

## **2022** SUSTAINABILITY & FINANCIAL REPORT

Accelerating the Energy Transition across Asia-Pacific





### **About this Report**

This report describes Vena Energy's sustainability strategy and environmental, social, and governance activities. Vena Energy has reported the information cited in this report for the period from 1 January 2022 to 31 December 2022 with reference to the GRI Standards. Our last sustainability report was published in June 2022, and there are no significant changes in the material topics covered from the previous period's report.

Vena Energy appointed an independent third party, ERM CVS, to provide assurance on the environmental metrics (p31) disclosed in this report. Please refer to the GRI Content Index for any restatements.

### Contact

We are committed to sharing our company's sustainability performance with you on a consistent basis and welcome your feedback!

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For additional resources please visit our corporate webpage at www.venaenergy.com





Dear Stakeholders,

Welcome to Vena Energy's 2022 Sustainability Report.

In 2022, we faced a dynamic global landscape that presented both opportunities and obstacles. As the year began, we encountered various geopolitical tensions, including the war in Ukraine which triggered a chain of events that led to global repercussions of inflation, supply shortages and price volatility in the energy markets. At the same time, the Intergovernmental Panel on Climate Change (IPCC) revealed that despite progress in policies and legislation around climate mitigation, global warming is still projected to exceed 1.5°C during the 21st century<sup>1</sup>. These global developments underscore the urgent need for a just energy transition that combats climate change, while bringing about greater energy security. Today, Vena Energy's corporate mission to accelerate the energy transition across the Asia Pacific region holds greater significance than ever before.

Despite the initial uncertainties in the macro environment, we demonstrated our ability to deliver strong performance in 2022. We remained steadfast in our ability to commission new assets throughout the region with the successful commissioning of 10 projects (562 MW), including our first utility-scale battery project in Queensland Australia and the largest solar PV project in Taiwan, the 272 MW E2 solar project. As a result, our operating portfolio generated 3.7 TWh of clean energy, a significant 20% increase compared to the previous year. The clean energy generated was sufficient to power 2.2 million homes in our target markets.

Looking ahead, our ability to provide clean and sustainable energy is poised for continued growth. In 2022, we expanded our operational, construction, and contracted (OCC) portfolio with an additional 1.2 GW of contracted projects and substantially expanded our development pipeline to nearly 37 GW with potential projects diversified across multiple technologies. To curb the current trajectory of global warming over the next few years Vena Energy is continuing to grow our onshore projects whilst developing the next generation of renewable projects in offshore wind and energy storage that will provide the much needed capacity and stable delivery of green power.

As we expand our footprint across Asia Pacific, we remain unwavering in our commitment to responsible and sustainable

development of renewable energy projects that contribute to a striving society and safeguards our environment. We are dedicated to providing a safe and equitable working environment for all our employees while also prioritizing the development of projects that are respectful to biodiversity and our host communities. As a participant of the United Nations Global Compact, Vena Energy continues to fully support UN GC's ten founding principles relating to human rights, labour standards, environmental protection, and anti-corruption, and we commit to the communication to our stakeholders on our progress and results in implementing these ten principles through our annual Communication on Progress (COP). In 2022, we created over 5,000 local employment opportunities across our multiple construction sites whilst increasing our community engagement efforts through 191 different corporate social responsibility (CSR) activities. These initiatives were targeted at local community needs in education, healthcare, environmental and social causes, and infrastructure development.

Today's climate challenge requires the collective, unified effort of governments, business, and society. In 2022, Vena Energy started to engage our critical suppliers to enhance our understanding of our indirect scope 3 emissions and to encourage partners in our supply chain to join our efforts in measuring and reducing emissions. Whilst Vena Energy's operational emissions are not material, we understand the importance of every effort in reducing greenhouse gas emissions and combatting climate change. In this year's report, we communicate a public target to reduce our operational emissions (Scope 1 and 2) for the first time.

We are aware of the enormous climate challenge humanity faces, and yet remain invigorated and optimistic in our belief that both solutions and opportunities can be unlocked when we set our vision and dedicate our efforts to a just and sustainable transition. Success cannot be realised without the resolute support of our stakeholders, and we express our gratitude for your past and future support to come. We look forward to another year of growth and collaboration as we continue to take strides towards the energy transition through the sustainable growth of renewable energy.

#### Nitin Apte

CEO of Vena Energy Chairperson of Vena Energy's Sustainability Committee

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# **1. INTRODUCTION**

### **1.1 ABOUT VENA ENERGY**

Headquartered in Singapore, Vena Energy is a leading renewable energy company in the Asia-Pacific (APAC) region. We own, develop, construct, operate, manage, and commercialise renewable energy projects across APAC, with an extensive local presence of 827 employees across 77 corporate and site offices in Japan, North Asia & Australia, Southeast Asia, and India. Our business is organised into 3 verticals - Onshore (Wind and Solar), Offshore Wind, and Energy Storage (stationary and transportable storage) across the Asia Pacific region.

### **Our Mission**

Vena Energy's corporate mission is to **accelerate the energy transition across the Asia-Pacific region**, and we place the sustainable and affordable development of renewable energy solutions at the centre of our strategy.

We retain our competitiveness through vertical integration of our capabilities and geographical integration of our operations across Japan, North Asia & Australia, Southeast Asia, and India.

Our business model allows us to integrate sustainable and responsible development practices throughout the lifecycle of our projects, while maximising the quality and cost efficiency of the renewable energy solutions we provide to our customers.

### **Our Values**

Vena Energy is committed to conducting business with the highest standards of integrity. In meeting such commitments, the following **values form the foundation of our Employee Code of Conduct:** 

- Ethical Business Conduct
- Respecting our Employees
- Protecting the Environment, Respecting Human Rights, and Servicing our Communities.
- Ensuring a Healthy, Safe, and Secure Work Environment
- Reporting and Managing Compliance Concerns

Our values support the sustainable execution of our corporate mission as we strive to grow into the leading renewable energy company in the Asia-Pacific region.



### 1.2 2022 HIGHLIGHTS



### **1.3 OUR BUSINESS**

### **1.3.1 ONSHORE SOLAR & WIND**



#### 272 MW E2 Solar Project in Taiwan

#### The Technology

Vena Energy's onshore business comprises solar photovoltaics ("solar PV"), onshore wind and their respective extensions such as hybrid systems and floating solar PV. Solar and wind energy are abundant natural resources that can be harnessed to generate electricity. Our solar PV projects utilise proven technology to convert solar radiation into electricity by exploiting the photoelectric effect to absorb light photons from the sun and direct the eventual movement of charged electrons into an electric current. Our onshore wind projects consist of wind turbine generators which convert wind energy into low-speed rotational energy. Gearboxes in the wind turbine convert the lowspeed rotational energy into the high-speed rotations needed for an induction generator to produce electricity. These projects allow us to harvest clean, renewable energy from sunlight and wind without any additional fuels or discharge waste and are key drivers to accelerating the energy transition.

#### The Opportunity

The shift to more efficient PV modules, increase in wind turbine sizes, and the growth of larger projects in the past decade have contributed to a material decline in levelized cost of electricity ("LCOE"), allowing solar PV and onshore wind to attain grid parity in many countries. According to BloombergNEF<sup>1</sup>, renewable energy capacity will need to grow more than eight times the 3.5 TW global capacity at the end of 2022 to 30 TW in order to reach net-zero by 2050, with utility-scale solar PV and onshore wind expected to see the most deployment amongst all renewable energy technologies. As of 2022, Vena Energy's target markets have a combined installed solar PV (utility scale) and onshore wind capacity of approximately 230 GW and are expected to grow by up to 2.5x reaching 610 GW of installed capacity by

2030, presenting a significant growth opportunity for Vena Energy's onshore business unit.

#### Our Response & Strategy

Today, Vena Energy has firmly positioned itself as a prominent renewable energy developer, showcasing in-house technical expertise with a proven track record of project delivery in the onshore business segment. Vena Energy is a licensed engineering, procurement, and construction ("EPC") contractor in Japan, one of our largest markets, and employs a full-service in-house team of civil, construction, procurement, and engineering specialists. In Taiwan, we also undertake our own management of EPC services. Our in-house O&M team manages our operating solar PV and wind projects in Japan and operating solar PV projects in Taiwan and the Philippines, allowing us to optimise maintenance costs, extend the lifetime of assets, and increase generation availability.

Since investing in our first portfolio of solar development projects in 2012, the onshore business has expanded significantly with Vena Energy currently **operating 80 projects totalling 2.7 GW of capacity** across seven countries and **836 MW of capacity under construction** (including 1 operational battery asset, and 1 hybrid battery asset under construction). In 2022, Vena Energy contracted an **additional 1.2 GW of onshore wind and solar PV projects** from our development pipeline, bringing our **total contracted capacity across all technologies to 2.3 GW.** In our role as a fully integrated renewable energy developer, we are uniquely positioned to capitalize on the expansive potential and cutting-edge technological advancements that the mainstream renewable energy sector has to offer. This strategic advantage underscores our commitment to sustainable growth and innovation in the year ahead.



Innovative solutions such as bifacial PV technology and hybrid systems are providing new avenues of optimising and growing new green energy capacity with an efficient use of land and resources. Technological innovations and advancement will continue to create opportunities for Vena Energy in the mainstream renewable sector with hybrid projects already under construction in markets like Australia and India.

<sup>1</sup> New Energy Outlook 2022

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### **1.3.2 OFFSHORE WIND**



### The Technology

Offshore wind energy is generated by wind farms that are constructed on bodies of water, usually open sea, and coastal areas. Offshore wind farms possess enhanced potential for robust and consistent power generation, primarily due to the advantage of more rapid and predictable wind currents over oceans, and the elimination of terrain-related influences. This unique combination offers a highly favourable environment for maximized energy production. Electricity produced by offshore wind turbines is directed back onshore through transmission systems in the ocean. Engineering and constructing underwater foundations and transmission lines are accompanied by a unique set of challenges including rigorous environmental standards, extensive marine logistics, and limitations around siting, permitting and seabed leasing. The different capital intensity, risk profile and operational requirements set offshore wind projects apart from onshore renewable energy technologies, such as solar PV and onshore wind projects.

#### The Opportunity

Offshore wind technologies have seen significant compression of levelized cost of energy (LCOE) over the years, being able to benefit from high-capacity turbines, higher wind speeds, and larger project sites. Technological advances have been a key driver of cost declines with some offshore turbine models today reaching 15 MW in capacity, representing a material improvement over last decade's 3 MW models and a significant unit cost reduction, despite recent cost inflation experienced globally across the sector. In those instances where offshore wind projects are meant to replace nearby nuclear or thermal power plants

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(usually located in coastal areas, near the ports necessary to import their commodity fuels), significant grid capacity will be available at the site and port activities can be repurposed for operation and maintenance of the offshore wind projects, hence revitalising local economies.

Global offshore wind installations are on track to see 10x growth by 2035, reaching 519 GW compared to 53 GW installed at the end of 2021 according to BloombergNEF. Nations are increasingly seeing the offshore wind sector as a key facilitator of their longterm climate goals, setting new targets, and increasing existing ones. In Asia, the top markets outside of China for new offshore wind installations are Japan, South Korea, and Taiwan with combined installations forecasted to exceed 40 GW by 2035. Australia has also set ambitious goals for offshore wind, with 46 GW of projects already announced as of 2022 year-end. India and the Philippines are planning seabed auctions and awarding contracts for project feasibility studies. National renewable energy targets, regulatory frameworks, and balanced support mechanisms are expected to drive significant capacity growth in these markets over the next decade.

#### Our Response & Strategy

Today, Vena Energy is developing over 19 GW of offshore wind projects in key markets in Japan, North Asia, Australia, and Southeast Asia. For a summary of our offshore wind activities in 2022, please see <u>"Spotlight: Vena Energy's Offshore Wind</u> Development".



**Daniel Astbury** Head, Offshore Wind

Our offshore wind generation business is poised for exponential growth in the Asia Pacific region. With surging demand for sustainable energy, we see tremendous potential to expand our offshore wind presence across Asia, where our target markets have high wind speeds and ideal site conditions.

### **1.3.3 ENERGY STORAGE**



Interior of the Wandoan South Battery Energy Storage System

Energy storage represents the next evolution of the energy transition by enabling renewable energy to replace conventional thermal generation as a baseload power source. As the proportion of renewable energy in the generation mix continues to increase, the intermittent nature of solar and wind resources will need to be managed. Energy storage solutions allow clean energy to be stored during times of low demand, and dispatched at times of low production and peak demand, therefore offering an effective solution to intermittency. As renewable energy installations continue to grow and the cost of energy technology declines, the commercial deployment of both stationary and transportable energy storage technology such as battery storage systems and green hydrogen solutions are expected to accelerate.

#### **Stationary Storage**

#### The Technology

Batteries, as an energy storage technology, utilize chemical reactions to store energy and dispense it as needed. Lithium-ion is the most common battery chemistry used to store electricity and comprise more than 90% of global capacity today. Other types of energy storage technologies include pumped hydropower, compressed air, flywheel, and redox flow batteries. Batteries are valuable because they provide flexibility and can respond faster than other energy storage or generation technologies.

#### The Opportunity

Growth in stationary storage demand is expected to follow the growth in renewable energy. According to BloombergNEF, global energy storage's additions in 2022 will be followed by a 23% compound annual growth rate to 2030, with annual additions reaching 88 GW/278 GWh, or 5.3 times expected 2022 GW installations. It is anticipated that over 40% of worldwide storage demand will originate from the Asia-Pacific region by the close of this decade. Beyond China, the strategies adopted in Japan, South Korea, and India have proven to be conducive. Moreover, battery investments in Australia are predicted to skyrocket, propelled by the introduction of state-backed battery support initiatives aimed at achieving ambitious storage goals.

#### Our Response & Strategy

Vena Energy's storage strategy is fundamentally based on energy shifting, a prevalent use case for energy storage that accounted for over 50% of worldwide deployments in 2022 and is projected to increase to 66% by 2030. Currently, we are not only constructing standalone storage projects but also utilizing our expertise in our onshore business segment to pinpoint opportunities for co-location. In 2022, Vena Energy commenced commercial operation of the Wandoan South Battery Energy Storage System (BESS), the first utility-scale battery in Queensland and one of the largest in Australia. We are also constructing a combined battery and solar PV project totalling 159 MW in South Australia, which is expected to commence operation in 2023. A further 6 GW of storage capacity is currently in development which underpins our future growth in the energy storage space, with advanced opportunities across Australia, Japan, and Taiwan.

A sustainable transition driven by batteries can only be realized if the issues associated with raw material sourcing, battery manufacturing, and end-of-life management are effectively tackled. Battery suppliers to Vena Energy have made public commitments to comply with global environmental sustainability codes, including the Responsible Cobalt Initiative and OECD Due Diligence Guidance for Responsible Supply Chains. Vena Energy intends to continue working closely with our suppliers and commercial recyclers to properly plan for the reuse and recycling of our battery equipment and prepare for a sustainable decommissioning. For more information on Vena Energy's approach to circular economy considerations, see <u>section 2.5.3</u> <u>Circular Economy</u>.

### Transportable Storage: Green Hydrogen

#### The Technology

Green Hydrogen is an essential component of the energy transition as a chemical energy carrier with the potential to reduce or replace conventional fossil fuels. When combusted or used in fuel cells, the only by-products from hydrogen are heat and pure water, avoiding harmful emissions of greenhouse gases, particulates, sulphur oxide, or ground-level ozone during use. Hydrogen can additionally be synthesized into other chemical derivatives like ammonia, which can be used as both a hydrogen carrier for long distance transportation and direct usage in cocombustion of fossil fuels (reducing direct consumption and GHG emissions of the thermal plants). Green Hydrogen is expected to enable the import and export of green renewable energy over long distances especially where direct grid connection is not feasible or economical.

Currently, approximately 95% of hydrogen is generated by reforming natural gas or coal. This hydrogen, labelled as Grey Hydrogen if created from natural gas without carbon capture, relies on fossil fuels as its primary source, resulting in significant carbon dioxide emissions during production. In contrast, Green Hydrogen represents a cleaner, carbon-neutral option. It is produced through the electrolysis of water, utilizing electricity sourced from renewable energy like solar and wind power. As the cost of renewable electricity has dropped significantly in the last decade, currently standing below grid parity in many parts of the world, the demand for increased efficiencies in electrolysis has driven the commercialization and automation in manufacturing electrolysers, with costs forecasted to reduce progressively over the next 20 years, and expected to eventually match conventional hydrogen generation. Green hydrogen represents the next evolution of the energy transition, allowing for a future of energy mobility where high renewable resource (net energy-surplus) countries can competitively export green energy to lower renewable resource (net energy-deficit) countries.

#### The Opportunity

While the green hydrogen sector is in its early stages of development, future growth is forecasted to be exponential as national policies favouring decarbonisation continue to pick up pace. Today, countries emitting 92% of global carbon emissions have a net zero target in force or under discussion which could signal more policies for hard-to-abate sectors where hydrogen can play a vital role. According to BloombergNEF, 42 countries have national hydrogen strategies today compared to 27 at the onset of 2022, including Japan, South Korea, India, and Australia. Global funding for hydrogen is expected to reach \$146 billion in 2030, up 46% from the previous forecast in first quarter 2022.

#### Our Response & Strategy

Vena Energy has spent the last few years developing a comprehensive green hydrogen strategy across the Asia-Pacific region in anticipation of the region's growing demand and expansion of the green hydrogen market. Having extensive local presence across 9 key markets across Asia-Pacific, Vena Energy holds a unique position to vertically integrate the production and supply of green hydrogen across the region. As part of our Energy Storage pipeline, Vena Energy is currently developing the Euroa Energy Project, a Green Hydrogen site that was also granted federal funding from the Australian government in 2022. This site is situated near a large port and expected to produce green hydrogen for both domestic consumption in the short-medium term, and for international export in the long term. Additionally, Vena Energy is planning to construct a renewable energy generation facility close to the site to provide energy to produce the green hydrogen. In Japan and Korea, Vena Energy is exploring solutions for the import and use of green hydrogen for various applications, including power generation via combined cycle hydrogen turbines.

Vena Energy is positioning itself to be at the forefront of technological developments in the sector and is engaged in several study groups and associations such as the Niigata Carbon Neutral Port Study Group and the Nagoya Port Carbon Neutral Port Study Group in Japan to share expertise and collaborate on feasibility assessments. Vena Energy is also a member of both the Clean Fuel Ammonia Association and the Japan Hydrogen Association. Vena Energy intends to continue working with an increasing number of stakeholders within the value chain to expand its activities in green hydrogen across the region as it implements its strategy.







Head, Energy Storage & New Technology Lead

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By investing in cutting-edge energy storage solutions such as utility-scale batteries and green hydrogen, we can pave the way for the decarbonization of energy systems and a more sustainable and resilient future. These innovative technologies are key enablers for the transition to a low-carbon energy system, providing energy security and enabling the integration of renewable energy sources.

### **1.3.4 OUR CAPABILITIES**

Vena Energy is fully integrated across the entire renewable energy project lifecycle, from site identification and assessment, engineering and permitting, contracting and procurement, installation and commissioning to operations and maintenance. We have in-house experts dedicated to solar and wind energy and have centralised our intellectual property with respect to resource assessment, system design, equipment procurement, construction management and maintenance services. These in-house capabilities allow Vena Energy to develop projects with superior performance standards, while minimising development and construction costs and risks. With 2.7 GW of solar, wind and storage assets under operations ( $\uparrow$  26% as compared to 2021) and 3.2 GW under construction or contracted ( $\uparrow$  25% as compared to 2021) as of year-end 2022, our team continues to deliver steady, reliable growth to our stakeholders.



### **Project Development**

Our local management teams provide expertise in origination, land acquisition, grid assessment, permitting, system design, and investment feasibility.

### Construction

Our in-house EPC experts provide comprehensive design, procurement, and construction services.

As a licensed EPC provider, Vena Energy is capable of undertaking construction works in select jurisdictions.





### **Operations & Maintenance**

Our O&M capabilities include industry-standard O&M services, real time monitoring and reporting, and in-country and cross-regional data analysis.

#### **Capital Management**

Vena Energy's financing expertise coupled with our stable and contracted renewable assets provide an exclusive yet mutually beneficial relationship with global investors and institutional lenders.



### **1.3.5 DEVELOPMENT PIPELINE**

Vena Energy ended 2022 with a development pipeline of 36.6 GW, comprising over 200 projects spread across nine countries. This diversified development pipeline includes multiple technologies encompassing our core business of onshore solar PV and wind, offshore wind, and energy storage.

Vena Energy's development pipeline is organized into five distinct phases: Identified, Assessed, Technically Feasible, Commercially Feasible, and Ready-to-Contract/Bid. The Identified phase marks the earliest stage of a project, while Ready-to-Contract/ Bid signifies the most advanced stage. The phase of development is determined by the project's progress across five crucial milestones: (i) site control, (ii) offtake/revenue stream, (iii) permitting, (iv) interconnection, and (v) technical and engineering assessment. Our localized teams, consisting of over 100 professionals, play a crucial role in propelling the progress related to each of these milestones. While the significance or challenges associated with each milestone may vary by jurisdiction, a project is only considered Ready-to-Contract/Bid when all five conditions are secured or nearly finalized.



Vena Energy's 5 Phases of Development

As of December 2022, Vena Energy has over 13 GW of projects in the three most advanced phases, with Ready-to-Contract/ Bid capacity comprising c.3 GW. The remainder of the pipeline (c.24 GW) is spread across the Assessed and Identified phases. Our development teams utilise proprietary technology to map grid availability, and undertake in-house resource assessments to efficiently identify optimal locations for project development, and will continue to replenish the development pipeline as opportunities are progressed along the development value chain. In the past 3 years, Vena Energy has added around c.1 GW of contracted capacity per annum from the development portfolio. **In 2022, Vena Energy contracted a record 1.2 GW of onshore wind and solar projects from our greenfield development activities.** The addition of this capacity grew Vena Energy's total Operating, Construction, and Contracted (OCC) portfolio to 5.9 GW as of December 2022, representing a +25% growth compared to the previous year. We expect to contract more than 1 GW per annum in the near term, with further year-on-year growth that is backed by the development pipeline anticipated over the long-term horizon.

The following charts show the breakdown of the development pipeline by technology and location as of December 2022.



### SPOTLIGHT: Vena Energy's Offshore Wind Development

Vena Energy's offshore wind team includes around 60 dedicated specialists who excel in various aspects of offshore project development, from site identification and resource assessment to licensing and permitting. This team's core competencies lie in their adept navigation of complex regulatory environments across our target markets, their ability to optimize project design, and their commitment to maintaining the highest standards of safety and environmental responsibility.

Today, Vena Energy has an offshore wind development pipeline of approximately 19 GW with about 10 projects (4.2 GW) in Japan, South Korea, and Taiwan in more advanced stages of having established commercial and/or technical viability. Early-stage projects are also in progress in these markets as well as Australia and the Philippines. Our ability to steadily develop offshore wind projects leverages our strong technical capabilities and local networks in our key markets. The on-the-ground presence of our specialists allows Vena Energy to effectively respond to market developments and where appropriate, develop partnerships and consortiums to advance projects.

In Japan, for example, Vena Energy and its partners Shikoku Electric Power Co., Inc (Yonden), and Toho Gas Co., Ltd (Toho Gas) established a consortium in May 2022 for the development of an offshore wind project in Aomori South, a location identified by the Japanese Government as a promising area for the development of offshore wind projects under the Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities Act. The consortium with Yonden and Toho Gas puts Vena Energy in a prime position to capture opportunities in the Japan's offshore wind market, with an offshore wind auction expected to be announced in 2024.



MOU Signing between KOMIPO and Vena Energy for the joint development of the Yokji Offshore Wind Project

In South Korea, Vena Energy signed a Joint Development Agreement with Korea Midland Power Co., Ltd. (KOMIPO), a stateowned generation company for the development of an offshore wind project off the southern coast of the Korean peninsula next to Yokji island (Project Yokji). Under the terms of the agreement, Vena Energy and KOMIPO will collaborate on the development, operation, and maintenance of the 384 MW project, while establishing a model of cooperation that will help support the local community. Today, Project Yokji is one of the most advanced offshore wind projects in South Korea with start of construction expected in 2025.

Vena Energy sees significant potential in the deployment of renewable energy from offshore wind in the Asia Pacific region, where many of our target markets have high wind speeds and favourable site characteristics. We will continue to develop and invest in our capabilities in offshore wind to capture these opportunities that will fortify Vena Energy's position as a leading renewable energy developer in the Asia Pacific region.

### **1.3.6 OPERATIONAL, CONSTRUCTION & CONTRACTED PORTFOLIO**

### **Operational Projects**

In 2022, Vena Energy added **10 projects to its operational portfolio (562 MW)** bringing our total operating capacity to 2.7 GW. The projects were geographically diversified across Japan, Taiwan, and Australia, including the commissioning of our first battery project in Queensland, Australia.



**E2 Solar Project** 272 MW







Wandoan South BESS 100 MW / 150 MWh





**Kasama Solar Project** 53 MW



Nanao Solar Project 51 MW





**Komono Solar Project** 46 MW





**Nihonmatsu 2 Solar Project** 18 MW



**Kisarazu Solar Project** 26 MW



### **Construction & Contracted Projects**

As of December 2022, Vena Energy has 836 MW and 2.3 GW of under construction and contracted projects respectively. 242 MW of contracted projects progressed to construction in 2022, including our first joint solar and battery project, the 159 MW Tailem Bend 2 Project ("TB2 Project") in South Australia. The TB2 Project secured an offtake agreement with a corporate offtaker in October 2021 and transitioned to construction approximately 6 months after entering the offtake contract.

Our contracted portfolio represents growth that has been secured in the next 2 to 3 years. Like the TB2 Project, our contracted portfolio includes projects that have signed a power purchase agreement ("PPA") with an offtaker or have secured a feed-in tariff ("FIT") with a utility. The PPAs or FITs provide a visible and long-term revenue stream for the contracted projects, enabling them to progress into construction stage once remaining development works are completed and funding is secured. In 2022, Vena Energy contracted an additional 1.2 GW of onshore wind and solar projects from our development activities in the Philippines.



Tailem Bend 2 Project currently under construction in South Australia

### **1.3.7 OUR MILESTONES**

# 2022

- 19 GW of offshore wind pipeline reached with project advances made in Japan, South Korea, Taiwan, and Australia
- Grant for green hydrogen project awarded by the Australian government
- First green project bond raised in Japan with a global investment group
- Taiwan's largest solar project E2 awarded "Renewable Energy Deal of the Year" by Triple A Infrastructure Awards
- VENUS program expanded to Japan in partnership with Tokyo University
- · Vena Energy Philippines named "Best Company to Work For in Asia 2022" by HR Asia for 2 consecutive years





### **1.3.8 REGIONAL PRESENCE**

Vena Energy's activities spans the Asia-Pacific region with a focus on 4 sub-markets: Japan, North Asia & Australia, Southeast Asia, and India.



### **1.3.9 MANAGEMENT TEAM**

Our Executive Management Team, led by Vena Energy's CEO, has extensive qualifications and a proven performance track record exceeding 20 years of relevant working experience. The Executive Team includes local Heads of Business that provide leadership and direction for local development activities, and Technology Heads that provide specialised knowledge for the dedicated business units.

The Executive Team is supported by diverse and experienced functional leaders covering investment, human resources, finance, corporate secretarial, information technology and corporate communications from Singapore.









Regional Head of

Business, Korea and Taiwan



Chew Kum Fai Group Head, Accounting & FPA



Ang Leng Leng Group Head, Total

Rewards & Talent

Management

Simone Grasso Chief Investment Officer



Ning Gu Group Head,

Compliance

Daniel Astbury

Head, Offshore Wind

Group Head, Sustainable Finance & Investor Relations

**Rupert Hall** 

Chief Legal Officer

Juwon Chae

Group Head, Tax

Anna Ho Chief Human Resources Officer

Yuki Hoshino Group Head, Investments (North Asia-Pacific)

Samrinder Nehria

Head of Business,

Philippines





Praveen Jain

Ravi Nichani Group Head, Investments (SEA & India) & Corporate Financing



**Rudy Sembiring** Head of Business, Indonesia



Yong Kar Yee Group Head, Human Resource Operations

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Daniel Lee Group Head, Corporate Communications

Sam One

Chief Financial Officer

Raymond Tan

Group Head, Corporate Treasury



Monika Rathi

Head of Business,

India

Natelie Tan

Group Head,

Corporate Secretarial

Samad Momin Chief Procurement Officer





Raúl Rienda Sevilla Head of Business, Japan

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Group Head.

Project Financing

Willi Schulz Group Head, Environment, Health and Safety

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Thailand









Anil Nangia Head, Energy Storage

Australia



SUSTAINABILITY AND FINANCIAL REPORT 2022







Thitipong Thaicharoe







**Owen Sela** Head of Business,

### 1.3.10 ESG RATINGS & AWARDS

#### Sustainalytics ESG Risk Rating

In March 2023, Vena Energy received a revised ESG Risk Rating of 8.7 and was assessed by Sustainalytics to be at negligible risk of experiencing material financial impacts from ESG factors for two consecutive years. Based on its rating, Vena Energy sits in the top 1% of Utility companies in the Sustainalytics<sup>2</sup> global ratings universe.



In 2022, Vena Energy was awarded **four industry awards** in recognition for its excellence in health and safety, human resource practices, and project financing.

### IJ Global APAC Awards

The IJ Global awards celebrate the best-in-class transactions and organisations across the international infrastructure and energy sectors. Vena Energy was recognized as the "Sponsor of the Year" at the 2022 IJ Global APAC Awards ceremony.



<sup>2</sup>Sustainalytics, a Morningstar company, is a leading independent ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The firm also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. For more information, visit www.sustainalytics.com.

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### The Asset Triple A Awards

Vena Energy was awarded "Renewable Energy Deal of the Year - Taiwan" for the 272 MW E2 Solar Project. The award recognizes the NT\$7.78 billion term loan facility raised for the construction of the largest renewable energy project in Taiwan, supported by a group of international and local banks including DBS Bank (Taiwan), BNP Paribas (Taiwan Branch), Crédit Agricole Corporate and Investment Bank (Taipei Branch), E.Sun Commercial Bank, KGI Bank, MUFG Bank (Taipei Branch) Overseas Chinese Banking Corporation (Taipei Branch) and Standard Chartered Bank (Taiwan) who acted as Mandated Lead Arrangers for the transaction.



### HR Asia Best Companies to Work For 2022 (Philippines)

Vena Energy was recognized as one of the "Best Companies to work for in Asia 2022" in the Philippines. The award celebrates companies with industry-leading human resources practices, high levels of employee engagement, and excellent workplace cultures, as the economy gradually recovers from the COVID-19 pandemic. This is the second consecutive year that Vena Energy has received the award in the Philippines.



### APEX India Occupational Health & Safety Award 2022

In August 2022, Vena Energy India received the "Platinum Award - Apex India Occupational Health & Safety Award 2022" from the APEX India Foundations. The accolade recognized Vena Energy's continued innovation and commitment to the health and safety of its employees and for spreading awareness of HSSE practices throughout the organization.

### **1.4 OUR APPROACH TO SUSTAINABILITY**

Sustainability is the centrepiece of Vena Energy's corporate strategy. Respecting the natural environment, empowering our people and communities, and conducting business in an ethical and transparent manner creates a virtuous cycle which facilitates the delivery and execution of our renewable energy projects and helps us realise our mission to accelerate the energy transition across the Asia-Pacific region.

Our corporate mission and activities align with the United Nations' Sustainable Development Goals ("SDGs") and contribute

to nine SDGs. From an Environmental, Social and Governance ("ESG") perspective, Vena Energy operates in accordance with local and international standards, including the International Finance Corporation (IFC) Performance Standards, International Labour Organisation (ILO) Core Conventions, ILO Basic Terms and Conditions of Work, and the United Nations Universal Declaration of Human Rights.

For our disclosures around SDG alignment, please see section 6.4

**Our Affiliations:** 



**Environmental Stewardship** 

CARBON PRICING LEADERSHIP COALITION

- Decarbonisation via renewable energy generation
- Environmental protection through responsible design & construction
- Resource management via innovations
   which support a circular economy



#### Empowering Our People, Partners, and Community

- Protect the health & safety of our people
- Respect our employees via diversity & inclusion
- Development of our communities through job creation & education



#### Ethical & Transparent Business

- Ethical business conduct
- Fostering a culture of compliance

VENA

**ENERGY** 

### **1.4.1 STAKEHOLDER ENGAGEMENT**

We have defined our key stakeholder groups as those who have a direct impact on Vena Energy's business and a vested interest in the company's operations. Whilst our management team have daily interactions with our stakeholders, a planned system of engagement exists to ensure a consistent and timely communication of information and feedback with each group. The following table lists our key stakeholders, our methods of engagement and material topics raised.

Stakeholder	Engagement Method	Issues and Concerns
Investors & Lenders	<ul> <li>Annual and semi-annual reports</li> <li>Webinars and surveys</li> <li>Industry conferences and media interviews</li> <li>Meetings and site visits</li> <li>Corporate website and social media platforms</li> <li>ESG and credit rating agencies</li> </ul>	<ul> <li>Business strategy and direction</li> <li>Operational and financial stability</li> <li>Technology innovation</li> <li>Climate change, risk and resilience</li> <li>Environmental risk management</li> <li>Sustainable supply chain</li> <li>Impact reporting and transparency</li> <li>Green and Sustainable financing</li> <li>External ESG ratings</li> </ul>
Customers	<ul> <li>Customer workshops</li> <li>Country level industry associations</li> <li>Public forums, and seminars</li> <li>Regular interaction and meetings</li> <li>Market brokers and intermediaries</li> </ul>	<ul> <li>Project pipeline and execution ability</li> <li>Cost (Tariff)</li> <li>Sound operation of generation assets</li> <li>Community health and safety</li> <li>Timely reconciliation and settlements</li> <li>Technology</li> </ul>
Employees	<ul> <li>Townhalls and regular day-to-day engagement from senior management</li> <li>Employee surveys</li> <li>Knowledge sharing and training sessions</li> <li>Social committees and events</li> <li>Mentoring and coaching</li> <li>Performance reviews</li> <li>Whistle-blower hotline</li> </ul>	<ul> <li>Corporate mission and growth</li> <li>Employee health and safety</li> <li>Workplace efficiency and flexible working arrangements</li> <li>Career development and training</li> <li>Remuneration and benefits</li> <li>Diversity and inclusion</li> </ul>
Suppliers & Builders	<ul> <li>Interaction with internal EPCM team or OE</li> <li>Regular meetings and ESG-focused engagement</li> <li>Innovation seminars and conferences</li> <li>Audits and reviews</li> </ul>	- Legal (contract) compliance - Worker health and safety - Quality and design - Technological innovation
Government & Regulators	- Contribution to government thinktank reports - Focus group discussions - Public forums and seminars	<ul> <li>Consistent and reliable clean electricity generation</li> <li>Financial stability</li> <li>Ethical business practices</li> <li>Reporting and transparency</li> <li>Community health and safety</li> <li>Energy transition and decarbonisation</li> </ul>
Community	<ul> <li>Townhalls and community consultation</li> <li>Regular interaction with local Community Liaison Officers (CLO)</li> <li>CSR activities</li> <li>Corporate website and social media platforms</li> <li>Corporate feedback</li> </ul>	<ul> <li>Environment and biodiversity impact</li> <li>Regional economic revitalization</li> <li>Local employment and education</li> <li>Community health and safety</li> <li>CSR and volunteerism</li> <li>Cultural heritage preservation</li> </ul>

### **1.4.2 MATERIALITY**

A materiality assessment was conducted to identify the focus areas of Vena Energy's sustainability efforts in relation to environmental, social, governance, and economic issues. The assessment was based on feedback received from internal and external stakeholders through our regular engagement since 2018. Stakeholders' observations and sentiment were taken on sustainability-related topics which are considered material in the renewable energy industry and by Vena Energy's management and its operations. The result of the overall assessment remains largely the same compared to the 2020 assessment, with minor amendments made in the past 2 years.





# 02 Environment

- 2.1 Climate Opportunity and Strategy
- 2.2 Physical Climate Risk and Management
- 2.3 Climate Action & Emissions
- 2.4 Environmental and Social Impact Management
- 2.5 Resource Management

# 2. ENVIRONMENT

### 2.1 CLIMATE OPPORTUNITY AND STRATEGY

Today, more than 70% of global manmade emissions derive from the use of energy, including energy used in industry, buildings, and transportation. The transition from fossil-based fuels to clean renewable energy is one of the most crucial steps that we must collectively achieve in order to succeed at limiting global warming to 1.5°C above pre-industrial levels by 2050. Vena Energy built its corporate strategy to accelerate the energy transition across the APAC region and contribute to a low-carbon energy future.

The APAC region is expected to experience exponential economic growth and renewable energy is the sustainable solution required to meet the anticipated surge in the region's energy demand. Growth in the sector is supported by governments that have set national renewable energy targets, in order to meet their Nationally Determined Contributions, enhance energy security, and promote technological advancements. Beyond governments, the increasing cost competitiveness of renewable energy, the growing awareness of the risks associated with climate change, and the desire of corporations to demonstrate their commitment to sustainability have also spurred the growth of the corporate PPA market across the APAC region.

For more on Vena Energy's strategic response to climate-related opportunities, please see section 1.3 Our Business.



Installation of solar PV panels in Japan

### 2.2 PHYSICAL CLIMATE RISK AND MANAGEMENT

Climate risk to Vena Energy's operations primarily relates to physical risk, including the impact of global warming, and changes in weather conditions, such as extreme weather events, on our operating, construction, and development assets across the region.

Vena Energy adopts a multi-pronged approach to manage our exposure to physical climate risk. Our development team carefully assesses and identifies locations that are suitable for our projects, avoiding sites particularly susceptible to extreme weather and natural disasters. However, exposure to climate-related risk cannot be entirely avoided. Some of our projects experienced extreme snow and landslides in Japan and Indonesia in 2022.

The heat map below summarizes the top physical hazards that our projects in each country are exposed to. Where exposure to physical hazards cannot be avoided, Vena Energy manages these uncontrollable risks with a strong risk mitigation strategy, which includes:

- · Geographical diversification,
- Technological diversification,
- Detailed civil design and planning,
- Pre-emptive O&M strategy,
- Comprehensive emergency response protocols, and
- Insurance coverage.

Furthermore, we select equipment and technologies that are resilient to extreme conditions, including temperatures, wind speeds and other external elements. In this regard, technological innovation from our equipment suppliers is also vital to Vena Energy's future growth and we work closely with our equipment suppliers in developing and testing new technological innovations. Assessment of our assets' exposure to physical hazards<sup>3</sup> will be updated yearly.



#### Physical Climate Risk Heat Map

<sup>3</sup> A high-level risk assessment is done based on risk rating on ThinkHazard! (https://thinkhazard.org/en/) to have an initial understanding of the climate risk a region is exposed to. Checks are then conducted with the local development / project teams for onsite assessment. ThinkHazard! is a web-based tool developed by The Global Facility for Disaster Reduction and Recovery, administered by the World Bank that enables the consideration of the impacts of disasters on new development projects

Physical Hazards	Potential Impact on Vena Energy	Actions to Take / Implemented
Floods	<ul> <li>Property and infrastructure damage</li> <li>Disrupt construction activity</li> <li>Disrupt operations and generation</li> </ul>	<ul> <li>Consider the impact of different climate scenarios on flood potential</li> <li>Design our plants in view of flood potential</li> <li>Consider an early warning system and flood management measures such as catchment and flood defences</li> <li>Consider vulnerability of grid infrastructure in the region during planning and design</li> <li>Established emergency response protocols</li> </ul>
Cyclone	<ul> <li>Property and infrastructure damage</li> <li>Disrupt construction activity</li> <li>Disrupt operations and generation</li> </ul>	<ul> <li>Consider the impact of different climate scenarios on the intensity and frequency of cyclones</li> <li>Design our plants in view of potential impacts from cyclones</li> <li>Consider vulnerability of grid infrastructure in the region during planning and design</li> <li>Established emergency response protocols</li> </ul>
Landslide	<ul> <li>Property and infrastructure damage</li> <li>Disrupt construction activity</li> <li>Disrupt operations and generation</li> </ul>	<ul> <li>Consider the impact of planned project infrastructure to landslide hazard, including excavation, slope loading, vegetation removal, and interference with natural waterways and existing drainage systems</li> <li>Established emergency response protocols</li> </ul>
Extreme Heat	<ul> <li>Reduced water supply to operate and maintain assets in water-stressed areas</li> <li>Overall reduced solar generation due to higher ambient temperature</li> <li>Health and safety concerns</li> </ul>	<ul> <li>Incorporate civil design strategies to effectively collect and store rainwater</li> <li>Utilise latest cleaning technologies, such as drone or robotic cleaners to reduce water use</li> <li>Established health and safety protocols for extreme heat events</li> <li>Adjust construction and operations schedules to cater for extreme heat events</li> </ul>
Wildfire	<ul> <li>Property and infrastructure damage</li> <li>Disrupt construction activity, esp. wind assets</li> <li>Disrupt operations and generation</li> <li>Reduced water supply to operate and maintain assets</li> <li>Health and safety concerns</li> </ul>	<ul> <li>Established proper health and safety procedures to ensure that we do not contribute to increase risk of wildfire</li> <li>Established emergency response protocols</li> <li>Adjust construction and operations schedules to cater for extreme heat events driven by wildfire</li> </ul>
Extreme snow	<ul> <li>Disrupt construction activity</li> <li>Disrupting generation by covering solar panels disrupting generation</li> <li>Weight of large volumes of snow can potentially crack and damage solar panels</li> </ul>	<ul> <li>Modify plant design such (e.g., higher tilt on panels) to pre-empt snow accumulation atop modules</li> <li>Utilized bi-facial panels in regions susceptible to heavy snowfall to maximize generation from reflective sunlight</li> <li>Maintained adequate snow clearing fleet on stand-by during winter months to enable timely snow removal</li> </ul>

### 2.3 CLIMATE ACTION & EMISSIONS

### 2.3.1. OUR SUSTAINABILITY IMPACT

Vena Energy's onshore business provides our customers with clean energy solutions to pivot their businesses toward a trajectory that aligns with the goal to limit global warming to 1.5°C above pre-industrial levels. In 2022, Vena Energy's operating portfolio of utility-scale solar and wind assets generated 3.7 TWh of clean renewable energy, which is equivalent to avoiding 2.7 million tonnes of CO<sup>2</sup> emissions. The following environmental metrics illustrate the sustainability impact of our business, arising from the actual energy generation from our operational assets and estimated generation from our construction and contracted assets, which in 2022 were 3.7 TWh and 6.8 TWh respectively:

#### Environmental Metrics from OCC assets in 2022



<sup>4</sup> Households Powered is based on annual household electricity consumption of each operating country derived from Residential Electricity Consumption data obtained from the International Energy Agency (2020) and number of households data derived from population data from United Nations (2022) and household size data taken from United Nations (2022) and Statista database (2021)

<sup>5</sup> Greenhouse Gas (GHG) Emissions Reduction is calculated assuming that the generation from renewable energy plants replaces an equal quantity of electricity generated using coal, gas and oil. Unique GHG emissions factors were calculated for each country based on each country's GHG emissions factor published on the UNFCCC Harmonized IFI Default Grid Factors 2021 v3.2.

<sup>6</sup>Water Saved is calculated based on the water consumption of solar and wind power plants compared against the various sources of power generation in each country where Vena Energy operates in. Unique water savings factors were calculated for each country based on respective country energy mix obtained from International Energy Agency (2020-21) and water use intensity factors from a paper titled "Water Demand Scenarios for Electricity Generation at the Global and Regional Levels" by Terrapon-Pfaff, et al., (2020)

<sup>7</sup> Equivalent Cars Removed from the Road is based on annual GHG emissions of passenger vehicles obtained from the United States Environmental Protection Agency, last updated: April, 2023.

<sup>8</sup> Equivalent Trees Planted is based on the amount of GHG sequestered by a medium growth coniferous or deciduous tree, planted in an urban setting and allowed to grow for 10 years, data obtained from the United States Environmental Protection Agency website, last updated: April, 2023.

### 2.3.2. OUR GREENHOUSE GAS EMISSIONS



In 2022, Vena Energy's total scope 1, 2, 3 emissions are estimated to have emitted 520,796 tCO2e. Of this total, our emissions from direct activities and purchased electricity (scope 1 and 2) was 5.0% at 25,590 tCO2.e. The emissions from our scope 1 and 2 activities equates to approximately 0.4% of the total GHG emissions avoided as a result of the actual and estimated renewable energy generation from our OCC portfolio.

### 2022 Scope 1,2, and 3 Emissions (in tCO<sub>2</sub>e)

Scope	CO <sup>2</sup> Source	2021	2022
Scope 1	Fuel consumed for company owned & leased vehicles	850	720
Scope 2	Purchased electricity	12,715	24,870
Scope 3	Capital goods, upstream transportation, purchased goods and services, waste management, and business travel	596,509°	495,206
Total		610,074	520,796

- Our scope 1 emissions<sup>10</sup> are calculated from a total of 290,804 litres of gasoline, diesel, and kerosene consumed from our company-owned vehicles and machinery<sup>11 12</sup>.
- Our scope 2 emissions<sup>13</sup> are calculated from a total of 32.3 GWh of electricity used across all our jurisdictions, representing a meaningful increase in electricity consumption compared to the previous year. The increase in electricity consumption is mainly attributable to newly established site offices, and expansion of corporate office space in certain jurisdictions. Whilst an absolute growth in electricity consumption is to be expected as our operating portfolio grows, the increase was further magnified in 2022 due to many employees returning to the office after an extended period of working from home during the COVID-19 pandemic. All in all, the total electricity consumed by Vena Energy's operations was approximately 1% of the total green energy generated from our portfolio of operating renewable energy assets. In addition, of the 32.3 GWh of electricity consumed in the Tokyo office was purchased as renewable energy through the office building management, which is equivalent to approximately 32 tonnes of GHG emissions avoided.

<sup>9</sup> Revised 2021 Scope 3 GHG emissions following a review of latest LCA data and weight and volume assumptions of certain key equipment in Scope 3 Category 2 calculation.

<sup>10</sup> Emissions factors used based on factors in "Emission Factors from Cross-Sector Tools" available from GHG Protocol website (https://ghgprotocol.org/calcuation-tools#cross\_sector\_tools\_id). The emission factor applied to the fuel consumed in Japan is a simple average of the emission factors of gasoline, diesel, and kerosene.

<sup>11</sup> There was a 31% decrease in fuel consumption mainly due to a reclassification of employee-related travel for business purposes to Scope 3 in India.

<sup>12</sup> The Scope 1 emissions do not include potential greenhouse gas emissions from the use of refrigerants, and diesel used for site offices in selected locations.

<sup>13</sup> Indirect emissions of CO2e from consumption of electricity are calculated using unique GHG emissions factors calculated for each country based on respective country energy mix and emissions data obtained from the UNFCC's Harmonized IFI Default Grid Factors 2021 v3.2; The electricity consumed for two solar assets in Taiwan was estimated as a percentage of generation based on our experience operating similar solar assets in Taiwan. For scope 3, emissions from our value chain derived primarily from Category 2 "Capital Goods Purchased", which captures the upstream (cradle-to-gate) emissions from our equipment purchases<sup>14</sup>. These included but were not limited to solar modules, inverters, wind turbine generators and related construction materials such as cement and concrete piles. 94.4% of the total scope 3 emissions was attributable to Category 2, with the residual emissions attributable to (in declining order) Category 1 Purchase of Goods and Services, Category 4 Upstream Transportation and Distribution, Category 6 Business Travel, and Category 5 Waste Generated in Operations.

#### Vena Energy Scope 3, 2021-22

Scope 3 Category	2021 GHG Emissions (tCO <sub>2</sub> e)	% Contribution	2022 GHG Emissions (tCO <sub>2</sub> e)	% Contribution
<b>Category 1</b> - Purchased Goods and Services	14,584	2.4	14,620	3.0
Category 2 - Capital Goods	<b>552,970</b> <sup>15</sup>	92.7	467,741	94.4
<b>Category 4</b> – Upstream Transportation & Distribution	19,062	3.2	7,56616	1.5
<b>Category 5</b> – Waste Generated in Operations	8,411	1.4	1,678	0.3
Category 6 - Business Travel	1,482	0.2	3,601	0.7

### 2.3.3. CLIMATE ACTIONS

#### Decarbonisation of our operations

A future that runs entirely on clean energy needs to start with our own operations. In 2021, we made a public commitment to reach net zero by 2050 and took a meaningful step forward in providing comprehensive disclosure of our scope 1, 2 and 3 emissions. Using our 2022 scope 1 and 2 emissions as a baseline, we have set targets to reduce our operational carbon intensity by 65% by 2030 with the aim to be completely carbon neutral by 2050. This target was developed using the applicable Net Zero Tool published by the Science-based Targets Initiative (SBTi).



#### Carbon Intensity (Scope 1 & 2) Target

<sup>16</sup> Category 4 GHG emissions calculation does not include the transportation of solar PV equipment for three sites in Japan that were managed by third-party contractors.

<sup>&</sup>lt;sup>14</sup>Scope 3 Category 2 GHG emissions calculated based on a combination of 1) suppliers' product LCA data where available, and 2) the estimated weight of capital goods and material compositions of each equipment. Weight-based emissions calculated using emission factors from Ecoinvent Database (ReCiPe 2016 LCIA methodology) and literature data (LCA study).

<sup>&</sup>lt;sup>15</sup> Revised 2021 Scope 3 Category 2 - Capital Goods GHG emissions following a review of the latest LCA data and weight and volume assumptions of certain key equipment in Scope 3 Category 2 calculation. The emissions estimate for Scope 3 Category 2 has been corrected to 552,970 tCO<sub>2</sub>e, which is a reduction from 1,552,337 tCO<sub>2</sub>e disclosed in the 2021 Sustainability and Financial Report.

#### Engaging our supply chain

As of today, our greenhouse gas emissions are mostly originated from the lifecycle of our purchased equipment (or Scope 3, Category 2 emissions). As we continue to grow and build more renewable energy projects, absolute emissions linked to the manufacturing and transportation of related equipment will inevitably rise. We recognise the vital role of collaborating with our suppliers to increase transparency concerning these indirect emissions and to devise strategies aimed at mitigating greenhouse gas emissions within our supply chain.

In 2021, we first reported on the emissions linked to our critical equipment including solar modules, wind turbine generators, and utility scale batteries, using industry averages pertaining to weight and material compositions of the equipment. To further increase the accuracy of our Scope 3 equipment-linked emissions, in 2022, we surveyed our top 20 suppliers and incorporated where available, supplier-specific product information<sup>17</sup> in the estimation of our Scope 3, category 2 emissions.

As part of our survey, we also developed a baseline understanding of our suppliers' ambitions to reduce greenhouse gas emissions in their operations, particularly whether they have any net zero targets in place. Our Supplier GHG Self-Assessment Questionnaire represents a significant first step in designing a targeted and effective scope 3 reduction strategy with our key suppliers.

### - SPOTLIGHT: Green Commuting

Vena Energy promotes sustainable practices in all areas of our operations, including employee commuting. Cycling is a great way to improve overall physical and mental health, in addition to being an environmentally friendly alternative to motorised transport. We encourage employees to consider cycling as a viable transportation option and offer facilities such as bike storage and showers at select corporate offices to support this sustainable and healthy practice. A large number of our employees across the region, including our CEO and COO, cycle between 7 kilometres to 22 kilometres to and from the office on a daily basis.



Clockwise from top left: Our green commuting colleagues in Brisbane (Australia), our CEO and COO, and employees in Singapore with their bicycles.

<sup>17</sup> For example, greenhouse gas emissions estimated based on product-specific Life Cycle Assessments (LCAs)

### 2.4 ENVIRONMENTAL AND SOCIAL IMPACT MANAGEMENT

As a developer and operator of renewable energy assets, Vena Energy is conscious of the potential environmental and social impact of development activities, and we take our commitment to responsible and sustainable development as well as environmental protection and preservation very seriously. Environmental impact mainly pertains to clearing of vegetation (and consequential impact on ecosystems) and earthwork required to set up utility scale projects, which upon operation do not emit significant air pollutants or generate process wastewater. Social impact may occur in case of land acquisition, development works that impact cultural heritage, or health and safety concerns from our communities and workers during construction.

Vena Energy has a comprehensive ESG Policy that sets out the Group's commitment to develop and manage our projects in line with the applicable environmental and social regulations of individual project sites. This is supported by the Group Environmental and Social Management System (ESMS) that sets out a systematic, active and consistent approach to identifying and managing environmental and social risks and impacts for Vena Energy's projects, starting from project development to operations. The Group ESMS was prepared with reference to the **IFC Performance Standards (IFC PS)**.

In accordance with regulatory guidelines and our internal policies, we evaluate the potential impact to the natural environment (such as air, noise, soil, and water quality), and social impact of each project. For those renewable energy projects that are identified as relatively high risk or sensitive, including those that could lead to loss of important natural habitats or resources, or projects that could impact cultural heritage, an Environmental and Social Impact Assessment ("ESIA") is conducted by an Independent Environmental and Social Consultant. ESIAs are conducted with the aim of understanding our environmental and social impacts and allow Vena Energy to design effective mitigation measures to avoid or minimise project impact.

Vena Energy has a suite of environmental and social management plans that aims to ensure our projects are managed in line with our ESG policy consistently across our jurisdictions. As part of this approach, we continuously engage our community and stakeholders to build strong, constructive, and responsive relationships that are essential for the successful management and long term viability of Vena Energy's projects. For more information, please refer to <u>Section 3</u>. The suite of environmental and social management plans is supported by proactive initiatives, including environmental inspections and audits, and resource management inspections (please refer to <u>section 2.5</u>). Each country's performance in environmental management is monitored and reported quarterly as part of the overall HSSE performance evaluation.

In 2022, there were no fines or sanctions resulting from noncompliance of environmental regulations across Vena Energy's entire development, construction, and operational portfolio. Additionally, there were no regulatory air or water permit exceedances, and no spill incidents.



### SPOTLIGHT: Minimising Our Biodiversity Impact at Tailem Bend 2



Vena Energy actively avoids and mitigates impact on biodiversity in our project development, with our efforts supporting SDG 15 (Life on Land), including:

15.1 - Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.5 - Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.9 - Integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts



The Tailem Bend 2 Project supports generation from solar and battery storage and is located within the Coorong District of South Australia. This area is known for the association with the Murray-Darling basin including the Murray and Darling rivers, the Coorong, and a variety of wetlands for the Alexandrina and Albert lakes. The solar farm site is more than 200 hectares in size and is home to high voltage transmission lines as well as several species of native vegetation. The Murray-Darling basin is known to provide habitat for several threatened species, some of which have been known to reside within the Tailem Bend area, including species of swifts, egrets, bee-eaters, robins, and bluebonnets.

As part of project development, two large areas of native vegetation were identified during early investigations of the Project site. Ecological assessments undertaken confirmed two areas of eucalyptus woodland with associated tussock grasslands, which included the Mallee Box and White Cypress Pine covering approximately 30 hectares of land and approximately 60 individual scattered trees. In view of the high biodiversity value of the site, it was determined that the existing native vegetation within the Project site would be conserved and protected for the life of the solar farm.

Consequently, the solar farm was planned in a way that maintains the bulk of the native vegetation, around 28 hectares. Our ecologically considerate approach to layout design has resulted in the preservation of over 90% of the native vegetation within the solar farm site, inclusive of the existing vegetation corridor. Furthermore, to safeguard the native vegetation for the duration of the project, protective buffers were incorporated into the project site design.

During construction, which commenced in Q2 2022, measures to protect the native vegetation's existing footprint were implemented upfront during the site establishment. Asset protection zones for management purposes were implemented through a multitude of mitigation methods including implementing safe fencing barriers and signage, and communication to the crew. In addition, inspections were conducted to identify any fauna that may require relocation, ensuring the safety of any identified animals and minimising our impact to biodiversity. Throughout construction, a range of fauna, including small lizards, rabbits, snakes, birds (or nests), bees (and nests/hives), were relocated to the protected vegetation zones for their preservation. Where required, experts such as local beekeepers or wildlife inspector of the Coorong District Council were engaged on their expertise. Subsequently, the protected vegetation asset zones were routinely inspected to ensure that the zones were being respected and managed to assure conservation.

The Tailem Bend 2 Solar and Storage Project aggregates solar and battery generation, whilst operating as a single system. The solar farm will be able to meet the annual needs of 45,000 South Australian homes through the generation of renewable energy, whilst the battery has the potential to support the grid through ancillary services and manage the frequency within the grid.
## SPOTLIGHT: Conservation



Beyond avoiding and mitigating impact on biodiversity in our project development activities, Vena Energy also works closely with NGOs and communities on biodiversity conservation. Our efforts support SDG 15 (Life on Land), including:

15.2 - Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

15.5 - Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species

15.B – Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation



#### Japan Forest Management Programme

In 2021, Vena Energy established a forest management programme with 6 non-profit organisations focused on forest management and tree planting in Japan. These partnerships allow Vena Energy to support local efforts in protecting biodiversity and native species, as well as in improving the general conditions of forests across Japan. In 2022, Vena Energy contributed to the planting of more than 2,200 number of trees and maintained a section of 3ha forest land.

#### **Tree Planting in India**

In 2022, Vena Energy embarked on an initiative to plant tree saplings at project locations in India in recognition of World Environment Day. This country-wide effort was participated by staff across the various projects and corporate offices in India and more than 750 trees were planted.



Korea Tree Planting Programme in Gangwon Province

Since 2021, Vena Energy has been active in tree planning efforts in Kimsatgat-myeon, within Korea's Gangwon Province. Cherry, plum and castor oil trees have been planted to help improve the local biodiversity landscape and to date, as many as 800 trees have been planted.



Mangrove Tree Planting in Indonesia

In 2022, Vena Energy participated in mangrove tree planting activities in Indonesia to restore the natural mangrove habitats. Mangroves are home to unique species, serve as natural coastal barriers and contribute to the fight against global warming as carbon sequesters. Our efforts supported the replanting of more than 1,900 mangrove trees in Indonesia.

## 2.5 RESOURCE MANAGEMENT

## 2.5.1. WATER USE

Water consumption primarily occurs at our corporate and site offices. Our corporate offices are in commercial real estate buildings and water consumption is tracked by either utility meters or estimated by our local HSSE teams. Outside of office use, a moderate amount of water is used to clean soiling from our solar panels which improves electricity generation. In project locations where there are regular rainfall and low level of atmospheric dust (such as a number of our solar projects in Japan), our O&M team will allow rainfall to naturally clean the solar modules and not separately consume water for cleaning.

In 2022, Vena Energy consumed 59,139 m<sup>3</sup> of water from corporate and site offices and through the construction and O&M activities of our project sites, representing a 5.1% decrease in water consumption compared to the previous year. The decrease in water consumption compared to 2021 is mainly attributable to water conservation efforts in India, which alone resulted in approximately 8,000 m<sup>3</sup> less water consumed.

During project construction, Vena Energy applies appropriate drainage controls and ensures stormwater is not inappropriately diverted into neighbouring properties or allowed to cause erosion at discharge points. Any constructions in and around watercourses obtained necessary permits, and disturbance to waterways are minimised where possible.

## SPOTLIGHT: Robotic Cleaning Of Solar Panels in India

Today India has 18% percent of the world's population, but only 4% of its water resources, making it among the most water-stressed countries in the world according to the World Bank. India's water scarcity is due to a variety of factors including climate change, over-extraction of groundwater, and inadequate water management practices. Water scarcity is impacting many aspects of life in India, with 91 million people lacking access to safe water.

Whilst the solar industry uses significantly less water than traditional fossil fuels, manual cleaning of solar panels still requires water usage, especially in arid climates where dust and particles can accumulate and impact the operating efficiency of a solar module. Vena Energy is committed to reducing the use of water in India in the development, construction, and operation of our renewable energy projects. To reduce water usage, we have started adopting robotic cleaning systems across three solar PV projects. The robots are designed to use little to no water ("dry" robotic cleaning) while still effectively keeping the solar panels spotless. Since its adoption, we have been able to reduce water usage by **more than 60%** compared to manual cleaning methods.

In 2022, an estimated 8,917m<sup>3</sup> of water was saved on our operational solar assets in India primarily through the combined use of dry and wet robotic cleaning systems which was used to maintain more than 600,000 solar PV modules.



Dry robotic cleaning with microfiber cloth

## 2.5.2. WASTE MANAGEMENT

As a general practice, Vena Energy aims to minimise waste generation across all business activities. At project level, there is minimal waste generated during the operations of our renewable energy portfolio, which is mostly of non-hazardous nature. During construction, waste derives from equipment packaging and construction activities, such as used oils and discarded equipment parts. There can be additional organic waste (e.g. vegetation) deriving from land clearing activities. During operations, regular waste is of organic nature (e.g. grass cuttings), or from used oils and, occasionally, broken equipment.

Recoverable and recyclable materials are consigned to third party recyclers. Non-recycled non-hazardous waste is generally disposed of in local landfills through third party transporters. There are occasionally broken solar panels (especially during extreme weather conditions) on site, and these are disposed of in line with local regulations. Recoverable materials such as

## 2.5.3. CIRCULAR ECONOMY

Whilst the average life of our project portfolio remains relatively young, we are conscious of the finite life of our renewable energy projects and the importance of planning for the end-of-service life. We endeavour to integrate optimal efficiency and longevity in all stages of the project lifecycle and view decommissioning as a point of system regeneration rather than an end point.

Planning for future **asset life extension** is a key consideration and there are a number of potential advantages over developing new project sites. Established operating history and experience in a known location provide better insight into site conditions and improve predictability of generation patterns. Such empirical data could also inform equipment specifications that are better suited for a particular site. Furthermore, existing land and grid infrastructures provide significant advantages over new developments. Utilisation of existing project land and infrastructure to develop and build additional capacity, aluminium frames are recycled to the extent possible. Hazardous waste, such as used oils and electronic components, are disposed through third party waste treaters.

At our offices, we encourage the use of reusable items, discourage single-use plastics, and provide recycling receptacles where reuse is not possible. We also set up IT infrastructure to promote digital viewing and keep printing to a minimum.

In 2022, Vena Energy generated 3,731MT of non-hazardous waste and 11MT of hazardous waste across our corporate offices, site offices and project sites. There was an 80.2% decrease in non-hazardous waste compared to 2021, and this was due to reduced organic waste production from our construction activities across the region.

such as hybrid and storage systems, offer improved efficiency through multiple use cases for an individual project site. This kind of forward-looking approach creates tangible, long-term value for projects, while minimising impact to the environment. Alternatively, in cases where assets are decommissioned, the land would be rehabilitated to its original state or repurposed, adhering to local regulations and guidelines.

Vena Energy is working in partnership with our suppliers and solution providers to reuse, recycle and minimise the disposal of the dismantled equipment and material where possible. In 2022, Vena Energy entered into a memorandum of understanding with a local battery recycler in Singapore to explore buy back opportunities for batteries reaching their end-of-life. Where disposal is required, Vena Energy adheres to requirements by local environmental regulations and guidelines, especially for hazardous waste.

## SPOTLIGHT: Research & Development



In 2022, Vena Energy engaged the **Energy Studies Institute, National University of Singapore** to evaluate and compare whole life carbon of various energy sources and address circular economy considerations for solar PV, wind generation, and storage technologies. Part of the study will focus on estimating potential waste generated from solar PV and wind assets, analysing existing constraints and reviewing upcoming technologies and solutions needed to address circular economy concerns. The study will help Vena Energy develop a strategy for the end-of-service life of our assets.

"Renewable energy, especially solar PV and wind, plays a critical role in achieving a sustainable future and reducing the carbon footprint of human activities. The circular economy is not only about reducing waste and increasing recycling, it's about creating a new economic model that is restorative and regenerative."

Leow Foon Lee, Visiting Senior Research Fellow, ESI



## 03 Social

- 3.1 Our People
- 3.2 Occupational Health and Safety ("OHS")
- 3.3 Our Community

## 3. SOCIAL

## **3.1 OUR PEOPLE**

#### Our Approach

Vena Energy complies with fair employment practices and rules in all jurisdictions where we operate. Our Code of Conduct and Human Resources Policy prohibit any form of discrimination, including those based on gender, sexual orientation, race, religion, age, ethnicity, citizenship, marital status, and physical or mental disability.



#### Our Workforce

Our people are the driving force of our corporate mission to accelerate the energy transition in the Asia Pacific region. At the end of 2022, we have 827 employees across 9 jurisdictions, representing one of the world's largest and most diverse teams specialised in renewable energy activities. We uphold human rights principles, adhere to fair employment practices, and dedicate time in the development of our personnel in a collegial and supportive environment. We believe our unique corporate culture built upon diversity, trust and drive for excellence attracts top talents to our organization.

**In 2022, Vena Energy's total work force grew by 20% from 692 to 827**. The figure comprises full and part-time employees and excludes our contractor workforce. A net 135 people were added across the region, with overall employee turnover rate at 13.8%, which was a marginal improvement from 13.9% in 2021.

Jurisdiction	# of Employees	%
Australia	33	4.0%
India	93	11.2%
Indonesia	52	6.3%
Japan	345	41.7%
Philippines	119	14.4%
Singapore	56	6.8%
South Korea	36	4.4%
Taiwan	79	9.6%
Thailand	14	1.7%
Total	827	100%

#### Employment Growth by Region



### **3.1.1 DIVERSITY & INCLUSION**

In our commitment to fostering an inclusive and diverse culture at Vena Energy, we uphold diversity as a central pillar of our values. We maintain a strict policy against any form of bias or discrimination during our hiring process. The result is a highly diverse team, spanning 29 nationalities and including a broad mix of ethnicities, religions, ages, abilities, and languages. We are convinced that our diversity is a key competitive strength and a driving force behind our innovation, contributing significantly to our success over the past year.

#### Nationalities represented in Vena Energy



An inclusive workforce is necessary for a just transition and Vena Energy takes a proactive approach to integrate under-represented groups in our company. In the renewable energy industry, there is a consistent need for talent with technical or STEM (Science, Technology, Engineering and Mathematics) backgrounds. Numerous indices show that women are currently under-represented in these fields, particularly in the Asia-Pacific region. It is estimated that less than 25% of people in STEM fields are women, with only 15% in the engineering industry<sup>18</sup>.

To drive early action to address these challenges, Vena Energy has set an ambitious long-term vision of closing our existing gender gap by 2030. Following close consultation and engagement with our stakeholders, we have made diversity commitments and curated a number of initiatives to tackle the gender gap challenge. For example, in 2021, Vena Energy committed to improvement of gender diversity by including a diversity-linked KPI in our JPY52.8 billion Sustainabilitylinked Revolving Credit Facility. In 2022, Vena Energy initiated the first baseline analysis of the organisation's gender pay gap. Based

#### Employment by Age Group





on the outcome of this analysis, we have set our first gender pay ratio target and will work towards reducing the gender pay gap by a minimum 1% by staff category in 2023. The culmination of these various efforts has allowed us to achieve a **37% female gross hire percentage**<sup>19</sup> **in 2022**. This outcome was a 1% improvement from the previous year of 36%, however 3 percentage points short of the 40% target which we had set for ourselves.

In 2022, Vena Energy's overall female representation was 32%, representing a 2 percentage points increase over two years since 2020 and meeting the female representation target of 32% that we set at the beginning of 2022.

#### Vena Energy's diversity target for 2023

- 33% Ratio of female to male employees by end 2023
- 40% Ratio of females to male for all new hires
- Min 1% increase in gender pay ratio by staff category



I am delighted and grateful to be appointed the Head of Business India in 2022. As the first female country leader in India and across Vena Energy, this represents a milestone that was only possible with the firm commitment to gender equality by senior management and the strong support of my team. Achieving gender equality requires tangible measures and I look forward to inspiring and developing new female leaders in the company.

<sup>18</sup> World Economic Forum Global Gender Gap Report 2020, pg 37.

99

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<sup>19</sup> Percentage of females in total gross hires.

## SPOTLIGHT: Developing Future Leaders in the Renewable Energy -



Vena Energy is committed to equipping youth with relevant skills so that they can become future leaders in the renewable energy sector. Our long-term education initiatives and annual youth engagement initiatives support the UN SDG4, the following in particular:

4.3 - Ensure equal access for women to affordable and quality technical, vocational, and tertiary education, including university.

4.4 - Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship.

4.5 - By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training, including persons with disabilities, indigenous peoples, and children in vulnerable situations.

4.7 - By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development.

Our commitment to developing youths also support a healthy pipeline of young talents that Vena Energy can tap on for our future organisational growth.

#### Venus Scholarship



**Left:** Juan Mas Valor, Chief Operating Officer received a certificate of gratitude from Professor Ishizaka Kyoko, Head of the Faculty of Engineering's Gender Equality Committee

**Below:** Tan Ching Ying, an undergraduate at the Nanyang Technological University and one of the recipients of the inaugural VENUS Scholarship.

In April 2022, Vena Energy expanded our flagship Vena Energy Women's Undergraduate Sponsorship ("VENUS") programme to Japan and established a scholarship program with the Faculty of Engineering at The University of Tokyo. The VENUS programme is aimed at increasing female participation in Science, Technology, Engineering and Mathematics (STEM) roles within the renewable energy industry. The first Japanese awardees for this scholarship were chosen in August 2022.



One of the first VENUS scholarship awardees in Singapore completed a 6-month internship with Vena Energy in December 2022.

"I'm grateful to have had the opportunity to learn both life lessons and industry skills from my colleagues and internship mentor. I was given the opportunity to be exposed to a broad range of sustainability-related initiatives, such as responding to ESG rating questionnaires, and planning various ESG events where I led stakeholder engagement efforts. Through these activities, I bonded with my colleagues and understood more about strategies to advance the Sustainable Development Goals in our region and beyond. Thank you Vena Energy, investment team, and all my colleagues for supporting and training me throughout my internship!"



Japanese elementary and high school students visiting Vena Energy's projects.



©Global Compact Network, Singapore

## **3.1.2 TALENT DEVELOPMENT**

#### Solar and Wind School Program

In 2022, we continued our Solar and Wind School Programme in Japan, which remains one of our flagship commitments to support education about SDGs and Renewable Energy amongst elementary and junior high school students in Japan. Remote lessons for 146 students from 4 schools, as well as a site visit for 61 students from a junior high school were organized. To facilitate their learning through a more hands-on experience, students were given DIY kits for solar-powered music boxes and wind powered LED lamps and played VR games to learn more about solar and wind energy.

#### **CDL-GCNS Young SDG Leaders Competition**

Vena Energy was a project sponsor for the Young SDG Leaders Award 2022 jointly organized by the UN Global Company Network Singapore and City Development Limited. The Young SDG Leaders Award provides youth with a platform to champion sustainable development and integrate SDGs into business for positive change. The theme for 2022 was focused on SDG13: Climate Action and Vena Energy mentored a group of students from the National University of Singapore that eventually emerged as champions of the competition that saw the participation of 91 student teams registering.

Vena Energy is deeply committed to fostering and advancing talent. We have one of the most extensive and diverse teams in the renewable energy sector, with expertise spanning development, engineering, construction, operations, and asset management. Our deep-rooted knowledge of the Asia-Pacific markets is Vena Energy's most valuable asset, which we continually strive to nurture and expand.

Vena Energy has set targets and objectives underpinning our talent agenda:

- Be an employer that our people are proud of
- Empower employees to co-create their career pathways
- Help all employees maximise their potential
- Prioritise promoting from within over external hires
- Develop a progressively larger pool of talent across our functions and markets

#### Training and Knowledge Sharing

Vena Energy aims to be a learning organization and advocates continuous learning among our employees and invests in their development. We promote a culture of self-directed learning where our employees are motivated to continuously acquire new skills and broaden their scope of expertise. Approximately 1.2% of our payroll cost was dedicated to learning and development initiatives for our employees in 2022.

Vena Academy, the educational arm of Vena Energy, rolls out specially curated programs, talks, and online learning resources targeted to upskill employees and provide extensive learning opportunities. A key highlight of Vena Academy is a monthly learning event led by in-house functional experts to conduct internal training and knowledge sharing sessions. In 2022, Vena Energy recorded 4,947 learning hours through 22 Vena Academy sessions, a meaningful increase with 10 more sessions hosted compared to 2021.

Since its launch in Q2 2020, employees have continued to be given access to **LinkedIn Learning**, an online platform offering expertled courses in the areas of general business and technology. **In 2022, 73% of staff accessed content and viewed on average 7 hours of educational content**. The top 3 subjects of interest on the platform were centered around negotiation skills, habits of high performers, and managing stress.

In 2022, an average of 47 hours of training hours were recorded per employee, representing an 11-hour increase compared to 2021 and exceeding our 2022 target of 40-hour training per employee.

Knowledge sharing also transpires through daily interactions amongst team members and on-the-job training. Aside from job-specific training, emphasis is also placed on cross-functional training. Leveraging our geographical reach and our regional resource pool, we enable cross-border and inter-department transfers to support the growth and professional development of our employees. These opportunities include job rotations to learn new skills or markets, which are aligned with personal development goals and business needs.

Vena Energy's employee training target for 2023

Minimum 40-hour average training hour per employee p.a.

## SPOTLIGHT: 2022 Vena Academy Learning Week

Vena Energy commemorated the anniversary of Vena Academy by dedicating a week to learning in August 2022. The Learning Week had the overarching theme of "The Future of Renewable Energy" and "The Future of Work". Over the course of five days, Vena Energy employees participated in panel discussions, virtual site visits, and online seminars covering a range of topics, including the latest in renewable energy technology, personal wellbeing, and career sustainability. In addition to the learning sessions, the "birthday" of Vena Academy was celebrated through creative competitions and interactive games which were hosted virtually. **Learning week was attended by 501 employees with average participation of 4.8 hours per person.** Through Vena Academy, the company endeavours to cultivate a healthy organization where employees are encouraged to continuously learn, embrace new ideas and find inspiration.



## 3.1.3 EMPLOYEE ENGAGEMENT

#### **Employee Survey**

Vena Energy periodically conducts employee surveys to solicit feedback from our employee. Our most recent survey was conducted in 2021 achieved a strong participation rate of 85%, above the ideal participation rate for companies of a comparable workforce according to Mercer. The employees gave a favourability score of 75% on average ("Strongly Agree" and "Agree" responses) across areas of Leadership, Work Culture, Learning and Development, and Brand Advocacy. In addition, 86% of employees surveyed indicated that they would "go beyond the objective of my current job" to help Vena Energy.

#### **Employee Wellness**

Since the outbreak of the COVID-19 pandemic, Vena Energy took serious steps to monitor and provide support toward our employees' mental wellbeing. Employees were surveyed to assess the potential impact on mental health of the COVID-19 pandemic and work-from-home arrangements. In 2022, Vena Energy continued to support the wellbeing of our employees through a number of wellness initiatives, including the launch of a mobile app which provide users with a wide range of resources to support general wellbeing in partnership with our Employee Assistance Program provider.

## SPOTLIGHT: #WalkingTogether

Our employee wellness initiatives are often dovetailed together with our sustainability initiatives, which provides our employees with opportunities to do good and feel good. In October 2022, Vena Energy organised a group wellness event #WalkingTogether in recognition of "International Day of Climate Action" to encourage physical activity and raise funds to support marine conservation. Vena Energy pledged a US\$10,000 donation to the Marine Stewardship Council if the challenge goal of reaching 3 million steps collectively by our employees across Asia was met in a single day.



#WalkingTogether

#### 8,283,638 STEPS 9 JURISDICTIONS FOR MARINE CONSERVATION



On 21 October, our team across the Asia Pacific region turned out in full force and recorded more than 8.2 million steps, exceeding our challenge goal by more than two times. Based on the remarkable number of steps recorded and the enthusiastic turn out on that day, Vena Energy matched the original pledge by a further 1.5x and donated a total of US\$27,200 to the Marine Stewardship Council. This allowed Vena Energy to contribute to the following SDGs.



13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

14.2 – The sustainable management and protection of marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and taking action for their restoration in order to achieve healthy and productive oceans

#### What is the Marine Stewardship Counsel?

The Marine Stewardship Council (MSC) is a non-profit organization which aims to set standards for sustainable fishing. Vena Energy's donation raised through the #WalkingTogether initiative was contributed to the organisation's East Asia Sea Pathways Project, a 2-year project dedicated to gaining a better understanding of the sustainability of fisheries in the East Asia Sea that are operated by Japan, China and South Korea in a bid to prepare them to enter improvement projects and then access the MSC program. To read more about MSC's and their activities to support global sustainable fishing, visit their website at www.msc.org.



## **3.1.4 PERFORMANCE EVALUATION & DEVELOPMENT**

At Vena Energy, we believe success as an organization is achieved if core values are shared and goals are aligned amongst our constituents. To achieve organisational goals, Vena Energy emphasises the development of six core values coined the "6Es" and all employees are assessed along these dimensions.



These core values are embedded in our Core Competency Framework, a guide which helps employees identify the critical skills necessary for their respective roles. To help them succeed, individuals are encouraged to discuss their skill gaps and development goals with their managers during the annual performance evaluation process. During this process, performance goals are set among employees and their direct managers in the first quarter of each year. Employees have the opportunity to discuss and agree on the goals for both professional performance and personal development for the year. Performance goals are set in 4 key areas of Operations, Organization, Value Creation and Safety and Compliance and this encourages employees to think beyond their immediate realm of expertise in contributing towards the broader business strategy and objectives. The progress of each employee is reviewed regularly, and a final review is conducted at the end of the year. Employees that have achieved their goals and positively contributed to the organization are recognised through career progression, development opportunities and remuneration awards.

In 2022, 100% of Vena Energy's full time and part time staff completed a performance review.

## SPOTLIGHT: Lead Programme, Developing Future Leaders



In 2022, Vena Energy introduced the **Leadership Excellence** and Development (LEAD) Program, a series of discussions designed to equip employees with the necessary skills to make an impact in their new managerial roles, as well as to support existing managers in leading their team in today's VUCA world. The theme of the LEAD program is to Manage Self | Manage Team | Manage Business. The program was designed to understand individual leadership styles, improve team management skills and guide participants to grow into effective leaders. 25 employees participated in the monthlong program and recorded 48 training hours per participant. Participants provided positive feedback on the program noting the effectiveness of the interactive discussions and idea exchange.

## **3.1.5 EMPLOYEE RETENTION**

Employees are a key stakeholder group that are actively engaged, and Vena Energy is committed to their satisfaction and longterm retention. Long service milestones are recognised through the Vena Voyage program. **In 2022, 56 employees who achieved 5 years of service and 4 employees who achieved 10 years of service were recognised under the Vena Voyage program**. As of year-end 2022, 22% of Vena Energy employees have served with Vena Energy for a minimum of 5 years.

In 2021, Vena Energy launched an initiative called Vena Stars, a platform to encourage and empower employees and leaders to recognise individuals or teams for exemplary behaviour or breakthrough performance that led the company to build sustainable business growth. Three types of awards were introduced as part of the program: the One Vena Award, an annual award to recognise team engagement and celebrate work that exemplifies Vena Energy's core values; the Leadership Award; and Spot Awards (or on-the-spot recognition). In 2022 a new award category, the "Integrity Award", was introduced to recognise and promote acts of ethics and integrity that go beyond what is normally expected of the role of the employee. In 2022, a total of 1,474 awards were presented to employees across the organisation.

## **3.1.6 BENEFITS**

Our employees are provided with a comprehensive range of benefits. Full time employees are provided with benefits including paid vacation leave, birthday leave, life insurance, health care insurance, disability and invalidity coverage, and parental leave. Part-time employees are eligible for similar benefit programs. Vena Energy adheres to pension or social security obligations of the jurisdictions in which we operate.

Eligible female employees are entitled to paid maternity leave, while fathers are entitled to paternity leave in line with local labour laws. In 2022, we had a 90% return to work rate of employees who took parental (maternity or paternity) leave during the year.

In 2021, Vena Energy launched the Volunteer Service leave program, where all employees were given 2 additional leave days which can be dedicated to volunteering, in order to encourage volunteerism across the organisation. In 2022, 50% of Vena Energy staff utilised at least 1 of the volunteer service days to contribute to their community.



## SPOTLIGHT: VEvolution



In 2022 Vena Energy introduced a new employee benefits program titled **VEvolution**, a program curated to provide employees flexibility around lifestyle needs and help cope with cost-of-living pressures. The program focuses on 3 key pillars – flexibility, care and mindfulness to support the general wellness of employees.



Under "flexibility", employees are awarded a monthly stipend to spend on items according to their lifestyle needs such as public transportation, groceries or personal development. Under the "care" pillar, a new Flexi-Family leave was introduced where employees are entitled to take leave for marriage (themselves or immediate family), and to care for ailing family members including partners and pets. Under "mindfulness", employees have access to a mobile app for pre-recorded audio/ video and wellbeing resources for self-care, therapy as well as support sessions led by licensed professionals and 1-to-1 counselling or coaching.

Additionally, to help employees cope with cost-of-living pressures, one-off assistance was extended to all employees in October 2022. Vouchers and gift cards were provided to support purchase of groceries and necessities or subsidise expenses in utilities and public transportation.

## 3.2 OCCUPATIONAL HEALTH AND SAFETY ("OHS")

#### Our Approach

Vena Energy takes its commitment to health and safety seriously. Our HSSE's vision and related objectives are formalised through our Health & Safety (H&S) policy. The H&S policy guides internal decision making to achieve the highest degree of physical, mental, and social well-being of our workforce including our employees and contracted workers, all of whom are an integral part of Vena Energy. The H&S policy and governing standards adhere to relevant local laws and industry standards and are reviewed at least annually. Any changes are communicated to all employees on a timely basis. In addition to the H&S policy, we maintain an H&S management system aligned with the relevant international and ISO 14001/ISO 45001 standards.

#### **OUR HSSE COMMITMENT**

Our commitment is to achieve sustainable development and leadership in the renewable energy industry by prioritizing safety and protection through HSSE initiatives that ensure zero harm in all operations.

#### **OUR HSSE MISSION**

Focus on HSSE leadership, continuous improvement, compliance with legal requirements and best practices, HSSE systems and training and collaboration within and beyond.

Our health and safety mission has 4 clear objectives:

- 1) **CONTINOUS IMPROVEMENT**: Compliance with processes and procedures through systematic management reviews, audits, and measurable objectives. Personnel engagement is ensured through incident investigations, consultation, participation, and health and safety risk awareness.
- 2) **COMPLIANCE WITH LEGAL REQUIREMENTS & BEST PRACTICES**: Identifying and managing risks, fostering a "Stop Work Authority" culture that empowers personnel to halt unsafe activities until alternative strategies are in place.
- 3) HSSE SYSTEMS & TRAINING: Providing comprehensive information, safe work procedures, instructions, and training for personnel to meet performance objectives safely.
- 4) **COLLABORATION WITHIN AND BEYOND**: Ensuring contractors and stakeholders activities align with HSSE policies, standards, and procedures.

## **3.2.1 SAFETY INITIATIVES**

Vena Energy's culture places the health and safety of our employees as a top priority and embraces a Zero Harm Vision, with zero tolerance towards health and safety related incidents. Employees are encouraged to identify areas for safety improvement. A mainstay safety initiative undertaken by the HSSE team is the reporting of unsafe acts and unsafe conditions especially those resulting in near misses. Employees and contractors are empowered to stop work in case of a dangerous situation and encouraged to immediately report any unsafe acts or conditions and enact changes where needed. The active encouragement of reporting of unsafe acts and conditions, which are key leading indicators, has been known to effectively reduce and provide the necessary information to proactively control hazards that may lead to larger incidents and accidents. In 2022, Vena Energy introduced a new software that enables employees and contractors to report H&S issues. A total of 3,919 unsafe acts and unsafe conditions were reported and corrected in 2022.

Employees who demonstrate excellence in safety standards and are proactive in improving existing H&S standards are recognized through a dedicated safety reward program. In 2022, 106 employees were recognized through the safety reward program.



#### H&S Training & Education

Vena Energy invests in H&S training for all our staff, irrespective of functions, to ensure that every staff is aware of the potential H&S issues and their responsibilities in maintaining our safety culture. All new staff is trained on H&S as part of the induction process, and regular refresher courses are conducted for existing employees. Operational staff receive additional online support through 3rd party platforms. For critical safety roles, relevant members are required to have appropriate qualifications and continuous training in line with internal standards and local regulatory requirements. Outside of formal training, informal safety discussions or "tool-box talks" are regularly held. In addition, we internally develop and periodically update training materials on our H&S management system, applications, and software as needed.



In 2022, Vena Energy maintained its training record with 100% of employees receiving H&S training for its 3<sup>rd</sup> consecutive year. More than 50,000 hours were spent on both internal and external training, including regulatory training and mock safety drills. More than 100,000 hours were spent on informal discussions such as tool-box talks and H&S related meetings. The total number of training hours for both formal and informal training in 2022 was 163,660, which equates to 2.0% of the total manhours worked in 2022. This was a slight increase from 1.9% recorded in 2021.

## SPOTLIGHT: 2022 Regional Safety Initiatives-



Our commitment to ensuring a healthy and safe working environment for our employees and contractors allows us to contribute to SDG 8 - Decent Work and Economic Growth, including:

8.8 - Protecting labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

Education, awareness and training are implemented to ensure that our staff remains aware of H&S issues. Regulatory measures are also implemented to enforce workplace HSSE standards. In 2022, Vena Energy organized safety training and recognition days throughout the year to reinforce the importance of maintaining stringent H&S practices and standards.

#### World Day for Safety and Health at Work 2022

The HSSE teams across Vena Energy came together to recognise the World Day for Safety and Health at Work on 28 April 2022. The teams, both staff and contractors, conducted a series of site walks and safety training emphasizing the importance of shared responsibility in ensuring that our people and communities enjoy a safe working environment.



In Japan, Vena Energy and local contractors inspected the work environment to identify potential safety hazards and risks. They reviewed machinery, equipment, tools, and processes, and suggested corrective action. Safety manuals and information guides were provided to all employees and contractors to promote safety and health.



In India, the HSSE team organized a fire and driving safety week, which included activities such as fire drills, and safety quizzes. The drills ensured emergency preparedness, and recommendations were made for corrective actions. The event helped promote safety culture and awareness across project sites.





In Indonesia, the HSSE team undertook inspections at project sites and created training videos on conducting safety inspections. The videos ensure that employees and contractors are properly trained and can readily access the information. Users can access the videos at any time to refresh their knowledge on safety procedures and protocols. India



#### **National Safety Week**

India's National Safety Week is conducted annually in an effort to reinforce the importance of personal responsibility in maintaining health and safety standards. In March 2022, 2,563 workmen and employees together with more than 500 local community members participated in Safety Awareness Campaigns and Safety Trainings. Throughout the week's events, asset managers and HSSE officers conducted safety trainings and mock drills. They also engaged in lighter activities, such as writing slogans and participating in a cricket tournament.



#### **National Fire Service Day**

In April 2022, Vena Energy India participated in National Fire Safety Day. Approximately 70 Vena employees and contractors participated in firefighting safety and fire suppression training conducted by local fire department officials. The program also covered life-saving drills such as lifting of casualty and building evacuation techniques. The trainings were geared towards increasing awareness among employees and protecting project sites during fire emergencies.

#### Taiwan



#### **Emergency Aid Training**

In 2022, 31 employees based in Taiwan participated in the training on AED and CPR, which are lifesaving techniques that can increase the chances of survival when performed immediately following an emergency. These trainings are conducted twice a year to ensure that staff skills remain relevant.

#### **Traffic Improvements**

In June 2022, Vena Energy with the local County Government, where Vena Energy's 272 MW E2 Solar project is located, agreed to improve the traffic conditions in the intersection of public roads and installed mirrors and yellow crosshatching to prevent vehicular accidents.

## **3.2.2 RISK MANAGEMENT**

Vena Energy conducts detailed H&S risk analysis of all activities executed throughout the lifecycle of our projects. This analysis is used to identify H&S risks and the most effective processes to manage them. Training is provided to relevant employees on the risk management processes.

Our risk management measures also impose a permit to work system to plan and control for potentially hazardous work on site such as hot works, entry into confined spaces, working at height, electrical works, excavation and trenching, and where a task involves the isolation and lockout of hazardous energy sources. Construction supervisors or senior personnel are required to apply for a permit before commencing any hazardous work. A permit issuer shall then walk the job and verify all controls are in place prior to issuance of the permit.

Vena Energy has prescribed Event Reporting and Investigation procedures accessible to all employees through the company intranet facilities. The procedure defines roles and methods employed to guarantee prompt communication of incidents and execution of impact assessments. Processes to initiate root cause analysis, corrective action planning, and on-going monitoring are also prescribed. In the event of an incident, immediate action is taken to reduce further risk of injury and preventative measures are taken to avoid comparable cases in the future. In the event of any major incidents, lessons learned are documented and shared across the organisation to prevent re-occurrence of such incident.

## In 2022, Vena Energy implemented a software-based reporting system which is made accessible to all employees and contractors to ensure timely reporting going forward.

#### **Crisis Management & Business Continuity Planning**

Vena Energy has a robust management framework covering crisis management, emergency response, and business continuity planning. Highly disruptive risks and threats are identified in the framework including terrorism, natural disasters, failure of communication networks and loss of key personnel. Crisis communication procedures are also embedded within the framework to facilitate a timely response to any disruption. A Business Continuity Plan (BCP) Development Guidance Note and Business Continuity Management Standard document are regularly referenced to ensure that relevant, effective, and consistent BCPs are developed and implemented across our offices and project sites.

As the world transitions from restrictions imposed due to COVID-19, Vena Energy has gradually eased internal restrictions in line with the local country guidelines ensuring the safety and well-being of our employees and contractors. We have implemented a risk-based method which includes continuation of strict personal hygiene practices and use of protective gear such as face masks when necessary. Health screening continues to be practiced at operational and construction project sites.

#### **Supervision & Inspection**

Vena Energy's organisational structure provides a tiered approach to management and supervision which supports efficient communication and decision-making throughout the organisation. Each functional level of leadership is authorised to make decisions in accordance with risk thresholds and approval authorities. Specific H&S roles and responsibilities are outlined throughout all our plans and procedures.

Our sphere of control extends to both full-time employees and contractors to ensure H&S guidelines and procedures are applied to all activities. Contractors are obliged to submit weekly and monthly reports to Vena Energy management and to measure H&S performance together with event statistics.

Inspections and audits are regularly undertaken to monitor the H&S performance of site work activities. The minimum requirements for site inspection are once a month for operational asset and once a week for construction projects. These site inspections ensure that any H&S non-compliances and/or nonconformities are properly identified and addressed to improve H&S practices on site. In 2022, Vena Energy increased its focus on internal site inspections through proactive reporting undertaken by employees coupled with a software inspection tool. This resulted in an increase of 11% in inspections over the previous year, equivalent to a total of 4,874 site inspections, safety walks, and audits.

## **3.2.3 OUR OHS PERFORMANCE**

### Safety Performance for FY2022

	2019	2020	2021	2022
Hours Worked	4,214,864	4,918,303	7,356,897	8,040,731
No. of First Aid Cases	23	25	32	36
First Aid Cases Rate	1.09	1.02	0.87	0.90
No. of Recordable Cases	7	7	12	12
Recordable Rate	0.33	0.28	0.33	0.30
No. of Lost Time Cases	1	3	6	6
Lost Time Injury Rate	0.05	0.12	0.16	0.15

**In 2022, Vena Energy recorded 1 fatality to a contractor due to heat stroke.** Following the incident, a thorough investigation was carried out and additional measures were taken to ensure that such accidents are prevented. This includes a systematic review of work schedules during periods of high temperatures, implementation of a weather monitoring system, and extensive supplementary training and education for all workers on the symptoms of heat exhaustion, heat stroke, and preventive measures that can be taken.

The rate of recordable cases of work-related injuries and illnesses (beyond first aid) was 0.30 per 100 equivalent fulltime workers, and the lost time injury rate was 0.15 for Vena Energy Employees and contractors. There was a decrease in overall recordable injury rates and lost time injury rates in 2022 compared to 2021. The overall rates remain below the industry average<sup>20</sup>.



<sup>20</sup> US Bureau of Labor Statistics, nonfatal injuries and illnesses table for utilities

## **3.3 OUR COMMUNITY**

#### Our Approach

Vena Energy aims to deliver lasting economic, social, and environmental benefits to our host communities. As Vena Energy expands into more regions, we regularly and proactively engage our local stakeholders to better understand how we can meaningfully contribute to their sustainable development beyond the provision of affordable clean energy. We support local employment by creating job opportunities through our construction and operating activities. We advocate local procurement and work with domestic suppliers where possible to support host economies. On Corporate Social Responsibility ("CSR"), we commit to causes aligned with our company's values and support a range of educational, health, environmental and social initiatives, and local infrastructure development. We aim to operate our business in a socially sustainable manner and employ clear and transparent standards of corporate governance in the selection, execution, and management of CSR programmes.

#### The below illustrates our approach to community engagement:



## **3.3.1 EMPOWERING COMMUNITIES**

We support local economies through the creation of jobs at our regional construction sites. In 2022, a total of 5,628 jobs were created across our construction projects in Japan, Taiwan, Australia, India, and the Philippines.



<sup>21</sup> Peak number refers to the highest number of on-site workers recorded on site across sites in a country in 2022. In instances where there were preliminary construction activities with minimal workers on-site, we have not included it in the final tally.

## SPOTLIGHT: Safeguarding Aboriginal Cultural Heritage



Vena Energy has a paramount duty to act in the best interests of its stakeholders. We actively avoid and mitigate potential impact on cultural heritage in our project development, with our efforts supporting SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable), including:

11.4 - Strengthening efforts to protect and safeguard the world's cultural and natural heritage

#### Wandoan South

In 2022, the Wandoan South Project has achieved several milestones, including the operation of the Battery Energy Storage System (Wandoan South BESS) in August 2022 and the commencement of construction for the first stage of solar (Wandoan South Solar 1). However, these achievements would not have been possible without the extensive support of the Iman People #4, who have participated as key stakeholders of the Wandoan South Project since 2016.

During the project development of the Wandoan South Solar 1, a series of cultural heritage surveys were undertaken across the solar farm site. In collaboration with a host of Iman People #4 representatives, a process of identification, mitigation, and first disturbance investigations were completed over the 2021-2022 period. The surveys represented the largest cultural heritage investigation across the site to date and offered opportunities for elders to share their insights on the rich cultural history and archaeological landscape of the 'Country' of the Iman People #4 with the youth.

To enhance cultural heritage awareness, Vena Energy Australia established training initiatives to educate the construction workforce, project partners and the Vena Energy team involved in the construction of Wandoan South BESS and Wandoan South Solar 1 on the importance of the 'Country' to the Iman People. In addition, during construction of the Wandoan South Solar 1, Vena Energy employed an Iman representative as a dedicated Caring for Country Officer, to educate and raise awareness onsite on the cultural heritage history and presence of artifacts within the area. The Caring for Country Officer also provided advice regarding the protection and conservation of cultural heritage, assessed the cultural value of artifacts and prioritised their importance accordingly. The role simultaneously provided an opportunity for the Iman representative to gain experience within the construction industry, which would help open doors to new potential career opportunities.



Walter Jackson, Site Manager (Construction/O&M) with the 2022 Caring for Country and Culture Award.

"I am deeply honoured to have received the 2022 Caring for Country and Culture Award from the National Aborigines and Islanders Day Observance Committee (NAIDOC). I was extremely lucky to have won three significant grants that would help in the operations and education of the Working on Country crew, and the NAIDOC committee recognised the 15 years of electrical work that I have performed in my community and Murray Lands region. To win this award while at my dream job at Vena Energy is the highlight of my entire career, and as a member of the Ngarrindjeri people I will continue to bridge the relationship between Vena Energy and the Traditional Owners, and to facilitate education and training opportunities for others to contribute to the sustainability of our environment and way of life."

#### Tailem Bend

Vena Energy's expansion into Tailem Bend, South Australia, has continued to grow throughout 2022 with the construction of the solar farm, as part of the Tailem Bend 2 Solar and Storage Project. In line with our approach to contribute to the economic and social development of the regions that we participate in, our contractors consistently optimised local employment catchment. During the peak of construction in 2022, approximately 50% of the workforce were hired from within the Tailem Bend, Murray Bridge and surrounding areas, and 35% from within South Australia. The diversity across the construction workforce was evident with approximately 10% of the construction team identifying as being of Aboriginal descent and 14% of the construction team identifying as female.

To further enhance our economic and social development to the region, a construction ready training program was conducted jointly with our Project EPC partner, UGL, and TAFE SA as part of the project's corporate social responsibility initiative. The training programme aimed to help the local Aboriginal community, including the Raukkan Aboriginal Community, to become 'construction ready', enabling them to leverage on future employment opportunities within the construction industry across South Australia. Specifically, the training programme provided participants with certified training that would enhance their qualifications in skills required in the construction industry. There was a total of 12 participants and 8 participants achieved the full suite of certifications provided, including trainings on white card, first aid, low voltage CPR, and telehandler. Since then, a significant number of participants have since acquired employment within the construction industry; either through UGL as part of the Tailem Bend 2 Solar and Storage Project or through other local avenues such as the local aboriginal workforce hire company.

## 3.3.2 CORPORATE SOCIAL RESPONSIBILITY (CSR)

Our CSR initiatives are created in collaboration with our local stakeholders and focus on the following areas to drive sustainable development:

- Healthcare: Provide access to basic and preventive healthcare for the communities located near Vena Energy's project sites through tailored healthcare and healthcare-related services.
- Environment and Society: Promote public knowledge and enhance understanding of global environment, climate, and social issues through cooperation and collaboration with external organizations and public authorities.
- Education: Support local education through provision of scholarships, internships, and other education-related support, such as donating of school supplies and IT equipment to schools.
- Infrastructure: Improve access to basic sanitation facilities, potable water, road infrastructure near project sites, and provide support for the repair of local schools, hospitals, and community buildings.

In 2022, Vena Energy devoted over US\$1.67 million to corporate and social responsibility (CSR) activities, and our employees contributed 4,940 volunteer hours to more than 190 CSR initiatives, representing a significant increase in activities over the previous year. These activities have also reached more than 233,000 beneficiaries from all nine operating jurisdictions across Asia-Pacific.



#### Healthcare



In **South Korea**, Gangwon Province is one of the coldest places during the winter season with average temperatures ranging from 5.4°C to -3.8°C throughout the day. During the festive season, Vena Energy partnered with the Gangwon provincial branch of the Korean Red Cross to donate high-density bedding and pillows to approximately 35 households in Gimsatgat-myeon, the resident community next to Vena Energy's 53 MW Yeongwol Wind Project. Accompanied by the village leaders and Red Cross volunteers, our team went doorto-door to deliver winter necessities and spend time with villagers.

In **India**, the villages neighbouring our 26 MW JMD wind project lack access to healthcare facilities, making it particularly

difficult for disabled community members to get the regular medical assistance they require. To assist those with disabilities, Vena Energy partnered with The Impact Guru Foundation to distribute wheelchairs, walkers, and walking sticks to communities in Dewas district.

#### **Environment & Society**



In **Taiwan**, our team organized a coastal clean-up activity that included employees and their families, and community members at the 272MW E2 Solar Project. Collectively more than 200 kilograms of waste was collected which included discarded fishing nets, and other types of waste that would have otherwise caused harm to the local marine life.

In the **Philippines**, Vena Energy in partnership with the Mead Foundation established a marine conservation initiative designed to protect and restore the local marine environment as well as provide engagement, education, and livelihood opportunities. In 2022, Vena Energy participated in a Pawikan (Filipino term for sea turtles) hatchery conservation initiative in the province of Currimao, llocos Norte, which is known to be a Pawikan nesting area. A hatchery of 8x4 meters for approximately 2,500 Pawikan eggs was built and an intensive education program for the community on the need to conserve Pawikan eggs were part of the initiative. Vena Energy funded the training of local rangers and purchase of poached eggs from the market to be returned to the hatchery where they will be left to hatch and return to sea. In the long run, the project aims to achieve the highest possible hatching rate by using globally recognised conservation practices.

In **Japan**, our team utilized their volunteer service leave to participate in various environmental conservation activities organized by partner NGOs during the local environment month. Employees from our local offices in Aomori prefecture joined a tree planting event in Shirakami-Sanchi, a designated UNESCO World Heritage site, and employees from our Tokyo office joined another tree planting and forest maintenance event in Sagami Forest, which maintains one of the main water basins in the Kanagawa and Tokyo area.

#### Education



In the **Philippines**, Vena Energy and the Provincial Government of Ilocos Norte, co-sponsored five students from the Sarrat National High School to compete at the World International Mathematical Olympiad, hosted in Bangkok, Thailand. The team won two bronze medals and three merit awards for their achievements during the Olympiad.

In **Singapore**, Vena Energy acted as a key sponsor at the 2022 CrackerJack Convention, a four-day event designed for youths aged 14-18 which aimed to help participants hone the skills needed to navigate complex and unpredictable situations in today's high-tech society. The event was attended by more than 100 students from India, Indonesia, and Singapore. Vena Energy supported the event through the donation of laptops which were used during the convention.

Lastly in **Thailand**, our team visited the Makut Kirtiwan School for the Blind in Khao Yai, Nakhon Ratchasima Province to celebrate the festive season with students and to donate a printer and other daily essentials to the school.

#### Infrastructure

In **Japan**, the local meteorological agency estimates that there are approximately 2,000 earthquakes in various intensities that occur in Japan each year. In March 2022, a 7.4 magnitude earthquake struck Fukushima Prefecture tragically causing loss of lives and critical infrastructure damage. To support local evacuation centres in Japan, our team donated portable battery sets which included a PV solar panel, battery, and torch to host communities. 24 battery sets have been distributed to over 11 communities since the program began in 2021.

The Municipality of Currimao in Ilocos Norte, **Philippines** has two small hospitals which are not easily accessible to the sick, disabled, and elderly in need of life-saving



medical services. The Vena Energy team in the Philippines partnered with the Municipality of Currimao to co-finance the construction of the satellite Rural Health Unit - Hemodialysis Center in Poblacion, Currimao. The dialysis centre is expected to commence construction in 2023.

In South Jeolla Province, **South Korea**, Vena Energy collaborated with resident members of Gokseong-gun to design its first resident-participation scheme for the 50 MW Gokseong Wind project. A village co-op involving residents from 11 local villages named "Gokseong Hope Wind" was established with the intention of allowing residents to directly invest and benefit from the successful development of the project. The benefit-sharing scheme provides a win-win solution for all project stakeholders by promoting both local economic revitalization and clean energy development.



## 04 Governance

- 4.1 Board of Directors
- 4.2 Corporate Governance
- 4.3 Governance Policies

## 4. GOVERNANCE

## 4.1 BOARD OF DIRECTORS

Our Board of Directors (the "**Board**") has extensive experience in sustainable infrastructure and brings competencies and expertise in investment, asset management and operational excellence. The Board represents the interests of Vena Energy's stakeholders with a primary focus on creating sustainable value. As of 31 December 2022, the board is composed of 5 members, including our CEO. **Four nationalities** are represented within the Board.

**In 2022, the Board met 4 times with full participation** from all directors. At the meetings, the Board addressed issues relating to market strategy, governance and general sustainability practices whilst providing strategic direction and guidance to executive management.



Mr Rajaram Rao (Board Chairman)

Raj Rao is a Partner, President and Chief Operating Officer of Global Infrastructure Partners (GIP), Vena Energy's largest shareholder. Mr. Rao previously led GIP's global energy sector industry investment teams including natural gas, crude oil and refined products, electricity, renewables, and LNG. He is based in New York.

Prior to GIP, Mr. Rao spent seven years at Credit Suisse and most recently served as a Director in the Mergers and Acquisitions Group of the Investment Banking Division of Credit Suisse. Prior to that Mr. Rao also worked at Barclays Capital in London and Kotak Securities in Mumbai.

Mr. Rao is a qualified Electronics and Telecommunications engineer and holds an M.B.A. from Delhi University and a Master's in Finance degree from the London Business School.



Mr Deepak Agrawal

Deepak Agrawal is a Partner of GIP, Vena Energy's largest shareholder. Mr. Agrawal focuses on the energy and electricity and renewables sectors in Europe. He is based in London.

Prior to GIP, Mr. Agrawal served as a senior Financial Advisor in the Project Finance Group of Qatar Petroleum where he was involved in developing and financing several energy projects (over \$40 billion). Prior to joining Qatar Petroleum in 2002, Mr. Agrawal was a Vice President at PSEG India Private Limited, responsible for financing and business development in the Middle East and India.

Mr. Agrawal holds a B.Eng from the Delhi College of Engineering and an M.B.A. from the Faculty of Management Studies of Delhi University.



Mr Nitin Apte

Nitin Apte joined Vena Energy as Chief Executive Officer in January 2018. Prior to joining Vena Energy, he was President and CEO of Materia. He has also worked for over 25 years at SABIC and General Electric across a number of senior management roles.

Mr Apte holds a Master of Science and MBA from Ohio State University and a Bachelor's Degree in Aeronautical Engineering from Indian Institute of Technology, Mumbai.



Mr Sandiren Curthan

Sandiren Curthan is a Managing Director and Head of Asia-Pacific, Infrastructure Investments at the Public Sector Pension Investment Board (PSP Investments), one of Canada's largest pension investment managers. He has significant experience in leading origination, execution, and asset management of minority/majority equity investments across infrastructure sectors in developed and emerging markets.

Since 2017, he has developed, led and implemented PSP Investments' infrastructure strategy in Asia-Pacific and he currently sits on the boards of Spark Infrastructure, AirTrunk and Vena Energy.

Prior to PSP, Sandiren worked in investment banking and infrastructure advisory at BNP Paribas, PwC and Bank of Montreal in Europe and Canada.



Mr Mi Tao

Mi Tao is a Managing Director at CIC Capital, a Chinese sovereign wealth fund. He is responsible for developing CIC's infrastructure strategy and establishing and managing the portfolio. Prior to joining CIC, Mr Mi has worked at Ernst & Young, SC Capital Partners and KPMG.

Mr Mi is a CFA Charter holder and licensed CPA. He holds an MBA in Finance from the University of California, Irvine.

## **4.2 CORPORATE GOVERNANCE**

## 4.2.1 Board Committees

Our corporate governance structure is overseen by four Board appointed committees, established to ensure robust, independent, and effective oversight of our business:





#### **Group Grievance Mechanism**

Launched corporate level feedback channel managed by an independent third party where concerns can be raised anonymously by all stakeholders.

#### Introduction of Group Integrity Awards

Introduced an employee award framework which recognises individuals who promote ethics and integrity in unique or extensive ways that go beyond what is normally expected.

## **4.3 GOVERNANCE POLICIES**

## 4.3.1 CODE OF CONDUCT

Vena Energy is committed to conducting business with the highest standards of integrity. Vena Energy's Code of Conduct outlines our philosophy as it relates to our core values. The Code is designed to help our employees and third parties understand and incorporate our ethical and professional principles and values into their day-to-day practices and places an obligation on all Vena Energy Personnel to take responsibility for their own conduct.

Vena Energy's Code of Conduct was rewritten in 2021 and identifies the following five value themes and their corresponding internal policies:



By upholding the values articulated in the Code of Conduct, Vena Energy aspires to go beyond conducting business in accordance with applicable laws and regulations and to demonstrate an exemplary model of integrity, business ethics and transparency. All employees are required to acknowledge they have reviewed the key policy documents on an annual basis.

## 4.3.2 ANTI-CORRUPTION

Vena Energy's Anti-Corruption Policy prohibits all forms of bribery and corruption and provides a framework for the identification and mitigation of risks relating to corruption. The policy requires due diligence of potential high risk business partners and intermediaries, incorporation of our values and standards into the activities of these third parties, and regular education and training for all staff. The policy prohibits political contributions on behalf of Vena Energy in all our jurisdictions. Our Anti-Corruption Policy and practices are benchmarked against international standards, incorporating practices recommended by, among others, the US Department of Justice, the UK Serious Fraud Office, and other governmental authorities.

#### In 2022, Vena Energy did not receive any fines or sanctions for any material non-compliance with anti-corruption laws or regulations.

All employees receive regular training on our Anti-Corruption Policy. In 2022, 99% of Vena Energy employees participated in 3 **hours of compliance training** focused on the Code of Conduct, Anti-Bribery & Corruption, Anti-Money Laundering, and bullying & harassment.

Apart from mandatory compliance training, our compliance team regularly communicates to employees on current regulatory news and policy highlights through the distribution of monthly newsletters, with the aim of keeping the topic of compliance matters relevant and identifiable to all employees.

The effectiveness of our Anti-Corruption Policy is regularly assessed for suitability and adequacy, and the systems and processes underpinning our internal controls are subject to regular audits to ensure that they are effective in addressing bribery and corruption. The scope of the 2022 internal audit covered the review of the Anti-Corruption Policy and its effectiveness across local operations and project management activities. **The internal audit did not uncover any material findings related to our Anti-Corruption Policy.** 



## **4.3.3 CONFLICT OF INTEREST**

Vena Energy's Conflicts of Interest Policy prohibits employees from having personal interests which might compromise or influence the employees' professional judgment. Vena Energy requires employees to disclose any potential and actual conflicts of interest. Compliance requires every employee to sign a Conflicts of Interest Declaration upon employment and to provide a yearly declaration.

In 2022, all declared conflicts of interest were adequately addressed.

## 4.3.4 WHISTLE-BLOWER POLICY

The effectiveness of our policies and procedures depends on transparency in communications throughout the organisation, including reporting of improprieties or concerns by staff regarding safety, malpractice, bribery, fraud, or misconduct. Where employees wish to report concerns, we provide dedicated whistle blower channels where such issues can be reported anonymously.

Concerns can be reported via a telephone hotline or a web intake form that provides a transparent and confidential process for dealing with possible improprieties. These channels are managed independently by a third-party service provider and provide 24-hour access in local languages. Whenever concerns are reported, disclosures are treated in a confidential and sensitive manner and investigations are carried out accordingly. Additional protective measures are taken to ensure that the whistle-blower is protected from any form of retaliation.

In 2022, the whistle-blower hotline was utilised 3 times and 23 cases were raised directly to the compliance team. 100% of reported incidents and compliance breaches were properly investigated and addressed.

Vena Energy's corporate feedback channel was introduced and launched in 2H 2022 with the aim to promote accountability and responsible business practices in line with IFC Performance Standards. Vena Energy's feedback channel allows stakeholders and employees to raise potential non-compliance or human rights concerns in our operations or supply chain. The feedback channel



is managed by an independent third party and concerns can be raised anonymously. Employees and stakeholders are assured that their feedback is provided without any risk of cost or retaliation. The platform is intended to promote stakeholder engagement, build trust, and ensure that the fundamental rights of communities affected by our renewable energy projects are protected. Since its launch, 8 cases were reported through the corporate feedback channel in 2022 of which 3 were deemed bona fide and actionable. Investigations and relevant addressal are being undertaken by local management for the 3 bona fide cases.rights of communities affected by our renewable energy projects are protected. Since its launch, 8 cases were reported through the corporate feedback channel in 2022 of which 3 were deemed bona fide and actionable. Investigations and relevant addressal are being undertaken by local management for the 3 bona fide cases.rights of communities affected by our renewable energy projects are protected. Since its launch, 8 cases were reported through the corporate feedback channel in 2022 of which 3 were deemed bona fide and actionable. Investigations and relevant addressal are being undertaken by local management for the 3 bona fide cases.

Vena Energy Group Feedback Channel

## 4.3.5 PRESERVING HUMAN RIGHTS

In line with the UN Guiding Principles on Business and Human Rights, we believe that every individual should be treated equally and with dignity. Vena Energy is committed to upholding human rights and eliminating forced labour, child labour and discrimination from any business processes and activities that are conducted in relation to our business. These principles are outlined in our Environmental Social & Governance ("ESG") Policy, which prohibits any direct or indirect involvement of any type in activities involving exploitative, forced or child labour and human rights violations.

Human rights principles in the Code of Conduct and related policies are communicated to our employees through regular training, both in-person and online. As mentioned in the "Whistle-Blower Policy" section, we have made available independent whistleblower channels to all employees to anonymously report any related form of grievance, and a corporate feedback channel is publicly available to all stakeholders to raise potential human rights concerns in our operations or supply chain. Any significant reported incidents are escalated to Vena Energy's Audit and Risk Committee and Sustainability Committee as appropriate. The compliance team is responsible for maintaining the records of any reported breaches or incidents, managing them appropriately and monitoring their redressal.

In 2022, Vena Energy did not identify any risk of human rights abuses, child labour, forced labour or discrimination, and we continue to strengthen these principles by exercising management and monitoring processes over our business practices.

## 4.3.6 SUPPLY CHAIN MANAGEMENT

Vena Energy's business depends heavily on maintaining a strong supply chain with original equipment manufacturers (OEM), engineering and construction companies, and various industry experts and advisors. At Vena Energy, we recognise a sustainable business relies not only on the sound management of our direct operations, but on the ongoing responsible practices of our entire supply chain. Vena Energy is committed to maintaining a sustainable supply chain and perform independent ESG due diligence on our key suppliers and vendors when deemed appropriate. We seek to engage directly with our suppliers to make a positive impact on their sustainability performance.

The Vena Energy Procurement Policy and ESG Policy form the basis for decisions around procurement and we expect our suppliers and contractors to comply with the same ESG standards, including International Labour Organisation (ILO) Core Conventions, ILO Basic Terms and Conditions of Work, and the United Nations Universal Declaration of Human Rights. Shortlisted suppliers are selected based on expected cost of the equipment, reliability, warranty coverage, ease of installation and other ancillary costs to ensure optimal performance.

In 2022, Vena Energy introduced the first edition of its Supplier Code of Conduct, which sets out the company's ethical and responsible behaviour standards expected of suppliers in our supply chain. The Supplier's Code establishes standards for areas of ethical business conduct, environmental protection, human rights, and occupational health and safety and aims to align our suppliers with the company's sustainability values and hold them accountable for their actions.

In 2022, there was no significant change to Vena Energy's supply chain in terms of the supplier's location or our relationship with our suppliers.

## 4.3.7 DATA PRIVACY & CYBER SECURITY

Vena Energy believes that the lawful and appropriate treatment of personal information is essential to the efficient performance of our business and necessary to maintain the confidence of our stakeholders. Vena Energy holds and processes personal information for a variety of reasons such as recruitment, payroll, KYC checks, and counterparty screening. We ensure that all data collected are lawful and transparent, relevant, kept no longer than for its lawful purpose, and destroyed in a secure manner at the agreed point in time.

Cyber Security is also an integral part of the way we work. Cyber security practises are embedded in both operational technology and information technology. Vena Energy follows the National Institute of Standards and Technology (NIST) framework and uses different leading technical solutions to ensure our assets are protected. Vena Energy has appointed a Security Operations Centre (SOC) to constantly monitor our IT systems for any data breaches and indicator of compromise, and maintains a Cyber Security Incident Response plan in the event swift action is required. Furthermore, we conduct periodic Penetration Testing and Vulnerability Assessment for both our IT and OT environments with the help of external vendors. In 2022, no major cyber security incidents were reported across the organisation.

All Vena Energy employees undergo cyber security trainings and phishing campaigns across the year to keep our 'human firewall' strong. **Mandatory cyber security trainings are conducted once every 2 months with completion rate at 97% in 2022.** 



## 05 Financials

- 5.1 Financial Highlights
- 5.2 Proportionate Financial Results
- 5.3 Debt and Liquidity Position

# **5. FINANCIALS**

#### Revenue



Revenue for FY2022 increased by \$84 million, demonstrating a 22% growth year-on-year. The revenue growth is derived from a larger operational portfolio which generated 20% more renewable energy from 3.1TWh in 2021 to 3.7TWh in 2022, and capacity charge revenue from our first utility-scale battery project in Queensland, Australia.

Other items impacting FY2022 revenue included: (1) external grid outages due to a damaged subsea cable in the Philippines, which contributed to \$5 million less revenue from one asset compared to the previous year (this issue has since been fully rectified by NGCP<sup>22</sup> as of December 2022), (2) foreign exchange effects due to broad USD strengthening which decreased USD-denominated revenue by \$33 million, and (3) \$7 million one-off income due to insurance claims.

#### **EBITDA**



EBITDA for 2022 was \$326 million, an increase of \$44 million or 16% from 2021. The increase in EBITDA was driven by higher revenue net of higher operating costs, which include headcount growth in the Offshore wind business unit and other operational factors. The broad strengthening of USD across most major currencies also had an impact on the USD-denominated EBITDA of \$28 million.

<sup>22</sup> National Grid Corporation of the Philippines

## 5.2 PROPORTIONATE<sup>23</sup> FINANCIAL RESULTS

Operating Performance		
USD in millions except margin data		
For the financial year ended	31 Dec 2022	31 Dec 2021
Total revenue	469.2	385.2
Operating expenses	(142.8)	(102.9)
EBITDA	326.4	282.3
Depreciation and amortisation	(195.2)	(166.4)
EBIT	131.2	115.9
Net interest costs	(101.7)	(92.8)
Other finance gain (charge)	(25.5)	(11.2)
Other income	(15.1)	(9.2)
Development expense	(8.2)	(7.4)
Tax	(6.8)	(13.3)
Net income	(26.1)	(18.0)
EBITDA margin (%)	70%	73%
Capitalisation		
Euro Medium Term Note ("EMTN")	500.0	500.0
Foreign currency effect of cross currency swaps <sup>24</sup> ("CCS FX")	(75.9)	(9.7)
Euro Medium Term Note (including CCS FX)	424.1	490.3
Corporate RCF	15.1	-
Project finance debt	2,573.9	2,101.6
Working capital loan	6.0	15.0
Total bank borrowings	3,019.1	2,606.9
Equity	3,143.8	3,576.3
Total capitalisation	6,162.9	6,183.2
Other Financial Data		
Funds from Operational Assets <sup>25</sup>	166.7	140.0
Interest Coverage Ratio <sup>26</sup>	18.6x	16.7x
Capital expenditures	806.8	792.4

<sup>24</sup> The \$500 million EMTN were swapped to JPY via cross currency swaps. Foreign currency effect of cross currency swaps (CCS) is determined using the difference of the JPY notional of the CCS translated to USD at the prevailing FX rate as of the reporting date and the USD notional of the Green Bond.

<sup>25</sup> Refer to Appendix A for the definition of Funds from Operational Assets ("FFOA") and breakdown of FFOA by jurisdiction.

<sup>26</sup> Corporate interest coverage ratio is a non-IFRS financial measure and represents the FFOA for the relevant period divided by the interest expense of the corporate debt financing for the same relevant period.

<sup>&</sup>lt;sup>23</sup> Financial results are prepared based on the proportionate accounting method where items like assets, liabilities, income and expenses of subsidiaries and equityaccounted investees are proportionally aggregated based on Vena Energy's economic share and adjusted to remove the accounting effects of International Financial Reporting Interpretations Committee 12 - Service Concession Arrangements. Reconciliation of key items between the Combined Financial Statements and Proportionate financial results are included in Appendix A.

## 5.3 DEBT AND LIQUIDITY POSITION

### Debt outstanding as of 31 Dec 2022



In 2022, Vena Energy successfully secured ~\$1 billion in project-level financings, including our first international JPY-denominated green project bond for a solar PV project in Japan. More than 80% of all project debt raised in the year was structured as green loans.

Vena Energy's overall debt position as of 31 December 2022 was at \$3.0 billion, an increase of \$0.4 billion compared to 31 December 2021. During the year, excluding the effects of favourable foreign exchange of \$280 million on debt outstanding, Vena Energy drew down \$866 million of project finance debt across various projects and our inaugural foray into the international project bond market. At the same time, \$179 million of scheduled project finance debt repayments were made on existing operational assets.

## SPOTLIGHT: Green Financing

As a renewable energy company with a reach across the Asia-Pacific region, Vena Energy is keen to play a leading role in directing investments into green projects and activities that are driving the transition to a low carbon economy.

Based on the nature of Vena Energy's activities and its commitment to sustainable development, fundraising from Vena Energy may include public or private bonds and/or loans with structures tailored to contribute to sustainable development by application of the proceeds to Eligible Projects as defined under the company's Green Financing Framework (Framework).

In 2022, our Green Financing framework was reviewed by Moody's ESG Solution which re-affirmed its view that the Framework is aligned with the four components of ICMA's Green Bond Principles 2021, and the LMA/APLMA/LSTA's Green Loan Principles 2021.

Green or sustainability-linked financings contributed to c.90% of total committed financing as of year-end 2022.



#### First Green Project Bond for Japanese Solar

Vena Energy and global investment group Caisse de Dépôt et Placement du Québec (CDPQ) concluded an agreement for a JPY9.3 billion green project bond (~\$70 million) for a 35 MW solar PV project located in Fukushima Prefecture. The transaction marks Vena Energy's inaugural foray into the international project bond market and CDPQ's first financing of a renewable energy project in Japan. The transaction marks the first international project bond raised from an offshore investor for a solar PV project in the Japanese market.

#### Project Tailembend II

Following the success of the first stage of the Tailem Bend Solar Project, Vena Energy marked another important milestone in its Australian portfolio by following up with Tailem Bend 2 Project, our first combined solar and battery energy storage system (BESS) project in South Australia. The Project achieved financial close and is Vena Energy's third green financing arrangement in Australia. The Project will have a capacity of 159 MW including 118 MW of solar and 41 MW of BESS, with operations expected to start in 2023.

#### Leverage Ratio

(USD in millions except margin data)	31 Dec 2022	31 Dec 2021
Funds from Operational Assets ("FFOA")	166.7	140.0
Euro Medium Term Note	500.0	500.0
Foreign currency effect of cross currency swaps ("CCS FX")	(75.9)	(9.7)
Euro Medium Term Note (including CCS FX)	424.1	490.3
Corporate RCF	15.1	-
Corporate Gross Debt	439.2	490.3
Less: Corporate's Cash & Cash Equivalents	(41.0)	(213.6)
Corporate Net Debt	398.2	276.7
Corporate Net Debt to FFOA	2.4x	2.0x



#### FFOA breakdown by markets

Vena Energy generated an FFOA of \$167 million in FY2022, an increase of \$27 million or 19% compared to FY2021. This was diversified across 4 markets and 80 operating assets (2021: 70 operating assets).

The \$27 million increase in FFOA was a result of a larger operational portfolio which generated 20% more renewable energy from 3.1TWh in 2021 to 3.7TWh in 2022, and capacity charge revenue from our first utility-scale battery project in Queensland, Australia. The FFOA demonstrated strong growth despite curtailment resulting from a damaged subsea cable in one of our assets in the Philippines (which impacted FFOA by \$6 million) and the scheduled debt amortization of certain operational assets commissioned in prior years which increased by \$5 million, both of which contributing to a lower FFOA. Foreign currency effects due to the broad USD strengthening also contributed to \$17 million lower USD-denominated FFOA. Approximately 50% of the FX impact relates to JPY depreciation against the USD, and such impact is mitigated by our strategy to hedge the existing corporate USD bond to JPY via cross currency swaps.

#### **Liquidity Position**

(USD in millions)	31 Dec 2022	31 Dec 2021
Available Corporate RCF	246.5	431.2
Corporate Cash & Cash Equivalents	41.0	213.6
Liquidity	287.5	644.8

Our liquidity position remains robust, with \$287.5 million of total available liquidity, including the committed corporate RCF.


# 06 Additional Information

- 6.1 Independent Limited Assurance Report
- 6.2 Employee Information
- 6.3 ESG Indicators
- 6,4 Contribution to the SDGs
- 6.5 Commitment to UN Global Compact
- 6.6 GRI Content Index
- 6.7 TCFD Content Index
- 6.8 Legal Statements

## 6.1 INDEPENDENT LIMITED ASSURANCE REPORT

### Independent Limited Assurance Statement to Vena Energy Pte Ltd

ERM Certification and Verification Services Limited ("ERM CVS") was engaged by Vena Energy Pte Ltd ("Vena Energy") to provide limited assurance in relation to the selected information set out below and presented in the Vena Energy 2022 Sustainability & Financial Report (the "Report").

	Engagement summary
	Whether the 2022 data and information for the following selected disclosures, as disclosed in section 2.3.1 of the Report, are fairly presented, in all material respects, in accordance with the reporting criteria:
Scope of our assurance engagement	<ul> <li>Energy Generation (Operational Assets) (TWh)</li> <li>Energy Generation (Construction and Contracted Assets) (TWh)</li> <li>Greenhouse Gas Emissions Reduction (Tonnes)</li> <li>Households Powered (Number)</li> <li>Water Saved (Megalitres)</li> <li>Equivalent cars removed from the road (Number)</li> <li>Equivalent trees planted (Number)</li> <li>Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Report.</li> </ul>
Reporting period	1 <sup>st</sup> January 2022 to 31 <sup>st</sup> December 2022
Reporting criteria	Vena Energy's Basis of Reporting and calculation methodology for the data for the selected disclosures, as described in the footnotes in section 2.3.1 of the Report.
Assurance standard and level of	We performed a limited assurance engagement, in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised) 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Standards Board. The procedures performed in a limited assurance engagement vary in nature and timing
assurance	from, and are less in extent than for a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.
Respective	Vena Energy is responsible for preparing the Report and for the collection and presentation of the information within it, and for the designing, implementing and maintaining of internal controls relevant to the preparation and presentation of the selected disclosures.
responsibilities	ERM CVS' responsibility is to provide conclusions to Vena Energy on the agreed scope based on our engagement terms with Vena Energy, the assurance activities performed and exercising our professional judgement. We accept no responsibility, and deny any liability, to any party other than Vena Energy for the conclusions we have reached.

### Our conclusion

Based on our activities, as described below, nothing has come to our attention to indicate that the 2022 data and information for the selected disclosures listed under 'Scope' above are not fairly presented in section 2.3.1 of the Report, in all material respects, in accordance with the reporting criteria.

#### Our assurance activities

Considering the level of assurance and our assessment of the risk of material misstatement of the data and information for the selected disclosures a multi-disciplinary team of sustainability and assurance specialists performed a range of procedures that included, but was not restricted to, the following:

- An assessment of the appropriateness of the reporting criteria for the selected disclosures.
- Interviews with Vena Energy management representatives responsible for managing the data and information for the selected disclosures, to understand and evaluate the relevant management systems and processes (including internal review and control processes) used for collecting and reporting the data and information for the selected disclosures.
- A review of documentation relating to the status and energy generation for 2022 for a sample of Vena Energy's operational, construction and contracted assets.
- A review of the calculations performed by Vena Energy of the 2022 data for the selected disclosures based on the energy generation data and relevant conversion and calculation factors as described in the footnotes in section 2.3.1 of the Report.
- A review of the presentation of the data and information relevant to the scope of our work in the Report to ensure consistency with our findings.

#### The limitations of our engagement

The reliability of the assured information is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

#### Our independence, integrity and quality control

ERM CVS is an independent certification and verification body accredited by UKAS to ISO 17021:2015. Accordingly we maintain a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our quality management system is at least as demanding as the relevant sections of ISQM-1 and ISQM-2 (2022).

ERM CVS applies a Code of Conduct and related policies to ensure that its employees maintain integrity, objectivity, professional competence and high ethical standards in their work. Our processes are designed and implemented to ensure that the work we undertake is objective, impartial and free from bias and conflict of interest. Our certified management system covers independence and ethical requirements that are at least as demanding as the relevant sections of Parts A & B of the IESBA Code relating to assurance engagements.

The team that has undertaken this assurance engagement has extensive experience in conducting assurance on environmental, social, ethical and health and safety information, systems and processes, and provides no consultancy related services to Vena Energy in any respect.

and

Gareth Manning Partner, Corporate Assurance London, United Kingdom

16th May 2023

ERM Certification and Verification Services Limited <u>www.ermcvs.com</u> | <u>post@ermcvs.com</u>



### Independent Limited Assurance Statement to Vena Energy Pte Ltd

ERM Certification and Verification Services Limited ("ERM CVS") was engaged by Vena Energy Pte Ltd ("Vena Energy") to provide limited assurance in relation to the selected information set out below and presented in the Vena Energy 2022 Sustainability & Financial Report (the "Report").

	Engagement summary
	Whether the 2022 data and information for the following selected disclosures, as disclosed in section 2.3.2 of the Report, are fairly presented in the Report, in all material respects, in accordance with the reporting criteria:
assurance	<ul> <li>Total Scope 1 greenhouse gas ("GHG") emissions [tonnes CO<sub>2</sub>e]</li> <li>Total location based Scope 2 GHG emissions [tonnes CO<sub>2</sub>e]</li> </ul>
engagement	Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Report.
Reporting period	1 <sup>st</sup> January 2022 to 31 <sup>st</sup> December 2022
Reporting criteria	WBCSD/WRI GHG Protocol Corporate Accounting and Reporting Standard and Vena Energy's internal reporting criteria, definitions and calculation methodologies as described in the footnotes in section 2.3.2 of the Report.
Assurance	We performed a limited assurance engagement, in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised) 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Standards Board.
level of assurance	The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.
Respective	Vena Energy is responsible for preparing the Report and for the collection and presentation of the information within it, and for the designing, implementing and maintaining of internal controls relevant to the preparation and presentation of the selected disclosures.
responsibilities	ERM CVS' responsibility is to provide conclusions to Vena Energy on the agreed scope based on our engagement terms with Vena Energy, the assurance activities performed and exercising our professional judgement. We accept no responsibility, and deny any liability, to any party other than Vena Energy for the conclusions we have reached.

#### Our conclusion

Based on our activities, as described below, nothing has come to our attention to indicate that the 2022 data and information for the selected disclosures listed under 'Scope' above are not fairly presented in section 2.3.2 of the Report, in all material respects, in accordance with the reporting criteria.

#### Our assurance activities

Considering the level of assurance and our assessment of the risk of material misstatement of the data and information for the selected disclosures a multi-disciplinary team of sustainability and assurance specialists performed a range of procedures that included, but was not restricted to, the following:

- An assessment of the appropriateness of the reporting criteria for the selected disclosures.
- Interviews with Vena Energy's management representatives responsible for managing the data and information for the selected disclosures, to understand and evaluate the relevant management systems and processes (including internal review and control processes) used for collecting and reporting the data and information for the selected disclosures.
- A review of relevant documentation for a sample of the activity data underlying the GHG emissions.
- A review of the unit conversion factors, emission factors and assumptions, as described in the footnotes in section 2.3.2 of the Report, used in the calculation of the GHG emissions from the underlying activity data.
- A review of the presentation of the data and information relevant to the scope of our work in the Report to ensure consistency with our findings.

#### The limitations of our engagement

The reliability of the assured information is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

#### Our independence, integrity and quality control

ERM CVS is an independent certification and verification body accredited by UKAS to ISO 17021:2015. Accordingly we maintain a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our quality management system is at least as demanding as the relevant sections of ISQM-1 and ISQM-2 (2022).

ERM CVS applies a Code of Conduct and related policies to ensure that its employees maintain integrity, objectivity, professional competence and high ethical standards in their work. Our processes are designed and implemented to ensure that the work we undertake is objective, impartial and free from bias and conflict of interest. Our certified management system covers independence and ethical requirements that are at least as demanding as the relevant sections of Parts A & B of the IESBA Code relating to assurance engagements.

The team that has undertaken this assurance engagement has extensive experience in conducting assurance on environmental, social, ethical and health and safety information, systems and processes, and provides no consultancy related services to Vena Energy in any respect.

all

Gareth Manning Partner, Corporate Assurance London, United Kingdom

19<sup>th</sup> June 2023

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## **6.2 EMPLOYEE INFORMATION**

#### Jurisdiction Male Female Total Male Female Total Male Female Total Male Female Total Singapore Total

Total number of employees by jurisdiction and gender at end 2022

### Total number of employees by employment type and gender at end 2022

		2019			2020			2021			2022		
	Male	Female	Total										
Full-time	380	141	521	431	182	613	475	209	684	565	261	826	
Part-time	0	2	2	1	2	3	7	1	8	1	0	1	
Total	380	143	523	432	184	616	482	210	692	566	261	827	

### Total number of employees by contract type and gender at end 2022

		2019			2020			2021			2022			
	Male	Female	Total	Male	Female	Total	í	Male	Female	Total	í	Male	Female	Total
Permanent	373	141	514	421	180	601		471	205	676		563	260	823
Temporary	7	2	9	11	4	15		11	5	16		3	1	4
Total	380	143	523	432	184	616		482	210	692		566	261	827

### Total number of employees by employee category, age group and gender at end 2022<sup>27</sup>

	2019							
	Non-exempt	Professionals	Middle Management	<b>Executive Management</b>				
Headcount	50	236	220	17				
		By age group						
<30	5	81	18	0				
30-50	29	136	163	8				
>50	16	19	39	9				
		By Ge	ender					
Male	38	148	178	16				
Female	6	94	42	1				

	2020							
	Non-exempt	Professionals	Middle Management	<b>Executive Management</b>				
Headcount	53	294	253	16				
	By age group							
<30	10	106	18	0				
30-50	30	159	200	7				
>50	13	29	35	9				
		By Ge	ender					
Male	44	174	199	15				
Female	9	120	54	1				

	2021						
	Non-exempt	Professionals	Middle Management	Executive Management			
Headcount	44	349	283	16			
	By age group						
<30	6	99	13	-			
30-50	30	215	220	9			
>50	8	35	50	7			
		By Ge	ender				
Male	37	209	222	14			
Female	7	140	61	2			

	2022						
	Non-exempt	Professionals	Middle Management	Executive Management			
Headcount	43	422	344	18			
	By age group						
<30	3	109	7	-			
30-50	31	261	264	8			
>50	9	52	73	10			
		By Ge	ender				
Male	37	245	268	16			
Female	6	177	76	2			

<sup>27</sup> Non-exempt refers to roles that do not require specific technical or operational knowledge.

Professionals refer to roles requiring knowledge and skills within a discipline or advanced knowledge of specific technical and/or operational practices. Middle Management refers to roles managing and/or supervising teams or having specialist knowledge of a discipline.

Executive Management refers to country heads and C-suite executives.

## **6.3 ESG INDICATORS**

Environmental Indicators	2019	2020	2021	2022
Core Business				
Total capacity of Operating, Construction, and Contracted assets (in MWp)	3,039	4,177	4,706	5,896
Total clean energy generation (in MWh)	5,149,582	6,689,535	7,667,079	10,500,137
GHG Emissions avoided (in CO <sub>2</sub> Tonnes)	3,775,930	4,898,866	5,611,784	6,913,826
Number of households powered	2,854,109	3,666,477	3,524,739	5,899,388
Megalitres of water saved	4,865	5,419	6,160	8,841
Equivalent cars removed from the road	815,536	1,058,070	1,219,953	1,503,006
Equivalent trees planted	62,932,166	81,647,769	93,529,733	115,230,441
Resource Management				
Emissions (in CO <sub>2</sub> Tonnes)				
Scope 1	N.M.	N.M.	850	720
Scope 2	N.M.	6,077	12,715	24,870
Scope 3	N.M.	N.M.	596,509	495,206
Water Usage (m³)	N.M.	N.M.	62,311	59,139
Non-Hazardous Waste (MT)	N.M.	N.M.	18,822	3,731
Hazardous Waste (MT)	N.M.	N.M.	25	11
Other				
Air/Water Permit Exceedances	N.M.	N.M.	None	None
Spills Incidents	N.M.	N.M.	None	None
Fines Paid	N.M.	N.M.	None	None

N.M. = Not Meaningful

Social Indicators	2019	2020	2021	2022
Employees				
Total average training hours per employee	N.M.	N.M.	36	47
% of employee participation in development & job qualification training	N.M.	N.M.	100%	100%
% Performance appraisal completed	N.M.	100%	100%	100%
% of staff returned after parental leave	N.M.	90%	96%	90%
Occupational Health & Safety				
Total health & safety training hours (Formal & Informal)	N.M.	74,276	140,911	163,660
Total training hours as a $\%$ of total manhours worked	N.M.	1.5%	1.9%	2.0%
# of employees recognised through safety reward program	N.M.	55	133	106
Total number of audits, site inspections and safety walks	N.M.	N.M.	4,400	4,875
# First Aid Cases	23	25	32	36
First Aid Cases Rate	1.10	1.02	0.87	0.90
# Recordable Cases	7	7	12	12
Recordable Rate	0.33	0.28	0.33	0.30
# Lost Time Cases	1	3	6	6
Lost Time Injury Rate	0.05	0.12	0.16	0.15
Community Impact				
Peak number of on-site workers during construction	N.M	1,496	4,396	5,628
Number of CSR activities conducted	N.M	118	160	191
Number of hours contributed	N.M	2,981	3,324	4,940
Number of beneficiaries supported	N.M	107,184	87,382	233,100
Amount of \$ spent on CSR initiatives (in '000 USD)	N.M	674	1,020	1,677,049

Governance Indicators	2019	2020	2021	2022
Board of Directors				
Number of Directors	N.M	6	6	5
Number of nationalities represented on the Board of Directors	N.M	4	4	4
Number of Board Meetings	N.M	4	4	4
Anti-Corruption				
Material fines or sanctions for non-compliance with laws or regulations	N.M	0	0	0
% of employees participated in compliance training	N.M	100%	98%	99%
% of reported incidences addressed	N.M	100%	98%	100%
# of times whistle blower hotline was utilised	N.M	5	7	26
Whistle-blower				
% of whistle blower hotline issues addressed and closed	N.M	100%	100%	100%
Preserving Human Rights				
Identified human rights abuses	N.M	0	0	0

## 6.4 CONTRIBUTION TO THE SDGs

SDGs	Relevant Section(s)	Approach	Highlight Contributions
7 ASPORDABLE AND CLEAN ENERGY	1	We aim to ensure the affordability of clean renewable energy projects by constantly striving to be the most cost-effective renewable energy developer and operator in the region, whilst striving for excellence in our sustainability and ESG practices.	In 2022, Vena Energy added 10 projects to its operational portfolio equivalent to 562 MW of renewable generation capacity. As of December 2022, our operational capacity stands at 2.7 GW and the energy generation arising from those assets was 3.7 TWh.
8 DECENT WORK AND ECONOMIC GROWTH	<u>3.1, 3.2,</u> <u>3.3.1, 4.3</u>	We support local employment by creating job opportunities for the members of our host communities through the construction and operation activities of our renewable energy projects. Our strong human resource, governance and health and safety policies and practices also ensure that we protect labour rights, provide a healthy and safe working environment for our employees and contractors.	A total of 5,628 local jobs were created in 2022 across our construction projects in Japan, Taiwan, Australia, the Philippines, and India. Net hiring of 135 employees increased our total employee headcount to 827. In 2022, we launched Vena Energy's corporate feedback channel and introduced the first edition of its Supplier Code of Conduct which sets out the company's ethical and responsible behaviour standards expected of suppliers in our supply chain.
9 NOUSTRY, INNOVATION AND INFRASTRUCTURE	<u>1.3, 2.5.3</u>	Vena Energy promotes long-term solutions to environmental challenges through the deployment of renewable energy and invests in the development of related technologies such as energy storage. We encourage innovation and collaboration in the renewable energy industry by way of knowledge sharing with our industry peers and testing and adopting new technologies.	Continuous development of core renewable energy projects utilising best- in class technologies and equipment. Development of offshore wind projects in Japan and North Asia. Focus on technological innovation in energy storage, including stationary battery storage systems and green hydrogen. In 2022, Vena Energy engaged the Energy Studies Institute, National University of Singapore to evaluate and compare whole life carbon of various energy sources and address circular economy considerations for solar PV, wind generation, and storage technologies. Part of the study will focus on estimating potential waste generated from solar PV and wind assets, analysing existing constraints and reviewing upcoming technologies and solutions needed to address circular economy concerns.

13 CLIMATE	<u>2.1, 2.2,</u> <u>2.3</u>	Through the investment and development of renewable energy and related technologies, we look to increase the contribution of renewable energy in the overall energy mix and reduce (and eventually eliminate) GHG emissions. We manage the physical impacts of climate change on our business by incorporating climate resilient strategies.	<ul> <li>6.9 million tonnes of GHG emissions avoided through our OCC portfolio in 2022.</li> <li>In 2022, we have set targets to reduce our operational carbon intensity by 60% by 2030 with the aim to be completely carbon neutral by 2050. We have also surveyed 20 of our top suppliers and incorporated where available, supplier-specific product information in the estimation of our Scope 3, category 2 emissions.</li> <li>As part of our survey, we have also started engaging our top suppliers to develop a baseline understanding of our suppliers' ambitions to reduce greenhouse gas emissions in their operations, a meaningful first step in designing a targeted and effective scope 3 reduction strategy with our key suppliers.</li> </ul>
3 GOOD HEALTH AND WELL-BEING	<u>3.1.3, 3.3</u>	We ensure that there is adequate support for the mental health of our employees. We also aim to expand access to quality healthcare in our host communities through our CSR activities.	In 2022, Vena Energy continued to support the wellbeing of our employees through a number of wellness initiatives, including the launch of a mobile app which provide users with a wide range of resources to support general wellbeing in partnership with our Employee Assistance Program provider. Key healthcare-related CSR activities continued including donating winter necessities and medical equipment in South Korea and India.
4 QUALITY EDUCATION	<u>3.1.2, 3.3</u>	We believe in building and maintaining a sustainable workforce by educating and empowering our employees through on-the-job training and self-development programs. We also look to enable the progression and development of our host communities via education initiatives.	In 2022, Vena Energy introduced the Leadership Excellence and Development (LEAD) Program, an internal training series designed to equip employees with the necessary skills to make an impact in their new managerial roles, as well as to support existing managers in leading their team in today's VUCA world. We also continued to promote learning and skills development through training platforms such as Vena Academy and LinkedIn Learning with an average of 47 hours of training hours per employee.
5 GENDER EQUALITY	<u>3.1.1, 3.3</u>	We believe in equal opportunity and respect in our workforce and strive to provide a safe, nurturing workplace where all our people can achieve their full potential. We strive to reach gender equality within Vena Energy in the next decade and be a positive influence towards equal gender representation in the renewable energy industry.	In 2022, Vena Energy expanded our flagship Vena Energy Women's Undergraduate Sponsorship ("VENUS") programme to Japan and established a scholarship program with the Faculty of Engineering at The University of Tokyo.

15 LIFE ON LAND	<u>2.4</u>	We take our commitment to responsible and sustainable development and environmental protection and preservation seriously. In accordance with regulatory guidelines and IFC PS, we evaluate the potential impact to the natural environment and ecosystems and actively avoid and mitigate impact on biodiversity in our project development. Beyond avoiding and mitigating impact on biodiversity in our project development, Vena Energy also works closely with NGOs and communities on biodiversity conservation.	We continued with our approach to actively avoiding and mitigating impact on biodiversity in our project development. This is showcased through the development of our Tailem Bend 2 Solar and Storage project. We continued with our conservation efforts in Japan through the Forest Management Programme that was launched in 2021, and initiated several tree-planting activities in Korea, India, Indonesia and Singapore.
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	<u>4.3</u>	Vena Energy is committed to conducting business with the highest standards of integrity. Vena Energy's Anti-Corruption Policy prohibits all forms of bribery and corruption and provides a framework for the identification and mitigation of risks relating to corruption.	In 2022, we launched Vena Energy's corporate feedback channel and introduced the first edition of our Supplier Code of Conduct which sets out the company's ethical and responsible behaviour standards expected of suppliers in our supply chain.

## 6.5 COMMITMENT TO UNITED NATIONS GLOBAL COMPACT

Vena Energy is committed to upholding the 10 principles of the United Nations Global Compact and draws on the principles to establish our guidelines and policies. Our commitment includes reporting annually on our progress in implementing the ten principles (Communication on Progress or COP). The table below specifies which sections of the report address which principles.

	Cross-Reference in this report	Guidelines and policies
Human Rights Principle 1: Support and respect the protection of internationally proclaimed human rights Principle 2: Ensure non-complicity in human rights abuses	<ul> <li>1.1 About Vena Energy</li> <li>1.4 Our Approach to Sustainability</li> <li>3.1 Our People</li> <li>4.3.1 Code of Conduct</li> <li>4.3.5 Preserving Human Rights</li> </ul>	<ul> <li>Code of Conduct</li> <li>Supplier Code of Conduct</li> <li>Environmental, Social &amp; Governance Policy</li> </ul>
Labour Principle 3: Uphold the freedom of association and the effective recognition of the right to collective bargaining Principle 4: Eliminate all forms of forced and compulsory labour Principle 5: Eliminate child labour Principle 6: Eliminate discrimination in respect of employment and occupation	<ul> <li>1.1 About Vena Energy</li> <li>1.4 Our Approach to Sustainability</li> <li>3.1 Our People</li> <li>3.1.1 Diversity and Inclusion</li> <li>4.3.1 Code of Conduct</li> <li>4.3.5 Preserving Human Rights</li> </ul>	<ul> <li>Code of Conduct</li> <li>Supplier Code of Conduct</li> <li>Human Resources Policy</li> <li>Environmental, Social &amp; Governance Policy</li> </ul>
Environment Principle 7: Support a precautionary approach to environmental challenges Principle 8: Undertake initiatives to promote greater environmental responsibility Principle 9: Encourage the development and diffusion of environmentally friendly technologies	<ul> <li><u>1.1 About Vena Energy</u></li> <li><u>1.4 Our Approach to Sustainability</u></li> <li><u>2.1 Climate Opportunity and Strategy</u></li> <li><u>2.2 Physical Climate Risk and</u> <u>Management</u></li> <li><u>2.3 Climate Action &amp; Emissions</u></li> <li><u>2.4 Environmental and Social Impact</u> <u>Management</u></li> <li><u>2.5 Resource Management</u></li> <li><u>4.3.1 Code of Conduct</u></li> </ul>	<ul> <li>Code of Conduct</li> <li>Supplier Code of Conduct</li> <li>Environmental, Social &amp; Governance Policy</li> </ul>
Anti-Corruption Principle 10: Work against corruption in all its forms, including extortion and bribery	<ul> <li><u>1.1 About Vena Energy</u></li> <li><u>1.4 Our Approach to Sustainability</u></li> <li><u>4.3.1 Code of Conduct</u></li> <li><u>4.3.2 Anti-Corruption</u></li> </ul>	<ul> <li>Code of Conduct</li> <li>Supplier Code of Conduct</li> <li>Anti-corruption Policy</li> </ul>

## 6.6 GRI CONTENT INDEX

Vena Energy has reported the information cited in this GRI content index for the period 1st Jan 2022 to 31st Dec 2022 with reefrence to the GRI Standards.

Disclosure Number	Disclosure Title	Section		
1. The organization and its reporting practices				
Disclosure 2-1	Organizational details	<u>1.1 About Vena Energy</u>		
Disclosure 2-2	Entities included in the organization's sustainability reporting	See appendix for entities included in the consolidated financial statements		
Disclosure 2-3	Reporting period, frequency and contact point	About this Report		
Disclosure 2-4	Restatements of information	2.3.2 Our Greenhouse Gas Emissions		
Disclosure 2-5	External assurance	6.1 Independent Limited Assurance Report		
2. Activities and worke	ers			
Disclosure 2-6	Activities, value chain and other business relationships	1.1 About Vena Energy 1.2 2022 Highlights 1.3 Our Business		
Disclosure 2-7	Employees	3.1 Our People 6.2 Employee Information		
Disclosure 2-8	Workers who are not employees	6.2 Employee Information		
3. Governance				
Disclosure 2-9	Governance structure and composition	<u>4.1 Board of Directors</u> <u>4.2 Corporate Governance</u>		
Disclosure 2-10	Nomination and selection of the highest governance body	Confidential as Vena Energy is privately owned		
Disclosure 2-11	Chair of the highest governance body	<u>4.1 Board of Directors</u> <u>4.2 Corporate Governance</u>		
Disclosure 2-12	Role of the highest governance body in overseeing the management of impacts	<u>4.1 Board of Directors</u> <u>4.2 Corporate Governance</u>		
Disclosure 2-13	Delegation of responsibility for managing impacts	4.2 Corporate Governance		
Disclosure 2-14	Role of the highest governance body in sustainability reporting	4.2 Corporate Governance		
Disclosure 2-15	Conflicts of interest	N.A		
Disclosure 2-16	Communication of critical concerns	4.2 Corporate Governance		
Disclosure 2-17	Collective knowledge of the highest governance body	N.A		
Disclosure 2-18	Evaluation of the performance of the highest governance body	Confidential as Vena Energy is privately owned		
Disclosure 2-19	Remuneration policies	Confidential as Vena Energy is privately owned		
	Disclosure Number1. The organization and Disclosure 2-1Disclosure 2-3Disclosure 2-4Disclosure 2-5Disclosure 2-6Disclosure 2-7Disclosure 2-7Disclosure 2-8Disclosure 2-8Disclosure 2-10Disclosure 2-10Disclosure 2-11Disclosure 2-11Disclosure 2-11Disclosure 2-11Disclosure 2-11Disclosure 2-11Disclosure 2-12Disclosure 2-13Disclosure 2-14Disclosure 2-14Disclosure 2-15Disclosure 2-14Disclosure 2-14	Disclosure NumberDisclosure Title1.The organization == Us reporting practicesDisclosure 2.1Organizational detailsDisclosure 2.2Entities included in the organization's sustainability reportingDisclosure 2.3Reporting period, frequency and contact pointDisclosure 2.4Restatements of informationDisclosure 2.5External assuranceDisclosure 2.6More reportingDisclosure 2.7EmployeesDisclosure 2.6Morkers who are not employeesDisclosure 2.7Governance structure and compositionDisclosure 2.7Governance structure and compositionDisclosure 2.7Sovernance structure and compositionDisclosure 2.7Reporting the highest governance body in overseeing the management of impactsDisclosure 2.10Nomination and selection of the highest governance bodyDisclosure 2.11Chair of the highest governance body in overseeing the management of impactsDisclosure 2.12Role of the highest governance body in sustainability reportingDisclosure 2.13Pelegation of responsibility for managing impactsDisclosure 2.14Role of the highest governance body in sustainability reportingDisclosure 2.15Conflicts of interestDisclosure 2.16Conflicts of interestDisclosure 2.17Collective knowledge of the highest governance bodyDisclosure 2.18Evaluation of the performance of by in sustainability reportingDisclosure 2.19Remuneration policies		

GRI Standard	Disclosure Number	Disclosure Title	Section
General Disclosures			
GRI 2: General	3. Governance		
Disclosures 2021	Disclosure 2-20	Process to determine remuneration	4.2 Corporate Governance
	Disclosure 2-21	Annual total compensation ratio	Confidential as Vena Energy is privately owned
	4. Strategy, policies ar	nd practices	
	Disclosure 2-22	Statement on sustainable development strategy	Welcome Message from our CEO
	Disclosure 2-23	Policy commitments	<u>4.3 Governance Policies</u> <u>4.3.1 Code of Conduct</u> <u>4.3.6 Supply Chain Management</u>
	Disclosure 2-24	Embedding policy commitments	4.3 Governance Policies
	Disclosure 2-25	Processes to remediate negative impacts	4.3.4 Whistle-Blower Policy
	Disclosure 2-26	Mechanisms for seeking advice and raising concerns	4.3.4 Whistle-Blower Policy
	Disclosure 2-27	Compliance with laws and regulations	4.3.2 Anti-Corruption 2.4 Environmental and Social Impact Management
	Disclosure 2-28	Membership associations	1.4 Our Approach to Sustainability
	5. Stakeholder		
	Disclosure 2-29	Approach to stakeholder engagement	1.4.1 Stakeholder Engagement
	Disclosure 2-30	Collective bargaining agreements	Not Applicable: Vena Energy does not have unionised labor in its workforce
GRI 3: Material Topics 2021	Disclosure 3-1	Process to determine material topics	<u>1.4.2 Materiality</u>
	Disclosure 3-2	List of material topics	1.4.2 Materiality

### 1. INTRODUCTION | 2. ENVIRONMENT | 3. SOCIAL | 4. GOVERNANCE | 5. FINANCIALS | 6. ADDITIONAL INFORMATION

GRI Standard	Disclosure Number	Disclosure Title	Section
Material Topic-Specific	: Disclosures		
Clean Energy Installati	ion & Generation, Clima	te Action & Disclosure, Climate Cha	ange Resiliency
GRI 3: Material Topics 2021	Disclosure 3-3	Management of Material Topics	2. Environmental
GRI 201: Economic Performance 2016	Disclosure 201-1	Direct economic value generated and distributed	Appendix A: Supplementary Financial Information
	Disclosure 201-2	Financial implications and other risks and opportunities due to climate change	2.2 Physical Climate Risk and Management
	Disclosure 201-3	Defined benefit plan obligations and other retirement plans	Value of defined benefit plan disclosed in financial statements, Appendix B
	Disclosure 201-4	Financial assistance received from government	Not Applicable
GRI 305: Emissions	Disclosure 305-1	Direct (Scope 1) GHG emissions	2.3.2 Our Greenhouse Gas Emissions
2016	Disclosure 305-2	Energy indirect (Scope 2) GHG emissions	2.3.2 Our Greenhouse Gas Emissions
	Disclosure 305-3	Other indirect (Scope 3) GHG emissions	2.3.2 Our Greenhouse Gas Emissions
	Disclosure 305-4	GHG emissions intensity	2.3.3 Climate Actions

Environmental Management, Resource Efficiency, Wildlife & Biodiversity				
GRI 3: Material Topics 2021	Disclosure 3-3	Management of Material Topics	2. Environmental	
GRI 302: Energy 2016	Disclosure 302-1	Energy consumption within the organization	2.3.2 Our Greenhouse Gas Emissions	
GRI 303: Water and Effluents 2018	Disclosure 303-1	Interactions with water as a shared resource	2.5 Resource Management	
	Disclosure 303-5	Water consumption	2.5 Resource Management	
GRI 304: Biodiversity 2016	Disclosure 304-2	Significant impacts of activities, products and services on biodiversity	2.4 Environmental and Social Impact Management	
	Disclosure 304-3	Habitats protected or restored	2.4 Environmental and Social Impact Management	
GRI 306: Waste 2020	Disclosure 306-1	Waste generation and significant waste-related impacts	2.5 Resource Management	
	Disclosure 306-2	Management of significant waste-related impacts	2.5 Resource Management	
	Disclosure 306-3	Waste generated	2.5 Resource Management	

Reduction of GHG emissions

2.3.3 Climate Actions

Disclosure 305-5

GRI Standard	Disclosure Number	Disclosure Title	Section
Gender Equality, Talen	t Management & Reten	tion, Training & Development	
GRI 3: Material Topics 2021	Disclosure 3-3	Management of Material Topics	<u>3.1 Our People</u>
GRI 401: Employment 2016	Disclosure 401-1	New employee hires and employee turnover	3.1 Our People 6.2 Employee Information
	Disclosure 401-2	Benefits provided to FTE that are not provided to temporary or PTE	3.1.2 Talent Development 3.1.3 Employee Engagement 3.1.5 Employee Retention 3.1.6 Benefits
	Disclosure 401-3	Parental leave	<u>3.1.6 Benefits</u>
GRI 404: Training and Education 2016	Disclosure 404-1	Average hours of training per year per employee	<u>3.1.2 Talent Development</u> <u>3.1.4 Spotlight: Lead Programme,</u> <u>Developing Future Leaders</u>
	Disclosure 404-2	Programs for upgrading employee skills and transition assistance programs	3.1.2 Talent Development 3.1.4 Spotlight: Lead Programme, Developing Future Leaders 3.1.5 Employee Retention
	Disclosure 404-3	Percentage of employees receiving regular performance and career development reviews	3.1.4 Performance Evaluation & Development 3.1.5 Employee Retention
GRI 405: Diversity and Equal Opportunity 2016	Disclosure 405-1	Diversity of governance bodies and employees	3.1.1 Diversity & Inclusion 4.1 Board of Directors

CSR & Community Engagement, Volunteerism				
GRI 3: Material Topics 2021	Disclosure 3-3	Management of Material Topics	<u>3.3 Our Community</u>	
GRI 203: Indirect Economic Impacts 2016	Disclosure 203-1	Infrastructure investments and services supported	<u>1.2 2022 Highlights</u> <u>1.3.6 Operational, Construction &amp;</u> <u>Contracted Portfolio</u> <u>3.3.2 Corporate Social Responsibility</u>	
	Disclosure 203-2	Significant indirect economic impacts	3.3.1 Empowering Communities	
GRI 413: Local Communities 2016	Disclosure 413-1	Operations with local community engagement, impact assessments, and development programs	3.3.2 Corporate Social Responsibility	

GRI Standard	Disclosure Number	Disclosure Title	Section
Occupational Health 8	k Safety		
GRI 3: Material Topics 2021	Disclosure 3-3	Management of Material Topics	3.2 Occupational Health and Safety
GRI 403:	Disclosure 403-1	OHS management system	3.2 Occupational Health and Safety
Occupational Health and Safety 2018	Disclosure 403-2	Hazard identification, risk assessment, and incident investigation	3.3.2 Risk Management
	Disclosure 403-4	Worker participation, consultation, and communication on OHS	3.2.1 Safety Initiatives
	Disclosure 403-5	Worker training on OHS	3.2 Occupational Health and Safety
	Disclosure 403-6	Promotion of worker health	<u>3.1.3 Employee Engagement</u> <u>3.2.1 Safety Initiatives</u>
	Disclosure 403-7	Prevention and mitigation of OHS impacts directly linked by business relationships	<u>3.2.1 Safety Initiatives</u> <u>3.3.2 Risk Management</u>
	Disclosure 403-8	Workers covered by an OHS management system	3.2.1 Safety Initiatives 3.3.2 Risk Management 3.2.3 Our OHS Performance
	Disclosure 403-9	Work-related injuries	3.2.3 Our OHS Performance

Business Ethics & Integrity, Sustainable Supply Chain Management, Sustainability Governance				
GRI 205: Anti- corruption 2016	Disclosure 205-2	Communication and training about anti-corruption policies and procedures	4.3.2 Anti-Corruption	
	Disclosure 205-3	Confirmed incidents of corruption and actions taken	4.3.2 Anti-Corruption	
GRI 415: Public Policy 2016	Disclosure 415-1	Political contributions	Not applicable: This is not allowed under our Code of Conduct	

## 6.7 TASKFORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES CONTENT INDEX

Vena Energy supports the **Taskforce on Climate-related Financial Disclosures (TCFD)** and are working towards incorporating its recommendations into our governance, corporate strategy, risk management and internal target setting.

Recommended Disclosure	Response	Reference Section
Governance	Vena Energy's <b>Investment Committee</b> oversees the investment, divestment, and development activities of Vena Energy, which constitutes our strategic response to climate-related opportunities. Vena Energy's <b>Sustainability Committee</b> , a Vena Energy Shareholder Board appointed committee, is responsible for the development, implementation and monitoring of Vena Energy's sustainable development policies including those related to climate change and environmental management.	<u>4.2.1 Board Committees</u>
Climate Action Strategy	The <b>energy transition is the primary business opportunity</b> for Vena Energy, and we aim to act as a catalyst for accelerating the energy transition across the Asia-Pacific region. Our core business strategy is intimately intertwined with our climate strategy, and it promotes a continuous effort to increase efficiency and compress the levelised cost of renewable energy.	Welcome Message from our CEO 1.3 Our Business 2.1 Climate Opportunity and Strategy
Risk Management	Climate risk to Vena Energy's operations primarily relates to <b>physical risk</b> , including the impact of global warming, extreme weather conditions and rising sea levels on our operating, construction, and development assets across the region.	2.2 Physical Climate Risk and Management
Metrics and Targets	To support the climate change agenda and measure our contribution, we track our overall power generation across the operational portfolio and calculate the resulting sustainability impact in units of: 1) GHG emissions avoided, 2) Number of households powered, 3) Amount of water saved, 4) Number of trees planted, and 5) Number of vehicles taken off the road. Our Greenhouse Gas Emissions is published annually. In 2021, we made a public commitment to decarbonise our operations to reach net zero and our Scope 1 and 2 targets are published in this year's Sustainability Report	2.3.1 Our Sustainability Impact 2.3.2 Our Greenhouse Gas Emissions 2.3.3 Climate Actions

## 6.8 LEGAL STATEMENTS

This report does not constitute or form part of and should not be construed as, an offer to sell or issue or the solicitation of an offer to buy or acquire securities of Vena Energy Capital Pte. Ltd., Vena Energy Holdings Ltd., Vena Energy (Taiwan) Holdings Ltd., Zenith Japan Holdings Trust acting by its trustee Zenith Japan Holdings Ltd. (together, "Vena Energy") or any of their respective subsidiaries or affiliates in any jurisdiction or an inducement to enter into investment activity. Any decision to purchase securities in the context of a proposed offering to be undertaken in the future by Vena Energy, if any, should be made on the basis of information contained in the offering document published in relation to such an offering. No part of this document, nor the fact of its distribution, should form the basis of, or be relied on in connection with, any contract or commitment or investment decision whatsoever. No representation, warranty or undertaking, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information or the opinions contained herein. None of Vena Energy or any of their affiliates, advisers or representatives shall have any liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection with the document.

This report contains "forward-looking statements", which include all statements other than statements of historical facts, including, without limitation, any statements preceded by, followed by or that include forward-looking terms such as "targets", "believes", "expects", "plans", "intends", "anticipates", "projects", "aims", "seeks", "may", "will", "would", "should", "could" or similar expressions or the negative thereof. However, these words are not exclusive means of identifying forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors beyond Vena Energy's control that could cause the actual results, performance or achievements of Vena Energy to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements, including, among others, financial forecasts, profit projections, the achievement of anticipated levels of profitability, growth, cost and synergy of recent acquisitions, the impact of competitive pricing, the ability to obtain necessary regulatory approvals and licenses, the impact of developments in the economic, political and legal environment of Singapore and other jurisdictions in which Vena Energy operates, volatility in stock markets or in the price of Vena Energy's securities, financial risk management and the impact of general business and global economic conditions. You are cautioned not to place any reliance on these forwardlooking statements.

Such forward-looking statements are based on numerous assumptions regarding Vena Energy's present and future business strategies and the environment in which Vena Energy will operate in the future. Any opinions expressed in this report are subject to change without notice and may differ, or be contrary to, opinions expressed by other business areas or groups of Vena

Energy as a result of using different assumptions and criterion. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. These forward-looking statements speak only as at the date as of which they are made, and Vena Energy expressly disclaims any responsibility, and undertakes no obligation, to update or revise any forward-looking statements contained herein to reflect any change in Vena Energy's expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based. Forward-looking statements contained in this report regarding past trends or activities should not be taken as a representation that such trends or activities will continue in the future.

Neither Vena Energy, nor any of their respective agents, employees or advisers intends or has any responsibility, duty or obligation to supplement, amend, update or revise any of the forward-looking statements contained in this report.

This report includes measures of financial performance which are not a measure of financial performance under International Financial Reporting Standards ("IFRS"), such as "EBITDA", "LCOE", "Proportionate EBITDA", "Proportionate EBITDA Margins", "Net Debt" and "Funds from Operational Assets" (together, the "Non-IFRS Measures"). These Non-IFRS Measures are presented because Vena Energy believes they are useful measures to reflect its financial condition and historical ability to provide investment returns. The Non-IFRS Measures and other measures of financial performance presented in this report are supplemental financial measures, and should not be considered as an alternative to cash flows from operating activities, a measure of liquidity or an alternative to net profit or indicators of Vena Energy's operating performance on any other measure of performance derived in accordance with IFRS. Because the Non-IFRS Measures are not IFRS measures they may not be comparable to similarly titled measures presented by other companies.

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