



# ENVIRONMENTAL SOCIAL GOVERNANCE

## Disclosure Report QEM Limited - 1 Jan 2023 to 31 Mar 2023

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**Socialsuite ESG**

<https://www.qldem.com.au>  
ASX:QEM

## DIRECTORS

Chair  
Tim Wall

Managing Director  
Gavin Loyden

Non-Executive Director  
Daniel Harris

Non-Executive Director  
David Fitch

## JULIA CREEK PROJECT

Vanadium  
Oil Shale



## QEM Limited

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# QEM Quarterly ESG Report with GHG Emissions Baseline Assessment

## Highlights

- **Carbonhalo conducted QEM's inaugural Greenhouse Gas (GHG) emissions inventory assessment at a third party verified level.**
- **QEM secured Circular Economy opportunity with Sun Metals to upcycle Queensland industrial waste to battery grade vanadium pentoxide (V2O5).**

QEM Limited (ASX: QEM) ("**QEM**" or "**Company**") is pleased to release its fifth consecutive Quarterly ESG Report using Socialsuite's ESG Go platform to monitor and disclose the Company's ESG progress and initiatives.

QEM's baseline ESG report was released to the market at the end of the March quarter 2022 (see ASX announcement dated 31 March 2022). Progress updates to QEM's ESG disclosures on the 21-core metrics set by the World Economic Forum (WEF) were delivered in each of QEM's Quarterly Activities Reports since then (see ASX announcements dated 26 July 2022, 27 October 2022 and 30 January 2023). The metrics QEM reports on form part of WEF's standardised and globally recognised Stakeholder Capitalism Metrics ESG framework.

QEM Managing Director Gavin Loyden stated, "Our ESG reporting each quarter holds QEM to keeping our sustainability goals on track. Our investors and other external stakeholders have full visibility over how our commitment to ESG has grown over more than a year."

"QEM's agreement with Sun Metals this quarter to turn a waste stream into a highly prized product was a Circular Economy opportunity for the Company to support initiatives aimed at reducing the resources sector's environmental footprint.

"Hence, our stakeholders are also able to see how the Company's ESG progress is aligned to QEM's goal to help build Australia's sovereign capability in Vanadium production to meet increasing demand for Critical Minerals for safe, long-lasting, large-scale battery systems," said Mr Loyden.

ESG highlights for this quarter and QEM's full ESG Disclosure Report follow.

## QUARTERLY HIGHLIGHTS

### PLANET - LAND USE AND KEY BIODIVERSITY AREAS

This theme is focused on understanding how to implement land use and ecological sensitivity policies and practices that substantially reduce the impact on the environment an organisation has across the value chain.



ASX: QEM

On 7 March 2023, announced it had entered into an agreement with Sun Metals Corporation Pty Ltd ("SMC" or "Sun Metals") to collect spent catalyst from SMC's Townsville operations and process this waste stream into high purity vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>). This collaboration between QEM and Sun Metals represents a Circular Economy opportunity where industrial waste can be repurposed to a higher use. Spent catalyst recycling is an environmentally beneficial solution, without which valuable metals like vanadium may be lost in landfill.

**PLANET - GHG EMISSIONS**

In Q1 2023 QEM engaged Carbonhalo to conduct an inaugural QEM Greenhouse Gas (GHG) emissions inventory assessment at a third party verified level. This report concerns the financial year of 2022 (FY 2022) being the 12 months ending 30 June 2022. In subsequent inventories, comparisons will be made to this base year.

In undertaking our inaugural GHG Baseline Assessment, QEM can measure its progress towards our low carbon footprint goal. This step is crucial to quantify our efforts towards achieving the Company's sustainability objectives.

The GHG Baseline Assessment conducted by Carbonhalo has identified total GHG emissions of 146.80 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) for FY21/22. QEM will focus on activities and areas with the highest emissions, which will form part of the company's primary reduction efforts - in this case Scope 3 (C3) in which business travel was identified as the top emitter at 59% of QEM's total measurable emissions. QEM is currently engaged in intense stakeholder relations and marketing activities which often require the team's in-person presence. Its anticipated post current project phase travel requirements will incrementally decline.

The Company is committed to educating and engaging our employees, clients and stakeholders about the importance of sustainability and carbon reduction and encouraging them to support and participate in our efforts.

**PEOPLE - TRAINING PROVIDED**

The Company is committed to developing its employees with skills to progress within QEM, as well as equipping them with knowledge and capabilities relevant to the energy transition. In December 2022, a QEM employee attained a Graduate Certificate in Sustainable Energy from the University of Queensland, supported by the Company.

One employee is currently progressing a Remote Pilot License (RePL) through National Drones.

The QEM team has commenced presentation and media training which will continue throughout 2023.

**ENDS**

*This announcement was authorised for release on the ASX by the Board of QEM Limited.*

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E: [gavin@qldem.com.au](mailto:gavin@qldem.com.au)E: [jbergamin@qldem.com.au](mailto:jbergamin@qldem.com.au)**ABOUT QEM**

QEM Limited (ASX: QEM) is a publicly listed company which is focussed on the exploration and development of its flagship Julia Creek Project, covering 250km<sup>2</sup> in the Julia Creek area of North Western Queensland.

The Julia Creek vanadium / oil shale project is a unique world class resource with the potential to utilise and deliver innovative and sustainable energy solutions, through the production of transport fuels and vanadium pentoxide. QEM strives to become a leading producer of liquid fuels and in response to a global vanadium deficit, also aims to become a global supplier of high-quality vanadium pentoxide, to both the nascent energy storage sector and the Australian steel industry.

This globally significant JORC (2012) Mineral Resource of 2,850 Mt @ 0.31% V<sub>2</sub>O<sub>5</sub> is one of the single largest ASX listed vanadium resources and represents a significant opportunity for development.

The tenements form part of the vast Toolebuc Formation, which is recognised as one of the largest deposits of vanadium and oil shale in the world. The project is located 6km east of the township of Julia Creek, in close proximity to all major infrastructure and services, and intersected by the main infrastructure corridor of the Flinders Highway and Great Northern Railway, connecting Mt Isa to Townsville.

\*The information in this announcement that relates to the mineral resource and contingent resource estimates for the Company's Julia Creek Project was first reported by the Company in its IPO prospectus dated 20 August 2018 and supplementary prospectus dated 12 September 2018 (together, the "Prospectus") and the subsequent resource upgrade announcements ("Resource Upgrade") dated 14 October 2019 and 7 April 2022. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus and Resource Upgrade, and in the case of estimates of Mineral Resources and Contingent Resources, that all material assumptions and technical parameters underpinning the estimates in the Prospectus and Resource Upgrade continue to apply and have not materially changed.

ENVIRONMENTAL  
SOCIAL  
GOVERNANCE

# Disclosure Report



1 Jan 2023 to 31 Mar 2023

Report generated on 29 Mar 2023 Powered by Sgcialsuite ESG

# Environmental, Social, and Governance (ESG)

QEM Limited (“QEM” or the “Company”) is committed to the principles of ESG as the most effective means of creating long-term enterprise value and addressing the societal priorities enshrined in the United Nations’ Sustainable Development Goals. In March 2022, we made a commitment to commence reporting on the Environmental, Social, and Governance (ESG) disclosures of the Stakeholder Capitalism Metrics (SCM) of the World Economic Forum (WEF).

We are in the process of making ESG disclosures in the form of a set of universal, comparable ESG metrics focused on people, planet, prosperity and principles of governance that organisations can report on regardless of industry or region. This table represents our reporting against the 21 core metrics, being reviewed quarterly and updated periodically.

We use this universal ESG framework to align our mainstream reporting on performance against ESG indicators. By integrating ESG metrics into our governance, business strategy, and performance management process, we diligently consider all pertinent risks and opportunities in running our business. We continue to look for opportunities for further transparency on the topics which are material to our business.

To track our disclosure progress and demonstrate our sustainability performance against the WEF SCM framework we utilise Socialsuite’s ESG Go disclosure platform. ESG Go enables us to demonstrate our ongoing commitment to ESG by providing a dedicated solution to track, report, and share our ESG disclosures. With ESG Go we have started the journey of building robust ESG credentials.

Last updated: 29/3/2023

# Governance

## GOVERNING PURPOSE

### Setting purpose

CODE	TYPE	STATUS	LAST UPDATED
<b>GO-01-C1</b>	<b>Full disclosure</b>	<b>Reported</b>	<b>29 Mar 2023</b>

QEM Limited (ASX:QEM) is focused on the exploration and development of the Julia Creek Vanadium and Oil Shale Project, a unique world class critical minerals resource, with the added potential to deliver and utilise innovative and sustainable energy solutions.

QEM's Vanadium and Oil Resources will help build Australia's sovereign capability:

- Vanadium to meet increasing demand for Critical Minerals for safe, long-lasting, large-scale battery systems, while also playing a key role in decarbonising the steel and construction industry
- Fuel production to provide certainty to local industries (agriculture, mining, transport and defence)

**See Also:** [About QEM](#)

## QUALITY OF GOVERNING BODY

### Governance body composition

CODE	TYPE	STATUS	LAST UPDATED
<b>GO-02-C1</b>	<b>Full disclosure</b>	<b>Reported</b>	<b>29 Mar 2023</b>

The QEM Limited Board of Directors has established a corporate governance framework, policies and charters, to support its commitment to the highest standards of corporate governance. To achieve this, QEM's Board has adopted a number of charters and policies which aim to ensure that value is created whilst accountability and controls are commensurate with the risks involved. These policies are in accordance with the recommendations set out in the ASX Corporate Governance Principles and Recommendations – 4th Edition.

Together with the Company's Constitution, a number of charters and policies have been adopted. These include a Diversity Policy which reflects QEM's commitment to building a diverse and skilled team, which the Board strongly believes will lead to continuous improvement in safety, innovation and productivity.

While the QEM Board strongly believes in the benefits of an independent, diverse, and socially inclusive Board, we recognise that we do not currently represent all of these inclusive indicators. We are committed to ensuring greater gender representation, a diverse mix of qualifications, experience and expertise (including ESG competencies), and independence among our Board in the future, and we will work diligently to effect change.

Our Board members' skills, competencies and experience are set out on the Company's website. During Q1 FY22/23, the directors' skills were reviewed and an ESG-inclusive Board matrix adopted and placed on the website. This matrix summary of the directors' skills was updated and replaced on the QEM website this quarter, Q3 FY22/23.

**See Also:** [Our Team](#), [Corporate Governance Plan](#)

## STAKEHOLDER ENGAGEMENT

### Material issues impacting stakeholders

CODE	TYPE	STATUS	LAST UPDATED
<b>GO-03-C1</b>	<b>Full disclosure</b>	<b>Verified</b>	<b>28 Mar 2023</b>

QEM Limited operates in one of the world's richest mineral-producing regions, on Wunumara Aboriginal Lands, six km south-east of Julia Creek in the McKinlay Shire, NW Queensland. Exploration permits totalling 250 sq.km are all situated within the Eastern Resource Development Corridor, the MITEZ corridor and the North West Minerals Province.

Listed on the ASX in 2018, QEM's Board aims to ensure that shareholders are informed of all major developments affecting the Company's state of affairs. All disclosures and announcements made to the ASX are placed on the Company's website.

QEM's community and stakeholder engagement objectives with regards the Julia Creek Project (the Project) are to:



- Raise stakeholder awareness of the Project, and its potential impacts and timelines
- Initiate early engagement to ensure stakeholders have sufficient time to consider the Project's potential impacts and provide input into mitigation strategies
- Understand and address stakeholder concerns, issues, and interests
- Ensure disadvantaged and hard to reach stakeholders and groups are identified and included in community engagement activities
- Identify opportunities to work together with stakeholders to develop strategies that maximise Project benefits and minimise adverse impacts

Since listing, QEM has been very open and active in our local communities, both on the Gold Coast where the Board is based, and in Julia Creek and the surrounding region. A range of engagement and communications tools are currently in use, including but not limited to Face-to-face meetings, Councils' briefings, Government departmental briefings, Community roadshows and public information sessions, Business briefings, Project newsletter and fact sheets, Project email, Regular updates to the Project website, Media releases and Investor presentations and webinars.

The Project has actively engaged with key stakeholders including the local McKinlay Shire Council, the Queensland Departments of Energy, Resources, and State Development, Infrastructure, Local Government and Planning, and the Federal Critical Minerals Facilitation Office, as well as numerous other Local, State and Commonwealth Government representatives.

QEM is an active member of industry groups AUSIMM, Vanitec, The Queensland Resources Council, The Queensland Exploration Council, the Association of Mining and Exploration Companies (AMEC), MITEZ, WIMARQ and Advanced Materials Battery Council (AMBC), in order to maximise the Project's community engagement strategy, and support and contribute to the regional development of the NWMP as an emerging vanadium operator.

QEM is committed to openly consulting with - and communicating our progress to - internal and external stakeholders, including potential investors. We understand the importance of maintaining transparency in the way the Company operates so our stakeholders and investors understand our goals and the progress we are making throughout the Company, and may be actively involved throughout the process.

**See Also:** [Project Update Flyers](#)

## ETHICAL BEHAVIOUR

### Anti-corruption practices

CODE	TYPE	STATUS	LAST UPDATED
<b>GO-04-C1</b>	<b>Full disclosure</b>	<b>Verified</b>	<b>19 Jul 2022</b>

The Company is committed to conducting all of its business activities fairly, honestly with integrity, and in compliance with all applicable laws, rules and regulations. QEM's Board, management and employees are dedicated to high ethical standards and recognise and support the Company's commitment to compliance with these standards.

In particular, the Company is committed to preventing any form of Corruption and Bribery and to upholding all laws relevant to these issues, including the Anti-Corruption Legislation. In order to support this commitment, the Company has adopted this Anti-Bribery and Anti-Corruption Policy (ABC Policy) to ensure that it has effective procedures in place to prevent Corruption and Bribery.

**See Also:** [Anti-Bribery and Anti-Corruption Policy](#)

## RISK AND OPPORTUNITY OVERSIGHT

### Integrating risk and opportunity into business process

CODE	TYPE	STATUS	LAST UPDATED
<b>GO-05-C1</b>	<b>Full disclosure</b>	<b>Verified</b>	<b>19 Jul 2022</b>

The Board determines the Company's "risk profile" and is responsible for establishing, overseeing and approving the Company's risk management framework, strategy and policies, internal compliance and internal control.

The Board assists management to determine whether it has any material exposure to environmental or social risks, and if it does, how it manages, or intends to manage, those risks; and where appropriate, benchmark the Company's environmental or social risk profile against its peers.

The Board also considers whether the Company has a material exposure to climate change risk.

See Also:[Risk Management System](#)

## ETHICAL BEHAVIOUR

### Mechanisms to protect ethical behaviour

CODE	TYPE	STATUS	LAST UPDATED
GO-04-C2	Full disclosure	Verified	25 Jul 2022

Any personnel or stakeholder who believes that a violation of QEM's Anti-Bribery and Anti-Corruption Policy or any laws has been committed, is being committed, or is being planned, is encouraged to report the matter immediately to the Board or the Anti-Bribery Officer.

If anyone is unsure whether a particular act constitutes Bribery, a Facilitation Payment, Secret Commission, Money-laundering or an improper Item of Value, or has any other queries, they should ask the Board or the Anti-Bribery Officer.

The Company prohibits retaliation against anyone reporting such suspicions. Personnel who wish to raise a concern or report another's wrongdoing, or who have refused pressure to either accept or offer a bribe, should not be worried about possible repercussions. The Company encourages openness and will support any Personnel who raises genuine concerns in good faith under this Policy. Further, the Company has a Whistleblower Protection Policy which affords certain protections against reprisal, harassment or demotion for making the report.

See Also:[Whistleblower Protection Policy](#)

# Planet

## CLIMATE CHANGE

### GHG emissions

CODE	TYPE	STATUS	LAST UPDATED
PL-01-C1	Full disclosure	Reported	29 Mar 2023

QEM Limited has reviewed the GHG Protocol Reporting Standards and understands its implications for the planned Julia Creek Vanadium and Oil Shale Project. As the mining project has not yet commenced, we are not at this stage of mining disclosure.

However, as an interim step for a company committed to environmental, social, and governance practices, in Q1 2023 QEM engaged Carbonhalo to conduct an inaugural QEM Greenhouse Gas (GHG) emissions inventory assessment at a third party verified level.

The purpose of this GHG inventory assessment is to provide quantification of the amount of GHG emissions attributed to current QEM operations. This report concerns the financial year of 2022 (FY 2022) being the 12 months ending 30 June 2022. In subsequent inventories, comparisons will be made to this base year.

In undertaking our inaugural GHG Baseline Assessment, QEM can measure its progress towards our low carbon footprint goal. This step is crucial to quantify our efforts towards achieving the Company's sustainability objectives.

QEM is currently mapping out its journey to identify areas where it can make the greatest positive impact during its current project phase. Every project phase will be reassessed and prioritised to manage emissions effectively and provide updates into the company's ESG roadmap.

The GHG Baseline Assessment conducted by Carbonhalo has identified total GHG emissions of 146.80 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) for FY21/22.

1.52 tCO<sub>2</sub>e under Scope 1

31.45 tCO<sub>2</sub>e under Scope 2

86.97 tCO<sub>2</sub>e under Scope 3 (c3)

26.85 tCO<sub>2</sub>e under Scope 3 (c4)

QEM will focus on activities and areas with the highest emissions, which will form part of the company's primary reduction efforts - in this case Scope 3 (C3) in which business travel was identified as the top emitter at 59% of QEM's total measurable emissions. QEM is currently engaged in intense stakeholder relations and marketing activities which often require the team's in-person presence. Its anticipated post current project phase travel requirements will incrementally decline.

Targets will be set to minimise this impact and where unavoidable emissions occur, QEM will offset in certified climate projects that meet the requirements of the Clean Energy Regulator for ACCU's and Verra (VCS) and/or United Nations Framework Convention on Climate Change (UNFCCC) for international projects.

QEM's second priority area will focus on Scope 2 emissions for purchased energy representing 22% (31.5 tCO<sub>2</sub>e) of our baseline. This will look at the possibility of adopting or using renewable energy sources where available for business operations and the ongoing monitoring of energy use.

QEM will also collaborate with our suppliers and encourage the inclusion of emissions reduction within KPI's.

The Company is committed to educating and engaging our employees, clients and stakeholders about the importance of sustainability and carbon reduction and encouraging them to support and participate in our efforts.

## NATURE LOSS

### Land use and key biodiversity areas

CODE	TYPE	STATUS	LAST UPDATED
PL-02-C1	Full disclosure	Reported	29 Mar 2023

On 7 March 2023, announced it had entered into an agreement with Sun Metals Corporation Pty Ltd ("SMC" or "Sun Metals") to collect spent catalyst from SMC's Townsville operations and process this waste stream into high purity vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>). This collaboration between QEM and Sun Metals represents a Circular Economy opportunity where industrial waste can be repurposed to a higher use. Spent

catalyst recycling is an environmentally beneficial solution, without which valuable metals like vanadium may be lost.

In November 2022, Epic Environmental (Epic) issued the Julia Creek Project Ecological Assessment Report (EAR). The scope of the EAR includes a baseline assessment of the ecological values within QEM's tenement. The EAR was developed with information from desktop assessments, and extensive a post wet season flora and fauna field survey and a dry season flora field survey. These surveys were conducted in March 2022 and November 2022 and including regional ecosystem flora surveys, habitat assessments, bird surveys, spotlighting surveys and fauna trapping.

The EAR is likely to support a future Environmental Impact Assessment under the State Development and Public Works Organisation Act 1971 or similar process to support a future Environmental Authority. The EAR may also inform a future significant impact assessment to support a referral under the Environment Protection and Biodiversity Conservation Act 1999.

This ensures that following the removal of mining products, QEM is able to meet its goal to rehabilitate the Project area to the ecological quality and community that existed onsite prior to disturbance or to a standard resembling adjacent ecological communities. Acceptable rehabilitation outcomes will be determined through community consultation, landowner consultation and discussions with local council.

A topographic aerial drone survey of the entire tenement area was conducted in June/July 2022 to baseline the environmental condition of QEM's tenements before any ground is broken on the project.

On 5 October 2022, QEM issued a work order to ATC Williams to conduct the monthly groundwater and surface water quality monitoring program. ATC Williams is an international consulting engineering company that specialises in design and management of tailing storage facilities and their associated tailings dewatering and water distribution infrastructure.

The first groundwater and surface water monitoring event took place in November 2022; the monitoring program will continue for a minimum of 12 months to characterise environmental baseline conditions and inform the engineering design for tailings storage facilities.

Cattle grazing currently occurs in the Project area. The agricultural features of the Project area include:

- A stock route reserve within EPM 27057
- No mapped cropping zones
- No mapped Priority Agricultural Areas
- Project area is not located within or adjacent to Strategic Cropping Land
- No mapped Strategic Environmental Areas
- The Project area is mapped as Pasture land – sown pastures, and native pastures on high fertility soils

There are no mapped World Heritage areas, Ramsar protected wetland sites, nationally important wetland sites, State Forests or Nature Refuges within or adjacent to the Project area.

## FRESHWATER AVAILABILITY

### Water consumption

CODE	TYPE	STATUS	LAST UPDATED
PL-03-C1	Full disclosure	Verified	28 Mar 2023

As the Julia Creek Project is currently at planning stage, QEM Limited does not currently have any water consumption or withdrawal. As the Project progresses, appropriate assessments will take place before implementation.

The Julia Creek Project covers 250 km<sup>2</sup> and is located approximately 6 km southeast of the township of Julia Creek in northwest Queensland. The western portion of the Project area is within the Julia Creek catchment and the eastern portion is within the upper catchment of Spellary Creek and Alick Creek (tributaries of the Flinders River).

During operations, the Project is anticipated to need approximately 4,000-6,000 ML of raw water per year. This will be required for a range of purposes, such as ore processing, potable water, dust suppression, tailings management, etc. As the water demand will be largely driven by ore production rates and the tailings disposal method, this volume may change as the project design and production forecast is refined.

ATC Williams has been engaged to provide a preliminary assessment of the feasibility of a range of potential water supply options for the Project.

## CLIMATE CHANGE

## TCFD implementation

CODE	TYPE	STATUS	LAST UPDATED
<b>PL-01-C2</b>	<b>Partial disclosure</b>	<b>Verified</b>	<b>19 Jul 2022</b>

While the Task Force on Climate-Related Financial Disclosures (TCFD) framework is voluntary in Australia, QEM Limited is investigating what the implementation of the TCFD framework will signify for its flagship and future projects.



# People

## DIGNITY AND EQUALITY

### Diversity and inclusion

CODE	TYPE	STATUS	LAST UPDATED
PE-01-C1	Full disclosure	Verified	17 Mar 2023

Together with the Company's Constitution, a Diversity Policy has been developed which reflects QEM's commitment to building an inclusive, diverse and skilled team, which the Board strongly believes will lead to continuous improvement in safety, innovation and productivity.

Diversity may result from a range of factors including age, gender, ethnicity, cultural background or other personal factors. QEM Limited values the differences between its people and the contribution these differences make to the Company.

QEM is currently in the early stage of its development with relatively few employees but is absolutely committed to employee diversity. QEM's current female to male employee ratio is one to three. The Board of QEM aligns with the Queensland Resources Council's diversity target of 30 percent female participation across the sector by 2026 and is aiming for the same at all levels of the organisation as QEM grows. In terms of ethnicity, 50% of employees identify as Hispanic or Anglo-Indian. The average age of a QEM employee is 44 years.

QEM is committed to providing equal opportunities in respect to employment and employment conditions, including hiring, training and career advancement.

**See Also:** [Diversity Policy](#)

## HEALTH AND WELL-BEING

### Health and safety

CODE	TYPE	STATUS	LAST UPDATED
<b>PE-02-C1</b>	<b>Partial disclosure</b>	<b>Verified</b>	<b>28 Mar 2023</b>

QEM Limited is committed to maintaining strong standards of health, safety and labour rights in order to improve employee productivity and operational efficiency and enhance employee well-being.

QEM is currently in the early stage of its development and hence does not currently measure for this indicator.

QEM staff, consultants and contractors operate under the Company's Health and Safety policies and procedures which cover: site inductions, safety training, personal protective equipment, job hazard analysis, working in heat, incident report, emergency response, vehicle pre-start inspection, among others.

QEM policies and procedures are documented and all personnel entering site works within QEM Health and Safety system.

Whenever contractors are engaged to work for QEM, their HSE systems and policies are compared against QEM's to determine their HSE policies and procedures are at a minimum comparable to QEM's.

QEM is currently assessing proposals to audit QEM's HSE system to ensure it is fit for purpose as the Company enters the next project phase.

All relevant safety documentation and reports are archived in QEM's repository of information.

## SKILLS FOR THE FUTURE

### Training provided

CODE	TYPE	STATUS	LAST UPDATED
<b>PE-03-C1</b>	<b>Partial disclosure</b>	<b>Reported</b>	<b>29 Mar 2023</b>

QEM Limited's workforce diversity strategies include developing programs to develop a broader pool of skilled and experienced senior management and Board candidates,

including workplace development programs, mentoring programs and targeted training and development.

The Company is committed to developing its employees and equipping them with knowledge and skills relevant to the energy transition. In December 2022, a QEM employee completed a Graduate Certificate in Sustainable Energy, supported by the Company.

One employee is currently progressing a Remote Pilot License (RePL) through National Drones.

All QEM employees have commenced presentation and media training which will continue throughout 2023.

## DIGNITY AND EQUALITY

### Pay equality

CODE	TYPE	STATUS	LAST UPDATED
PE-01-C2	Partial disclosure	Verified	28 Mar 2023

QEM is currently in the early stage of its development with very few employees. However, from the outset, QEM wishes to measure and monitor its gender diversity and related metrics such as pay equality, with a view to bridging the diversity gap, attract talent and drive long-term competitiveness. The average man's compensation to woman's at QEM is currently 162.3%.

## DIGNITY AND EQUALITY

### Wage level

CODE	TYPE	STATUS	LAST UPDATED
PE-01-C3	Full disclosure	Verified	22 Mar 2023

QEM Limited is currently in the early stage of its development with too few employees to provide any meaningful wage level data by gender.

The employees at QEM are compensated higher than the Australian minimum wage and are not subject to minimum wage rules. The CEO percentage of average compensation of all employees is 165%.

## DIGNITY AND EQUALITY

### Child, forced or compulsory labour

CODE	TYPE	STATUS	LAST UPDATED
PE-01-C4	Full disclosure	Verified	19 Jul 2022

QEM Limited aims to uphold the highest moral, ethical and legal standards in all we do, especially surrounding human rights and modern slavery.

QEM does not condone, support or contribute, either directly or indirectly, to Modern Slavery.

The Modern Slavery Act 2018 (Cth) requires entities based, or operating, in Australia, which have annual consolidated revenue of more than \$100 million, report annually on the risk of modern slavery in their operations and supplier chains, and actions to address those risks.

Whilst QEM Limited does not yet fall into this reporting criteria, the Company is committed to assisting in the eradication of Modern Slavery by implementing this policy and managing the risk with suppliers so as not to engage in Modern Slavery.

# Prosperity

## EMPLOYMENT AND WEALTH GENERATION

### Rate of employment

CODE	TYPE	STATUS	LAST UPDATED
PR-01-C1	Full disclosure	Verified	22 Mar 2023

This quarter there were two new hires, both male, one of whom is Mexican and the other Anglo-Indian. No QEM employees left the Company during the quarter.

## INNOVATION OF BETTER PRODUCTS AND SERVICES

### Total R&D expenses

CODE	TYPE	STATUS	LAST UPDATED
PR-02-C1	Full disclosure	Verified	28 Mar 2023

QEM Limited's Full Year Statutory Reports, Quarterly Activity Report & Appendix 5B disclosure of expenditure and activity reflect the level of R&D costs during the period. Continuous work goes towards the evaluation and development of our projects.

As part of its R&D efforts, QEM's vanadium and oil shale bench scale pilot plant has been successfully commissioned and test work has begun. The pilot plant has been designed and developed to validate the Company's proprietary extraction process, ahead of a commercial demonstration plant. This pilot plant will also provide feedstock for the multi-user vanadium processing facility in Townsville to be funded by the Queensland Government. QEM's R&D investment is a vital step in bringing Australian vanadium to market.

Currently, over 90% of vanadium is used to make high-strength, low alloy steel (HSLA). Additionally, there is rapidly growing demand for vanadium to create Vanadium Redox Flow Batteries (VRFBs) ideal for storing large renewable energy sources such as wind and solar.

Due to their large-scale storage capacity, VRFBs could provoke higher usage of wind, solar, and other renewable intermittent power sources and are already employed globally for load-levelling functions within renewable energy systems. With the reusable potential of vanadium in VRFBs, this means that they are 100% recyclable and sustainable. New installs of VRFBs are expected to grow exponentially by 2030, driving the increase in demand for vanadium. The International Renewable Energy Agency forecasts utility scale batteries to capture 44% of battery energy storage market in the next decade. Global VRFB deployments are likely to grow at 34% as installation costs fall and efficiencies increase. The volume of vanadium demanded from VRFBs is forecasted to grow from 28kt to over 126kt by 2030.

Vanadium not only supports the energy transition but additionally the CO2 savings by using vanadium in the construction and steel industry, already account for the carbon footprint of producing that vanadium.

Further information can be found on QEM's website.

**See Also:** [ASX Announcements](#), [Vanadium Batteries](#)

## COMMUNITY AND SOCIAL VITALITY

### Total tax paid

CODE	TYPE	STATUS	LAST UPDATED
PR-03-C1	Full disclosure	Verified	19 Jul 2022

QEM Limited understands how taxes are important sources of government revenue, fiscal policy and contributes to economic stability.

For disclosure of the total level of tax paid by QEM, please refer to the Full Year Statutory Accounts and Quarterly Activity Report & Appendix 5B Cash Flow Report.

**See Also:** [ASX Announcements](#)

## EMPLOYMENT AND WEALTH GENERATION

## Economic contribution

CODE	TYPE	STATUS	LAST UPDATED
<b>PR-01-C2</b>	<b>Full disclosure</b>	<b>Reported</b>	<b>29 Mar 2023</b>

QEM Limited's Economic Contribution during the Reporting Period correlates to the long-term financial performance of the Company, and wealth creation for its stakeholders.

Disclosures relating to revenues, operating costs, wages and benefits, payments to providers of capital, payments to government, and monetary support from government appear in QEM's Full Year Statutory Accounts, as well as in the Quarterly Activity Report & Appendix 5B.

Investment in our community is a high priority for QEM.

In 2022, QEM invested in a permanent presence in the town of Julia Creek, nearby our vanadium and oil shale project. QEM leased the property which was formerly the Suncorp Bank, for office space and executive accommodation. In the first quarter 2023, QEM is employing local tradespeople to renovate the premises.

Throughout 2022, QEM contributed to the region with eleven work packages being assigned to local contractors in Julia Creek and the North West Minerals Province, for work including fabrication, plant hire, civil site works, and building renovations. Nine new work packages have already been awarded in the first quarter of 2023.

QEM also seeks to support the greater communities in which we operate, with a particular focus on youth and women's development, education and sport.

QEM proudly sponsors the Julia Creek Saints junior girls and boys and senior rugby league teams, as well as the annual Town vs Country Women's Netball, Juniors and Seniors' Rugby League Matches.

QEM was a major sponsor of the 2022 Julia Creek Dirt N Dust Festival in April, with naming rights for the QEM Mount Isa Convoy to the Creek, focused on the theme of inviting people to "Have a "Yack in the Outback", a mental health initiative acknowledging the impact that events such as COVID, flood and drought have had on the community. A "Yack Shack" was erected inside the Dirt N Dust area at the Creek to provide a chance for a Yack with the Royal Flying Doctors' Service throughout the weekend festival. In 2023, QEM is again a major sponsor of the Dirt N Dust Festival.

QEM is pleased to sponsor and attend for the first time in March 2023, the McKinlay Shire Cultural Association and Julia Creek Lions Ladies Art Awards.

In June 2023, the Isolated Children’s Parents’ Association Queensland Inc. (ICPA) will hold the 52nd ICPA Queensland Conference in Julia Creek, with the theme “Where the Wild Ones Thrive”. The ICPA is a nationwide voluntary organisation dedicated to ensuring rural and remote students have equity of access to a continuing and appropriate education. Hence, QEM is pleased to be a Bronze Sponsor of the ICPA conference.

The Company will continue to review its level of contribution, commensurate with its activities.

**See Also:** [Statutory Accounts](#)

## EMPLOYMENT AND WEALTH GENERATION

### Financial investment contribution

CODE	TYPE	STATUS	LAST UPDATED
<b>PR-01-C3</b>	<b>Full disclosure</b>	<b>Verified</b>	<b>28 Mar 2023</b>

Investment is a key driver of economic growth and a company’s capacity to expand its operations and create additional employment.

QEM discloses information on investment activities in the Full Year Statutory Accounts, as well as in the Quarterly Activity Report & Appendix 5B.

QEM does not currently pay dividends.

**See Also:** [ASX Announcements](#)