



a UEM LESTRA company



# *Nurturing Talent* for Malaysia's Green Economy

SUSTAINABILITY REPORT 2024

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## ABOUT THIS REPORT

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### REPORTING SCOPE AND BOUNDARY

The scope of this Report covers the period from 1 January 2024 to 31 December 2024. Where applicable, comparative historical data is provided for context.

Cenergi SEA Berhad (Cenergi) is a subsidiary of UEM Lestra Berhad and was incorporated in 2008. It is a sustainable energy solutions company focused on reducing carbon emissions through renewable energy and energy efficiency projects. Cenergi operates across Malaysia and Indonesia, with its Head Office located in Selangor, Malaysia.

This Report outlines the Group's sustainability performance across the following divisions:

<b>Cenergi RE Sdn Bhd</b>	Undertakes investment in Biogas Projects
<b>Cenergi EE Holdings Sdn Bhd</b>	Undertakes investment in Solar and Energy Efficiency Projects
<b>Cenergi Refuel Sdn Bhd</b>	Undertakes investment in Pellet Plants
<b>Cenergi Hydro Sdn Bhd</b>	Undertakes investment in Small Hydropower Projects (SHP)
<b>Cenergi EPC Sdn Bhd</b>	Undertakes Engineering, Procurement, and Construction of Renewable Energy Projects, and Provision of Project Management Services
<b>Cenergi Operations and Maintenance Sdn Bhd</b>	Undertakes Operations and Maintenance of Renewable Energy Power Plants
<b>Cenergi Carbon Sdn Bhd</b>	Undertakes Project Development for the Registration, Marketing and Trading of Carbon Credit and Renewable Energy Certificates (RECs)

### REPORTING FRAMEWORKS AND GUIDELINES

This Report was prepared with reference to the frameworks and guidelines of Global Reporting Initiative (GRI) Standards 2021, Bursa Malaysia's Sustainability Reporting Guide (Third Edition), United Nations Sustainable Development Goals (UN SDGs), Greenhouse Gas (GHG) Protocol and other relevant sectoral best practices.

### FORWARD-LOOKING STATEMENTS

This Report includes forward-looking statements relating to Cenergi's goals, targets, and ambitions. These statements are based on information available at the time of reporting and prevailing operating conditions. Actual outcomes may differ due to risks and uncertainties beyond the Group's control.

### FEEDBACK CONTRIBUTION

This Report is available for download at [www.cenergi-sea.com](http://www.cenergi-sea.com). We welcome your feedback, suggestions, and inquiries, which are valuable in helping us improve future disclosures and sustainability practices.

Please contact us at:

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Cenergi is at the forefront of Malaysia's clean energy transition, delivering solutions that directly address climate change and support national decarbonisation goals.

As a renewable energy developer, Cenergi owns and operates projects that generate energy from renewable sources, including biogas, solar, and biomass. Through these initiatives, we enable our partners and stakeholders to meet their own climate commitments while contributing to national decarbonisation goals.

Since 2008, Cenergi has delivered clean energy solutions with a clear focus on emissions reduction and sustainable growth. In 2024, we further expanded our portfolio with investments in small hydropower projects and bio-CNG, coupled with advanced progress in RECs and carbon credit development, reinforcing our presence in the broader carbon economy.

This Sustainability Report for the financial year ended 31 December 2024 (FYE2024) reflects our ongoing journey to contribute meaningfully to a low-carbon economy, advance waste-to-energy solutions, and create long-term value for the environment, our people, and stakeholders.

Behind every kilowatt of clean energy we generate is a team of passionate, hardworking Cenergiens. This year, we place a special focus on the people behind our operations.

Throughout the report, we spotlight individuals from across business units - whose stories reflect the values, determination, and everyday ingenuity that power our mission.



## VALUE CREATION IN 2024 - KEY HIGHLIGHTS

### Financial Highlights

In RM'million	2023	2024	Increase
Total Assets	467.5	<b>651.9</b>	39%
Shareholder's Equity	186.5	<b>274.1</b>	47%
Revenue <sup>#</sup>	72.1	<b>90.5</b>	26%

### Annual GHG Emissions Avoided

In tCO <sub>2</sub> e	2023	2024	Increase
Emissions Avoided	739,667	<b>960,040</b>	30%
Nett Emissions Avoidance owned by Cenergi	637,971	<b>699,717</b>	10%

<sup>#</sup> Revenue includes sales of RECs and carbon credits; accordingly, the 2023 figures have been restated.

- **Building a Cenergi team<sup>1</sup>** > Total employees **357**
- **A Trusted Partner in Renewable Energy<sup>2</sup>** > Total capacity **76.3 MW**  
Biogas Assets **20**  
Solar Assets **22**
- **Renewable Energy projects under development<sup>2</sup>** > Total capacity **70.8 MW**  
Biogas Assets **12**  
Solar Assets **3**  
Small Hydropower Assets **2**
- **A Trusted Partner in Sustainable Biomass Pellets<sup>2</sup>** > Installed Plants **4**  
Under Development **1**
- **Investment in Energy Efficiency Solutions<sup>2</sup>** > Total **RM45 million**

<sup>1</sup> More information under Section 5 : Value to our People  
<sup>2</sup> More information under Section 4 : Key Business Areas

## ALIGNMENT TO UN SDGS 2030



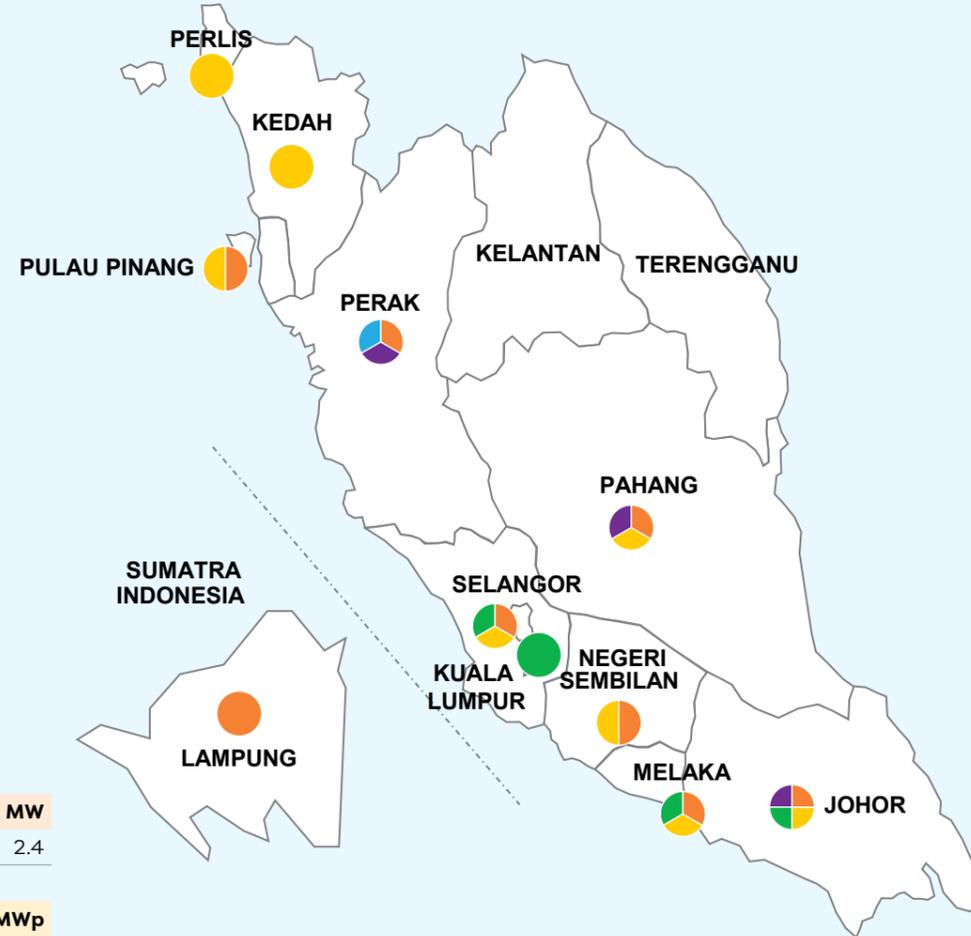
- **SDG 4 Quality Education**  
We promote inclusive learning through initiatives like tuition sponsorship, learning visits, and Back-to-School support, designed to empower underprivileged students with resources and career exposure. Internally, we build capacity through ongoing skills-based training including specialised programmes for our biogas plant operators.
- **SDG 6 Clean Water and Sanitation**  
Through methane capture from palm oil mill effluent (POME) and small hydropower projects, we contribute to improved wastewater treatment, water quality, and more sustainable water infrastructure.
- **SDG 7 Affordable and Clean Energy**  
Our biogas, solar, and small hydropower plants generate clean electricity for the national grid, reducing reliance on fossil fuels and supporting Malaysia's transition to a low-carbon energy system.
- **SDG 8 Decent Work & Economic Growth**  
We promote equitable employment practices that are inclusive of all individuals, ensuring that everyone has opportunity to access green jobs in the transition toward a low-carbon, sustainable future.
- **SDG 9 Industry, Innovation and Infrastructure**  
Cenergi develops clean energy infrastructure while introducing practical innovations in biogas generation and implementing digitalisation. These innovations enhance project viability, reduce costs, and improve operational uptime.
- **SDG 11 Sustainable Communities**  
We prioritise inclusive stakeholder engagement across all project sites, particularly in carbon credit initiatives, ensuring communities and local partners are actively involved in decisions that affect their environment and livelihoods.
- **SDG 12 Responsible Consumption and Production**  
By converting agricultural waste into biomass pellets and recovering methane, we promote circular economy practices. This reduces landfill waste, odour, and emissions, while advancing the responsible use of natural resources.
- **SDG 13 Climate Action**  
We capture methane from wastewater treatment, generate renewable energy, and implement energy efficiency solutions, all of which help to avoid and reduce greenhouse gas emissions.
- **SDG 17 Partnerships for the Goals**  
We actively cultivate multi-stakeholder partnerships with government agencies, NGOs, and academic institutions. On the commercial front, we also support our business clients in achieving their ESG and decarbonisation goals, particularly through energy efficiency solutions and also, RECs and carbon credits.

# CENERGI'S RENEWABLE ENERGY PORTFOLIO

AS OF END 2024

01 OVERVIEW  
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- Biogas**  
Total Biogas to Electricity  
**35.3 MW**
- Solar**  
Total Solar Project Capacity  
**40.9 MWp**
- Energy Efficiency**  
Total Energy Efficiency Project Value  
**RM45 Million**
- Pellet**  
Total Biomass Pellet Plant Assets  
**4 Plants**



**JOHOR**

Biogas	MW
BELL YP (Yong Peng)	2.4

**Solar**

@mart Kempas (Johor Bahru)	MWp
	0.4

**Energy Efficiency**

AEON Bukit Indah
------------------

**KEDAH**

Biogas	MW
Sungai Dingin	1.2

**Solar**

NEDA Sg. Tiang (Pendang)	MWp
	11.3
ACM (Bukit Kayu Hitam)	3.0
Inokom (Padang Serai)	5.8

**KUALA LUMPUR**

Energy Efficiency
AEON Kuala Lumpur

**LAMPUNG, INDONESIA**

Biogas	MW
Hamparan (Lampung)	3.0

**NEGERI SEMBILAN**

Biogas	MW
Sua Betong (Port Dickson)	1.2
Classic (Tampin)	2.4
Koh Foh (Jempol)	1.2

**Solar**

TROX (Senawang)	MWp
	0.5
Kim Hin 1 (Seremban)	1.2
Kim Hin 2 (Seremban)	0.5

**PAHANG**

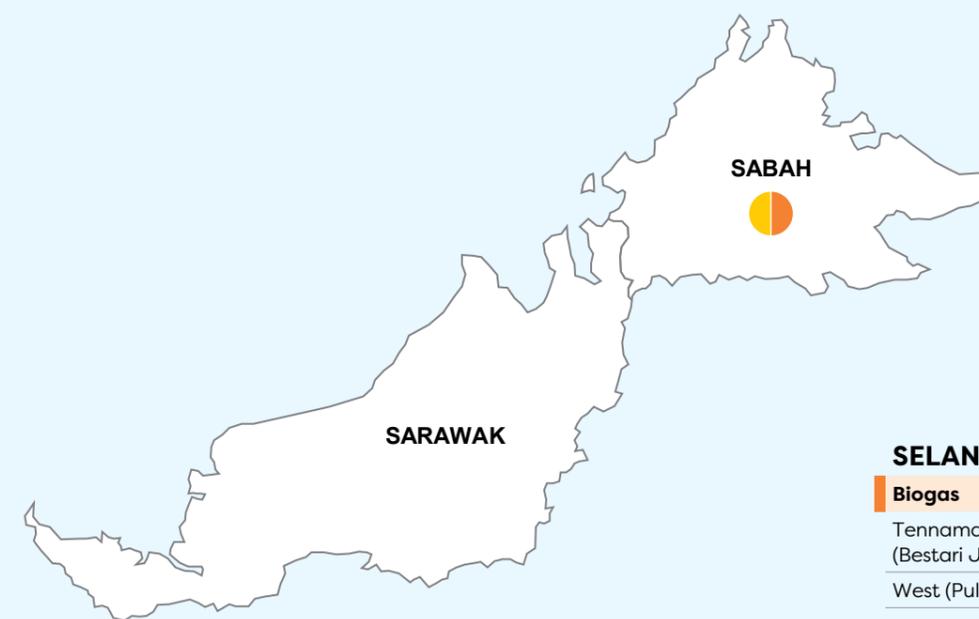
Biogas	MW
Palong (Bera)	2.1
Cheekah (Bera)	1.1
Sri Jelutung (Pekan)	1.4
FJP Phase 1 (Jerantut)	1.5
FJP Phase 2 (Jerantut)	4.0

**Solar**

De Rhu (Berserah)	MWp
	0.5
KotaSAS (Kuantan)	0.1
RIPI (Rompin)	0.5
TMB	0.04

**EFB Pellets/Briquette**

FJP Pellet (Jerantut)
Maran Pellet Plant



**PERLIS**

Solar	MWp
IRMS (Padang Besar)	5.0

**PERAK**

Biogas	MW
Chersonese (Kuala Kurau)	1.2
Pantai Remis	1.5
Sri Ganda (Teluk Intan)	2.4
Endah (Lekir)	1.2
Langkap	1.6
Elphil (Sungai Siput)	1.2
Seberang Perak	1.5

**EFB Pellets/Briquette**

Seberang Perak Pellet Plant
Teluk Intan Pellet Plant

**PULAU PINANG**

Solar	MWp
Texchem-Pack (Perai)	0.6
Texchem-Pack (Bayan Lepas)	0.5
Hewlett Packard (HP) (Batu Kawan)	2.7
Guppy Penang (Bukit Mertajam)	1.1

**SABAH**

Solar	MWp
DASB (Keningau)	1.0
MPSB (Kota Merudu)	1.0

**SELANGOR**

Biogas	MW
Tenamaram (Bestari Jaya)	1.6
West (Pulau Carey)	1.6

**Solar**

Texchem-Pack (Subang Jaya)	MWp
	0.3
Texchem-Pack (Bangi)	0.5
Tropicana Golf & Country Resort	0.9
Royce Warehouse	0.1
WiPro Manufacturing Services	0.3
WiPro Unza Malaysia	0.4
Tropicana Aman	0.2
Thomson Hospitals	0.5
St. Joseph's International School	0.4
Sri KDU Klang	0.4
Sri KDU Subang Jaya	0.4
REAL Cheras	0.3

**Energy Efficiency**

AEON Kuala Lumpur
IUUM (Gombak)

Solar Farm

# RECOGNITION AND AWARDS

## Cenergi's leadership in clean energy continues to gain national and regional recognition.

In 2024, Cenergi FELCRA Jayaputra (CFJP) Biogas Power Plant was honoured in the Malaysia Book of Records as the Biggest POME Grid-Connected Biogas Power Plant in Malaysia, reflecting our role in scaling renewable energy infrastructure. Previously in 2023, the same plant earned regional acclaim by winning in the ASEAN Sustainable Energy Challenge organised by ASEAN Federation of Engineering Organisations (AFEO), underscoring its contribution to innovation and sustainability in Southeast Asia's clean energy landscape.

This accolades mark important milestones in Cenergi's mission to drive impactful, low-carbon solutions across Malaysia and the region.



<p><b>The Malaysia Book of Records Award, 2024</b></p> <ul style="list-style-type: none"> <li>CFJP 5.5 MW Biogas Power Plant honoured as the Biggest POME Grid-Connected Biogas Power Plant in Malaysia</li> </ul> <p><small>Please refer to Section 4 Key Business Units (Biogas Power Plants) for further details</small></p>	<p><b>ASEAN Sustainable Energy Challenge, 2023</b></p> <ul style="list-style-type: none"> <li>CFJP awarded the 2<sup>nd</sup> Runner-Up Award for the integrated design and development category</li> </ul>	<p><b>The BrandLaureate – Property Branding Awards 2022</b></p> <ul style="list-style-type: none"> <li>Infrastructure Category – Renewable Energy</li> <li>Organised by The World Brands Foundation (TWBF), recognises the strong and successful brands in the property industry and those in its supporting eco-system and supply chain</li> </ul>	<p><b>The Asset Triple Islamic Finance Awards 2022</b></p> <ul style="list-style-type: none"> <li>Best Asean Green SRI Sukuk</li> <li>RM210 million dual-tranche Asean Green SRI Senior Sukuk Wakalah issuance on December 2021</li> <li>To fund and support the government's aspiration in the enhancement of the renewable energy (RE) sector</li> </ul>
<p><b>Energy Globe Award National Winner – Malaysia, 2020</b></p> <ul style="list-style-type: none"> <li>An award presented to innovative and sustainable projects to a broad global audience who implemented solutions to environmental problems</li> <li>Awarded to Sri Jelutung Biogas Power Plant (1.5MW)</li> </ul>	<p><b>National Energy Award Special Award, 2020</b></p> <ul style="list-style-type: none"> <li>An award organised to recognise Malaysian organisations leading the field in sustainable practices through adoption of Energy Efficiency and Renewable Energy</li> <li>Awarded to the owner, International Islamic University Malaysia and energy services company, Cenergi EE Sdn. Bhd.</li> </ul>	<p><b>Sustainable Business Award Best SME</b></p> <ul style="list-style-type: none"> <li>Best SME 2018 and 2019</li> <li>An award series run by a firm wholly committed to sustainability and which comprehensively assess corporate sustainability programs</li> </ul>	<p><b>Frost &amp; Sullivan</b></p> <ul style="list-style-type: none"> <li>2014 Best Practices Awards</li> <li>2014 Malaysia Biogas Energy Entrepreneurial Company of the Year</li> </ul>

# OUR BOARD OF DIRECTORS



**1 DATUK AMRAN HAFIZ AFFIFUDIN**  
Chairman  
(19 July 2024 - 15 July 2025)

Datuk Amran, who has over 27 years of experience in corporate finance, investment, and sustainable development, began his career with Petroliaam Nasional Berhad (Petronas) in 1997. He then transitioned to the private equity industry before joining Khazanah in 2011 where he was responsible for Khazanah's investments in various sectors including Energy, Iskandar, Leisure & Tourism, Infrastructure, Power, Agrifood, Indonesia and Sustainable Development.

Datuk Amran Hafiz Affifudin is the Managing Director of UEM Group Berhad ("UEM"), a position he held since 1 August 2024. He is also a Director of UEM Sunrise Berhad, UEM Edgenta Berhad, UEM Lestra Berhad, PLUS Malaysia Berhad, Projek Lebuhraya Usahasama Berhad, Cement Industries of Malaysia Berhad, UEM Builders Berhad, Malaysia Airports Holdings Berhad, Konsortium ProHAWK Sdn Bhd and several private entities under UEM.

**3 AHMAD JAUHARI YAHYA**  
Director

Ahmad Jauhari Yahya was appointed as a Director of Cenergi SEA Berhad on 28 October 2015 and subsequently on 12 August 2016, as its Executive Director. He was later re-designated as a Non-Executive Director on 27 October 2023. He brings over 25 years of experience in the energy and power sectors.

He previously served as the Chief Executive Officer of Malakoff Corporation Berhad, where he was instrumental in establishing the company as Malaysia's leading Independent Power Producer. He also served as Managing Director of Malaysia Airlines from 2011 to 2015 and was the directors of several of Malaysia's leading companies, including MMC Corporation Berhad, Sapura Resources Berhad and Time Engineering.

Ahmad Jauhari currently serves as the chairman of Minconsult Sdn Bhd and holds board positions in Taliworks Corporation Berhad, Sapura Resources Berhad, Proton Holdings Berhad, Perusahaan Otomobil Nasional Sdn. Bhd, DRB-HICOM Defence Technologies Sdn. Bhd. and Composites Technology Research Malaysia Sdn. Bhd.

He holds a Bachelor of Science in Electrical and Electronic Engineering and was awarded an honorary Doctorate in Business Administration by the University of Nottingham, United Kingdom.

**2 HARMAN FAIZ HABIB MUHAMAD**  
Chairman  
(since 15 July 2025)

Harman Faiz Habib Muhamad was appointed to the Board of Cenergi SEA Berhad on 11 August 2023 and redesignated as the Chairman on 15 July 2025.

Harman is also the Managing Director of Cenergi's holding company, UEM Lestra Berhad ("UEM Lestra"), the green industries arm of UEM Group Berhad ("UEM").

He has held various role within UEM including Director of Commercial and Director of Corporate Support Services, where he was responsible for legal, secretarial, human resource, property and administration, and IT functions.

He began his career as an Advocate and Solicitor before transitioning into the energy sector at Malakoff. He currently holds directorships in subsidiary and associated companies under UEM Lestra. Harman Faiz holds a Bachelor of Laws from the International Islamic University Malaysia.

**4 FIRDAUS HISHAM**  
Director

Firdaus Hisham has been a Director of Cenergi SEA Berhad since his appointment on 1 January 2023.

At present, he is the Chief Strategy Officer of UEM Group Berhad ("UEM") where he oversees strategic planning, mergers and acquisitions ("M&A"), and business development. Prior to joining UEM, he was a Director in Khazanah Nasional Berhad's Investments team where he led the Portfolio Value Development/Sentinel, Tourism and Iskandar teams. Before that, Firdaus held leadership roles in Tenaga Nasional Berhad's New Energy Division and Korean conglomerate SK Group after starting his career at Macquarie Group. He has broad experience across various sectors including renewable energy, technology, infrastructure, logistics, agrifood and aviation.

In addition to Cenergi, Firdaus also serves on the board of UEM Lestra and holds several directorships within various subsidiaries under UEM.

Firdaus graduated from the University of Illinois at Urbana-Champaign, United States with Bachelor of Science in Actuarial Science, Bachelor of Arts in Finance and Bachelor of Arts in Economics.

**5 HEIDIR HASNAN**  
Former Director

Heidir Hasnan, a former Director of Cenergi who served from 14 September 2023 to 15 July 2025, is the Senior Vice President in the Investments Division at Khazanah Nasional Berhad, with extensive experience in audit, corporate finance, and investment.

He began his career at Deloitte in London, specialising in the energy and infrastructure sectors, and has since held various investment and finance roles at Kumpulan Wang Persaraan ("KWAP"), Petronas, and Lembaga Tabung Angkatan Tentera ("LTAT").

Heidir is an Associate Chartered Accountant ("ICAEW") and holds a Master's degree in Chemical Engineering from Imperial College London, United Kingdom.

Dear Valued Stakeholders,

2024 marked a defining chapter for Cenergi as we advanced into new frontiers of renewable energy while continuing to expand our portfolio of biogas and solar plants.



**IR. KWOK YEW HOE**  
Group Chief Executive Officer



As we accelerate the growth of renewable energy and decarbonisation projects, our collective achievements are the result of shared belief, perseverance, and purpose.

In the Biogas and Biomass segment, we commercialised five biogas power plants and four biomass pellet plants across Peninsular Malaysia. Our 5.5MW Cenergi FJP Biogas Power Plant was recognised by the *Malaysia Book of Records* as the nation's largest POME grid-connected biogas power plant.

This year also brought two major milestones – the approval and issuance of Malaysia's first technology-based carbon credits under Verra's Verified Carbon Standard (VCS) for our Langkap Biogas Power Plant in Perak, and the securing of an offtake agreement for our first bio-CNG plant in Lahad Datu, Sabah, in collaboration with our joint venture partner, Kwantas Plantations.

In the Solar segment, we concluded strategic rooftop solar partnerships with Bank Rakyat and Pharmaniaga Berhad, and entered into long term Virtual Power Purchase Agreements with the off-takers of our 44.9 MWp Kuala Ketil solar farm under the Corporate Green Power Program (CGPP).

Throughout 2024, we continued to foster a culture of innovation, teamwork, and empowerment through initiatives like the "Stretchability Development Program". We also advanced our diversity and inclusion agenda. Women now make up 15% of our workforce, with four out of eleven leadership roles are held by women. Youth participation continues to rise, with approximately 42% of our employees under 30 years old,



reflecting our commitment to building the next generation of clean energy professionals for a just energy transition.

Looking ahead, 2025 will be about building on this momentum. We aim to expand our portfolio through participation in SEDA e-bidding and accelerate rooftops solar adoption.

We also expect to commission our first small-hydropower project at Sungai Suih, Kelantan marking our entry into the small hydropower segment. Several biogas projects are also in the pipeline, some with potential to generate additional carbon credits.

These milestones are made possible through the collective strength of our people, partners, and stakeholders. With your continued support, and through perseverance, innovation, and purpose - Cenergi will continue to contribute to Malaysia's clean energy transition and fulfil our vision of being a premier clean energy and environmental solutions company.

 **76.3 MW** Total operational capacity under Cenergi portfolio

 **5.5 MW** Biogas-to-electricity: Nation's largest POME grid-connected biogas power plant

 **36,551 VCUs** Malaysia's first issued technology-based carbon credit under Verra's Verified Carbon Standard

# MESSAGE FROM THE HEAD OF CORPORATE STRATEGY AND SUSTAINABILITY

Dear Valued Stakeholders,

We are delighted to share with you Cenergi's 2024 Sustainability Report that highlights the strength of our people in advancing and growing the green economy of our nation!



**Nesa Albeper deRozario**  
Head of Corporate Strategy & Sustainability

2024 was a significant year for Cenergi SEA. On 20 December, we obtained the first tranche issuance of Malaysia's first technology-based carbon credits generated from our 1.6 MW Langkap Biogas Power Plant registered under VERRA Verified Carbon Standard (VCS), demonstrating Cenergi's leadership in the voluntary carbon market (VCM).

While the global VCM faced structural shifts and regulatory uncertainty during the year, the market remained resilient with increasing emphasis on quality and integrity, as buyers and investors seek credits that deliver real, additional climate impact. Before the end of 2024, Cenergi sold our vintage 2024 (V2024) methane avoidance credits to a major multinational buyer to decarbonise their value chain. This transaction reflects confidence in the quality and integrity of the credits generated from Cenergi SEA. In 2025, Cenergi will be looking to add three more biogas plants to this Grouped Project with an estimated volume of 110,000 Verified Carbon Units (VCUs) added to this portfolio by 2027.

In 2024, CFJP Biogas Power Plant in Pahang became Malaysia's largest POME grid-connected biogas facility at 5.5 MW, avoiding 89,000 tCO<sub>2</sub>e annually. The year also marked our leap into small hydropower project with the 3.5 MW Sg Suih brownfield redevelopment in Kelantan – powering a cleaner, greener future.

At the heart of our renewable energy and carbon markets business is Cenergi's effort to attract, invest and support the best people that will strengthen the sustainability, long-term outcomes and governance of our activities. Our Sustainability Report for 2024 is designed to give an opportunity to celebrate the people behind each one of our successes as Cenergi contributes to the nation's transition to clean energy and develops a robust carbon market ecosystem.

We hope this inspires you to join us in these efforts to create a just and thriving nation that runs entirely on green energy in the decades to come.

“”

At the heart of our renewable energy and carbon markets business is Cenergi's effort to attract and invest in the best people.

# SUSTAINABLE APPROACH AND GOVERNANCE

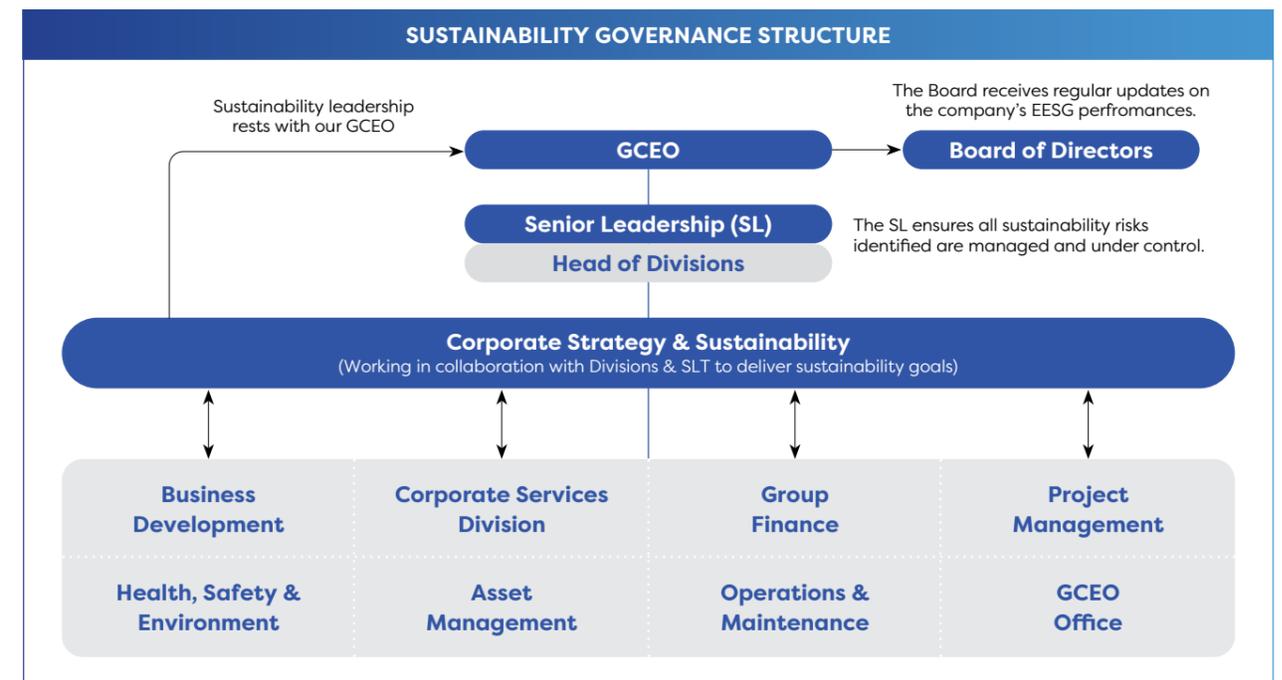
GRI 2-9, 2-11, 2-12, 2-13, 2-14, 2-23, 2-26, 2-27, 205-1, 205-2, 205-3



Strong governance underpins our approach to sustainable business practices. The Board of Directors, as the Group's highest governance authority, sets the overall purpose, values, and strategic direction.

Economic, Environmental, Social and Governance (EESG) matters are overseen at the highest level, with the Group Chief Executive Officer (GCEO) providing regular updates to the Board. The Corporate Strategy and Sustainability Department leads the identification and management of sustainability risks and opportunities, ensuring these are embedded within business strategy.

The Senior Leadership is accountable for the effective management of identified risks, fostering a culture of responsibility and integrity throughout the organisation. The GCEO provides strategic leadership, reinforcing our commitment to responsible and sustainable growth.



## BUSINESS ETHICS AND INTEGRITY

At Cenergi, we are committed to conducting our business with the highest standards of ethics and integrity, fully complying with all applicable laws and regulations in every area of operation. Integrity remains a core principle, reinforced by our zero-tolerance stance on bribery and corruption. A comprehensive set of policies and controls is in place to mitigate corruption risks across our Group and stakeholder network.

Our Anti-Bribery and Anti-Corruption Policy is supported by the Organisation Anti-Corruption Plan (OACP), which aligns with the T.R.U.S.T. principles. Key governance documents, including the Code of Business Conduct, Whistleblowing Policy, No Gift Policy, and Anti-Bribery

and Anti-Corruption Policy, are actively communicated to all employees. This commitment is further underscored by the GCEO's Integrity & Anti-Corruption Statement, which is available on our corporate website at <https://www.cenergi-sea.com>.

At Cenergi, we recognise that strong governance and sustainability go hand in hand. Our ethical framework, anchored in integrity, accountability, and transparency, guides daily operations and decision-making processes. By adhering to these standards, we foster long-term, trust-based relationships with stakeholders and contribute positively to the communities where we operate.

# OUR VISION, MISSION AND GOALS

Cenergi is driven by a clear vision to lead in the renewable energy sector and to expand access to clean energy for all. Our mission centres on delivering innovative, practical solutions that contribute to national and global climate objectives, while creating positive impacts for communities and the environment.



## OUR VISION

Premier Clean Energy and Environmental Solutions Company



## OUR MISSION

We are passionate in providing innovative and practical solutions in the areas of renewable energy, energy efficiency and environmental conservation to achieve net-zero emissions, for a sustainable future

At Cenergi, our core values underpin our organisational culture and shape the way we work together to achieve our objectives. They serve as guiding principles for ethical decision-making, strengthening relationships, and fostering a positive and inclusive environment for our employees, partners, and stakeholders.



# MEMBERSHIPS IN ASSOCIATIONS

GRI 2-28

Through active participation in key industry associations, we remain informed on emerging trends and contribute to shaping industry policies and best practices both in Malaysia and also regional within South East Area. Our engagement fosters collaboration, drives sector-wide progress, and reinforces our role as a proactive contributor to the advancement of the industry.

- ▶ Construction Industry Development Board (CIDB)
- ▶ MyHijau Certified - Malaysian Green Technology and Climate Change Corporation (MGTC)
- ▶ Registration of Energy Service Company - Energy Commission
- ▶ Malaysia Association of Energy Service Companies (MAESCO)
- ▶ Malaysia Biomass Industries Confederation (MBIC)
- ▶ Malaysian Photovoltaic and Sustainable Energy Industry Association (MPSEA)
- ▶ Registered Solar Photovoltaic Investor Under NEM Programme (SEDA Malaysia)
- ▶ Malaysian Small Hydro Industry Association (MASHIA)
- ▶ Malaysian Dutch Business Council (MDBC)
- ▶ Ministry of Finance Malaysia - ePerolehan
- ▶ Malaysia Carbon Market Association (MCMA)



Cenergi is a co-founding member of the MCMA, established on 3 July 2024 and headquartered in Kuala Lumpur. MCMA is a non-profit organisation representing Malaysia's growing carbon market, that serves as a platform for collective voice to build a vibrant carbon market ecosystem from both the public and private sectors. The association plays a pivotal role in policy advocacy, capacity building, and strengthening market readiness throughout the carbon market ecosystem.

As Malaysia takes on the chair of ASEAN in 2025, one of the agenda of MCMA is to build an interoperable and harmonised carbon market structure throughout ASEAN under the ASEAN Common Carbon Framework (ACCF). This initiative aims to have a mutual recognition of carbon standard and methodologies across the region and to build liquidity on the available pool of carbon credits. As a founding member of MCMA, Cenergi's involvement reflects its leadership in driving Malaysia's low-carbon transition and supporting broader regional alignment on climate action.



# BIOGAS POWER PLANT



## KEY PERFORMANCE HIGHLIGHTS IN 2024

Biogas power is one of Cenergi's core business, and it is where the company first started, turning POME into clean electricity and bioCNG while slashing methane emissions, one of the most potent greenhouse gases. This not only contributes to decarbonising Malaysia's palm oil sector but also displaces fossil-based grid electricity. With 20 plants in operation and 12 more under development, Cenergi stands as Malaysia's leading grid-connected biogas player, driving the nation's renewable energy and circular economy goals under the Malaysia Renewable Energy Roadmap and National Biomass Action Plan.

▲ 5.5MW Cenergi FJP Complex, Jerantut, Pahang



**20**  
operational plants  
(2023: 15)



**12**  
biogas-to-electricity  
under development  
(2023: 7)



**1**  
biogas-to-bioCNG  
under development  
(2023: 0)

# THE AWARD-WINNING FJP BIOGAS PROJECT



Cenergi's Plant at FJP in Pahang is officially recognised as Malaysia's largest grid-connected biogas power plant, with a total installed capacity of 5.5 MW. The second phase, comprising 4.0 MW, was commissioned in 2024, following the initial 1.5 MW commissioned earlier. This landmark achievement earned a place in the Malaysia Book of Records in 2024. The facility captures methane through an enclosed anaerobic digester and converts it into clean electricity, displacing fossil fuels and significantly reducing greenhouse gas emissions.

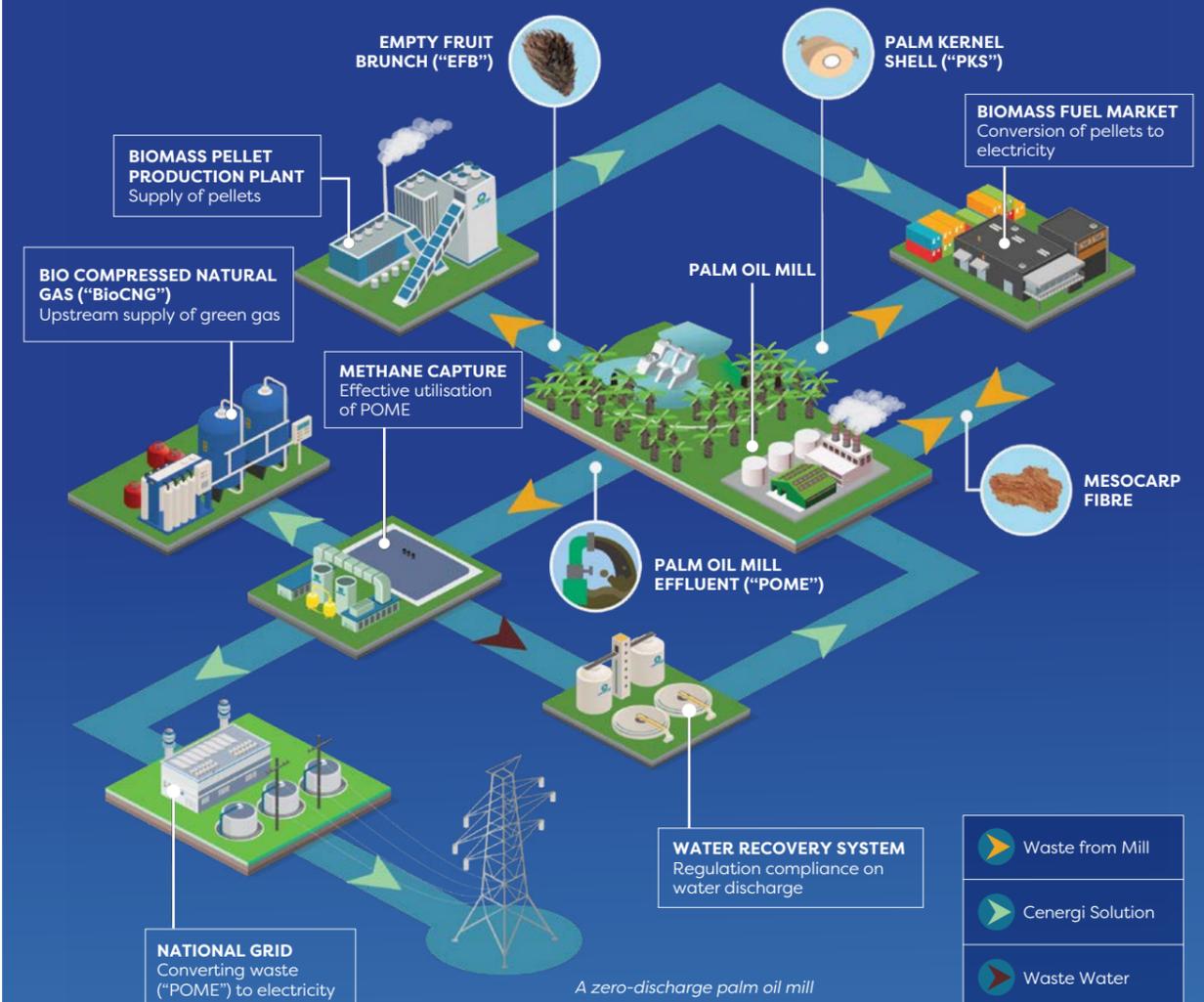
# CENERGI'S TECHNOLOGIES FOR PALM OIL MILL EFFLUENT ("POME")



Cenergi has been a champion in transforming mill by-products into valuable resources. Our solutions focus on three key areas:

- Biogas Power Plants** where palm oil mill effluent is converted into renewable energy
- Biomass Pellets** which serve as a clean alternative fuel for energy production
- Generation of Carbon Credits**, fostering environmental responsibility

By effectively utilising mill byproducts, Cenergi not only helps the waste challenges but also supports a circular economy, contributing to the reducing emissions and national transition towards a low-carbon future.



As of 2024, Cenergi operates one of the largest installations of grid-connected POME-sourced biogas plants in Malaysia. Behind every plant are the people who keep it running. From complex technical operations to community engagement, it's their dedication that powers our progress.

**SITI KAMILAH ABDUL HAMID**

**“ Women Leading in Biogas ”**

-  **Department**  
Operations and Maintenance Department
-  **Position**  
Senior Laboratory Technician/ Administration, Classic Biogas Power Plant
-  **Tenure in Cenergi**  
12 years



Siti is among the pioneers at Cenergi, having worked at Palong, the company's first biogas power plant since 2013. As a local talent, she found the perfect opportunity to achieve a better work-life balance closer to her hometown. Moving from a hands-on technical background in mechatronics, Siti assumed an administrative function including documentation, staff management, and purchase requisitions, which are key to supporting the day-to-day operations of the plant.

During the early stages of her appointment, she received tremendous support from her managers and close-knit team, who were instrumental in helping her adapt. Reflecting on this period, she says, "The opportunity to learn about the biogas process from the ground up was a challenge I welcomed, and the support from my managers and team was fundamental to my success."

After serving at Palong for more than a decade, she moved to the newly commissioned Classic Biogas Power Plant in 2024 to challenge her expertise. This new role presented a significant learning opportunity due to the differences in plant configuration and the increased number of biogas equipment. It also expanded her responsibilities to include managing additional documentation for the biogas plant.

Throughout her evolution from a technical expert to a versatile plant administrator, Siti has carved out a unique space for women in plant operations. As the only female at both Classic and previously Palong facilities, her experience is a testament to the inclusive and supportive culture at Cenergi.

**NURUL FARAH ADDINA BINTI FARIZUDDIN**

-  **Department**  
Project Management Division
-  **Position**  
Assistant Manager Contract and Commercial Management
-  **Tenure in Cenergi**  
7 years



**Building More Than Just Plants**

Farah's journey at Cenergi began as a management trainee and quickly grew into something much more. With determination, she carved her path in a male-dominated field, proving that leadership stems from responsibility, courage, and a commitment to grow in spite of challenges.

As part of the Engineering, Procurement & Construction (EPC) team, Farah learned to navigate complex risks and manage resources for projects often located in remote areas.

One of her most defining projects was the FJP Biogas Plant. Starting as a Junior Executive, she gained hands-on experience during the first 1.5 MW phase, managing the procurement and commissioning of key biogas equipment including engines and scrubbers. When the second 4.0 MW phase commenced, Farah led the end-to-end procurement process for the expansion. Seeing Malaysia's largest POME-biogas power plant through from planning to completion, she calls it "one of my proudest achievements."

For Farah, Cenergi isn't just a workplace. It's where she found her voice, honed her leadership, and grew from the ground up. She hopes to be remembered not just for her work, but for inspiring others to step forward and lead with purpose.

**SUNITA GOPALA KRISHNAN**

-  **Department**  
Legal
-  **Position**  
Senior Manager
-  **Tenure in Cenergi**  
3.5 years



**Laying the Groundwork for Carbon Markets**

Sunita's role in Cenergi is pivotal. As the company's legal counsel, she ensures every contract drafted and negotiated between investors, project partners, project consultants and off-takers are robust agreements for the development and sales of renewable energy and its environmental attributes.

Sunita provides advisory support and negotiates terms to keep complex developments moving forward. One of her most notable projects was the acquisition of three abandoned biogas plants by Cenergi. "Being brownfield projects, the process was particularly complex with extensive negotiations with mill partners," she explains. Despite the challenges, the outcome are "both rewarding and professionally fulfilling."

For the carbon markets, she advises Cenergi on legally sound pathways and anticipates structuring complex deals in the future on risk allocation and future financing structures and sales of credits. Today Sunita sees her role as a bridge: enabling stakeholders to work together in a fair and mutually beneficial way, laying the legal foundation for carbon commodity contracts- a much-needed expertise for the nation.



# ENVIRONMENTAL COMMODITY PORTFOLIO (ECP)

## Expanding Climate Impact through Verified Instruments

Cenergi's Environmental Commodities Portfolio (ECP) continues to grow as a key enabler of Malaysia's low-carbon transition, complementing our RE operations with market-based climate solutions. By monetising the environmental attributes of our clean energy assets, we support both corporate decarbonisation efforts and national ambitions under the National Energy Transformation Roadmap (NETR) and Malaysia Renewable Energy Roadmap.



▲ 1.6 MW Cenergi Langkap. Langkap, Perak

## CARBON CREDITS

Cenergi's expansion into the carbon market reflects its strategic move to align RE deployment with market driven mechanisms that reduce emissions and direct capital or investments into effective climate solutions.

The Langkap Biogas Power Plant in Perak has become Malaysia's first technology-based carbon credit project registered under the VERRA Verified Carbon Standard (VCS), demonstrating Cenergi's leadership in the voluntary carbon market. The plant commenced its operation and began reducing emissions on 16 February 2023 through methane capture from POME and was successfully registered as the first Project Activity Instance (PAI1) under Grouped Project ID 4279 on 21 March 2024. In December 2024, Cenergi received its first issuance of carbon credits from Verra sourcing from PAI1, amounting to 36,551 verified carbon units (VCUs) for the crediting period from 16 February 2023 to 31 May 2024.

Cenergi also successfully included Nasaruddin Biogas Power Plant in Perak as the second PAI under the Grouped Project ID 4279. Within

2024, the company completed the project's feasibility assessment including engagements with the mill partner and baseline monitoring campaign. Cenergi also carried out a stakeholder meeting at Felcra Nasaruddin on 11 June 2024 to inform the stakeholders about the project and ensure the project aligns with the community's needs and values, fostering a collaborative environment for long-term success. The plant will be commissioned in 2025.

With these milestones, Cenergi strengthens its role as a pioneer in technology-based carbon credit project development in Malaysia that drive sustainable palm oil practices through a combination of methane avoidance, traceability, and economic incentives to achieve our national climate objectives.



More info in this story on our Langkap Plant "**Our Carbon Credit Journey: Accelerating Methane Reduction From The Agriculture Sector**"



## SPOTLIGHT



### DR NUR ALYAA ZAHIDA AZIZAN

Department	Corporate Strategy & Sustainability
Position	Assistant Manager
Tenure in Cenergi	2 years

With a background in environmental studies, Dr Alyaa joined Cenergi to pursue impactful work in sustainability. As Project Manager for Cenergi's pioneering carbon credit initiative, Dr Alyaa brings precision, patience, and purpose to a business still finding its footing. She reflects, recalling how she took the project mid-flight and helped guide it through technical validation, rigorous audits, and finally, successful issuance.

Her background in environmental management gave her a strong foundation, but carbon markets added a steep learning curve. "Pitching to clients, aligning monitoring, reporting and verification (MRV) protocols, and explaining how SCADA data mapped to emissions reduction was new but rewarding to me."

Dr Alyaa's work goes beyond documentation. She plays a key role in shaping how the internal teams understand carbon project development, working across technical and non-technical departments to ensure smooth implementation and project readiness. She's also one of Cenergi's representatives in national policy conversations with the Ministry of Natural Resources and Environmental Sustainability (NRES) on the National Climate Change Bill (RUUPIN) and development of the National Carbon Market Policy that is expected to be issued in early 2026.

"We're not just selling credits, we're building trust in a nascent voluntary carbon market ecosystem here in Malaysia," she says. "We have to be transparent in our avoidance claim, ensure high integrity in the credits generated, and develop the project in a way that benefits stakeholders more broadly. Being part of Malaysia's first technology-based carbon credit issuance is something I'll always be proud of."

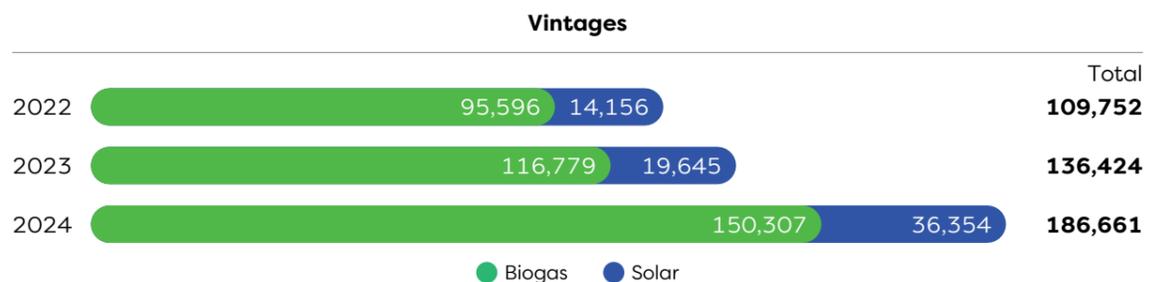
Cenergi's Environmental Commodities Portfolio includes RECs and carbon credits, both vital components of our commitment to sustainable energy solutions.

## Navigating New Frontiers in Carbon Markets

### Renewable Energy Certificates (RECs)

Cenergi's RECs, issued by the international I-REC standard, are critical tools for companies seeking to meet climate targets by sourcing renewable electricity and reducing Scope 2 emission. These certificates verify the origin of clean energy generated from solar, biogas, and small hydropower installations. Each REC represents one megawatt-hour (MWh) of renewable electricity generated and delivered to the grid.

We issued 186,661 RECs for vintage 2024 from 32 projects, comprising 16 biogas plants and 16 solar assets. This marks a significant 37% increase from vintage 2023 issuance of 136,424 RECs, reflecting both portfolio growth and stronger market demand. Total issuance is disclosed in I-REC's Evident Registry, reinforcing transparency and traceability in corporate renewable sourcing.



Looking ahead, Cenergi remains committed to scaling up its ECP through new RECs and carbon credit pipelines. At the centre of this shift is a growing team of carbon professionals working to elevate Cenergi's contributions to national climate ambitions.

In this spotlight, we feature Dr Alyaa, a technical expert whose work exemplifies the next generation driving this portfolio.



# SOLAR POWER & ENERGY EFFICIENCY



## KEY PERFORMANCE HIGHLIGHTS IN 2024

Cenergi's solar and energy efficiency portfolio contributes to Malaysia's transition to low-carbon energy solutions. The portfolio comprises 22 operational solar installations, including 4 solar farms and 18 rooftop systems with 3 additional projects under development. Beyond growth, this business segment is evolving to meet the rising demand for decarbonisation from manufacturers, exporters, and corporate clients seeking to align with sustainability commitments and global market requirements. Our impact spans clean power generation, energy intensity reduction, and policy-aligned innovation through national programmes such as the New Enhanced Dispatch Arrangement (NEDA) and the Corporate Green Power Programme (CGPP).

**Solar Rooftop**

**18**  
Completed  
(2023: 14)

**2**  
Under Development  
(2023: 1)

**Solar Farms**

**4**  
Completed  
(2023: 4)

**1**  
Under Development  
(2023: 1)

Up to 2024, Cenergi has invested a total of RM45 million in energy efficiency projects at client facilities. While project activity in 2024 was modest, Cenergi is building a strong pipeline of initiatives and remains steadfast in advancing this business segment, focusing on solutions that cut energy use, lower emissions and create long-term value for clients.

▲ 11.3MWp NEDA Sungai Tiang, Sungai Tiang, Kedah



From rooftop solar systems to solar farms, the portfolio reduces emissions at source while delivering measurable energy and cost savings to clients. Through green Sukuk financing, Cenergi is also catalysing broader climate investments and scaling commercially viable clean energy assets.

Behind each success are committed individuals turning strategy into actions.

In the following spotlight, we feature Khadijah Hamdan and Hon Zheng Ying, whose leadership has been instrumental in delivering low-carbon solutions where they matter most.



**KHADIJAH HAMDAN**

• Department	Asset and Operations Division
• Position	Head, Contract & Commercial
• Tenure in Cenergi	3 years

Khadijah joined Cenergi seeking a role closer to home, and discovered a new mission. “I’d spent 12 years in conventional power plants, but I kept hearing about solar. People would say, ‘It’s simple.’ But I knew there had to be more. I was curious.”

In her Commercial role, she oversees invoicing, contracts, and commercial operations, balancing responsibilities across HQ and field teams. “It’s important to go beyond the job scope sometimes and to really know the work. It helped me make better decisions.” She mentors younger engineers and has grown into leadership with openness and resilience. “I used to struggle with guiding others yet now, with some training and feedback, I’ve found my footing.”

When her own neighbourhood in Shah Alam was flooded in 2021, climate change stopped being a concept. “It felt personal and I told myself, this work matters.” That experience now shapes the way she approaches contract, weighing not only the commercial value but also how each project can drive climate impacts and resilience.

Khadijah believes in building a future-ready team. “I want to leave behind not just good work, but a team that’s capable, empowered, and ready for what’s next on the climate agenda.”

**Driving Contracts  
Towards Climate Impact**



**HON ZHENG YING**

• Department	Business Development
• Position	Assistant Manager, Commercial, Solar & Energy Efficiency
• Tenure in Cenergi	2 years

Zheng Ying approaches solar energy not merely as a business pitch, but as a personal conviction. “I grew up watching my late dad recycle and care for the environment. Working in renewables feels like carrying that spirit forward,” she shares. “When I joined Cenergi’s Solar Business Development team in 2023, I finally found a way to turn that value into meaningful work.”

Her role in business development involves navigating complex tender processes, earning client trust, and staying ahead of evolving regulations, incentives and financial structures to develop the solar projects. “PPA projects often involve lengthy discussions and contract negotiations – some can take close to a year to close,” she shares. “Signing the deal is just one part – making sure it’s realistically structured and can be smoothly handed over for execution is just as important.”

Being part of the Business Development team means standing at the forefront of translating government renewable energy policies into real-world solutions that drive industrial decarbonisation. By engaging directly with stakeholders, Ying and her team uncover their needs and demonstrate the true value of clean energy. “It’s not just about cost savings—it’s about making a conscious, environmentally responsible choice,” she adds.

Looking ahead, Ying is particularly enthusiastic about the potential of solar hybrid systems and energy storage technologies, as they support a more reliable energy supply and enhanced grid stability.

**Turning Passion Into  
Climate Action**



# SMALL HYDROPOWER



▲ 3.5MW Sungai Suih Small Hydropower, Kelantan

## KEY PERFORMANCE HIGHLIGHTS IN 2024

Small hydropower is where precision engineering meets natural topography, demanding technical excellence and environmental sensitivity. In 2024, Cenergi assumed control of two stalled hydropower projects which are the Sg Suih brownfield project in Kelantan (3.5 MW capacity) and Banjaran Kinta greenfield project in Perak (3.0 MW) with total capacity of 6.5 MW. These were revived through rigorous project management, stakeholder re-engagement and strong engineering oversight. The first grid export is expected in Q1 2026 from Sg. Suih, 3.5 MW Small Hydropower Plant (SHP).



2

SHP under development  
(2023: 0)

Often situated in remote and challenging terrains, such projects require complex coordination of civil works, environmental safeguards, and community partnerships. Unlike solar or biogas, hydropower development presents unique hydrological, geotechnical, and permitting challenges, but it also offers long-term and stable supply of renewable energy supply.

The journey is just beginning for Cenergi in SHP. In this section, we spotlight individuals who are helping chart the course forward.

**MOHD NIZAMUDDIN  
IBRAHIM KAMAL**

“**Engineering Resilience  
Into Rivers**”

-  **Department**  
Project Management Division
-  **Position**  
Manager, Hydro Project
-  **Tenure in Cenergi**  
2 years



As the EPC lead for Cenergi’s earliest foray into SHP projects, Nizam constantly has to expect the unexpected. Whether it’s river diversion, grid interconnection, or overcoming delays in civil works, he sees the big picture with an eye to problem solving.

Nizam’s role in the development of Sg Suih’s 3.5 MW project in Kelantan has been instrumental in reviving halted works, mobilising contractors, and building confidence in projects previously deemed too risky by other project developers in Malaysia.

His role in managing state-level infrastructure hurdles on this project ensured that the site moved forward as planned to derive the long-term potential in generating hydropower since he started working on this project in March 2024.

“My initial interest in renewable energy was driven by a strong desire to contribute to something meaningful like a sector that directly impacts climate resilience and sustainable development. Small hydropower appealed to me because it integrates precision engineering with the natural environment, offering a clean, consistent energy source with long-term benefits for both people and our Earth. The ability to deliver energy access to remote areas while preserving ecological balance is something that truly resonates with me”, says Nizam.

“I’m excited about the convergence of renewable energy with digital innovation from AI-based monitoring to integrated smart grids. For small hydropower, the future lies in optimising existing resources and scaling in harmony with local ecosystems.”



**AHMAD RABBANY AMRAN**

-  **Department** Business Development Division
-  **Position** Head, Hydro
-  **Tenure in Cenergi** 1 year

Overseeing the business development function for small hydropower, Rabbany has been responsible across a wide spectrum of responsibilities which includes looking into land matters and connection permits, site potentials and feasibilities, and interpreting policy and regulations. His challenge? Keeping momentum in a field where approvals for SHP can sometimes take years.

“Hydropower project developments don’t move unless you move it,” he shares. “It takes building relationships with stakeholders, understanding land issues, and a lot of patience.”

Being Cenergi’s first SHP installation, securing the necessary approvals was both a learning experience and a significant early challenge. Rabbany worked closely with multiple authorities, including the Sustainable Energy Development Authority (SEDA) and the State Government Agencies for the approval of the hydropower project. Each approval required tailored technical justifications and coordination across agencies.

What has worked was the approach to be proactive in engaging early at every phase of the project, staying transparent, and aligning Cenergi’s designs with regulatory expectations. Through consistent follow-ups and stakeholder engagement, Cenergi earned the confidence of the respective authorities and successfully navigated the approval process.

Rabbany’s ability to anticipate regulatory shifts and build rapport across jurisdictions is part of why Cenergi’s hydropower vision is gaining traction. His future plans involve potential projects in Peninsular, Sabah and innovations in hydropower energy storage solutions.

**Translating Strategy into Action**



# BIOMASS PELLET PLANTS

Cenergi's Biomass Pellets

## KEY PERFORMANCE HIGHLIGHTS IN 2024

Biomass pellets are a key enabler of Malaysia's circular economy and industrial decarbonisation goals. Cenergi's pellet business transforms Empty Fruit Bunches (EFB), a byproduct of the palm oil industry into high-quality, certified biomass fuel. These renewable pellets are used for mushroom cultivation which agricultural residues to reduce waste, cut emissions, and promote resource efficiency across the value chain.

In 2024, Cenergi expanded biomass pellet production from 1 plant to 4 plants, with another one facility under development. These sustainable fuel alternatives serve industrial and export markets, reinforcing our role in delivering scalable, low-carbon energy solutions.

Biomass pellets: A complementary step in Malaysia's circular economy and decarbonisation journey.

-  **4** Operational plants (2023: 1)
- 1** Plant under development (2023: 4)

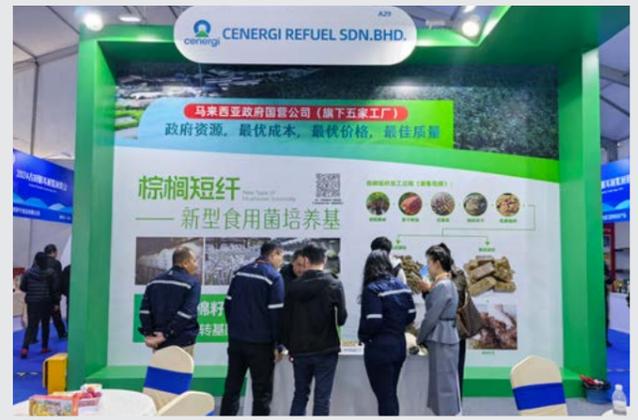
## SPOTLIGHT



▲ Cenergi's Empowering Malaysian Biomass landscape in the 6<sup>th</sup> International Sustainable Energy Summit (ISES) 2024



▲ Cenergi's Empowering Malaysian Biomass landscape in the 6<sup>th</sup> International Sustainable Energy Summit (ISES) 2024



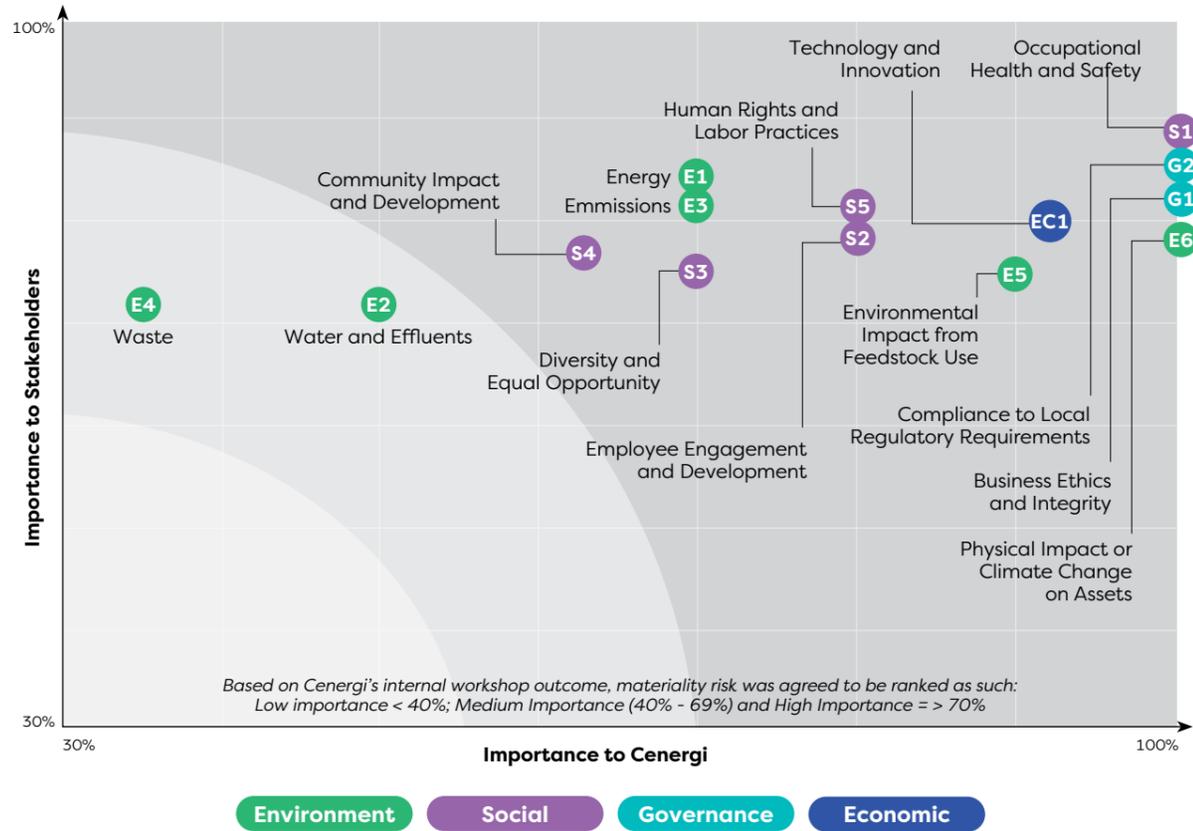
▲ Expanding biomass pellet business beyond Malaysia, Cenergi showcasing our pellet at a business expo in China, 2024▲

- 01
- 02
- 03
- 04 KEY BUSINESS AREAS
- 05
- 06

# MATERIAL SUSTAINABILITY MATTERS

GRI 3-1, 3-2, 3-3

## MATERIALITY MATRIX



The materiality matrix reflects Cenergi's assessment of the sustainability topics most significant to both our stakeholders and business operations. The matrix plots each topic based on two dimensions: Importance to Stakeholders (vertical axis) and Importance to Cenergi (horizontal axis).

Topics in the top-right quadrant represent areas of high importance to both Cenergi and stakeholders, and thus, form the core of our sustainability focus. In 2024, these include:

- S1** Occupational Health and Safety
- G1** Business Ethics and Integrity
- G2** Compliance to Local Regulatory Requirements
- EC1** Technology and Innovation

These are considered critical issues, directly influencing our license to operate, regulatory compliance, workforce well-being, and innovation capacity.

Environmental topics such as **E1: Energy**, **E6: Physical Impact or Climate Change on Assets**, and **E5: Environmental Impact from Feedstock Use** also scored highly in our assessment. Notably, E1 and E6 reflect critical engineering challenges and opportunities which optimises energy systems and enhancing asset resilience under changing climate conditions and demonstrating our alignment with national decarbonisation strategies and infrastructure adaptation goals.

Other social topics such as **S2: Employee Engagement and Development** and **S5: Human Rights and Labor Practices** are positioned in the upper-mid quadrant of the matrix, reflecting their sustained relevance to stakeholders. On the environmental front, **E2: Water and Effluents** and **E4: Waste** continue to be important areas of focus, although they are comparatively lower in priority than emissions and energy, based on current business and stakeholder perspectives.

This materiality mapping guides our reporting structure and management approach, ensuring that our sustainability efforts remain focused, measurable, and responsive to stakeholder expectations.

# STAKEHOLDER ENGAGEMENTS

GRI 2-29

Ongoing engagement with stakeholders is integral to shaping our sustainability approach. By capturing insights from a broad range of stakeholders, we identify opportunities to strengthen our business and advance our ESG commitments.



At Cenergi, we engage with stakeholders through multiple channels, including meetings, workshops, and social media platforms, fostering transparency, trust, and long-term relationships. Feedback gathered from these engagements informs our strategic direction, ensuring our business priorities remain responsive to stakeholder expectations.

These perspectives also guide the development of our reporting and disclosure practices, reinforcing our commitment to accountability and transparency.

## STAKEHOLDER ENGAGEMENTS

STAKEHOLDER	ENGAGEMENT APPROACHES	FREQUENCY	NEEDS AND EXPECTATIONS	RELEVANT MATERIAL TOPICS
 <b>EMPLOYEES</b>	<ul style="list-style-type: none"> <li>Internal communications</li> <li>Training and development</li> <li>Company events</li> <li>Performance Appraisal</li> <li>Townhall sessions</li> <li>Meetings</li> </ul>	Daily	<ul style="list-style-type: none"> <li>Safety at work</li> <li>Conducive workplace</li> <li>Career development and advancement</li> <li>Training and development</li> <li>Fair employment practices</li> </ul>	<ul style="list-style-type: none"> <li>Occupational Health and safety</li> <li>Employee engagement and development</li> <li>Diversity and Equal Opportunity</li> <li>Human Rights and Labour Practices</li> </ul>
 <b>BANKS</b>	<ul style="list-style-type: none"> <li>Briefing by the Board and/or Group</li> <li>Annual Sustainability Reports</li> <li>Press releases</li> <li>Meetings</li> </ul>	Regular	<ul style="list-style-type: none"> <li>Growth</li> <li>Compliance</li> <li>Creditworthiness</li> <li>Reputation</li> <li>Double materiality- Impact of business operations to climate &amp; vice versa</li> </ul>	<ul style="list-style-type: none"> <li>Financial and Sustainability Performance</li> <li>Ethical Business and Integrity</li> <li>Compliance to agreed Framework</li> <li>Physical Impact of Climate Change on Assets</li> </ul>
 <b>INVESTORS OR SHAREHOLDERS</b>	<ul style="list-style-type: none"> <li>Briefing by the Board and/or Group</li> <li>Annual Sustainability Reports</li> <li>Press releases</li> <li>Meetings</li> <li>Annual SUKUK Report</li> </ul>	Regular	<ul style="list-style-type: none"> <li>Growth</li> <li>Long term value creation</li> <li>Compliance to SUKUK requirement</li> <li>Climate change impact to business sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Financial and Sustainability Performance</li> <li>Ethical Business and Integrity</li> <li>Compliance to Regulations</li> <li>Technology and Innovation</li> <li>Physical Impact of Climate Change on Assets</li> </ul>
 <b>CLIENTS</b>	<ul style="list-style-type: none"> <li>Website and social media</li> <li>Marketing events</li> <li>Mobile and email communications</li> <li>Surveys</li> <li>Face-to-face interactions</li> </ul>	Regular	<ul style="list-style-type: none"> <li>Promised deliverables</li> <li>Brand value</li> <li>Fair commercial terms</li> <li>Good service</li> <li>Superior technology</li> <li>Climate change impact to business sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Ethical Business and Integrity</li> <li>Compliance to Regulations</li> <li>Technology and Innovation</li> <li>Physical impact from climate change on assets</li> </ul>

## STAKEHOLDER ENGAGEMENTS

STAKEHOLDER	ENGAGEMENT APPROACHES	FREQUENCY	NEEDS AND EXPECTATIONS	RELEVANT MATERIAL TOPICS
 <b>ASSET PARTNERS</b>	<ul style="list-style-type: none"> <li>Website and social media</li> <li>Mobile and email communications</li> <li>Surveys</li> <li>Face-to-face interactions</li> </ul>	Regular	<ul style="list-style-type: none"> <li>Investment Returns</li> <li>Promised deliverables</li> <li>Fair commercial terms</li> <li>Superior technology</li> </ul>	<ul style="list-style-type: none"> <li>Impact from climate change</li> <li>Financial and operational performance</li> <li>Compliance to Regulations</li> <li>Technology and Innovation</li> </ul>
 <b>SUPPLIERS / VENDORS / CONTRACTORS / SUBCONTRACTORS</b>	<ul style="list-style-type: none"> <li>Mobile and email communications</li> <li>Surveys</li> <li>Face-to-face interactions</li> </ul>	Regular	<ul style="list-style-type: none"> <li>Compliance to specifications</li> <li>Fair price and comply to agreed</li> <li>Planning and communication for stocks or parts availability</li> </ul>	<ul style="list-style-type: none"> <li>Supply chain procedures</li> <li>Fair treatment</li> <li>Ethical Business Conduct</li> </ul>
 <b>GOVERNMENT BODIES / REGULATORS / AUTHORITIES</b>	<ul style="list-style-type: none"> <li>Mobile and email communications</li> <li>Site visits and inspections</li> <li>Audits</li> <li>Surveys</li> <li>Meetings</li> </ul>	Regular/ Annual	<ul style="list-style-type: none"> <li>Demonstration of compliance</li> <li>Responsive communications and actions</li> <li>Impact of business operations to climate</li> </ul>	<ul style="list-style-type: none"> <li>Compliance to laws and regulations</li> <li>Ethical Business Conduct</li> <li>Physical Impact of Climate Change on Assets</li> </ul>
 <b>LOCAL COMMUNITY</b>	<ul style="list-style-type: none"> <li>Website and social media</li> <li>Site visits</li> <li>Social programmes</li> </ul>	Regular	<ul style="list-style-type: none"> <li>Environmental impacts</li> <li>Job opportunities</li> <li>Impact of business operations to climate</li> </ul>	<ul style="list-style-type: none"> <li>Community Impact and Development</li> <li>Physical Impact of Climate Change on Assets</li> </ul>
 <b>MEDIA</b>	<ul style="list-style-type: none"> <li>Mobile and email communications</li> <li>Face-to-face interactions</li> </ul>	Regular	<ul style="list-style-type: none"> <li>Clear and timely communications</li> </ul>	<ul style="list-style-type: none"> <li>Brand value</li> <li>Communication for the Group</li> </ul>



## MANAGEMENT APPROACH

At Cenergi, people are our greatest asset. We are committed to fostering a workplace that prioritises well-being, inclusivity, and continuous growth. Our people strategy focuses on empowering employees with critical skills, trust, and opportunities – enabling personal and professional development in tandem with our business growth.

From its beginnings as a ten-person team to becoming a recognised name in clean energy development, Cenergi has grown alongside its people. We recruit from diverse backgrounds, especially local communities near our operations, and invest in leadership potential at all levels. We actively promote inclusive hiring, support flexible work arrangements, and create platforms for learning, mentorship, and collaboration.

Cenergi’s culture is grounded in respect, openness, and innovation. Whether in engineering, finance, sustainability, or operations, we recognise that valuable knowledge often stems from hands-on experience. We encourage interdepartmental collaboration and foster an environment where every Cenergian, regardless of roles have room to thrive.

### Cenergi as a Talent Incubator for Malaysia’s Green Economy

- ▶ 42% of our total employees are under 30, driving energy and innovation across the operations.
- ▶ Hands-on exposure and inter-departmental collaboration help newcomers grow quickly into confident, cross-functional contributors.
- ▶ Flexible policies include leadership training, mentorship and a dedicated nursing room to support personal growth alongside professional development.
- ▶ Women lead in technical and commercial roles, from carbon markets to legal structuring and operations. You may find their profile in the specified sections.
  - Nurul Farah Addina Binti Farizuddin [📄](#) (Biogas Plant, Page 19)
  - Sunita Gopala Krishnan [📄](#) (Biogas Plant, Page 19)
  - Siti Kamilah Abdul Hamid [📄](#) (Biogas Plant, Page 18)
  - Dr Nur Alyaa Zahida Azizan [📄](#) (Environmental Commodity Portfolio, Page 23)
  - Khadijah Hamdan [📄](#) (Solar Power & Energy Efficiency, Page 26)
  - Hon Zheng Ying [📄](#) (Solar Power & Energy Efficiency, Page 27)
  - Lydia Tang Sook Nee [📄](#) (Our People, Page 41)
  - Azana Fariza Binti Mohd Anwar [📄](#) (Our People, Page 40)
  - Noor Amtaza Sawal [📄](#) (Our People, Page 41)



# OUR VALUE TO OUR PEOPLE



**AZANA FARIZA BINTI MOHD ANWAR**

“*Shaping Identity from Ground-Up*”

-  **Department**  
Corporate Affairs and Stakeholder Management
-  **Position**  
Head, Corporate Affairs and Stakeholder Management
-  **Tenure in Cenergi**  
12 years



Azana’s story begins even earlier. She joined in 2013 when Cenergi had just one operational project and a skeletal team.

“There were no blueprints, just belief. We created things from scratch, from Human Resources (HR) to governance,” she says.

From building HR foundations to pioneering the company’s corporate communications and brand visibility, Azana’s journey is interwoven with Cenergi’s growth story. She played a key role in Cenergi’s transition from an unknown startup into a recognised name in the energy sector.

As one of Cenergi’s longest-serving employees, Azana now oversees multiple departments including Risk, Communications, Administration, Information Technology and Corporate Affairs – all roles that have required resilience and versatility.

“I hope my legacy is more than just the systems or the brand,” she shares. “It’s the heart of the company – the people, the culture, the spirit.”

**NOOR AMTAZA SAWAL**

-  **Department**  
Human Capital Management Department
-  **Position**  
Head, Human Capital Management
-  **Tenure in Cenergi**  
9 years



*Championing People for a Green Economy*

Amtaza has been integral to Cenergi’s exponential growth since joining the company in 2016. She arrived when the headcount was barely 30 and spearheaded recruitment, scaling the workforce to more than 300 employees today. This growth was catalyzed by a strategic shift in 2017, where she successfully onboarded 60 new hires in a single year to support the company’s expanded vision.

Her connection to Cenergi’s sustainability mission is deeply personal, rooted in her childhood growing up in a FELCRA plantation. This fuels her passion for her role, which she views as a unique opportunity to help people and share knowledge. For Amtaza, understanding human behavior is the foundation of her work. **“At its heart, human resource is about the people. We have the privilege to help them grow, which in turn helps the company to thrive,”** she says.

Navigating rapid change requires a calm and strategic approach. She adapts by engaging with management to understand new objectives while maintaining professionalism and neutrality to balance the needs of both leadership and employees. Her daily motivation comes from achieving set targets and making a positive impact on the organization’s culture.

Looking forward, her key challenge is recruiting top talent—from Gen Z to experienced hires—while safeguarding Cenergi’s core value of respect. She is also focused on fostering diversity, specifically by encouraging more female engineers through outreach and sharing sessions to build a more inclusive future for the industry.

**LYDIA TANG SOOK NEE**

-  **Department**  
Corporate Finance
-  **Position**  
Head, Corporate Finance and Business Advisory
-  **Tenure in Cenergi**  
2 years



*Financing Growth with Integrity*

Lydia joined Cenergi to lead corporate finance at a time when the company was entering its next chapter of expansion. She was instrumental in strengthening financial governance and shaping the company’s capital structure, including debt instruments such as sukuk, short-term financing and project financing from the financial institutions as well as equity contributions from the shareholders.

She also led the 5-year annual operating plan financial projections which are the critical tools for shaping business strategy, guiding investment decisions and aligning operational priorities with long-term goals. Her efforts further supported key strategic acquisitions that positioned the company for sustained growth.

“Managing stakeholder expectations was a steep learning curve,” she reflects. “But with transparency, trust and clear priorities, we were able to build credibility and earn long-term confidence.”

Lydia helped define the company’s investment policy and refined its capital allocation framework to meet both compliance requirements and strategic objectives. Her legacy goes beyond frameworks and forecasts, it lies in the discipline and clarity she instilled across the company’s financial practices.

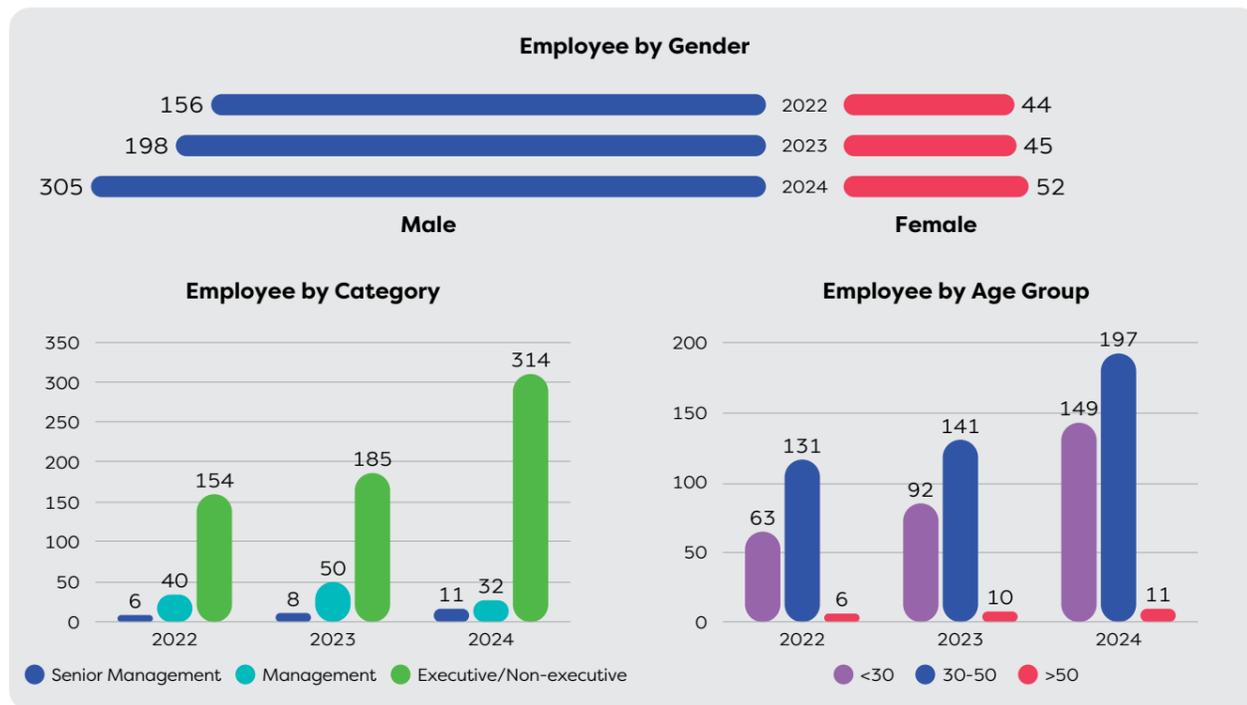
OUR EMPLOYEES

GRI 2-7, 2-9, 401-1, 401-2, 401-3, 405-1

DIVERSITY, INCLUSION AND EQUITY

Cenergi SEA continues to make progress in building a more inclusive and diverse workforce. As of 2024, the company employs 305 male and 52 female staff, with **100% of the workforce made up of local talent**. This marks a steady year-on-year increase in total workforce size. While male representation remains dominant, the consistent rise in female employees, from 44 in 2022 to 52 in 2024, demonstrates our ongoing efforts to create more equitable opportunities across roles.

We uphold the principle of equal pay for equal work, regardless of gender, and are dedicated to encouraging and empowering women to assume leadership roles across various areas of our operations. Cenergi recognises that gender diversity is essential for driving innovation, fostering collaboration, and strengthening organisational resilience. We remain committed to improving gender balance through inclusive hiring practices, professional development opportunities, and workplace policies that support equal participation and advancement for all employees.



As of FY2024, Cenergi's workforce continues to reflect a well-balanced mix of experience, roles, and age groups that underpin a dynamic and inclusive organisational culture. Senior management makes up 3% of the workforce, providing strategic leadership and long-term direction. 9% serve in management roles, ensuring effective operations and alignment with company objectives, while the majority 88% are executive and non-executive staff, playing a vital role in delivering operational excellence and supporting the company's continued growth.

As of FY2024, Cenergi's workforce reflects a healthy and inclusive age distribution that supports long-term talent development and organisational resilience. Employees aged 30-50 represent the largest age group, with 197 individuals forming the backbone of the organisation. This group brings a critical mix of professional experience, leadership capacity, and operational continuity, playing a central role in executing the company's growth strategies.

Younger employees under 30 years old account for 149 team members, bringing innovation, digital fluency and fresh perspectives that support Cenergi's transition toward more sustainable and tech-driven practices. Meanwhile, 11 employees are over the age of 50, offering deep institutional knowledge, mentoring capability and stability in strategic roles. This balanced age composition enhances collaboration across generations and supports a workplace culture that values experience while nurturing new talent.

At Cenergi, we recognise that our employees are the cornerstone of our success. We are committed to fostering a workplace where everyone feels valued, supported, and motivated. Our competitive rewards and recognition programmes are designed to reflect individual performance, contribute to business outcomes, and align with our sustainability goals. By ensuring fair and equitable compensation, we aim to acknowledge and celebrate the meaningful contributions of our people.

EMPLOYMENT BENEFITS

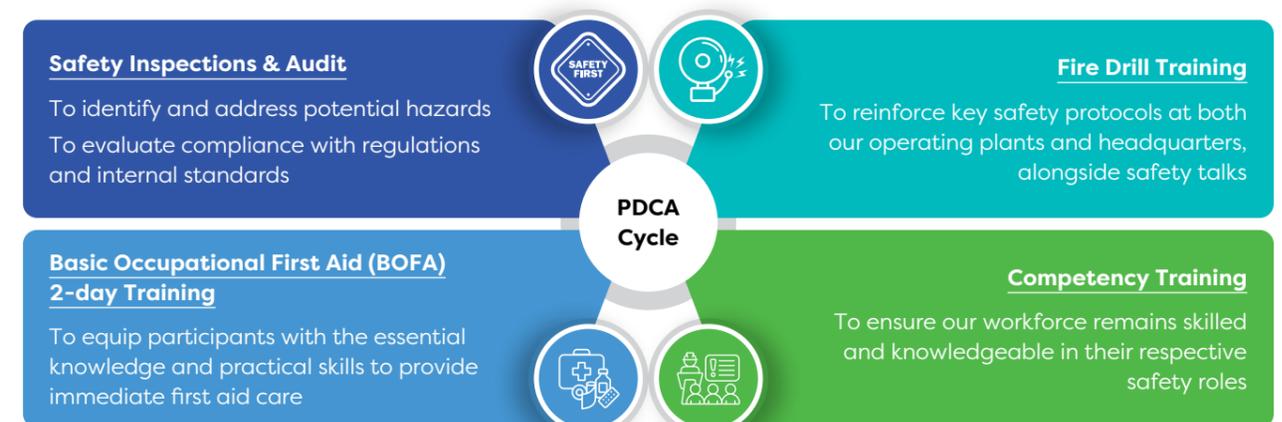
Insurance such as Group Term Life Insurance	Medical coverage such as group hospitalisation, surgical scheme, outpatient treatment, maternity allowance and dental benefits	Leave such as maternity, paternity, annual, medical, marriage and examination
Appreciation and recognition, including long service awards	Flexible working hours	Performance bonuses
Professional membership fees	Gifts during occasions such as welcoming new hires and during hospitalisation	New hires onboarding session and departmental new hires welcome lunches

OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT

GRI 2-27, 403-1, 403-2, 403-5, 403-6, 403-9

Cenergi is deeply committed to prioritising the safety and health of our people, fostering a safe and healthy working environment, particularly for those at our operating plants and construction sites. Our Health, Safety and Environment (HSE) Policy, accessible on our corporate website, applies to all employees, contractors, and stakeholders present at our facilities.

The management is committed to continuous improvement and full compliance with applicable legislation, including the Occupational Safety and Health Act 1994 (Act 514), as amended by the Occupational Safety and Health (Amendment) Act 2022, which now incorporates provisions previously covered under the repealed Factories and Machinery Act 1967 (Act 139). Compliance also extends to the Environmental Quality Act 1974 (Act 127) and all other relevant regulations, codes of practice, and requirements adhered to by Cenergi. Our HSE practices are aligned with the ISO 45001 Occupational Health and Safety Management System, based on the Plan-Do-Check-Act (PDCA) cycle.



Throughout 2024, Cenergi implemented a range of Health, Safety, and Environment (HSE) initiatives to safeguard the well-being of our employees and uphold stringent safety standards across all operations. A total of 367 employees participated in HSE training sessions during the year, reinforcing our commitment to a safety-first culture. Regular safety inspections and audits were carried out at our operational sites, resulting in the identification and rectification of 28 unsafe work conditions and 15 unsafe acts. Notably, there were no near-miss incidents or reportable first aid cases during the year. These proactive efforts reflect Cenergi's continuous commitment to fostering a safe, healthy, and resilient work environment.



▲ Fire drill exercise at Head Office, 2024

Cenergi has implemented a comprehensive safety and health program to ensure a safe and healthy working environment for its employees.

To address noise and chemical exposure, the company has conducted thorough assessments and implemented management strategies. This exercise was done by appointing a certified and licensed assessor by the Department of Occupational Safety and Health (DOSH), conducting a scheduled Noise Risk Assessment (NRA). Noise levels have been found to be within stipulated limits, and a chemical health risk assessment (CHRA) has been conducted

to identify and evaluate potential health risks, adhering to the regulations to the Use and Standards of Exposure to Chemical Hazardous to Health (USECHH, Regulation 2000).

Hazard identification and risk assessment are integral parts of Cenergi's safety program. Before project commencement, a job method statement (JMS) is conducted to assess risks and control measures. Additionally, hazard identification, risk assessment, and risk control (HIRARC) are mandatory requirements before site work, ensuring that potential hazards are identified, assessed, and appropriate control measures are implemented.

To strengthen safety awareness and reporting, Cenergi continues to promote the reporting of Unsafe Conditions and Unsafe Acts (UCUA) through various HSE engagement platforms, including Safety Sub-Committee Meetings, Monthly Toolbox Talks, Annual Safety Audits, Site Inspections, and the OSH Week 2024 programme. Through the analysis of UCUA reports, the company is able to identify emerging trends, develop site-specific safety initiatives, and implement stop-work orders for critical risks.

Overall, Cenergi's commitment to safety and health is evident in its comprehensive initiatives. By addressing noise and chemical management, conducting thorough hazard assessments, and promoting a healthy workplace, Cenergi aims to create a safe and positive working environment for its employees.

TRAINING AND DEVELOPMENT

GRI 404-1

We provide a wide range of continuous learning opportunities, including technical training, leadership development, and sustainability-focused programs, to ensure our workforce is equipped for current and future challenges. New employees start with a structured orientation that introduces them to our sustainability goals, core values, and ethical standards. Team-building activities are also part of onboarding, fostering strong connections and essential communication skills that support a positive, collaborative work environment. Our compliance management training educates employees on regulatory standards, corporate policies, and ethical responsibilities, including a comprehensive overview of our anti-bribery policies to help identify and avoid conflicts of interest or corruption risks. Additionally, our whistleblowing training highlights safe reporting mechanisms and reinforces the importance of accountability, encouraging employees to report unethical behaviour without fear of retaliation.

 <b>Average training hours per employee</b> <b>29</b> (2023: 41)	 <b>Total investment in Training and Development</b> <b>RM351,267</b> (2023: RM267,000)	 <b>Investment per employee</b> <b>RM984</b> (2023: RM1,099)
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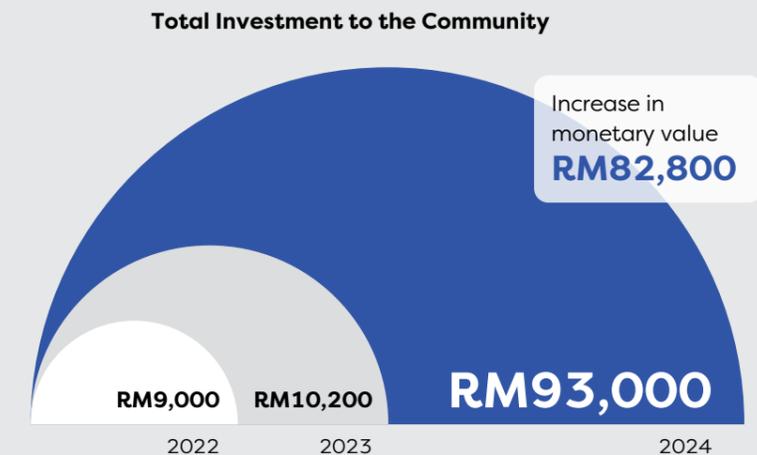
LIST OF INTERNAL AND EXTERNAL TRAINING:

Internal Training	Nos	External Training	Nos
RE101: Introduction to Renewable Energy	1	Microsoft office and software training (Excel, Autodesk etc.)	5
Onboarding/Introduction to Team	3	Competency training	19
Teambuilding for Biogas	1	Leadership training	2
Toolbox (equipment handling, housekeeping, waste management, fire etc.)	22	Conference & Seminar (ESG, Carbon Management, Energy, HSE, Tax etc.)	18
Insurance Briefing	1	Soft Skills training (communication, time management etc.)	3
HSE - Safety briefings & trainings, toolbox, BOFA, other HSE-related trainings	45	Commercial Training (Contract, E-invoice, Treasury Management etc.)	6
Technical training/O&M trainings for plant operation and management	80	Energy-related Training (GHG accounting, Energy Audit etc.)	4
Technical trainings (taxation, regulation, documentation, GHG Accounting, Project Management etc.)	7	Regulations and Acts	2
Conference (Carbon Emissions and Avoidance)	1	Kuamut Rainforest Conservation Project	1
Soft Skills (Financial Modelling)	1	VCM Biocarbon Roundtable	1
RE101: Plant Tour	1		
<b>Total</b>	<b>163</b>	<b>Total</b>	<b>61</b>

SOCIAL ENGAGEMENT

GRI 413-1

At Cenergi, we are committed to building meaningful relationships with the communities where we operate. Our social engagement focuses on long-term impact through education, environmental awareness, and community well-being. Over the years, our commitment has grown steadily, with allocations for community engagement initiatives increasing from RM9,000 in 2022 to RM93,000 in 2024, reflecting our strengthened commitment to education and sustainability awareness.



**1 Cenergians Unite for a Cleaner Coastline**

On 19 October 2024, Cenergi employees along with other 118 participants joined a beach cleanup activity at Tanjung Harapan organised by Beach Cleanup (BCU). The group collected 91.2 kg of wastes and contributed to the Turtle Conservation Society of Malaysia, reinforcing our commitment to marine conservation and raising awareness on the impact of pollution.



**2 Empowering Students Through Education: Tuisyen Pintar YPM@KDW**

In collaboration with Yayasan Pendidikan MARA, Cenergi sponsored the Tuisyen Pintar YPM@KDW program, benefiting 200 underprivileged Form 5 students from MRSM Baling and MRSM Jeli in preparation for SPM 2024. Beyond sponsorship, Cenergi engineers hosted a Career Chit-Chat session to inspire future careers in STEM.



**3 Inspiring Future Generations Through Real-World Learning**

In 2024, Cenergi welcomed students from various educational institutions including Universiti Teknologi MARA Shah Alam, Politeknik Ungku Omar, Universiti Malaysia Terengganu, SBP boarding schools, and SK Bandar Jerantut to its renewable energy sites. These visits provided hands-on exposure to biogas technology and clean energy solutions, and connecting classroom knowledge with real-world applications.



**4 Supporting Communities Through Meaningful Giving**

Cenergi strengthened ties with local communities by contributing to local mosques and orphanages, including Masjid Kampung Baru, Masjid Kota Damansara, Masjid Airport Subang, Pusat Jagaan Telaga Kasih Nur Muhammad and Rumah Amal Cahaya Kasih Bestari. These efforts supported community facilities and reflected our dedication to stakeholder outreach.

**5 Equipping Young Minds for a Brighter Future**

Cenergi, together with Yayasan UEM and district education offices, organised the Back-to-School Program reaching 550 students in Jerantut, Bera, and Batu Pahat. By providing uniforms, shoes and stationeries. This initiative supported underprivileged students to continue their education with basic school needs.



**7 Stretchability Development Program Graduation**

On 17 December 2024, Cenergi celebrated the inaugural graduation of 32 employees from the six-month Stretchability Development Program, conducted in collaboration with PwC Training Center. Held at One World Hotel, Petaling Jaya, the ceremony marked a milestone in fostering resilience, leadership, and personal growth to elevate their professional journey.



**6 World Business Council for Sustainable Development (WBCSD) Visit to Cenergi West**

On 6 November 2024, Cenergi, together with Petronas Leadership Centre and Sunway University, hosted 50 participants from the WBCSD Leadership Program at Cenergi West Biogas Power Plant, Pulau Carey to brief on the topic of “Low-Carbon Economy Transition through RECs and Carbon Credits”.

Business leaders gained insights into Cenergi’s circular carbon economy through our waste-to-energy projects in the palm oil sector and principals in developing high-integrity carbon credits in advancing Malaysia’s journey towards net-zero. The sharing session was followed by a guided plant tour.



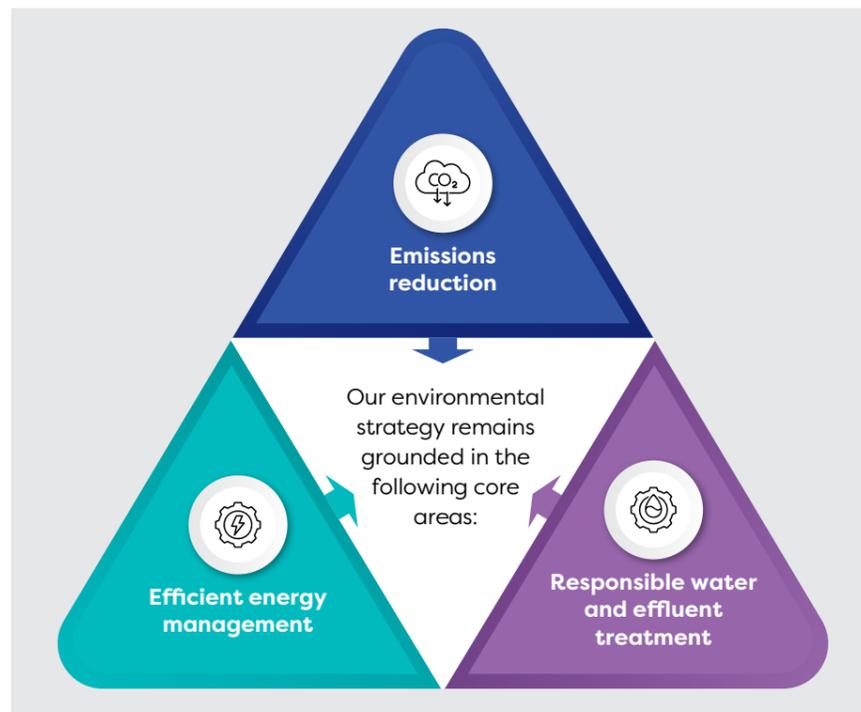
# OUR VALUE TO THE ENVIRONMENT



## MANAGEMENT APPROACH TO ENVIRONMENTAL PRACTICES

Cenergi continues to prioritise environmental performance across its operations, with a strong focus on GHG emissions, energy use, water and effluent management. In 2024, we built on previous efforts to enhance our carbon and environmental management systems, advancing data quality, transparency, and reporting consistency.

With the expansion of our RE portfolio, maintaining emissions intensity remains a key focus. This ensures that our growth aligns with climate goals while preserving efficiency and environmental stewardship. We continue to adopt best practices in emissions tracking, alongside investments in closed-loop systems and circular economy approaches – turning waste and wastewater into clean, usable resources.



The progress made in 2024 lays a strong foundation for continuous improvement, as we work toward a low-carbon, resource-efficient future.

## GHG EMISSIONS AND IMPACT

GRI 305-1, 305-2, 305-3

In 2024, we further refined our emissions management approach, strengthening data collection processes, aligning with best practices, and preparing for more granular tracking of emissions sources across operational assets. Our emissions strategy includes both the reduction of direct operational emissions and the expansion of avoided emissions through methane capture and clean energy generation.

### GHG EMISSION PROFILE

#### 1. Organisational and Operational Emissions (Scope 1, 2 and 3)

Cenergi's GHG emissions accounting has matured considerably since its initial baseline year. Our environmental journey began in 2020 with the inventorying of Scope 1, Scope 2, and Scope 3 emissions at our Head Office, alongside electricity consumption at our biogas assets. These foundational steps were undertaken in line with the Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard.

In 2023, we expanded the reporting boundary to cover all operational assets across the Group. This includes fugitive emissions from our biogas facilities, energy consumption at pellet and solar sites, as well as Scope 3 categories such as employee commuting and business travel. The broader scope provides a more holistic picture of our emissions profile and enhances the comparability of ESG performance indicators. In 2024, we maintained this expanded reporting boundary and further strengthened data quality and internal controls across all emission categories.

The sources of emissions within this defined boundary are summarised in the table below:

Emissions Source	Organisational	Operational		
	Head Office	20 Biogas Assets	4 Pellet Plants	4 Solar Plants
Scope 1	Company vehicles	<ul style="list-style-type: none"> <li>Fugitive emissions from anaerobic digesters</li> <li>Flare</li> <li>Process</li> </ul>		
			Diesel usage from generators and forklifts	
			Refrigerant losses from chiller and air conditioning units	
Scope 2		Purchased Electricity		
Scope 3		Employee Commute Business Travel		

The table below presents the calculated emissions from 2022 to 2024, segmented by organisational and operational boundaries across Scope 1, Scope 2, and Scope 3 categories.

(In tCO <sub>2</sub> e)	Emissions	2022			2023			2024		
		Organisational <sup>a</sup>	Operational <sup>b</sup>	Total	Organisational <sup>a</sup>	Operational <sup>b</sup>	Total	Organisational <sup>a</sup>	Operational <sup>b</sup>	Total
Scope 1		24	61	103,869	103,930	59	146,791	146,850		
Scope 2 <sup>c</sup>		1,304	22	1,178	1,200	29	1,216	1,245		
Scope 3 <sup>d</sup>		503	106	256	362	220	245	465		
<b>Total</b>		<b>1,831</b>	<b>189</b>	<b>105,303</b>	<b>105,492</b>	<b>308</b>	<b>148,252</b>	<b>148,560</b>		

<sup>a</sup> Organisational emission refers to direct and indirect emissions from Head Office operations only, reported in 2022, 2023 and 2024.  
<sup>b</sup> Operational emissions refer to direct and indirect emissions generated from operational assets, comprising 20 biogas assets, 4 pellets plants and solar assets. This was not included in the 2022 report.  
<sup>c</sup> In 2022, Scope 2 emissions refer to purchased energy by the Head Office and biogas assets only. In 2023 and 2024, the purchased energy is reported separately under organisational emissions (head office) and operational emissions (biogas assets, pellets plants and solar assets).  
<sup>d</sup> Scope 3 emissions refer to emissions from employee to work and business travels by air.

The GHG emissions from our head office and operational assets in 2024 totalled 148,560 tCO<sub>2</sub>e (2023: 105,492 tCO<sub>2</sub>e). Of this, the Head Office contributed a minimal 308 tCO<sub>2</sub>e (2023: 189) while the majority of emissions originated from operations of our 20 biogas assets amounting to 147,685 tCO<sub>2</sub>e. In line with the Clean Development Mechanism (CDM) AMS-III.H: Methane Recovery in Wastewater Treatment methodology, a 10% leakage factor is assumed for methane emissions from anaerobic digesters. This leakage accounts for nearly 90% of Cenergi's Scope 1 operational emissions.

Key insights from our 2024 emissions inventory are outlined below, highlighting trends in absolute emissions and intensity across operational segments.

ASSETS INVENTORY				NORMALISED EMISSION UNITS	
 <b>Biogas</b>	2023	15 plants	142 GWh	0.74 tCO <sub>2</sub> e/MWh	<b>+9%</b>
	2024	20 plants	183 GWh	0.81 tCO <sub>2</sub> e/MWh	
 <b>Pellet</b>	2023	1 plants	1 Tph	57 tCO <sub>2</sub> e/Tph	<b>-8%</b>
	2024	4 plants	10 Tph	53 tCO <sub>2</sub> e/Tph	
 <b>Head Office</b>	2023	89 headcount		2.13 tCO <sub>2</sub> e/headcount	<b>-0.46%</b>
	2024	145 headcount		2.12 tCO <sub>2</sub> e/headcount	

Some key points highlighted from our 2024 emissions inventory are summarised below:

- Absolute emissions from Cenergi's biogas assets portfolio increased by 40% in 2024 due to the portfolio's expansion from 15 in 2023 to 20 plants this year. However, when normalised against total RE generated (183,000 MWh), the emissions intensity rose by only 9%, from 0.74 to 0.81 tCO<sub>2</sub>e/MWh. Notably, the Elphil, Sri Jelutong, Bell Cenergi YP and West biogas plants operated entirely on electricity from renewable sources for self-consumption. Meanwhile, Scope 2 emissions from all biogas plants declined by 11%, reflecting improved grid independence and operational efficiency.
- Our biomass pellet plants' operations recorded the largest increase in absolute emissions in 2024 due to a ten-fold expansion in production throughput capacity from 1 tph to 10 tph. However, this scale-up was accompanied by an 8% reduction in emissions intensity, from 57 to 53 tCO<sub>2</sub>e/tph highlighting improved operational efficiency per unit output.
- Head Office emissions increased by 62% in absolute terms, in line with workforce expansion. Yet, when normalised against headcount from 89 to 145 employees, emissions per headcount decreased slightly by 0.5%, from 2.13 to 2.12 tCO<sub>2</sub>e/headcount indicating stable carbon footprint efficiency despite organisational growth.
- Our solar assets portfolio is excluded from year-on-year comparisons as one of the four solar farms namely the Sg Tiang plant only commenced operations in the last quarter of year 2023. A full performance assessment will be available once the 12-month data is captured.

**2. Emissions Avoided Through Projects**

Cenergi's RE assets continue to play a vital role in emissions avoidance. Our biogas plants capture methane from POME treatment and convert it into clean electricity, while solar assets displace fossil-fuel-based grid electricity. These efforts significantly reduce overall GHG emissions for Cenergi and support our clients' decarbonisation goals through the trading of carbon credits and RECs generated from the avoidance projects. These avoided emissions are a result of methane capture at our biogas plants, fossil fuel displacement by solar power. The steady increase from 514,685 tCO<sub>2</sub>e in 2022 to 960,040 tCO<sub>2</sub>e in 2024 reflects Cenergi's expanding portfolio and the growing positive climate impact of our projects year-on-year.

In tCO <sub>2</sub> e	2022	2023	2024
Annual Emissions Avoided	514,685	739,667	<b>960,040</b>

The table above shows the annual volume of emissions avoided through Cenergi's RE projects from 2022 to 2024.

In 2024, our biogas and solar assets generated and exported 207,915 MWh of renewable energy to the grid (2023: 165,983 MWh). This resulted in an avoidance of approximately 160,916 tCO<sub>2</sub>e in emissions through the displacement of fossil-fuel based electricity generation. This effort supports the nation's net-zero commitments, while the sale of RECs helps corporate clients meet their renewable energy goal or Scope 2 reduction targets.

**3. Emissions Transfers and Market Instruments**

Ownership of our avoided emissions is transferred to clients through the sales of RECs and carbon credits issuance. In 2024, we maintained rigorous accounting of emissions ownership to ensure high integrity in emissions reporting. The remaining avoidance is retained by Cenergi and reflects the Group's own decarbonisation contribution. The increase in both total and client-transferred avoidance in 2024 signals stronger RE performance and growing market uptake of environmental attributes.

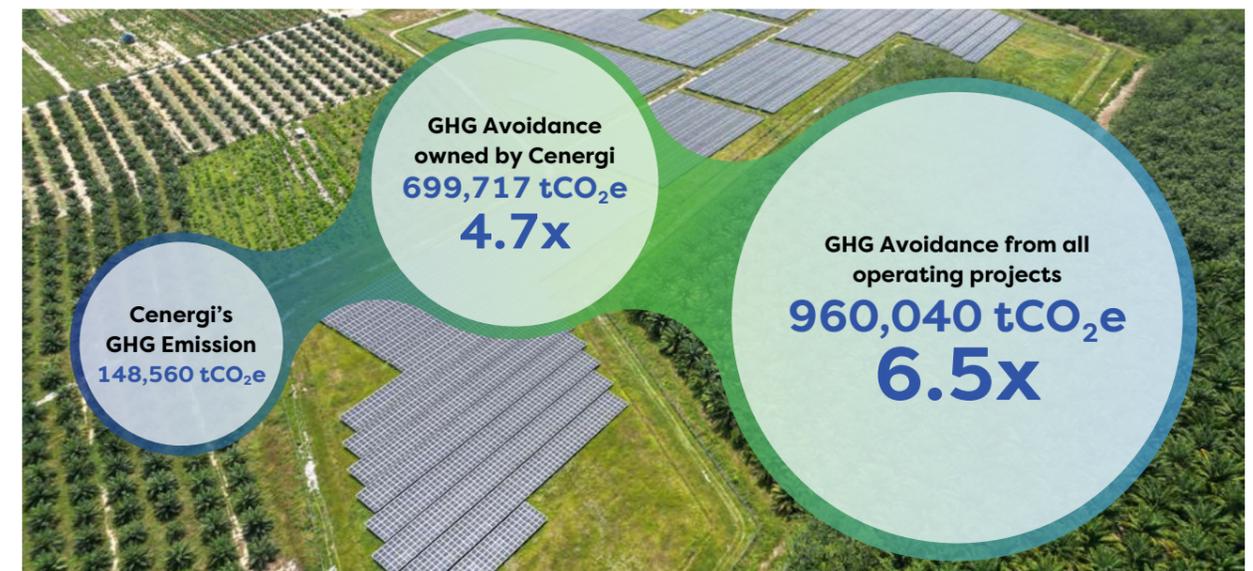
The following summarises the total and nett GHG emissions avoided by Cenergi's operating assets in 2023 and 2024, along with the avoidance transferred to clients:

<b>Total GHG Avoidance from all Operating Assets</b> <b>960,040</b> (2023: 739,667)	<b>Avoidance Claim Transferred to Third Parties via RECs sales and Carbon Credits Issuance</b> <b>260,323</b> (2023: 101,696)	<b>Nett GHG Avoidance owned by Cenergi</b> <b>699,717</b> (2023: 637,971)
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**Summary of GHG Emissions Profile**

In 2024, Cenergi continued to strengthen its GHG emissions accounting and disclosure practices by maintaining full-scope reporting of both organisational and operational emissions. While there is increase in GHG emissions generated from Cenergi's operations between 2023 to 2024, our RE projects enabled an avoidance of 960,040 tCO<sub>2</sub>e, a significant 30% increase from 2023. Of this, 699,717 tCO<sub>2</sub>e were retained by Cenergi as owned environmental attributes, while 260,323 tCO<sub>2</sub>e were transferred to clients through RECs sales and carbon credits issuance.

This profile demonstrates Cenergi's consistent year-on-year improvement in emissions avoidance performance and underscores our role in driving carbon mitigation through clean energy deployment and verified market instruments. With robust frameworks in place and a growing portfolio, we remain focused on managing emissions intensity and supporting both national and client net-zero goals.



Note: In this report, "carbon footprint" and "carbon avoidance" are used to refer to GHG emissions generated and avoided, respectively, for clarity.

ENERGY MANAGEMENT

GRI 302-1, 302-4

As a clean energy solutions developer, Cenergi is committed to managing our energy consumption responsibly in support of the global shift toward renewable energy.

Our approach prioritises minimising fossil fuel use by maximising on-site renewable generation. Most of our electricity at our operating plants are sourced from RE produced at our facilities, complemented by grid electricity for our Head Office and selected operations. Diesel is still used for transportation and some operational activities during emergency and when electricity from grid is not available including for biomass pellet plants.

In 2024, Cenergi consumed a total of 18.4 million kWh of electricity, with 92% (16.98 million kWh) derived from renewable sources (biogas and solar), and the remainder from the national grid. This represents a 2% increase in RE consumption compared to 2023.

In energy terms, our total energy consumption amounted to 66,392 GJ, of which 61,133 GJ (92%) was from renewable sources (biogas and solar), and 5,259 GJ from non-renewable sources (grid and diesel). Our energy intensity remained steady at 0.204 GWh per RM'million revenue, reflecting stable operational efficiency amidst portfolio expansion.

Energy Consumption Intensity		2022	2023	2024
Total non-renewable electricity consumption (grid)	kWh	2,228,849	1,523,590	<b>1,460,852</b>
Total renewable electricity consumption (biogas and solar)	kWh	10,389,472	12,750,000	<b>16,981,479</b>
Total electricity consumption	kWh	12,618,321	14,273,590	<b>18,442,331</b>
Energy Consumption Intensity	GWh/RM'Mil Revenue	0.210	0.200	<b>0.204</b>



Recognising the importance of energy efficiency and sustainability, we are committed to minimising the consumption of fossil fuel-based energy across all operations. Project efficiency is a critical aspect of Cenergi's operations and business activities, in addition to prioritising plant optimisation. There has been a strong focus to develop in-house operational and maintenance capabilities at the operational stage to improve project efficiency. Through these initiatives, Cenergi is dedicated to minimising non-renewable energy consumption and enhancing the sustainability of our operations.

Energy Management

**Renewable Energy**

Generate clean energy and reduce reliance on fossil fuels

01

**Waste-to-Energy**

Utilise biomass in pellet plant into energy resources

02

**Continuous Improvement**

Encourage innovation and technologies to enhance efficiency

03

**Optimise energy use**

Assess consumption for improvement opportunities

04

**Transportation Efficiency**

Strive to lower fuel consumption by optimising logistics

05

**Employee Engagement**

Actively promote awareness and encourage sustainable practices

06

WATER AND EFFLUENT MANAGEMENT

GRI 303-1, 303-5

Water Consumption

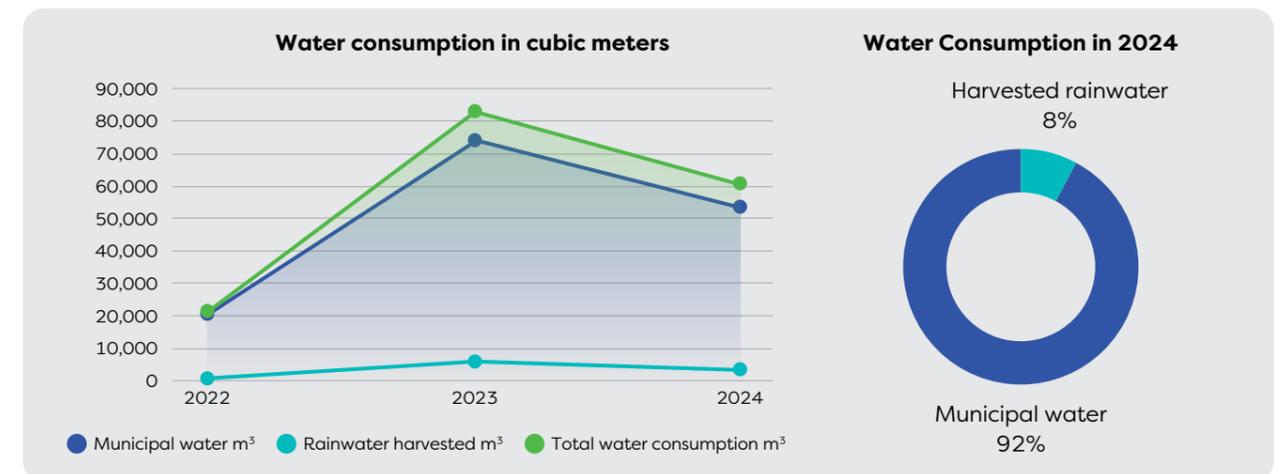
Cenergi recognises water as a finite and valuable resource. In our operations, water is essential, particularly at biogas plants, where it is used in systems such as scrubbers, with water being recycled to minimise consumption. Water is also used for general purposes at the Head Office and other facilities.

To enhance efficiency and reduce reliance on municipal water, we have implemented rainwater harvesting systems in 18 biogas plants from a total of 20 installed plants, and 2 solar farms. These systems align with our strategy to prioritise renewable resources across our operations.

In 2024, rainwater harvesting contributed 4,866 m<sup>3</sup> of water, accounting for 8% of the total water used at biogas and solar power sites. This reflects a decrease from 2023, when harvested rainwater amounted to 7,674 m<sup>3</sup> or 9% of total site water use.

Total recorded water consumption decreased to 60,928 m<sup>3</sup> in 2024, from 83,672 m<sup>3</sup> in 2023, driven by reduced site demand and efficiency improvements. Water consumption intensity improved accordingly, from 1,160 m<sup>3</sup>/RM million revenue in 2023 to 673 m<sup>3</sup>/RM million revenue in 2024.

Water use at the Head Office is managed externally by the building operator and is not currently included in our reported data. We are exploring options to include this information in future disclosures.



**Effluent Management**

Cenergi plays a vital role in tackling a significant environmental challenge: the treatment of effluent, particularly POME, a major byproduct of the palm oil industry. If left untreated, this effluent poses serious risks to local ecosystems, contributing to water pollution and greenhouse gas emissions.

Cenergi’s biogas power plants are built around a closed-loop design that converts wastewater into clean energy. After biogas extraction, the treated effluent is safely returned to the palm oil mills’ existing wastewater systems. As a result, no effluent is directly discharged from Cenergi’s operations. This approach complies with best practices of environmental frameworks.

In 2024, Cenergi treated approximately 4million m<sup>3</sup> of effluent across its 20 biogas plants in Malaysia and Indonesia. This significant volume reflects our growing operational scale and reinforces our position as the largest grid-connected biogas provider in the country. By continuously expanding our footprint, we are not only helping mills manage effluents sustainably but also delivering measurable environmental benefits. Our role as a reliable partner to both mills and stakeholders remains central to our mission of enabling cleaner industry practices.

The table below presents the annual volumes of wastewater treated by Cenergi from palm oil mills in Malaysia and cassava processing mills in Indonesia over 2022 to 2024. The data is recorded from the wastewater intake flowmeter installed at each biogas plant.

Year	2022	2023	2024
Treated POME from various plants, Malaysia (m <sup>3</sup> )	2,260,677	2,838,988	<b>4,036,851</b>
Treated wastewater (cassava processing) in Lampung, Indonesia (m <sup>3</sup> )	468,2115	564,363	<b>605,772</b>

**WASTE MANAGEMENT**

GRI 2-27, 306-4

Cenergi generates waste as part of its business operations and remains committed to effective waste management and reduction strategies. The Group follows a broad categorisation of waste into three key types: scheduled waste, non-hazardous solid waste, and office waste.

**Waste Category Description**

<b>Scheduled Waste (Malaysia)</b>	Includes spent lube oil, waste containing mercury or its compound, waste containing halogenated organic solvents, and rags, plastics, papers or filters contaminated with scheduled waste. Handled by licensed contractors, tracked in the eSWIS system, and disposed of at approved facilities.
<b>Scheduled Waste (Indonesia)</b>	Includes used oil, used oil filter, used air filter, used LED light, used LED laser and used Chemical Oxygen Demand (COD) reagent vial. Handled by licensed contractors, tracked in the Sistem Informasi Pelaporan Elektronik Limbah B3 (SIMPEL) system, and disposed of at approved facilities.
<b>Non-Hazardous Solid Waste</b>	Includes construction and domestic waste, directed to regulated landfills.
<b>Office Waste</b>	Includes paper, toner cartridges, and other consumables, with a focus on digital transformation to reduce usage.

Scheduled waste is monitored in compliance with the Environmental Quality (Scheduled Wastes) Regulations under Malaysian law. All wastes are accurately classified, handled, and disposed of through licensed contractors at approved facilities. In 2024, a total of 37,879 kgs of scheduled waste was disposed, an increase of 10% from 34,334 kgs in 2023. The increase was mainly due to higher operational activity at several plants. The activities include operational expansion at the FJP plant, where the number of engines rose from one in 2023 to three in 2024, and by higher operating hours at two-engine plants such as Sri Ganda, BCYP, CFJP Phase 2, Classic, and Seberang Perak, due to greater biogas processing volumes.

At our Head Office, waste is managed through the building management system and disposed of at licensed regulated landfills. In 2024, 962 kg of waste was diverted from disposal (recycled or repurposed) reflecting a notable improvement from 405 kg in 2023. This increase is largely attributed to improved segregation and recycling practices. The table below summarises the volume of scheduled waste disposed of and waste diverted from disposal between 2022 and 2024:

In kilogram	2022	2023	2024
Scheduled waste disposed through licensed parties	12,340	34,334	<b>37,879</b>
Wastes diverted from disposal (recycled or repurposed)	474	405	<b>962</b>

**MEETING ENVIRONMENTAL REGULATORY REQUIREMENTS**

Cenergi is committed to upholding all applicable environmental laws and regulations through a proactive and transparent approach. In 2024, we maintained a clean compliance record, with no fines, non-monetary sanctions, or environmental cases brought through regulatory or legal mechanisms. Our internal governance is supported by a comprehensive framework, guided by our Health & Safety Environment Policy and Sustainability Policy, which promote responsible operations and ensure alignment with both local requirements and international standards. Looking ahead, we will continue to strengthen our environmental compliance practices and maintain our strong track record as part of our broader commitment to sustainability and good governance.

Scan the QR code for Health & Safety Environment Policy and Sustainability Policy or click this link <https://www.cenergi-sea.com/documentation/>





# OUR ECONOMIC CONTRIBUTION

GRI 201-1

## MANAGEMENT APPROACH

Cenergi's management approach is centred on delivering sustainable economic contributions through our asset portfolio, supported by sufficient financial resources essential for our concession business. We ensure effective management of our assets, focusing on long-term value for stakeholders. Our commitment extends beyond financial performance; we actively engage with local communities, contributing to job creation and sustainable development principles.

By investing in renewable energy and energy efficiency projects, we not only mitigate climate impacts but also enhance energy security, supporting Malaysia's transition to a low-carbon economy. Through these efforts, Cenergi aims to create both direct and indirect economic benefits, powering a sustainable future.

## DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED

Cenergi strives to be a catalyst for socio-economic and sustainable development. We generate financial value for our stakeholders while creating socio-economic multiplier effects that benefit local communities. We strive to enhance our financial performance, allowing us to distribute economic value more effectively among our stakeholders. Section 1 of this report provides the financial performance of Cenergi.

## GREEN FINANCING FOR SUSTAINABLE GROWTH

In November 2021, Cenergi launched an Islamic notes issuance programme of up to an aggregate amount of RM1.5 billion in nominal value ("Sukuk Programme") for the issuance of senior Islamic medium term notes ("Senior Sukuk Wakalah") and/or subordinated perpetual Islamic notes ("Perpetual Sukuk Wakalah") based on the Shariah principle of Wakalah Bi Al-Istithmar. It is an important milestone in advancing our growth strategy. The primary objective of the Green Sukuk is to finance Cenergi's solutions that promote environmental sustainability while creating positive ecological transformation via green financing.

Assigned by RAM Ratings, Cenergi's corporate credit ratings and the issue ratings of its Sukuk Programme was stable for the year at AA3/Stable/P1, reflect its steadily growing, albeit still small-sized, RE business, largely from its leading position in the biogas industry.

Meanwhile, the rating of the Senior Sukuk at AA3/Stable equates to its long-term corporate credit ratings while the Perpetual Subordinated Sukuk is rated two notches below at A2/Stable to reflect increased loss severity and the risk of non-performance relative to senior financing obligations.

Rating Type	Ratings	Rating Action
<b>Corporate Credit Ratings</b>	AA3/Stable/P1	Reaffirmed
<b>Issue Ratings</b>		
- Senior Sukuk	AA3/Stable	Reaffirmed
- Subordinated Perpetual Sukuk	A2/Stable	Reaffirmed

RAM Rating Based on RAM's Credit Rationale as at 24 October 2024.



More info here on the  
RAM Ratings and Sukuk Annual Report -  
<https://www.cenergi-sea.com/documentation/>



## RESPONSIBLE SUPPLY CHAIN

GRI 204-1

Cenergi is committed to maintaining a responsible supply chain. Our Group's Vendor Code of Conduct and Procurement Policies ensure that we collaborate closely with suppliers who share these values, holding them to high standards of integrity and sustainability. In 2024, more than 90% of our supplier spending was directed towards local businesses.



## ADDRESSING PHYSICAL RISKS AND EMERGING CLIMATE DISCLOSURES

Cenergi recognises that climate change brings both risks and opportunities with significant financial implications. Cenergi continues to address its material matters, particularly those identified under E6 of our materiality matrix in Section 5, which include financial performance, economic contribution, and access to capital. We remain focused on ensuring that our operations contribute positively to the broader economy while maintaining fiscal resilience and attracting sustainable financing.

In parallel, initial efforts are underway to align our approach with the development of climate-resilient assets. These efforts reflect our recognition that climate factors are increasingly influencing financial performance, investment decisions, and long-term business strategy, specifically those within the clean energy sector.

While we are still in the early stages, building climate-resilient solar, biogas and hydropower assets involves a combination of strategic site selection, use of durable materials, adaptive design and operational practices that mitigate climate risks and enhance system performance under various weather conditions. For example, site selection for construction of our biogas plants avoids prime agricultural or ecologically sensitive lands to reduce environmental impact and community opposition. Our solar farms manage ground cover with vegetation that minimises soil runoffs and maintain soil health.



Cenergi ingrates agrivoltaics at our solar farms to diversify land use and improve resilience through ecological synergy. We also maintain a diversified solar portfolio to handle climate-induced variability in solar efficiency and power generation.

These efforts collectively enhance the durability, operational reliability and environmental sustainability of our solar and biogas assets in the face of increasing climate risks, thereby protecting investments and ensuring consistent energy production over the assets' lifecycle.

## OUR ECONOMIC CONTRIBUTION

### TECHNOLOGY AND INNOVATION

Technology is a critical enabler of both growth and sustainability at Cenergi. As a leader in the renewable industry business, we leverage proprietary, in-house solutions born out of real operational challenges.

To stay at the cutting edge, we pursue partnerships to explore new technologies and collaborate on next-generation clean energy solutions. These include remote asset monitoring, drone-enabled inspections, and predictive analytics powered by artificial intelligence (AI). Such innovations not only reduce energy consumption and improve operational efficiency but also strengthen the resilience and sustainability of our operations—crucial elements in our commitment to build a low-carbon future.

Cenergi has also been exploring technologies to improve the performance of our biogas power plants. The efforts include experiments on the effectiveness of co-digestion of POME treatment with biomass and enzymes. We have also strategised on the maintenance

schedule for biogas equipment to ensure minimal impact to the biogas electricity production at each downtime. To achieve cost savings, Cenergi is developing in-house capability to conduct and collect Power Quality (PQ) data during the initial testing and commissioning of biogas power plants. This data is required for submission to Tenaga Nasional Berhad (TNB) to monitor grid parameter changes before and after the new electricity injection to TNB grid. At the same time, Cenergi plans to implement the installation of small capacity of photovoltaic (PV) panels at biogas plants to support the plants' auxiliary load, maximising electricity injection to the national grid.

For our solar assets, key initiatives include the deployment of Smart IV Curve Monitoring software for predictive fault detection and enhancements to cable management systems. We also conduct routine thermographic inspections across all direct current (DC) and alternating current (AC) interconnections to proactively identify thermal anomalies and prevent potential failures.



## ESG PERFORMANCE DATA

INDICATOR	UNIT	2022	2023	2024
<b>Governance</b>				
<u>Corruption</u>				
Total number of staff trained in anti-corruption	Number	122	224	151
Total number of Senior Management trained in anti-corruption	Number	12	8	4
Total number of Management trained in anti-corruption	Number	22	50	8
Total number of Executives trained in anti-corruption	Number	0	54	42
Total number of non-executives trained in anti-corruption	Number	55	86	97
Operations assessed for corruption-related risks	%	0	100	100
Confirmed incidents of corruption	Number	0	0	0
Action Taken	Number	-	-	0
Total penalty/fine received in regards of corruption	Number	-	-	0
<u>Supply Chain</u>				
Proportion of suppliers that are locally based	%	90	90	93
Proportion of procurement spent on local suppliers	%	95	90	95
<b>Environment</b>				
<u>Energy</u>				
Total non-renewable electricity consumption (grid)	kWh	2,228,849	1,523,590	1,460,852
Total renewable electricity consumption (solar and biogas)	kWh	10,389,472	12,750,000	16,981,479
Total electricity consumption	kWh	12,618,321	14,273,590	18,442,331
Total non-renewable energy consumption (grid and diesel)	GJ	8,377	5,485	5,259
Total renewable energy consumption (solar and biogas)	GJ	37,402	45,900	61,133
Total energy consumption	GJ	45,779	51,385	66,392
Energy Intensity	GJ/RM'mil revenue	0.210	0.200	0.204
<u>Water</u>				
Municipal water consumption	m <sup>3</sup>	22,682	75,998	56,062
Rainwater consumed from rainwater harvesting	m <sup>3</sup>	11	7,674	4,866
Total water consumption	m <sup>3</sup>	22,693	83,672	60,928
<u>Waste</u>				
Total waste diverted from disposal (recycled or repurposed)	kg	474	405	962
Total scheduled waste	kg	12,340	34,334	37,879
<u>GHG emissions</u>				
Scope 1	tCO <sub>2</sub> e	24	103,930	146,850
Scope 2	tCO <sub>2</sub> e	1,304	1,200	1,245
Scope 3 (business travel)	tCO <sub>2</sub> e	21	34	80
Scope 3 (employee commuting)	tCO <sub>2</sub> e	482	328	386
Emissions avoided *	tCO <sub>2</sub> e	514,685	637,971	699,717
GHG emissions intensity	kgCO <sub>2</sub> e/RM'mil revenue	N/A	1.48	1.64
<b>Social</b>				
<u>Employee Diversity</u>				
Total headcount	Number	200	243	357
<u>Workforce by gender (number)</u>				
- Female	Number/%	44 (22%)	45 (19%)	52 (15%)
- Male	Number/%	156 (78%)	198 (82%)	305 (85%)

\* Nett GHG avoided

## ESG PERFORMANCE DATA

INDICATOR	UNIT	2022	2023	2024
<b>Social</b>				
<u>Employees by contract</u>				
- Full-time employees	Number/%	200 (100%)	243 (100%)	357 (100%)
- Contractors/temporary employees	Number/%	0	0	0
<u>Employees by age</u>				
- <30	Number/%	63 (32%)	92 (38%)	149 (42%)
- 30-50	Number/%	131 (66%)	141 (58%)	197 (55%)
- >50	Number/%	6 (3%)	10 (4%)	11 (3%)
<u>Employees by nationality</u>				
- Local employees	Number/%	200 (100%)	243 (100%)	357 (100%)
- Foreign employees	Number/%	0	0	0
<u>Employees by category</u>				
- Senior management	Number/%	6 (3%)	8 (3%)	11 (3%)
- Management	Number/%	40 (20%)	50 (21%)	32 (9%)
- Executives	Number/%	59 (30%)	60 (25%)	111 (31%)
- Non-executives	Number/%	95 (48%)	125 (52%)	203 (57%)
<u>Employees by gender and category</u>				
Senior management - Female	Number/%	1 (17%)	1 (13%)	4 (36%)
- Male	Number/%	5 (83%)	7 (88%)	7 (64%)
Management - Female	Number/%	13 (33%)	15 (30%)	8 (25%)
- Male	Number/%	27 (68%)	35 (70%)	24 (75%)
Executives - Female	Number/%	25 (42%)	24 (40%)	35 (31%)
- Male	Number/%	34 (58%)	36 (60%)	76 (69%)
Non-executives - Female	Number/%	5 (5%)	5 (4%)	5 (2%)
- Male	Number/%	90 (95%)	120 (96%)	198 (98%)
<u>Employees by age and category</u>				
Senior management - <30	Number/%	0 (0%)	0 (0%)	0 (0%)
- 30-50	Number/%	3 (50%)	5 (63%)	7 (64%)
- >50	Number/%	3 (50%)	3 (38%)	4 (36%)
Management - <30	Number/%	0 (0%)	3 (6%)	0 (0%)
- 30-50	Number/%	38 (95%)	44 (88%)	29 (91%)
- >50	Number/%	2 (5%)	3 (6%)	3 (9%)
Executives - <30	Number/%	21 (36%)	26 (43%)	40 (36%)
- 30-50	Number/%	37 (63%)	34 (57%)	70 (63%)
- >50	Number/%	1 (2%)	0 (0%)	1 (1%)
Non-executives - <30	Number/%	44 (46%)	63 (50%)	109 (53%)
- 30-50	Number/%	50 (53%)	58 (47%)	91 (45%)
- >50	Number/%	1 (1%)	4 (3%)	3 (2%)
<u>Director Diversity</u>				
<u>Director by gender</u>				
- Female	Number/%	1 (20%)	*	0 (0%)
- Male	Number/%	4 (80%)	5 (100%)	5 (100%)
<u>Directors by age</u>				
- <30	Number/%	0 (0%)	0 (0%)	0 (0%)
- 30-50	Number/%	2 (40%)	3 (60%)	2 (40%)
- >50	Number/%	3 (60%)	2 (40%)	3 (60%)

\* The female director resigned during her tenure on 22 August 2023.

## ESG PERFORMANCE DATA

INDICATOR	UNIT	2022	2023	2024
<u>Turnover</u>				
Total turnover	Number/%	43 (22%)	38 (16%)	36 (13%)
<u>Employee turnover by gender</u>				
- Female	Number/%	9 (21%)	11 (29%)	28 (78%)
- Male	Number/%	34 (79%)	27 (71%)	8 (22%)
<u>Employee turnover by age</u>				
- <30	Number/%	18 (42%)	18 (47%)	14 (39%)
- 30-50	Number/%	23 (53%)	19 (50%)	22 (61%)
- >50	Number/%	2 (5%)	1 (3%)	0 (0%)
<u>Employee turnover by category</u>				
- Senior management	Number/%	3 (7%)	0 (0%)	0 (0%)
- Management	Number/%	7 (16%)	8 (21%)	8 (22%)
- Executives	Number/%	12 (28%)	17 (45%)	13 (36%)
- Non-executives	Number/%	21 (49%)	13 (34%)	15 (42%)
<u>Turnover type</u>				
- Voluntary turnover	Number/%	43 (100%)	38 (100%)	36 (100%)
- Involuntary turnover	Number/%	0 (0%)	0 (0%)	0 (0%)
<u>New hires</u>				
Total new hires	Number/%	70 (35%)	75 (31%)	152 (43%)
<u>Training and development</u>				
Total training time	Hours	5,994	9,773	10,372
Total training for Senior Management	Hours	149	650	561
Total training for Management	Hours	1,489	2,196	1,591
Total training for Executives	Hours	1,872	3,263	4,113
Total training for Non-executives	Hours	2,484	3,665	4,107
Total employees trained	Number	180	238	357
<u>Occupational Safety and Health</u>				
Fatalities (employees)	Number	0	0	0
Fatalities (third-party contractors)	Number	0	0	0
Lost time incident rate (employees)	Rate	0	0	0
Lost time incident rate (third-party contractors)	Rate	0	0	0
Employees trained on health and safety standards	Number	85	76	367
Employees receiving general training, which includes safety	Number	70	76	367
<u>Community</u>				
Total amount invested in the community	RM	9,000	10,200	93,000
Beneficiaries of the investment in the community	Number of Program	1	12	21
<u>Human rights</u>				
Substantiated complaints concerning human rights violations	Number	0	0	0
Cybersecurity and customer data	Number	0	0	0
Substantiated complaints concerning breaches of customer privacy and losses of customer data	Number	0	0	0

GRI Standard	GRI	Standard Disclosure	GRI Location of Disclosures and Reasons for Omissions, if Applicable	SDG	
<b>General Disclosure</b>					
GRI 2: General Disclosure 2021	2-1	Organisational details	About This Report	-	
	2-2	Entities included in the organisation's sustainability reporting	About This Report		
	2-3	Reporting period, frequency and contact point	About This Report		
	2-6	Activities, value chain and other business relationships	About Cenergi		
	2-7	Employees	Our Employee		ESG Performance Index
			ESG Performance Index		
	2-9	Governance structure and composition	Sustainability Approach and Governance		Our Employee
			Our Employee		
	2-11	Chair of the highest governance body	Sustainability Approach and Governance		
	2-12	Role of the highest governance body in overseeing the management of impacts	Sustainability Approach and Governance		
	2-13	Delegation of responsibility for managing impacts	Sustainability Approach and Governance		
	2-14	Role of the highest governance body in sustainability reporting	Sustainability Approach and Governance		
	2-18	Evaluation of the performance of the highest governance body	Creating Value in 2023		
	2-22	Statement on sustainable development strategy	Throughout		
	2-23	Policy commitments	Sustainability Approach and Governance		
	2-25	Processes to remediate negative impacts	Sustainability Approach and Governance		
	2-26	Mechanisms for seeking advice and raising concerns	Sustainability Approach and Governance		
	2-27	Compliance with laws and regulations	Sustainability Approach and Governance		Wastes Management Occupational Safety and Health Management
			Wastes Management Occupational Safety and Health Management		
2-28	Membership associations	Membership in Associations			
2-29	Approach to stakeholder engagement	Stakeholder Engagement			

GRI Standard	GRI	Standard Disclosure	GRI Location of Disclosures and Reasons for Omissions, if Applicable	SDG	
<b>Material Topics</b>					
GRI 3: Material Topics 2021	3-1	Process to determine material topics	Material Matters	-	
	3-2	List of material topics			
	3-3	Management of material topics			
<b>Environmental Management</b>					
<b>Energy Management</b>					
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	Carbon Footprint and Carbon Avoidance	-	
		ESG Performance Index			
	302-3	Energy intensity	ESG Performance Index		
	302-4	Reduction of energy consumption	Energy Management		
<b>Water and Effluent</b>					
GRI 303: Water and Effluents 2018	303-1	Interaction with water as a shared resource	Water and Effluent	-	
	303-5	Water consumption	Water and Effluent ESG Performance Index		
<b>GHG Emission</b>					
GRI 305: Emission 2016	305-1	Direct (Scope 1) GHG emissions	Carbon Footprint and Carbon Avoidance	7, 11, 13	
		305-2	Energy indirect (Scope 2) GHG emissions		Carbon Footprint and Carbon Avoidance
		305-3	Other indirect (Scope 3) GHG emissions		Carbon Footprint and Carbon Avoidance
	305-4	GHG emissions intensity	Carbon Footprint and Carbon Avoidance		
	305-5	Reduction of GHG emissions			
<b>Waste Management</b>					
GRI 306: Waste 2020	306-3	Waste generated	ESG Performance Index	12	
	306-4	Waste diverted from disposal	Wastes Management		
	306-5	Waste directed to disposal	Wastes Management		
<b>People</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics			
<b>Employee Engagement, Diversity, Equity and Inclusion &amp; Labour Practices</b>					
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Diversity, Inclusion and Equity	3, 10	
		ESG Performance Data			
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Diversity, Inclusion and Equity		
401-3	Parental leave	Diversity, Inclusion and Equity			

GRI Standard	GRI	Standard Disclosure	GRI Location of Disclosures and Reasons for Omissions, if Applicable	SDG
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	Occupational Safety and Health Management	8
	403-2	Hazard identification, risk assessment, and incident investigation	Occupational Safety and Health Management	
	403-5	Occupational Safety and Health Management Pg. 38	Occupational Safety and Health Management Training and Development	
	403-6	Promotion of worker health	Occupational Safety and Health Management	
	403-9	Work-related injuries	Occupational Safety and Health Management	
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	Training and Development	8
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	Diversity, Inclusion and Equity	10
<b>Local Communities</b>				
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	Social Engagement	
<b>Governance</b>				
GRI 3: Material Topics 2021	3-3	Management of material topics	Material Matters	-
<b>Economic Performance</b>				
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	Our Economic Contribution	7, 9
	203-2	Significant indirect economic impacts	Agrivoltaics: Merging Solar Power with Agriculture	8
	204-1	Proportion of spending on local suppliers	Responsible Supply Chain	8, 12
<b>Anti-corruption</b>				
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	Sustainability Approach and Governance	16
	205-2	Communication and training about anti-corruption policies and procedures	Sustainability Approach and Governance	
	205-3	Confirmed incidents of corruption and actions taken	Sustainability Approach and Governance	

## ABBREVIATION AND ACROYNMS

BOFA	Basic Occupational First Aid, CPR & AED Training	kV	kilovolt
BTE	Biogas-to-energy	LSS	Large-Scale Solar
CC	Carbon Credits	MACC	Malaysian Anti-Corruption Commission
CDM	Clean Development Mechanism	mREC	Malaysian Renewable Energy Certificate
CepSWaM	Certified Environmental Professional in Scheduled Wastes Management	MSPO	Malaysian Sustainable Palm Oil
CGPP	Corporate Green Power Programme	MW	Megawatt
CHRA	Chemical Health Risk Assessment	MWh	Megawatt hour
CO <sub>2</sub>	Carbon Dioxide	MWp	Megawatt peak
DOSH	Department of Occupational Safety and Health	NBAP	National Biomass Action Plan
EAC	Energy Attribute Certificate	NDC	Nationally Determined Contributions
EES	Environmental, Economic and Social	NEDA	New Enhanced Dispatch Arrangement
EF	Emission Factor	NETR	National Energy Transition Roadmap
EFB	Empty fruit bunches	NRA	Noise Risk Assessment
EPC	Engineering, Procurement & Construction	OACP	Anti-corruption Plan
ESG	Environmental, Social and Governance	O&M	Operation & Maintenance
GBS	Green Bond Standards	PDCA	Plan-Do-Check-Act
GBP	Green Bond Principles	PKS	Palm kernel shells
GCEO	Group Chief Executive Officer	POME	Palm Oil Mill Effluent
GHG	Greenhouse Gas	RE	Renewable Energy
GRI	Global Reporting Initiative	REC	Renewable Energy Certificate
HIRARC	Hazard Identification, Risk Assessment and Risk Control	RSPO	Roundtable Sustainable Palm Oil
HR	Human Resource	SRI	Sustainable and Responsible Investment
HSE	Health, Safety and Environment	tCO <sub>2</sub> e	Ton Carbon Dioxide equivalent
IOD	Initial operating date	UCUA	Unsafe Condition Unsafe Act
ISO	International Organisation for Standardisation	UN SDGs	United Nations Sustainable Developments Goals
I-REC	International Renewable Energy Certificate	USECHH	Use and Standards of Exposure to Chemical Hazardous to Health
JMS	Job Method Statement	VCS	Verified Carbon Standard
		VCU	Verified Carbon Unit



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