>7,613</b>	4,609
Loss allowance	12	<b>3,240</b>	1,188
Unrealized (gain) loss on foreign exchange		<b>(235)</b>	387
Interest expense	9	<b>8,637</b>	6,945
Change in non-cash operating working capital	23	<b>(13,599)</b>	(14,872)
<b>Net cash flows from operating activities</b>		<b>67,660</b>	40,110
<b>INVESTING ACTIVITIES</b>			
Capital expenditures	13	<b>(25,731)</b>	(24,985)
Net used in from investing activities		<b>(25,731)</b>	(24,985)
<b>FINANCING ACTIVITIES</b>			
Lease payments	13	<b>(312)</b>	(319)
Substantial issuer bid	17	<b>-</b>	(31,872)
Normal course issuer bid	17	<b>(298)</b>	(131)
Long-term loan repayment	16	<b>(5,000)</b>	-
Interest paid	9	<b>(6,904)</b>	(7,198)
Dividends paid to shareholders	17	<b>(6,176)</b>	(6,429)
<b>Net cash used in financing activities</b>		<b>(18,690)</b>	(45,949)
<b>Increase (decrease) in cash</b>		<b>23,239</b>	(30,824)
Cash and cash equivalents at the beginning of the year		<b>72,985</b>	104,190
Effect of change in foreign exchange on cash for the year		<b>97</b>	(381)
<b>Cash and cash equivalents at the end of the year</b>		<b>96,321</b>	72,985

See accompanying notes to the consolidated financial statements.

## Consolidated Statements of Changes in Shareholders' Equity

\$'000	Capital stock	Accumulated other comprehensive loss	Accumulated income	Non-controlling Interest	Total
Note	17		17	24	
Balance as at December 31, 2021	47,454	(177)	21,061	3,116	71,454
Share repurchase	(197)	-	(101)	-	(298)
Dividends declared	-	-	(6,055)	-	(6,055)
Foreign currency translation adjustment on foreign operations	-	(95)	-	-	(95)
Net income	-	-	27,726	2,554	30,280
<b>Balance as at December 31, 2022</b>	<b>47,257</b>	<b>(272)</b>	<b>42,631</b>	<b>5,670</b>	<b>95,286</b>

\$'000	Capital stock	Accumulated other comprehensive loss	Accumulated income	Non-controlling Interest	Total
Note	17		17	24	
Balance as at December 31, 2020	63,243	(171)	27,277	1,523	91,872
Share repurchase	(15,789)	-	(16,012)	-	(31,801)
Share repurchase costs	-	-	(202)	-	(202)
Dividends declared	-	-	(6,372)	-	(6,372)
Foreign currency translation adjustment on foreign operations	-	(6)	-	-	(6)
Net income	-	-	16,370	1,593	17,963
Balance as at December 31, 2021	47,454	(177)	21,061	3,116	71,454

See accompanying notes to the consolidated financial statements

## Notes to the Consolidated Financial Statements

### General Information

Orca Energy Group Inc. was incorporated on April 28, 2004 under the laws of the British Virgin Islands with its registered office located at Vistra Corporate Service Centre, Wickhams Cay II, Road Town, Tortola, British Virgin Islands, VG110. The Company produces and sells natural gas to the power and industrial sectors in Tanzania.

The consolidated financial statements of the Company as at and for the year ended December 31, 2022 comprise accounts of the Company and its subsidiaries (collectively, the "Company" or "Orca Energy") and were authorized for issue in accordance with a resolution of the directors on April 26, 2023. The Company is controlled by Shaymar Limited who is the registered holder of 24.8% of the equity and controls 71.6% of the total votes of the Company. The shares are held in a trust that is independently managed for the beneficiaries.

### 1. Nature of Operations

The Company's principal operating asset is an interest held by a subsidiary, PanAfrican Energy Tanzania Limited ("PAET") in a Production Sharing Agreement ("PSA") with the Tanzania Petroleum Development Corporation ("TPDC") and the Government of Tanzania ("GoT") in the United Republic of Tanzania. This PSA covers the production and marketing of certain gas from the Songo Songo Block offshore Tanzania.

The PSA defines gas in the Songo Songo field as "Protected Gas" and "Additional Gas". The "Protected Gas" is owned by TPDC and is sold under a 20-year gas agreement until July 2024 ("Gas Agreement") to Songas Limited ("Songas") and Tanzania Portland Cement PLC. Songas is the owner of the infrastructure that enables the gas to be delivered to Dar es Salaam, which includes a gas processing plant on Songo Songo Island ("Songas Infrastructure"). The Company operates the gas processing plant and field on a "no gain no loss" basis and receives no revenue for the Protected Gas delivered to Songas.

Under the PSA, the Company has the right to produce and market all gas in the Songo Songo Block in excess of the Protected Gas requirements ("Additional Gas") until the PSA expires in October 2026.

The Tanzania Electricity Supply Company Limited ("TANESCO") is a parastatal organization which is wholly-owned by the Government of Tanzania, with oversight by the Ministry for Energy ("MoE"). TANESCO is responsible for the majority of electricity generation, transmission and distribution throughout Tanzania. The Company and TPDC as joint sellers currently supply Additional Gas directly to TANESCO by way of a Portfolio Gas Supply Agreement ("PGSA") and indirectly through the supply of Protected Gas and Additional Gas to Songas. The Company also delivers gas to TPDC through a long-term gas sales agreement ("LTGSA") to the TPDC operated National Natural Gas Infrastructure ("NNGI") on Songo Songo Island where the natural gas is processed before being transported to Dar es Salaam for power and industrial use.

In addition to gas supplied to TPDC, Songas and TANESCO, the Company has developed and supplies an industrial gas market in the Dar es Salaam area.

### 2. Basis of Preparation

#### Statement of Compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

#### Basis of Measurement

These consolidated financial statements have been prepared on a historical cost basis using the accrual basis of accounting. The consolidated financial statements are presented in US dollars ("\$\$") unless otherwise stated.

#### Basis of Consolidation

##### Subsidiaries

Subsidiaries are those enterprises controlled by the Company. The following companies have been consolidated within the Orca Energy financial statements:

Subsidiary	Registered	Holding	Functional currency
Orca Energy Group Inc.	British Virgin Islands	Parent Company	US dollar
Orca Exploration UK Services Limited	United Kingdom	100%	British pound
PAE PanAfrican Energy Corporation ("PAEM")	Mauritius	92%	US dollar
PanAfrican Energy Tanzania Limited	Jersey	92%	US dollar

## 2. Basis of Preparation cont.

### Transactions Eliminated Upon Consolidation

Inter-company balances and transactions and any unrealized gains or losses arising from inter-company transactions are eliminated in preparing the consolidated financial statements.

### Foreign Currency

#### i) Foreign Currency Transactions

Transactions in foreign currencies are recorded at the rate of exchange prevailing at the date of the transaction. Monetary assets and liabilities in foreign currencies are translated at period-end rates. Non-monetary items are translated at historic rates, unless such items are carried at market value, in which case they are translated using the exchange rates that existed when the values were determined. Any resulting exchange rate differences are recognized in earnings.

#### ii) Foreign Currency Translation

Foreign currency differences are recognized in comprehensive income and accumulated in the translation reserve. The assets and liabilities of these companies are translated into the functional currency at the period-end exchange rate. The income and expenses of the companies are translated into the functional currency at the average exchange rate for the period. Translation gains and losses are included in other comprehensive income.

### COVID-19

There has been no significant change in the Company's business during the year ended December 31, 2022 as a result of the ongoing coronavirus pandemic ("COVID-19"). Tanzanian government restrictions and vaccination program appear to have largely controlled the spread of COVID-19. Given the steps already taken by the Company, no significant impact on our operations or business results has occurred as a result of COVID-19. However, COVID-19 has been a contributing factor in a reduction of foreign currency flowing into the country and the risk remains that in the future the Company may not be able to convert Tanzanian shillings to United States dollars as and when required.

### Climate change regulations

Risks related to climate change may have an impact on the Company's operations and the Company may be subject to additional disclosure requirements in the future. The International Sustainability Standards Board issued an IFRS Sustainability Disclosure Standard with the objective to develop a global framework for environmental sustainability disclosure. In addition, the Canadian Securities Administrators also issued a proposed National Instrument 51-107 Disclosure of Climate-related Matters which sets forth additional reporting requirements for Canadian Public Companies. We continue to monitor developments on these reporting requirements and the impact they may have on the Company's financial position and results of operating activities in future periods.

## 3. Summary of Significant Accounting Policies

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements.

### Capital Assets

#### i) Capital Assets

Capital assets comprises the Company's tangible natural gas assets, development wells, leasehold improvements, computer equipment, motor vehicles and fixtures and fittings carried at cost, right-of-use assets less any accumulated depletion, depreciation and accumulated impairment losses. Cost includes purchase price and construction costs for qualifying assets. Depletion of these assets commences when the assets are ready for their intended use. Only costs that are directly related to the discovery and development of specific oil and gas reserves are capitalized. The cost associated with tangible natural gas assets are amortized on a unit of production method based on commercial proven reserves. The calculation of the unit of production amortization takes into account the estimated future development cost associated with proven reserves.

#### ii) Impairment of Property, Plant and Equipment

At each balance sheet date, the Company reviews the carrying amounts of its property, plant and equipment to determine if indicators of impairment exist. Individual assets are grouped together as a cash generating unit ("CGU") for impairment assessment purposes at the lowest level at which there are identifiable cash flows that are independent from other group assets. If any such indication of impairment exists, the Company makes an estimate of its recoverable amount. The recoverable amount is the higher of fair value less costs to sell and value in use. Where the carrying amount of a CGU exceeds its recoverable amount, the CGU is considered impaired and is written down to its recoverable amount. In assessing the value in use, the estimated future cash flows are adjusted for the risks specific to the CGU and are discounted to their present value with a pre-tax discount rate that reflects the current market indicators. The fair value less costs to sell is the amount that would be obtained from the sale of a CGU in an arm's length transaction between knowledgeable and willing parties. Where an impairment loss subsequently reverses, the carrying amount of the asset CGU is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the CGU in prior years. A reversal of an impairment loss is recognized in earnings.

Notes to the Consolidated Financial Statements cont.

### 3. Summary of Significant Accounting Policies cont.

#### Operatorship

The Company operates the Songo Songo Gas Field, flowlines and gas processing plant. The Songas wells, flowlines and gas plant are operated by the Company on behalf of Songas on a “no gain no loss” basis. The cost of operating and maintaining the wells and flowlines is paid for by the Company and Songas in proportion to the respective volumes of Protected Gas and Additional Gas sales. The costs of operating and maintaining the wells and flowlines are reflected in the accounts to the extent that the costs were incurred to accomplish Additional Gas sales. The cost of operating the gas processing plant and pipeline to Dar es Salaam is paid by Songas. Costs incurred by the Company in connection with the operatorship of the Songas plant are recorded as receivables which are recharged to Songas. Subsequent payments received from Songas are credited to receivables. When there are Additional Gas sales, a tariff is paid to Songas as compensation for using the gas processing plant and pipeline.

#### Employment Benefits

##### i) Pension

The Company does not operate a pension plan, but it does make contributions to the individual pension funds for employees in the United Kingdom and Tanzania. Obligations for contributions to the statutory pension fund are recognized as an expense as incurred.

##### ii) Stock Appreciation Rights and Restricted Stock Units

Stock appreciation rights (“SARs”) and restricted stock units (“RSUs”) are issued to certain key managers, officers, directors and employees. This has effectively paused at the end of 2022. The fair value of SARs and RSUs are recorded in earnings in accordance with the service period. The fair value of the SARs and RSUs is revalued every reporting date with the change in the value recognized in earnings.

#### Asset Retirement Obligations

No provision has been made for future site restoration costs in Tanzania because the Company currently has no legal or contractual or constructive obligation under the PSA to restore the fields at the end of their commercial lives, should such occur within the term of the PSA. If an amendment to the PSA is agreed requiring the Company to restore the fields at the end of the commercial lives, a provision will be made for future site restoration costs.

#### Revenue Recognition, Production Sharing Agreements and Royalties

Pursuant to the terms of the PSA, the Company has exclusive rights (i) to carry on Exploration Operations in the Songo Songo Gas Field; (ii) to carry on Development Operations in the Songo Songo Gas Field and (iii) jointly with TPDC, to sell or otherwise dispose of Additional Gas.

The Company recognizes revenue related to Additional Gas sales to all customers at specified delivery points at benchmark and contractual prices.

A good or service is transferred when the customer obtains control of that good or service. The transfer of control of natural gas occurs at the metering points at the inlet to the customer’s facility. Under the terms of the PSA, the Company pays both its share and TPDC’s share of operating, administrative and capital costs. The Company recovers all reasonably incurred operating, administrative and capital costs including TPDC’s share of these costs from future revenues over several years (“Cost Gas”). TPDC’s share of operating and administrative costs is recorded in operating and general and administrative costs when incurred and capital costs are recorded in capital assets. All recoveries are recorded as Cost Gas revenue in the year of recovery.

The Company has gas sales contracts under which the customers are required to take, or pay for, a minimum quantity of gas. In the event that a customer has paid for gas that was not delivered, the additional income received by the Company is carried on the balance sheet as deferred revenue. If the customer consumes volumes in excess of the minimum, it will be charged at the current rate, but may receive a credit for volumes paid but not delivered. At the end of each reporting period the Company reassesses the volumes for which the customer may receive credit, any remaining balance is credited to income. As at December 31, 2022, future revenues from take or pay provisions of the PGSA extending through 2026 are approximately \$10.7 million, of which \$10.7 million is expected to be recognized in 2023.

In any given year, the Company is entitled to recover as Cost Gas up to 75% of the net revenue (gross revenue less processing and pipeline tariffs). Any net revenue in excess of the Cost Gas (“Profit Gas”) is shared between the Company and TPDC in accordance with the terms of the PSA.

Under the PSA the Profit Gas payable to TPDC is adjusted by the amount necessary to fully pay and discharge the Company’s liability for taxes on income. Revenue represents the Company’s share of Profit Gas and Cost Gas during the period.

The Company records revenues for sales to TANESCO based on the expected amount to be collected, which represents a percentage of the amounts invoiced to TANESCO determined by comparison of TANESCO’s payment history to the amounts invoiced by the Company. Management believes this approach provides the best estimate of TANESCO’s ability to pay and remain reasonably current; it also reflects the economic reality of the situation (see Notes 4 and 7).

The estimated percentage used to recognize TANESCO revenue will be reviewed periodically as circumstances require. If there is a significant difference between the amount of revenue recorded and amounts received, the percentage used to record revenue as well as any existing receivable or deferred revenue balance will be revised accordingly. The Company recognized 100% of amounts invoiced for deliveries to TANESCO as revenue during 2022 and 2021. During 2022 the Company invoiced TANESCO \$29.8 million (2021: \$23.9 million) for gas deliveries and received \$33.7 million (2021: \$22.9 million) in payments. Based on the consistent payments from TANESCO, the Company: (i) recognized all amounts invoiced for gas deliveries in 2022 and 2021 as revenue; and (ii) recognized \$5.6 million during the year (2021: \$1.1 million) as a reversal of loss allowance relating to the amounts collected during the year that were applied towards the long-term TANESCO receivables previously allowed for. In addition, during 2022 TANESCO paid the Company \$30.0 million against the 2017 and 2018 take or pay invoices. As of December 31, 2022, the Company had \$3.7 million of TANESCO current receivables which was settled in Q1 2023.

### 3. Summary of Significant Accounting Policies cont.

#### Revenue Recognition, Production Sharing Agreements and Royalties cont.

The Company sells its natural gas to power customers (TANESCO, TPDC and Songas) and one industrial customer (a cement manufacturer) pursuant to fixed-price contracts. Sales to other industrial customers are at fixed-price discounts (subject to certain floors and ceilings) to the lowest alternative fuel source in Dar es Salaam, Heavy Fuel Oil ("HFO") and coal. Under all contracts, the Company is required to deliver volumes of natural gas to the contract counterparty. Natural gas revenue is recognized when the Company gives up control of the natural gas which occurs at metering points located at the inlets of customers' facilities. The amount of production revenue recognized is based on the agreed transaction price and the volumes delivered.

The Company has entered into contracts with customers with terms of four years.

#### Additional Profits Tax

Under the terms of the PSA, in the event that all costs have been recovered with an annual return from the PSA of 25% plus the percentage change in the United States Industrial Goods Producer Price Index, an Additional Profits Tax ("APT") is payable to the Government of Tanzania. APT is provided for by forecasting the total APT payable in the future as a proportion of the forecast Profit Gas over the term of PSA license. The actual APT that will be paid is dependent on the achieved value of the Additional Gas sales and the quantum and timing of the operating costs and capital expenditure program.

The PSA states that APT shall be calculated for each year and shall vary with the real rate of return earned by the Company on the net cash flow from the Contract Area (as defined in the PSA). The calculation of APT includes a working capital adjustment reflecting the effect of the timing of actual receipt of amounts owing from TANESCO on net cash flow.

#### Income Taxes

Income tax expense comprises current and deferred tax. It is recognized in profit or loss except to extent they relate to items recognized directly in equity, in which case the tax is recognized in equity.

Current tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustments to the tax payable or receivable in respect to previous years. Where current income tax is payable, this is shown as a current tax liability. The amount of the current tax payable is the best estimate of the tax amount expected to be paid that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date.

Deferred tax is recognized using the asset and liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax provided is based on the expected manner of realization or settlement of carrying amounts of assets and liabilities using tax rates substantively enacted at the balance sheet date. A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available, against which the asset can be utilized. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefits will be realized.

Uncertainties over positions taken in income tax filings are evaluated on the basis of whether it is probable the position taken by the Company in the tax filing will be accepted upon examination by the relevant taxing authorities. These uncertainties impact the amount of income taxes recognized.

#### Depreciation

Depreciation for non-natural gas properties is charged to earnings on a straight-line basis over the estimated useful economic lives of each class of asset. The estimated useful lives are as follows:

Leasehold improvement	Over remaining life of the lease
Computer equipment	3 years
Vehicles	3 years
Fixtures and fittings	3 years
Leased assets and right-of-use assets	Over the remaining life of the lease

#### Financial Instruments

All financial instruments are initially recognized at fair value on the Consolidated Statements of Financial Position. The Company has classified each financial instrument into one of the following categories: (i) fair value through the statement of comprehensive income (loss), (ii) loans and receivables, and (iii) other financial liabilities. Measurement in subsequent periods depends on the classification of the financial instrument as described below:

- Fair value through profit or loss: financial instruments under this classification include cash and cash equivalents and derivative assets and liabilities.
- Amortized cost: financial instruments under this classification include accounts receivable, investments in bonds, investments, accounts payable and accrued liabilities, dividends payable, finance lease obligations, and long-term debt.

Financial assets and liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument. Financial assets are derecognized when the rights to receive cash flows from the assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership. Financial assets and liabilities are offset and the net amount is reported on the statement of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

Notes to the Consolidated Financial Statements cont.

### 3. Summary of Significant Accounting Policies cont.

#### Financial Instruments Classification and Measurement

The Company's financial instruments include trade and other receivables, long-term receivables, trade and other liabilities and long-term loan.

The Company classifies the fair value of these financial instruments according to the following hierarchy based on the amount of observable inputs used to value the instrument.

- Level 1 - Quoted prices are available in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions occur in sufficient frequency and volume to provide pricing information on an ongoing basis.
- Level 2 - Pricing inputs are other than quoted prices in active markets included in Level 1. Prices in Level 2 are either directly or indirectly observable as of the reporting date. Level 2 valuations are based on inputs, including quoted forward prices for commodities, time value and volatility factors, which can be substantially observed or corroborated in the marketplace.
- Level 3 - Valuation in this level are those with inputs for the asset or liabilities that are not based on observable market data.

The fair value of trade and other receivables and trade and other liabilities approximate their carrying amount due to the short-term nature of those instruments. The fair value of long-term receivables also approximates their carrying amount.

The Company's long-term loan is classified as Level 2 measurements. The long-term loan bears interest at a fixed rate which is close to the current market rates and accordingly the fair market value of the long-term loan approximates the carrying value.

#### Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, term deposits and short-term highly liquid investments with the original term to maturity of three months or less, which are convertible to known amounts of cash and which, in the opinion of management, are subject to an insignificant risk of changes in value. The fair value of cash and cash equivalents approximates their carrying amount. There are no restrictions on the movement of funds out of Tanzania.

#### Impairment of Financial Assets

A financial asset is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset.

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the original effective interest rate. Individually significant financial assets are tested for impairment on an individual basis. The remaining financial assets are assessed collectively in groups that share similar credit risk characteristics.

All impairment losses are recognized in earnings. An impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment loss was recognized. For financial assets measured at amortized cost the reversal is recognized in earnings.

#### Leases

The Company recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is depreciated using the straight-line method from its commencement date to the earlier of the end of the useful life of the right-of-use asset or end of the lease term. The estimated useful lives of right-of-use assets are determined on the same basis as those of property, plant and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain re-measurements of the lease liability.

The lease liability is initially measured at the present value of the minimum lease payments that are not yet paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate for that asset. Generally, the Company uses its incremental borrowing rate as the discount rate. The lease liability is subsequently increased by the interest cost on the lease liability and decreased by lease payments made. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in estimate of the amount expected to be payable under a residual value guarantee, changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised.



### 3. Summary of Significant Accounting Policies cont.

#### Short-Term Leases and Leases of Low Value Assets

The Company has elected not to recognize right-of-use assets and lease liabilities for short term leases that have a term of 12 months or less and leases of low value assets defined as less than \$5,000 or less. The Company recognizes the lease payments associated with these leases as an expense when incurred, over the lease term.

#### Accounting Changes

The following pronouncements from the IASB became effective or were amended for financial reporting periods beginning on or after January 1, 2022. There has been no impact on the Company.

- COVID-19 Related Rent Concessions beyond June 30, 2021 (Amendment to IFRS 16).
- Onerous contracts - Cost of fulfilling a contract (Amendments to IAS 37).
- Annual Improvements to IFRS Standards 2018-2020.
- Property, Plant and Equipment: Proceeds before Intended Use (Amendments to IAS 16).
- Reference to the Conceptual Framework (Amendments to IFRS 3).

The following standards have been issued but are not yet effective:

- IFRS 17 Insurance Contracts.
- Amendments to IFRS 17.
- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2).
- Definition of Accounting Estimate (Amendments to IAS 8).
- Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction (Amendments to IAS 12).
- Initial Application of IFRS 17 and IFRS 9 Comparative Information (Amendments to IFRS 17).

The Company intends to adopt these standards when they become effective and is currently evaluating the potential impact.

### 4. Use of Estimates and Judgments

The following are the critical judgments, apart from those involving estimations (see below), that management has made in the process of applying the Company's accounting policies and that have the most significant effect on the accounts recognized in these consolidated financial statements.

#### Critical Judgments in Applying Accounting Policies:

##### A. Natural gas assets

The Company assesses its natural gas assets for impairment when events or circumstances indicate that the carrying amount of its assets may not be recoverable. If any indication of impairment exists, the Company performs an impairment test on the CGU, which is the lowest level at which there are identifiable cash flows. The carrying amount of the CGU is compared to its recoverable amount which is defined as the greater of its fair value less cost to sell and value in use and is subject to management estimates. These estimates include quantities of reserves and future production, future commodity pricing, development costs, operating costs, and discount rates. Any changes in these estimates may have an impact on the recoverable amount of the CGU.

##### B. Collectability of receivables

The Company evaluates the collectability of its receivables on the basis of payment history, frequency and predictability, as well as Management's assessment of the customer's willingness and ability to pay. Management performs impairment tests each period on the Company's current and long-term receivables.

##### C. Statutory taxes

The Company operates in a jurisdiction with complex tax laws and regulations, which are evolving over time. The Company has taken certain tax positions in its tax filings and these filings are subject to audit and potential reassessment after the lapse of considerable time. Accordingly, the actual income tax impact may differ significantly from that estimated and recorded by management.

The recognition or reversal of deferred tax assets requires judgment as to whether or not there will be sufficient taxable profits available to offset the tax assets when they do reverse. This requires assumptions regarding future profitability and is therefore inherently uncertain.

Notes to the Consolidated Financial Statements cont.

## 4. Use of Estimates and Judgments cont.

### Key Sources of Estimation of Uncertainty

#### A. Reserves

There are numerous uncertainties inherent in estimating quantities of proved and probable reserves and cash flows to be derived therefrom, including many factors beyond the control of the Company. The reserves and estimated future net cash flow from the Company's properties have been evaluated by independent petroleum engineers. These evaluations include a number of assumptions relating to factors such as initial production rates, production decline rates, ultimate recovery of reserves, timing and amount of capital expenditures, marketability of production, crude oil price differentials to benchmarks, future prices of oil and natural gas, operating costs, transportation costs, cost recovery provisions and royalties, TPDC "back-in" methodology and other Government levies that may be imposed over the producing life of the reserves. These assumptions were based on price forecasts in use at the date the relevant evaluations were prepared and many of these assumptions are subject to change and are beyond the control of the Company. To date, TPDC has neither elected to back in within the prescribed notice period nor contributed any costs associated with backing in.

Reserves are integral to the amount of depletion and impairment test.

#### B. Cost Recovery

The Company is able to recover reasonable costs incurred on the development of the Songo Songo project out of 75% of the gross field revenue less processing and pipeline tariffs ("field net revenue"). There are inherent uncertainties in estimating when costs have been recovered as these costs are subject to Government audit and under certain circumstances a potential reassessment after the lapse of a considerable period of time.

## 5. Risk Management

The Company, by its activities in oil and gas exploration, development and production, is exposed to the risk associated with the unpredictable nature of the financial markets as well as political risk associated with conducting operations in an emerging market. The Company seeks to manage its exposure to these risks wherever possible.

### A. Foreign Exchange Risk

Foreign exchange risk arises when transactions and recognized assets and liabilities of the Company are denominated in a currency that is not the US dollar functional currency.

The Company operates internationally and is exposed to foreign exchange risk arising from currency exposures to US dollars. The main currencies to which the Company has an exposure are: Tanzanian shillings, British pounds sterling, Euros and Canadian dollars.

The majority of contracts with customers are based on US dollar prices for gas delivered however the majority of invoices and receipts are in Tanzanian shillings. Invoices are priced and then converted to Tanzanian shillings at the time of invoicing however payments are based on the US dollar invoiced amount translated to shillings at the time of payment. While conversion of Tanzanian shillings into US dollars is unrestricted, the foreign exchange market for Tanzanian shillings is limited and not highly liquid, reducing the Company's ability to convert large amounts of Tanzanian shillings into US dollars at any given time. To mitigate the risk of Tanzanian shilling devaluation, the Company regularly converts Tanzanian shilling receipts into US dollars and Euros to the extent practicable taking into consideration that the majority of operating expenditures are denominated in Tanzanian shillings.

The majority of capital expenditures are denominated in US dollars. Capital stock, equity financing and any associated stock based compensation are denominated in Canadian dollars.

There are no forward exchange rate contracts in place.

A 10% increase in the US dollar against the relevant foreign currency would result in an overall increase in working capital (defined as current assets less current liabilities) of \$2.2 million from \$61.6 million to \$63.8 million and an increase in the income before tax from \$54.6 million to \$56.8 million.

The sensitivity includes only outstanding foreign currency denominated monetary items and adjusts their translation at period end for a 10% change in the foreign currency rates. A 10% sensitivity rate is used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonable possible change in foreign exchange rates.

The following balances are denominated in foreign currency (stated in US dollars at period end exchange rates):

#### Balances as at December 31, 2022

\$'millions	Tanzanian shillings	Euros	Canadian dollars	British pounds	Total
Cash	37.0	1.2	0.1	0.1	<b>38.4</b>
Trade and other receivables	16.2	-	-	-	<b>16.2</b>
Trade and other liabilities	(31.6)	-	(1.5)	-	<b>(33.1)</b>
Net	21.6	1.2	(1.4)	0.1	<b>21.5</b>

## 5. Risk Management cont.

### B. Commodity Price Risk

The Company negotiated industrial gas sales contracts with gas prices which, subject to certain floors and ceilings, are determined as a discount to the lowest cost alternative fuels in Dar es Salaam, namely Heavy Fuel Oil ("HFO") and coal. The price of HFO is exposed to the volatility in the market price of crude oil.

### C. Interest Rate Risk

Interest rate risk is the risk that future cash flows will fluctuate as a result of changes in market interest rates. The Company has minimal exposure to interest rates as the long-term loan has a fixed interest rate, interest rates on short-term investments are fixed and interest received on cash balances is not significant.

### D. Concentration Risk

All the Company's sales are currently made in Tanzania. The sales are made to the Power sector and the Industrial sector. In relation to sales to the Power sector, the Company has a contract with Songas for the supply of gas to the Ubungo power plant, a contract with TANESCO to supply gas to some of the TANESCO power plants, and a contract with TPDC to supply gas through NNGI. The contracts with Songas, TANESCO and TPDC accounted for 69% of the Company's gross field revenue operating revenue during 2022 and \$20.3 million of the short and long-term receivables at December 31, 2022.

### E. Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Company's receivables from TANESCO, Songas and TPDC. The carrying amount of accounts receivable and the long-term receivable represents the maximum credit exposure. As at December 31, 2022 and 2021, loss allowance exists against all of the long-term TANESCO receivable, gas plant operations and capital expenditure receivables from Songas, and a receivable of \$0.5 million from one industrial customer. No write-off of any receivables occurred in 2022 or 2021 (see Note 12).

The Company manages the credit exposure related to cash and cash equivalents by selecting counterparties based on credit ratings and monitoring all investments to ensure a stable return, avoiding complex investment vehicles with higher risk such as asset backed commercial paper. The Company's cash resources are placed with reputable financial institutions with no history of default.

### F. Liquidity Risk

Liquidity risk is the risk that the Company will not have sufficient funds to meet its liabilities. Cash forecasts identifying liquidity requirements of the Company are produced on a regular basis. These are reviewed to ensure sufficient funds exist to finance the Company's current operational and investment cash flow requirements. At December 31, 2022 the Company has working capital, defined as total current assets less total current liabilities, of \$61.6 million which is net of \$71.4 million of financial liabilities with regards to trade and other liabilities of which \$56.6 million is due within one to three months, \$9.8 million is due within three to six months, and \$5.0 million is due within six to twelve months (see Note 14).

At the end of the year approximately 27% of the current liabilities relate to TPDC (see Note 14). The amounts due to TPDC represent its share of Profit Gas. In accordance with the terms of the PSA, TPDC is entitled to the payment of its share of Profit Gas on a quarterly basis proportional to the cash receipts during the quarter. A substantial proportion of the TPDC liability is associated with the long-term TANESCO arrears and payments to TPDC are made when cash is received for the arrears.

COVID-19 has reduced travel throughout the world in 2022 and 2021. Tourism is a major source of revenue and foreign currency for Tanzania and the decrease in travel has resulted in a reduction of foreign currency flowing into the country. It has been more difficult for the Company to convert Tanzanian shillings to United States dollars compared to prior years, however, as at the date of this report, this has not significantly impacted PAET's ability to meet its United States dollar obligations. There is a risk that in the future the Company may not be able to convert Tanzanian shillings to United States dollars or Euros as and when required. It is unknown how long this risk will continue.

### G. Capital Risk Management

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to achieve an optimal capital structure to reduce the cost of capital.

### H. Country Risk

The Company has unresolved disputes with TPDC related to Cost Gas revenue, TANESCO and Songas regarding unpaid invoices, and the Tanzanian Revenue Authority ("TRA") in relation to tax disputes (see Note 21). The Company continues to rely upon its rights under the existing PSA and has initiated notices of disputes as required under the PSA and by local tax regulations to resolve outstanding issues.

## 6. Segment Information

The Company has one reportable industry segment which is international exploration, development and production of petroleum and natural gas. During 2022 and 2021 the Company's producing assets were entirely located in Tanzania.

Notes to the Consolidated Financial Statements cont.

## 7. Revenue

\$'000	Years ended December 31	
	2022	2021
Industrial sector	<b>43,437</b>	39,477
Power sector	<b>95,388</b>	60,445
Gross field revenue	<b>138,825</b>	99,922
TPDC share of revenue	<b>(37,841)</b>	(22,285)
Company operating revenue	<b>100,984</b>	77,637
Current income tax adjustment	<b>17,105</b>	8,385
	<b>118,089</b>	86,022

The Company recognized 100% of amounts invoiced for deliveries to TANESCO as revenue during 2022 and 2021. During 2022 the Company invoiced TANESCO \$29.8 million (2021: \$23.9 million) for gas deliveries and received \$33.7 million (2021: \$22.9 million) in payments. These amounts are inclusive of value added tax ("VAT"). Based on the consistent payments from TANESCO, the Company: (i) recognized all amounts invoiced for gas deliveries in 2022 and 2021 as revenue; and (ii) recognized \$5.6 million during the year (2021: \$1.1 million) as a reversal of loss allowance relating to the amounts collected during the year that were applied towards the long-term TANESCO receivables previously allowed for (see Note 12). In addition, during 2022 TANESCO paid the Company \$30.0 million against the 2017 and 2018 take or pay invoices. Subsequent to December 31, 2022 the Company has invoiced TANESCO \$6.9 million for 2023 gas deliveries and TANESCO has paid the Company \$11.1 million. In addition, subsequent to December 31, 2022 TANESCO paid the Company \$3.3 million against the 2020 take or pay invoice.

## 8. Personnel Expenses

\$'000	Years ended December 31	
	2022	2021
Employee and related costs included in:		
Production, distribution and transportation	<b>3,000</b>	2,932
General and administrative	<b>7,139</b>	7,032
	<b>10,139</b>	9,964
Stock-based compensation recovery (Note 17)	<b>(120)</b>	(576)
	<b>10,019</b>	9,388

Personnel expenses include Company employees who operate the Songas facilities on behalf of Songas; these expenses are recharged to Songas.

## 9. Finance Income and Expense

### Finance Income

\$'000	Years ended December 31	
	2022	2021
Interest income	613	133
	<b>613</b>	133

### Finance Expense

\$'000	Years ended December 31	
	2022	2021
Base interest expense	5,678	5,982
Participation interest expense	2,936	920
Lease interest expense	23	43
Interest expense	8,637	6,945
Net foreign exchange loss	470	628
Interest on tax assessment	-	588
Indirect tax	1,103	1,826
	<b>10,210</b>	9,987

Base interest expense and participation interest expense relate to the long-term loan ("Loan") with the International Finance Corporation ("IFC"). Base interest on the Loan is payable quarterly in arrears at 10% per annum on a "pay-if-you-can-basis" using a formula to calculate the net cash available for such payments as at any given interest payment date. The participation interest expense is paid annually in arrears and equates to 6.4% of PAET's net cash flows from operating activities net of net cash flows used in investing activities for the year. Such participation interest will continue until October 15, 2026 regardless of whether the Loan is repaid prior to its contractual maturity date (see Note 16).

The indirect tax includes VAT on the invoices to TANESCO under the take or pay provisions within PGSA and on the invoices to TANESCO for interest on late payments. No take or pay invoice was raised to TANESCO in 2022; in 2021 a take or pay invoice of \$6.7 million was raised but not recognized in the financial statements as it did not meet the revenue recognition criteria with respect to assurance of collectability. The interest on tax assessment in 2021 represents the Company's share of the amount in dispute with respect to interest on depreciation disallowed by the TRA for expenditures in relation to completing well SS-10 in 2009 and 2010 and well SS-12 in 2015 and 2016.

Notes to the Consolidated Financial Statements cont.

## 10. Income Taxes

The tax charge is as follows:

\$'000	Years ended December 31	
	2022	2021
Current income tax expense	15,488	10,192
Deferred income tax expense	1,213	6,534
	16,701	16,726

Tax of \$0.7 million was paid during 2022 in relation to the settlement of the prior year's tax liability (2021: \$2.0 million). Installment tax payments totaling \$12.5 million were made in respect of 2022 (2021: \$7.3 million). These are presented as a reduction in tax payable on the Consolidated Statements of Financial Position.

### Tax Rate Reconciliation

\$'000	Years ended December 31	
	2022	2021
Income before tax per Consolidated Statements of Comprehensive Income	54,594	39,298
Less Additional Profits Tax	(7,613)	(4,609)
Income before statutory tax	46,981	34,689
Provision for income tax calculated at the statutory rate of 30%	14,094	10,407
Effect on income tax of:		
Administrative and operating expenses	1,492	328
Foreign rate difference	1,022	651
Foreign exchange loss	1	1
Stock-based compensation	(23)	(68)
TANESCO interest not recognized as interest income	1,839	1,342
Change in unrecognized tax asset	(2,714)	905
Changes in estimates related to prior years	990	3,160
	16,701	16,726

As at December 31, 2022 the loss allowance for TANESCO had resulted in a \$19.2 million unrecognized deferred tax asset (December 31, 2021: \$18.6 million). If this debt is ultimately not recovered, the Company will also be entitled to a \$13.5 million (2021: \$18.7 million) refund of VAT. As at December 31, 2022, the Company has not recognized the benefit of unused trading loss carryforwards of \$9.5 million (2021: \$7.5 million), which do not expire, as it is not probable that future taxable profits will be available against which the benefit can be utilized.

In respect of each type of temporary difference the amounts of deferred tax assets/(liabilities) recognized in the consolidated balance sheet were as follows:

\$'000	As at December 31	
	2022	2021
Differences between tax base and carrying value of property, plant and equipment	(31,740)	(33,244)
Tax recoverable from TPDC	(6,166)	(3,449)
Loss allowances	3,069	2,847
Additional Profits Tax	8,603	8,884
Unrealized exchange losses/other provisions	(22)	(81)
	(26,256)	(25,043)

## 11. Additional Profits Tax

Under the terms of the PSA, APT is payable when the Company has recovered its costs plus a specified return out of Cost Gas revenue and Profit Gas revenue. As a result: (i) no APT is payable until the Company recovers its costs out of Additional Gas revenues plus an annual operating return under the PSA of 25% plus the percentage change in the United States Industrial Goods Producer Price Index ("PPI"); and (ii) the maximum APT rate is 55% of the Company's Profit Gas when costs have been recovered with an annual return of 35% plus the percentage change in PPI.

The timing and the effective rate of APT depends on the realized value of Profit Gas which in turn depends on the level of expenditure. The Company provides for APT by annually forecasting the total APT payable in the future as a proportion of the forecast Profit Gas over the term of the PSA. The forecast takes into account the timing of future development capital spending. As at December 31, 2022 the current portion of APT payable was estimated at \$13.1 million (December 31, 2021: \$8.5 million) with a long-term APT payable of \$15.3 million (December 31, 2021: \$20.9 million).

The effective APT rate of 16.8% (2021: 17.3%) has been applied to the Company's Profit Gas of \$45.4 million (2021: \$26.7 million). Accordingly, \$7.6 million of APT has been recorded as APT in Consolidated Statements of Comprehensive Income for the year ended December 31, 2022 (2021: \$4.6 million).

## 12. Current Trade and Other Receivables

\$'000	As at December 31	
	2022	2021
<b>Trade receivables</b>		
Songas	2,511	2,502
TPDC	4,694	5,603
TANESCO	3,736	2,042
Industrial customers	11,072	11,840
Loss allowance	(452)	(452)
	<b>21,561</b>	21,535
<b>Other receivables</b>		
Songas gas plant operations	2,304	2,827
Songas well workover program	7,825	3,447
Other	4,135	3,647
Loss allowance	(725)	(725)
	<b>13,539</b>	9,196
	<b>35,100</b>	30,731

### Trade Receivables Aged Analysis

\$'000	As at December 31, 2022					Total
	Current	>30	<60	>60	<90	
	19,263	529	-	1,769		21,561

\$'000	As at December 31, 2021					Total
	Current	>30	<60	>60	<90	
	19,442	812	302	979		21,535

Notes to the Consolidated Financial Statements cont.

## 12. Current Trade and Other Receivables cont.

### Songas

As at December 31, 2022 Songas owed the Company \$12.6 million (December 31, 2021: \$8.8 million), while the Company owed Songas \$2.9 million (December 31, 2021: \$1.9 million). The amounts due to the Company are mainly for sales of gas of \$2.5 million (December 31, 2021: \$2.5 million), the well workover program of \$7.8 million (December 31, 2021: \$3.5 million) and for the operation of the gas plant of \$2.3 million (December 31, 2021: \$2.8 million) against which the Company has made a loss allowance of \$0.7 million (December 31, 2021: \$0.7 million). The amounts due to Songas primarily relate to pipeline tariff charges of \$2.4 million (December 31, 2021: \$1.5 million). The operation of the gas plant is conducted at cost and the charges are billed to Songas on a flow through basis.

### TPDC

The current receivable from TPDC is for gas deliveries through the NNGI pursuant to the signing of the LTGSA. In accordance with the LTGSA, any unpaid, overdue amounts are offset against TPDC profit share.

### Reversal of loss allowance

\$'000	Years ended December 31	
	2022	2021
Reversal of loss allowance	<b>(10,150)</b>	(3,762)
Loss allowance	<b>3,435</b>	1,188
	<b>(6,715)</b>	(2,574)

The reversal of loss allowance in 2022 follows: (i) collection of TANESCO arrears of \$5.6 million (2021: \$1.1 million) which had been previously allowed for and represents the excess of receipts over gas sales invoiced during the year; and (ii) indirect taxation of \$4.6 million related to the TANESCO 2017 and 2018 take or pay invoices that were paid in 2022 and had not previously been recognized (2021: \$0.8 million related to TANESCO 2016 take or pay invoice). In addition, the reversal of loss allowance in 2021 includes collection of Songas operatorship arrears of \$1.9 million which had been previously allowed for.

The loss allowance of \$3.4 million in 2022 represents: (i) \$3.2 million with respect to impairment of Swala Oil & Gas (Tanzania) plc ("Swala TZ") convertible preference shares ("Preference Shares") (see Note 24); and (ii) the net amount of \$0.5 million previously allowed for in Q4 2021 with respect to the dispute with the TRA on the issue of withholding tax on services performed outside Tanzania by non-resident persons in 2010 and 2015-16; and \$0.7 million representing the settlement amount with respect to the above withholding tax dispute. In 2022 the Company, with advice from its legal counsel, agreed to settle the dispute and made the payment to the TRA on August 24, 2022. The loss allowance of \$1.2 million in 2021 is for: (i) \$0.7 million with respect to impairment of Swala (TZ) Preference Shares (see Note 24); and (ii) \$0.5 million being the amount in dispute with the TRA with respect to withholding tax on services performed outside Tanzania by non-resident persons in 2010 and 2015-16.

## 13. Capital Assets

\$'000	Natural gas interests	Office and other	Right-of-use	Total
<b>Costs</b>				
As at December 31, 2021	267,876	2,908	1,084	271,868
Additions	22,125	281	51	22,457
<b>As at December 31, 2022</b>	<b>290,001</b>	<b>3,189</b>	<b>1,135</b>	<b>294,325</b>
<b>Accumulated depletion and depreciation</b>				
As at December 31, 2021	148,367	2,901	633	151,901
Additions	29,174	70	284	29,528
<b>As at December 31, 2022</b>	<b>177,541</b>	<b>2,971</b>	<b>917</b>	<b>181,429</b>
<b>Net book values</b>				
<b>As at December 31, 2022</b>	<b>112,460</b>	<b>218</b>	<b>218</b>	<b>112,896</b>



**13. Capital Assets** cont.

\$'000	Natural gas interests	Office and other	Right-of-use	Total
<b>Costs</b>				
As at December 31, 2020	241,280	2,894	1,084	245,258
Additions	26,596	14	-	26,610
As at December 31, 2021	267,876	2,908	1,084	271,868

**Accumulated depletion and depreciation**

As at December 31, 2020	132,588	2,864	343	135,795
Additions	15,779	37	290	16,106
As at December 31, 2021	148,367	2,901	633	151,901

**Net book values**

As at December 31, 2021	119,509	7	451	119,967
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In determining the depletion charge the Company takes into account an estimate of future development costs, the capital expenditure required to ensure the Company can produce the required gas volumes to meet its contractual obligations for the remaining life of the license. As at December 31, 2022 the estimated future development costs required to bring the total proved reserves to production were \$59.2 million (December 31, 2021: \$26.8 million). The increase in estimated future development costs is a result of upward revision of the future cost estimates. During the year the Company recorded depreciation of \$0.4 million (2021: \$0.3 million) in general and administrative expenses.

**Right-of-use assets**

\$'000	
As at December 31, 2021	451
Additions	51
Depreciation	(284)
<b>As at December 31, 2022</b>	<b>218</b>
As at December 31, 2020	741
Depreciation	(290)
As at December 31, 2021	451

**Lease liabilities**

\$'000	
As at December 31, 2021	408
Additions	51
Lease interest expense	23
Lease payments	(312)
<b>As at December 31, 2022</b>	<b>170</b>
As at December 31, 2020	684
Lease interest expense	43
Lease payments	(319)
As at December 31, 2021	408

Right-of-use assets are presented as part of capital assets on the Company's balance sheet. Of the total lease liability of \$0.2 million (2021: \$0.4 million), \$0.2 million (2021: \$0.2 million) is current and is presented in trade and other liabilities.

Notes to the Consolidated Financial Statements cont.

## 14. Trade and Other Liabilities

\$'000	As at December 31	
	2022	2021
Songas	2,933	1,899
Other trade payables	2,738	3,179
Trade payables	5,671	5,078
TPDC Profit Gas entitlement, net	19,440	21,911
Deferred income - take or pay contracts	10,665	5,215
Accrued liabilities	7,416	14,572
	43,192	46,776

### TPDC share of Profit Gas

\$'000	As at December 31	
	2022	2021
TPDC share of Profit Gas	28,677	27,994
Less "Adjustment Factor"	(9,237)	(6,083)
TPDC share of Profit Gas entitlement	19,440	21,911

Under the PSA revenue sharing mechanism, the Company adjusts TPDC's Profit Gas share by the "Adjustment Factor". The Adjustment Factor is equal to the amount necessary to fully pay and discharge the PAET liability for taxes on income derived from petroleum operations. A significant percentage of the settlement of the \$19.4 million liability to TPDC is dependent on receipt of payment from TANESCO for long-term arrears that have been fully allowed for.

## 15. Long-term Receivables

\$'000	As at December 31	
	2022	2021
Amounts invoiced to TANESCO	92,547	119,168
Trade receivables - TANESCO	(3,736)	(2,042)
Unrecognized amounts not meeting revenue recognition criteria <sup>1</sup>	(66,793)	(90,634)
Loss allowance	(22,018)	(26,492)
Net TANESCO receivable	-	-
VAT - Songas workovers	2,205	2,205
Lease deposit	10	10
	2,215	2,215

<sup>1</sup> The amount includes invoices for interest on late payments and invoices relating to differences between gas contracted for delivery versus gas taken by TANESCO.

The Company recognized 100% of amounts invoiced for deliveries to TANESCO as revenue during 2022 and 2021. During 2022, the amounts received from TANESCO were in excess of the revenue recognized for gas sales to TANESCO and \$5.6 million of cumulative excess cash receipts over sales invoiced were recorded (2021: \$1.1 million), reducing the long-term arrears and allowing the reversal of the associated loss allowances. No take or pay invoice was raised to TANESCO in 2022; in 2021 a take or pay invoice of \$6.7 million was raised but not recognized in the financial statements as it did not meet the revenue recognition criteria with respect to assurance of collectability.

In 2017, based on agreement with TPDC, \$12.3 million relating to the Songas share of workover costs of the wells SS-5 and SS-9 was transferred to the cost pool to recover the costs via the PSA cost recovery mechanism. This resulted in \$2.2 million relating to VAT on the workovers that had already been paid being reclassified as a long-term receivable. The Company continues to take action to collect the workover costs through the mechanisms provided in the agreements with Songas.

## 16. Long-term Loan

In 2015 PAET took out the Loan with the IFC, a member of the World Bank Group, for \$60 million. The Loan was fully drawn down in 2016.

The Loan is to be paid out through six semi-annual payments of \$5.0 million starting October 15, 2022 and one final payment of \$25.2 million due on October 15, 2025. The Company may voluntarily prepay all or part of the Loan but must simultaneously pay any accrued base interest costs related to the principal amount being prepaid. The Loan is an unsecured subordinated obligation of PAET and was initially guaranteed by the Company to a maximum of \$30.0 million. The guarantee may only be called upon by IFC at maturity in 2025 and, subject to IFC approval and receipt of all required regulatory approvals, the Company, at its discretion, may issue shares in fulfillment of all or part of its guarantee obligation in 2025. Pursuant to the sale of the non-controlling interest in PAEM, the parent company of PAET, the Company agreed with the IFC to reduce the outstanding amount of the Loan by the percentage interest sold of 7.9% (\$4.8 million) before the fourth anniversary of the first drawdown. PAET made this payment on October 16, 2019.

Dividends and distributions from PAET are restricted, if at any time amounts of interest, principal or participating interest are due and outstanding. All amounts due under the Loan have been paid when due.

\$'000	As at December 31	
	2022	2021
Loan principal	50,240	55,240
Financing costs	(478)	(637)
Current portion of long-term loan	(10,000)	(5,000)
	39,762	49,603

## 17. Capital Stock

### Authorized

50,000,000	Class A common shares ("Class A Shares")	No par value
100,000,000	Class B subordinate voting shares ("Class B Shares")	No par value
100,000,000	First preference shares	No par value

The Class A and Class B Shares rank pari passu in respect of dividends and repayment of capital in the event of winding-up. Class A Shares carry twenty (20) votes per share and Class B Shares carry one (1) vote per share. The Class A Shares are convertible at the option of the holder at any time into Class B Shares on a one-for-one basis. The Class B Shares are convertible into Class A Shares on a one-for-one basis in the event that a take-over bid is made to purchase Class A Shares which must, by reason of a stock exchange or legal requirements, be made to all or substantially all of the holders of Class A Shares and which is not concurrently made to holders of Class B Shares.

### Changes in the capital stock

	As at December 31					
	2022			2021		
	Authorized (000)	Issued (000)	Amount (\$'000)	Authorized (000)	Issued (000)	Amount (\$'000)
Number of shares						
Class A Shares	50,000	1,750	983	50,000	1,750	983
Class B Shares	100,000	18,126	46,274	100,000	18,203	46,471
First preference shares	100,000	-	-	100,000	-	-
Total	250,000	19,876	47,257	250,000	19,953	47,454

On June 21, 2021 the Company commenced a normal course issuer bid ("2021 NCIB") to purchase Class B Shares through the facilities of the TSXV and alternative trading systems in Canada. The Company repurchased and canceled 10,300 Class B shares at a weighted average price of CDN\$5.30 per share in Q1 2022 and 19,700 Class B shares at a weighted average price of CDN\$5.13 per share in Q2 2022 under the 2021 NCIB.

On July 11, 2022 the Company commenced a normal course issuer bid ("2022 NCIB") to purchase Class B Shares through the facilities of the TSXV and alternative trading systems in Canada. As at December 31, 2022 the Company had repurchased and canceled 47,200 Class B shares at a weighted average price of CDN\$4.87 per share pursuant to the 2022 NCIB. All issued capital stock is fully paid.

Notes to the Consolidated Financial Statements cont.

## 17. Capital Stock cont.

### Changes in Stock Appreciation Rights (“SARs”)

	2022		2021	
	SARs (000)	Exercise price (CDN\$)	SARs (000)	Exercise price (CDN\$)
Outstanding as at January 1	746	3.87 to 6.65	1,242	3.87 to 6.65
Exercised	(678)	3.87 to 5.32	(413)	5.00
Forfeited	(54)	6.65	(83)	5.00
Outstanding as at December 31	14	5.02	746	3.87 to 6.65

The number outstanding, the weighted average remaining life and weighted average exercise prices of SARs at December 31, 2022 were as follows:

Exercise price (CDN\$)	Number	Weighted	Number	Weighted
	outstanding (000)	average remaining contractual life (years)	exercisable (000)	average exercise price (CDN\$)
5.02	14	1.00	-	5.02
<b>5.02</b>	<b>14</b>	<b>1.00</b>	<b>-</b>	<b>5.02</b>

### Change in Restrictive Stock Units (“RSUs”)

	2022		2021	
	RSUs (000)	Exercise price (CDN\$)	RSUs (000)	Exercise price (CDN\$)
Outstanding as at January 1	76	0.01	133	0.01
Exercised	(73)	0.01	(48)	0.01
Forfeited	-	-	(9)	0.01
Outstanding as at December 31	3	0.01	76	0.01

The number outstanding, the weighted average remaining life and weighted average exercise prices of RSUs at December 31, 2022 were as follows:

Exercise price (CDN\$)	Number	Number	Weighted
	outstanding (000)	exercisable (000)	average remaining contractual life (years)
0.01	3	-	1.00

As SARs and RSUs are settled in cash, they are re-valued at each reporting date using the Black-Scholes option pricing model with the resulting liability being recognized in trade and other liabilities. In the valuation of stock appreciation rights and restricted stock units as at December 31, 2022, the following assumptions have been made: a risk free rate of interest of 1.0% (December 31, 2021: 1.0%), stock volatility of 25.4% (December 31, 2021: 24.6% to 37.8%), 5% forfeiture (December 31, 2021: 5%) and a closing stock price of CDN\$4.68 (December 31, 2021: CDN\$5.40) per Class B share. The valuation of the SARs and RSUs awards is increased to reflect the amount of dividends paid between the award date to the time of exercise.

\$'000	As at December 31	
	2022	2021
SARs	9	727
RSUs	9	326
	<b>18</b>	1,053

As at December 31, 2022 a total accrued liability of \$0.02 million (December 31, 2021: \$1.1 million) has been recognized in relation to SARs and RSUs which is included in other payables. The Company recognized a recovery for the year of \$0.1 million (2021: \$0.6 million) as stock-based compensation.

## 17. Capital Stock cont.

### Dividend Summary

Declaration date	Record date	Payment date	Amount per share (CDN\$)
February 24, 2023	March 31, 2023	April 14, 2023	0.10
November 16, 2022	December 31, 2022	January 13, 2023	0.10
September 28, 2022	October 14, 2022	October 28, 2022	0.10
May 20, 2022	June 30, 2022	July 15, 2022	0.10
February 24, 2022	March 31, 2022	April 15, 2022	0.10
November 9, 2021	December 31, 2021	January 15, 2022	0.10
September 9, 2021	September 29, 2021	October 15, 2021	0.10
June 4, 2021	June 30, 2021	July 15, 2021	0.10
February 23, 2021	March 31, 2021	April 15, 2021	0.10

## 18. Earnings Per Share

(000)	As at December 31	
	2022	2021
<b>Outstanding shares</b>		
Weighted average number of Class A and Class B Shares, basic	<b>19,923</b>	20,317
Weighted average number of Class A and Class B Shares, diluted	<b>19,923</b>	20,317

The calculation of basic earnings per share is based on a net income attributable to shareholders for the year of \$27.7 million (2021: \$16.4 million) and a weighted average number of Class A and Class B Shares outstanding during the period of 19,923,039 (2021: 20,317,407).

## 19. Related Party Transactions

The Chair of the Company's Board of Directors is counsel to Burnet, Duckworth & Palmer LLP, a law firm that provides legal advice to the Company and its subsidiaries. During the year ended December 31, 2022 fees for services provided by this firm totalled \$0.5 million (2021: \$0.3 million).

As at December 31, 2022 the Company had a total of \$0.1 million (December 31, 2021: \$0.1 million) recorded in trade and other liabilities in relation to related parties.

## 20. Contractual Obligations

### Protected Gas

Under the terms of the Gas Agreement for the Songo Songo project ("Gas Agreement"), in the event that there is a shortfall/insufficiency in Protected Gas as a consequence of the sale of Additional Gas, the Company is liable to pay the difference between the price of Protected Gas (\$0.55/MMbtu escalated) and the price of an alternative feedstock multiplied by the volumes of Protected Gas up to a maximum of the volume of Additional Gas sold which was 289 Bcf as at December 31, 2022 (December 31, 2021: 257 Bcf). The Company did not have a shortfall during the reporting period and does not anticipate a shortfall arising during the term of the Protected Gas delivery obligation to July 2024.

Terms of the Gas Agreement were modified by the Amended and Restated Gas Agreement ("ARGA") which was initialled by all parties but remains unsigned. In certain respects, the parties thereto are conducting themselves as though the ARGA is in effect. Management does not foresee a material risk with the conduct of the Company's business with an unsigned ARGA at this time.

Notes to the Consolidated Financial Statements cont.

## 20. Contractual Obligations cont.

### Re-Rating Agreement

In 2011 the Company, TPDC and Songas signed a Re-Rating Agreement which evidenced an increase to the gas processing capacity of the Songas Infrastructure to a maximum of 110 MMcfd (the pipeline and delivery pressure requirements at the Ubungo power plant restrict the infrastructure capacity to a maximum of 102 MMcfd). Under the terms of the Re-Rating Agreement, the Company paid additional compensation of \$0.30/mcf for sales between 70 MMcfd and 90 MMcfd and \$0.40/mcf for volumes above 90 MMcfd by issuing credit notes to TANESCO. This was in addition to the tariff of \$0.59/mcf payable to Songas as set by the energy regulator, EWURA.

Although Songas notified the Company in 2014 that the Re-Rating Agreement was terminated, the parties have continued to produce, transport and sell gas volumes in line with the re-rated plant capacity. In May 2016 the Company notified TANESCO and Songas that the additional compensation for sales over 70 MMcfd would no longer be paid effective June 2016. The additional compensation was always intended to be temporary in nature until the expansion of the Songas Infrastructure, at which time Songas would apply to EWURA to obtain approval of a new tariff for the processing of volumes over 70 MMcfd. The PGSA provides for passing on to TANESCO any tariff charged to the Company in the event that a new tariff is approved.

The parties to the Re-Rating Agreement are in the process of negotiating a replacement agreement which may address the additional compensation paid. In the interim, the processing capacity at the Songas Infrastructure remains unaltered and is fully available for utilization by the Company. This capacity is in addition to the capacity available within the NNGI.

### Portfolio Gas Supply Agreement ("PGSA")

On June 17, 2011, the PGSA was signed (term to June 2023) between TANESCO (as the buyer) and the Company and TPDC (collectively as the seller). TANESCO requested a change to the PGSA maximum daily quantity ("MDQ") in accordance with clause 7.6(b) which PAET and TPDC approved effective January 29, 2018. In accordance with the PGSA, when calculating aggregate excess, extra and overtake gas through the supply period, the MDQ was reduced and the seller is now obligated, subject to infrastructure capacity, to sell a maximum of approximately 16 MMcfd (previously 26 MMcfd) for use in any of TANESCO's current power plants, except those operated by Songas at Ubungo. Under the agreement, the basic wellhead price of approximately \$2.98/mcf increased to \$3.04/mcf on July 1, 2017, to \$3.10/mcf on July 1, 2019, \$3.14/mcf on July 1, 2020, \$3.20/mcf on July 1, 2021 and \$3.32/mcf on July 1, 2022. Previously under the PGSA any sales in excess of 36 MMcfd were subject to a 150% increase in the basic wellhead gas price. On December 22, 2018 a side letter amendment to the PGSA was agreed with TPDC to allow PGSA volumes up to a maximum monthly average volume of 35 MMcfd to temporarily flow through the NNGI. The temporary arrangement was terminated in September 2019 once the refrigeration unit became fully operational and all PGSA volumes were again processed through the Songas Infrastructure.

### Long-term Gas Sales Agreement ("LTGSA")

On May 14, 2019 the Company and TPDC signed the LTGSA for an initial delivery of 20 MMcfd through the NNGI, at a price of \$3.10/MMbtu as at January 1, 2019, (escalating 2% per annum) exclusive of any processing and transportation tariff associated with the NNGI. The LTGSA was amended on September 24, 2019 to increase the volumes supplied through the NNGI up to a MDQ of 30 MMcfd. In 2020 parties established a 12-month renewable agreement for the supply of volumes above 30 MMcfd on an ad hoc basis, allowing TPDC to meet fluctuating demand and compensate for shortfalls in production from their Madimba plant without being penalized due to a higher, fixed contractual limit and the subsequent take-or-pay penalties should the demand reduce again. The agreement has allowed the Company to supply volumes in excess of 50 MMcfd on occasion, increasing average sales volumes and revenues.

### Leases

The Company has three office rental agreements, two in Dar es Salaam, Tanzania, and one in London, England. An agreement for the office in Dar es Salaam was entered into on November 1, 2019 and expires on October 31, 2023 at an annual rent of \$0.3 million. Another agreement for the downstream office in Dar es Salaam was entered into on July 1, 2022 and expires on June 30, 2024 at an annual rent of \$0.03 million. On November 15, 2021 the Company leased new office premises in London for a period of 12 months at a cost of \$0.1 million per annum. The lease was extended on November 15, 2022 for a period of 12 months at a cost of \$0.1 million per annum. The cost of the London office lease is recognized in the general and administrative expenses.

## 21. Contingencies

### Upstream and Downstream Activities

The Petroleum Act, 2015 (the "Petroleum Act") provides TPDC with exclusive rights over the distribution of gas in Tanzania. The Petroleum Act has grandfathering provisions upholding the rights of the Company to develop and market natural gas produced under the PSA as it was signed prior to the Petroleum Act coming into effect in 2015.

On October 7, 2016 the Government of Tanzania issued the Petroleum (Natural Gas Pricing) Regulation made under Sections 165 and 258 (I) of the Petroleum Act. Article 260 (3) of the Petroleum Act preserves the Company's pre-existing right with TPDC to market and sell Additional Gas together or independently on terms and conditions (including prices) negotiated with third party Natural Gas customers. To date there has been no impact on the Company as a result of the Natural Gas Pricing Regulation, however, any future impact cannot be determined at this time.

### TPDC Back-in

TPDC has the right under the PSA to "back in" to the Songo Songo field development and convert this into a carried working interest in the PSA. The current terms of the PSA require TPDC to provide formal notice in a defined period and contribute a proportion of the costs of any development, sharing in the risks in return for an additional share of the gas. To date, TPDC has not contributed towards any costs.

### Cost Recovery

TPDC conducted an audit of historical costs (the "Cost Pool") and in 2011 disputed approximately \$34.0 million of costs that had been recovered from the Cost Pool from 2002 through to 2009. In 2014 a portion of the disputed costs were agreed to be cost recoverable by TPDC with \$25.4 million remaining in dispute. Under the dispute mechanism outlined in the PSA, parties are to agree the appointment of an independent specialist to assist the parties in reaching agreement on costs that are still subject to dispute. In 2014, prior to appointing an independent specialist, TPDC suspended the process. From 2010 to 2015 TPDC rejected a further \$16.8 million of costs. In 2016 the Tanzanian Petroleum Upstream Regulatory Authority ("PURA") assumed the role of auditing the PSA cost pool from TPDC and for 2016 to 2020 have rejected all costs pertaining to downstream development amounting to \$15.0 million and a further \$9.5 million of other costs. In 2022 the Company and PURA negotiated a settlement on certain rejections with respect to 2016 to 2018 audits. As a result of this, \$2.7 million were credited to the Cost Pool in Q2 2022. To date there remains a total of \$64.0 million of costs that have been queried or rejected by TPDC or PURA through the cost pool audit process.

During 2019, discussions on the disputed amounts briefly resumed with TPDC. At the time of writing this report no independent specialist has been appointed and neither TPDC nor PURA have issued a formal dispute regarding cost recovery. If the matter is not resolved to the Company's satisfaction, the Company intends to proceed to arbitration via the International Centre for Settlement of Investment Disputes pursuant to the terms of the PSA. The Company's view is that all costs have been correctly included in the Cost Pool however should any of the costs be rejected as not being cost recoverable, the Company would be required to retroactively adjust its share of revenue for the period under dispute.

### Taxation

The following table provides a summary of the Company's unrecognized tax contingencies that are outstanding with the Tanzanian tax authorities:

Amounts in \$'millions					As at December 31	
					2022	2021
Area	Period	Reason for dispute	Principal	Interest and penalties	Total	Total
Income tax	2008-09, 2011-20	Deductibility of capital expenditures and expenses (2012, 2015 and 2016), additional income tax (2008, 2011 and 2012), foreign exchange rate application (2013 to 2015, 2018 to 2020), underestimation of tax due (2014, 2016 and 2020) and methodology of grossing up income taxes paid (2015 to 2017).	19.9	14.3	34.2 <sup>(1)</sup>	32.7
Tax on repatriated income	2012-21	Applicability of withholding tax on repatriated income (2012 to 2021).	21.9	3.0	24.9 <sup>(2)</sup>	19.0
VAT	2012-18	VAT already paid (2012 to 2014), VAT on imported services (2015 and 2016); interest on VAT decreasing adjustments and input VAT on services (2017 and 2018).	0.3	1.3	1.6 <sup>(3)</sup>	1.4
Withholding tax ("WHT")	2005-09	WHT on services performed outside of Tanzania by non-resident persons.	-	-	-	1.6 <sup>(4)</sup>
Pay-As-You-Earn ("PAYE") tax	2008-10	PAYE tax on grossed-up amounts in staff salaries which are contractually stated as net.	-	-	-	0.3 <sup>(5)</sup>
			42.1	18.6	60.7	55.0

In Q4 2022, the TRA issued seven assessments for tax on repatriated income (\$10.6 million) for the years of 2015 to 2021. The Company objected to the assessments on the grounds of the assessments lacking merit; additionally, the assessments for the years of 2015 and 2016 were time-barred. The Company is awaiting TRA's response.

## Notes to the Consolidated Financial Statements cont.

**21. Contingencies cont.****Taxation cont.**

In Q4 2022, the TRA issued six assessments for income tax and for ensuing interest on deemed delayed payments (\$0.5 million) for the years of 2018 to 2020. The Company objected to the assessments on the grounds of incorrect disallowance of expenses and use of exchange rates. The Company is awaiting TRA's response.

In Q4 2022, the Company also recorded an additional provision of approximately \$1.1 million (Q4 2021: \$2.2 million).

In Q3 2022, TRA and the Company agreed to settle outstanding WHT disputes for the years of income of 2010 and 2015-16. The Company agreed to pay the principal amount of \$0.7 million of the assessments foregoing the interest component of \$0.5 million. Pursuant to the legal procedures, deeds of settlement signed by both parties were accepted by the Tanzania Revenue Appeals Board ("TRAB") and the Tax Revenue Appeals Tribunal ("TRAT"), the payment was made by the Company to the TRA, and such matters are now formally closed.

During Q1 2022, following the expiry of the statutory deadline for the TRA to respond to the Company's objections, the Company filed notices of intention to appeal to the TRAB against the corporate income tax assessments for the years of 2012-16, tax on repatriated income for the years of 2012-14, and VAT for the years of 2015-16. On several occasions during 2022, these matters came for hearing and, at the request from the TRA, the TRAB granted an order that these matters be withdrawn to allow the TRA to further review and issue determination letters. The matters are now expected to appear for status review May 17, 2023.

During 2021 the Company paid the TRA \$1.8 million as a deposit against the disputed taxes including PAYE tax, WHT, income tax and VAT for the years 2012-16, an amount agreed upon in order for TRA to admit the outstanding tax objections. In 2021, the Court of Appeal of Tanzania ("CAT") delivered its judgment on an appeal instituted by the Company on the appealability of a one-third deposit required to admit objections for the 2012 year of income. The CAT decided that the matters are not tax decisions and are therefore not appealable. Aggrieved by the decision, the Company filed a notice of motion for review of the decision at the same court. In Q3 2022, the CAT agreed with the Company and the matter has now been resolved and withdrawn from the CAT.

During 2021 the TRA issued a new assessment with regards to 2017 income tax (\$6.4 million). The Company has objected TRA's incorrect methodology of grossing up income taxes already paid (\$6.4 million) and the issue of imposing interest on deemed delayed payment (\$0.1 million) and is awaiting a TRA response.

Management, with advice from its legal counsel, has reviewed the Company's position on the objections and appeals related to the disputed amounts and has concluded that no further provision is required. However, if the TRA reassesses the Company's tax returns for open taxation years on a similar basis, the Company may be required to make future deposits to object such assessments.

The process of appealing assessments issued by the TRA starts by initially filing an appeal with the TRA. If this is not successful, claims can be taken to higher authorities starting with the TRAB, followed by an appeal to the TRAT and finally to the CAT. Below is a summary of the status of the various assessments:

- (1) (a) 2008 (\$0.6 million): The Company objected to the TRA assessment that did not recognize a tax loss carried forward and is awaiting a response;
- (b) 2009 (\$0.8 million): The Company objected to an amended assessment from the TRA for being time-barred and arbitrary and is awaiting a TRA response;
- (c) 2011 (\$1.7 million): The Company is awaiting a TRAT decision following the TRAB ruling in favor of the TRA;
- (d) 2012 (\$10.6 million): The Company appealed to the TRAB objecting to the TRA assessment with respect to understated revenue, timing of deductibility of capital expenditures and expenses;
- (e) 2013 (\$2.0 million): The Company appealed to the TRAB objecting to the TRA assessment as being time-barred and without merit;
- (f) 2014 (\$5.1 million): The Company appealed to the TRAB objecting to the TRA assessment on the ground that the TRA assessment incorrectly disallowed certain expenses and applied erroneous foreign exchange rates;
- (g) 2015-16 (\$6.1 million): The Company appealed to the TRAB as to TRA's assessments on the ground that the TRA assessments failed to recognize provisional tax payments, incorrectly disallowed certain expenses and applied erroneous foreign exchange rates;
- (h) 2017 (\$6.8 million): The TRA issued an assessment for corporation tax which questioned the Company's methodology of grossing up already paid corporation tax (\$6.7 million) and raised the issue of imposing interest on deemed delayed payment (\$0.1 million). The Company filed an objection and is awaiting the TRA's response;
- (i) 2018 (\$0.02 million): The TRA issued an assessment for corporation income tax in respect of disallowed expenses. The Company filed an objection and is awaiting the TRA's response;
- (j) 2018-20 (\$0.5 million): The TRA issued a series of assessments for corporation income tax in respect of disallowed expenses and for interest on deemed delayed payment of the taxes. The Company filed an objection and is awaiting the TRA's response;
- (2) (a) 2012 (\$3.1 million): The Company objected to the TRA assessment as being without merit and, following expiry of the statutory deadline for the TRA to respond, filed an appeal at the TRAB;
- (b) 2013 (\$7.8 million): The Company objected to the TRA assessment as being time-barred and without merit and, following expiry of the statutory deadline for the TRA to respond, filed an appeal at the TRAB;
- (c) 2014 (\$3.5 million): The Company objected to the TRA assessment as being without merit and, following expiry of the statutory deadline for the TRA to respond, filed an appeal at the TRAB;
- (e) 2015-16 (\$3.6 million): New assessments issued in Q4 2022 for the years of income of 2015 and 2016 have overridden the existing assessments for \$5.3 million. The Company objected to the TRA assessments and is awaiting the admission of the objections;
- (f) 2017-21 (\$6.9 million): The Company objected to the TRA assessments for the year of income of 2017 (\$1.6 million), 2018 (\$1.2 million), 2019 (\$1.6 million), 2020 (\$1.1 million) and 2021 (\$1.4 million) and is awaiting the admission of the objections;



## 21. Contingencies cont.

### Taxation cont.

- (3) (a) 2012-16 (\$0.2 million): The Company filed an objection to a TRA assessment with respecting to disallowing VAT on certain services and is awaiting a response;
- (b) 2017-18 (\$1.3 million): The Company filed an objection to a TRA assessment and is awaiting a response. The Company objected to incorrect imposition of interest on VAT decreasing adjustments in respect of delayed TANESCO payment (\$1.2 million) and disallowing input VAT claimed in certain services (\$0.1 million);
- (c) 2019-20 (\$0.1 million): The Company filed an objection to a TRA assessment and is awaiting a response. The Company objected to disallowing input VAT claimed;
- (4) (a) 2005-2009 (\$nil; 2021: \$1.6 million): In 2018 the CAT ruled in favor of the Company that no WHT was required on services performed outside Tanzania by non-resident persons. The Company, with advice from its legal counsel, assessed that there is a remote chance for the TRA to successfully file an application for review of judgment and, as a consequence, the dispute is no longer represented in the table above;
- (5) (a) 2008-10 (\$nil; 2021: \$0.3 million): In 2020, the Company lost an appeal with CAT on the principal amount of PAYE tax and filed an application for judicial review at CAT. The TRA instructed PAET's commercial bank to transfer the full principal amount in dispute to TRA. Subsequent to December 31, 2022, the Company, with advice from its legal counsel, successfully applied to remove the matter from the CAT registry. Consequently, the dispute is no longer represented in the table above.

In 2016 the TRA introduced significant changes in relation to the income tax treatment of the extractive sector with separate new chapters in Part V of the Income Tax Act 2004 ("ITA, 2004") for mining and for petroleum to be effective commencing in 2018. Further changes were subsequently made by the Written Laws (Miscellaneous Amendments) Act, 2017 ("WLMAA, 2017") and in particular section 36(a)(ii) of the WLMAA, 2017. The WLMAA, 2017 amended section 65M and 65N of the ITA 2004 to exclude cost oil/cost gas from inclusion in both income and expenditure. The Company continues to review the tax effects of the changes as there are a number of uncertainties and ambiguities as to the interpretation and application of certain provisions of the WLMAA, 2017. In the absence of guidance on these matters, the Company has used what it believes are reasonable interpretations and assumptions in applying the WLMAA, 2017 for purposes of determining its tax liabilities and the results of operations, which may change as it receives additional clarification and implementation guidance. The Company does not expect a significant impact from the changes as it is able to recover taxes payable from the TPDC Profit Gas revenue entitlement under the terms of the PSA.

## 22. Directors' and Officers' Emoluments

\$'000	Year	Base	Bonus	Stock-based compensation expense	Total
<b>Directors</b>	<b>2022</b>	<b>500</b>	<b>-</b>	<b>-</b>	<b>500</b>
Directors	2021	500	-	-	500
<b>Officers</b>	<b>2022</b>	<b>1,250</b>	<b>243</b>	<b>-</b>	<b>1,493</b>
Officers	2021	1,316	259	196	1,771

The table above provides information on compensation relating to the Company's officers and directors. Four officers (year ended December 31, 2021: three) and three non-executive directors (year ended December 31, 2021: three) comprised the key management personnel during the year ended December 31, 2022.

## 23. Change in Non-Cash Operating Working Capital

\$'000	As at December 31	
	2022	2021
Increase in trade and other receivables	<b>(5,463)</b>	(11,143)
Increase in prepayments	<b>(418)</b>	(235)
(Decrease)/increase in trade and other liabilities	<b>(1,460)</b>	7,172
Decrease in APT	<b>(8,503)</b>	(11,545)
Increase in tax payable	<b>2,245</b>	880
Increase in long-term receivables	<b>-</b>	(1)
	<b>(13,599)</b>	(14,872)

Notes to the Consolidated Financial Statements cont.

## 24. Non-Controlling Interest

The Company sold 7.9% (7,933 Class A common shares) of PAEM to a wholly owned subsidiary of Swala TZ in 2018 for \$15.4 million cash and \$4.0 million of Swala TZ's Preference Shares pursuant to a share purchase agreement. The Preference Shares entitle the Company to a 10% per annum distribution payable 15 days after each quarter end commencing from the closing date, January 16, 2018. Payment of the quarterly distributions is at the discretion of Swala TZ based on funds available, however, the liability accrues if any amount is unpaid when due. For any distributable amount remaining unpaid at December 31, 2021, the Company may demand settlement and Swala TZ is obligated to comply by transferring and returning the Class A common shares of PAEM sold to Swala TZ. The aggregate value of these shares will equal the amount of the outstanding distributions. As at December 31, 2022, the Company has not received any distributions or recorded any amount receivable related to the Preference Shares.

Swala TZ is obligated to redeem 20% of the Preference Shares for cash annually starting from December 31, 2021 until all shares are redeemed. If at any time Swala TZ does not redeem in cash the required number of Preference Shares, Swala TZ is obligated to redeem the Preference Shares by transferring and returning the Class A common shares of PAEM sold to Swala TZ. The aggregate value of these Class A common shares will equal the amount of any outstanding redemption. On August 8, 2022, the Company issued a redemption notice to Swala TZ, requesting that Swala TZ redeem 20% of the outstanding Preference Shares by August 23, 2022. Swala TZ has responded to the Company's redemption notice and is disputing its obligation to redeem Swala TZ's convertible preference shares. As at December 31, 2022, this matter remains in dispute between Swala TZ and the Company and the redemption notice request remains outstanding. As of December 31, 2021, the Company had recorded \$0.7 million as a loss allowance with respect to Preference Shares. In Q4 2022, the Company fully impaired the \$3.9 million investment recording an additional \$3.2 million as a loss allowance. On January 31, 2023 the Company issued a further redemption notice to Swala TZ, requesting that Swala TZ redeem a further 20% of the outstanding Swala TZ's Preference Shares by February 15, 2023.

A reconciliation of the non-controlling interest is detailed below:

\$'000	As at December 31	
	2022	2021
Balance, beginning of year	3,116	1,523
Net income attributable to non-controlling interest	2,554	1,593
Balance, end of year	5,670	3,116

## 25. Subsequent Events

On February 24, 2023 the Company declared a dividend of CDN\$0.10 per share on each of its Class A Shares and Class B Shares for a total of \$1.5 million to holders of record as of March 31, 2023 paid on April 14, 2023.

On April 3, 2023, Swala TZ announced that a meeting of its creditors held on March 31, 2023, resolved that Swala TZ be placed into liquidation. Also, on March 31, 2023, Apex Corporate Trustees (UK) Limited appointed representatives of Grant Thornton UK LLP as administrators of Swala UK. The Company is evaluating its rights and options in response to Swala TZ being put into liquidation and Swala UK being put into administration.

## Corporate Information

**Board of Directors****Jay Lyons**

Executive Director and  
Chief Executive Officer  
Vancouver, Canada

**Lisa Mitchell**

Executive Director and  
Chief Financial Officer  
London, UK

**David W. Ross**

Chairman and Non-Executive Director  
Calgary, Canada

**Dr Frannie Léautier**

Non-Executive Director  
Washington DC, United States

**Linda Beal**

Non-Executive Director  
London, UK

**Advisor to the Board and PAET****Lloyd Herrick**

Director, PAET  
Calgary, Canada

**Officers****Jay Lyons**

Chief Executive Officer  
Vancouver, Canada

**Lisa Mitchell**

Chief Financial Officer  
London, UK

**Ewen Denning**

Chief Operating Officer  
Gloucester, UK

**Andrew Hanna**

Managing Director, PAET  
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**Transfer Agent****TSX Trust Company**

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