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# Leading Malaysia's Climate Transition: Sarawak Energy's Journey To Science Based Targets Validation

A Case Study of



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Sarawak Energy is a vertically integrated electricity utility and Malaysia's largest renewable energy developer with a vision to achieve sustainable growth for Sarawak. As a state-owned utility company, Sarawak Energy has established itself as a pioneer in corporate climate action through its commitment to science-based emissions reduction targets. Sarawak Energy adopts a holistic approach to energy development, addressing the energy trilemma by balancing energy security, sustainability, and affordability to drive socio-economic transformation and power the State's growth through renewable hydropower development. As the first large corporation in Malaysia to receive Science Based Targets initiative (SBTi) validation in 2023, Sarawak Energy demonstrates how utility companies can lead the energy transition while maintaining operational excellence. Through strategic alignment with climate science and comprehensive stakeholder engagement, the Company is charting a path towards carbon

neutrality by 2050, setting a benchmark for corporate climate leadership in Southeast Asia.

## Company At A Glance

- Industry: Utility
- Founded: 1921
- Headquarters: Kuching, Sarawak, Malaysia
- Global Workforce: Over 6,400 employees (as of 2025)

## The Challenge

### Advancing Decarbonisation Through System Transformation

Sarawak Energy faced rising expectations to demonstrate credible, science-aligned decarbonisation within Malaysia's energy sector. As a large integrated utility with long-lived assets and a complex generation mix, the challenge extended beyond setting emissions targets to establishing a robust and defensible approach to measuring and aligning Scope 1,

Scope 2, and material Scope 3 emissions with global climate pathways.

At the same time, increased scrutiny from regulators, investors, and stakeholders highlighted the need for transparent, comparable, and externally credible targets that could support long-term system transformation and Malaysia's low-carbon transition ambitions.

## The Action

### Building A Science-Based Climate Strategy

To translate its climate ambition into validated science-based targets, Sarawak Energy adopted a structured, multi-year approach focused on strengthening emissions data, aligning methodologies with climate science, and securing external validation. The SBTi journey was treated as a system transformation exercise to embed climate discipline into long-term planning and governance.

Sarawak Energy implemented the SBTi process through a four-phase approach between 2020 and 2023:

#### Phase 1: Building the Foundation for a Science-Based Transition

Sarawak Energy assessed organisational readiness against SBTi requirements by benchmarking through UNGCMYB's LEAD23 programme and conducting pre-validation stress tests across Scope 1-3 data. This enabled the identification of data gaps, clarification of organisational and Scope 3 boundaries, and prioritisation of governance improvements.

#### Phase 2: Establishing a Strategic Decarbonisation Roadmap

Targets were developed using the SBTi Sectoral Decarbonisation Approach (SDA) and supported

by assured datasets, scenario assumptions, and methodological justifications. A formal submission was prepared to align emissions reduction pathways with science-based benchmarks.

#### Phase 3: Strengthening Scope 3 and Technical Validation

Sarawak Energy engaged in multiple SBTi review cycles, providing supplementary calculations, refining emission factors, and strengthening category-level Scope 3 estimates to address methodological queries and enhance data robustness.

#### Phase 4: Validation and Disclosure (November 2023)

Official SBTi approval was secured in November 2023. The validated targets were subsequently integrated into corporate strategy and external disclosures, establishing a publicly endorsed, science-aligned decarbonisation pathway.

## Enablers For Sustainability Performance And Impact

The successful validation of Sarawak Energy's SBTi targets was driven by a set of enablers that embedded climate action into the Company's strategy, operations, and culture, ensuring structured and accountable implementation at scale.



#### Leadership & Culture

The Board Sustainability Committee, Group Sustainability Committee, the Group CEO, and the Sarawak Energy Leadership Team championed the 1.5°C commitment, setting a strong tone across the organisation.



#### Strategy

The SBTi validation is integrated into Sarawak Energy's Sustainability Strategy and Roadmap, ensuring alignment with enterprise-wide sustainability goals and business planning processes.



### Process

Structured action plans and systematic data monitoring processes provided the foundation for successful SBTi validation.



### Resources

Investments were allocated to renewable energy projects as well as capacity-building programmes to strengthen both internal capabilities and supplier readiness.



### Governance

A two-tier governance structure, comprising the Board Sustainability Committee (BSC) and Group Sustainability Committee (GSC), provides oversight, accountability, and strategic direction for sustainability and climate initiatives.



### People

Employees were actively engaged through KPIs, awareness campaigns, workshops, and certification programmes to embed ESG leadership and capabilities across the workforce.



### ESG Data

A robust emissions monitoring and reporting system, supported by third-party assurance of selected indicators, enabled informed decision-making and guided performance improvement.



### Partnerships and Stakeholder Engagement

Collaboration with UNGCMYB and MGTC strengthened the initiative's credibility, facilitated pre-validation processes, and supported capacity-building across Sarawak Energy and its supply chain.



### Supply Chain and Procurement

Vendors were engaged through UNGCMYB's ESG Start and Sustainable Supply Chain Development Programme, ensuring suppliers are aligned with Sarawak Energy's climate ambitions.



## Overcoming Barriers

While Sarawak Energy successfully achieved its SBTi validation, the journey involved navigating several technical and operational challenges.

### Data Complexity For Scope 3 Emissions

One of the most pressing challenges was developing a complete and credible Scope 3 emissions inventory, which required extensive collaboration across multiple departments and the supply chain. **To strengthen its approach, the company conducted comprehensive data mapping guidance from the Malaysian Green Technology and Climate Change Corporation (MGTC) to improve the accuracy and reliability of its Scope 3 data.**

### Technical Requirements of SBTi Submission

The SBTi validation process presented a barrier to Sarawak Energy's unique vertically integrated

operations and grid emissions profile, which required extensive technical justifications that standard SBTi frameworks did not readily accommodate. Sarawak Energy responded by engaging in multiple rounds of detailed correspondence with SBTi technical reviewers to provide additional technical data, clarify emissions calculations specific to their integrated model, and demonstrate how their unique operational structure aligns with the SBTi Sectoral Decarbonisation Approach.

## Impact and Results

Sarawak Energy's science-based target journey has delivered measurable organisational, strategic, and reputational outcomes, underpinned by independent validation and strengthened internal capability.

### 1. Science-Based Validation and National Leadership

In 2023, Sarawak Energy became the first large corporation in Malaysia to secure validation of its near-term emissions reduction targets by the Science Based Targets initiative (SBTi).

This validation confirms that the company's targets are aligned with the 1.5°C pathway of the Paris Agreement, establishing a credible, science-based benchmark for corporate climate action within Malaysia's energy sector.

### 2. Demonstrated Alignment with Climate Pathways

From 2020 to 2023,



Sarawak Energy consistently **maintained its CO<sub>2</sub> emissions intensity** within **2°C and 1.5°C pathways** performance **below the thresholds** defined by **SBTi methodologies**

This sustained performance reflects disciplined emissions management, robust data systems, and the integration of climate science into operational and strategic planning.

### 3. Enhanced Stakeholder Confidence and Market Standing

The SBTi validation has strengthened confidence among key stakeholders, including regulators, investors, and industry peers.

By adopting internationally recognised climate standards and subjecting its targets to independent scrutiny, Sarawak Energy has reinforced its credibility as a responsible energy transition leader and reference point for other large corporates navigating decarbonisation.

### 4. Strengthened Organisational Capability and Systems

The SBTi process accelerated internal capability building and institutional learning.

By 2023, the organisation had developed strong in-house capabilities, enabling the SBTi validation process to be undertaken internally, with strategic collaboration through pre-validation and technical review by UN Global Compact Network Malaysia & Brunei (UNGCMYB) and MGTC respectively.

The SBTi validation also drove our project decision in selecting project with low carbon footprint that meet international sustainability best practices and requirement, e.g., 10W / m<sup>2</sup> or 100gCO<sub>2</sub>/kWh for hydropower project as outlined in Hydropower Sustainability Standard (HSS) and Sustainability Taxonomy. To date,



**159 staff** were **trained and certified** as **Certified Users** of the **Hydropower Sustainability Standard (HSS) Tools**



**30** staff were recognised  
as **HSS Provisionally  
Accredited Assessors**



**6** staff were  
as recognised  
**Accredited Assessors**

These outcomes reflect deeper organisational readiness to manage emissions data, apply science-based methodologies, and embed sustainability expertise across technical and operational functions.

## Key Lessons Learned

### **1. A Strong Data Foundation Is Essential for Credible Climate Action**

Sarawak Energy's experience underscores that robust, assured emissions data is fundamental to setting and validating science-based targets. Early investment in comprehensive data systems particularly for Scope 3 emissions—**enables credible target-setting, smoother validation, and effective long-term performance tracking**.

### **2. Strategic Partnerships Accelerate Capability and Confidence**

Engagement with recognised sustainability partners and technical experts provided critical guidance in navigating complex validation requirements. These partnerships strengthened internal capabilities, improved methodological rigour, and enhanced confidence in managing a science-based climate transition.

### **3. Science-Based Standards Strengthen Accountability**

Adopting an internationally recognised, science-based standard reinforced accountability and credibility. The SBTi framework ensured that Sarawak Energy's targets were measurable, transparent, and aligned with global climate pathways—providing stakeholders with confidence in the integrity of its commitments.

### **4. Early Value Chain Engagement Supports Long-Term Alignment**

The SBTi journey highlighted the importance of engaging suppliers and value-chain partners early, particularly for Scope 3 emissions. Proactive engagement supports better data quality, clearer emissions boundaries, and more effective management of transition risks across the value chain.

## Sarawak Energy has been a member of the UN Global Compact since 2016.

UN Global Compact Network Malaysia & Brunei (UNGCMYB) played a critical role in Sarawak Energy's initiative by providing strategic guidance and capacity-building to ensure alignment with global sustainability benchmarks and impactful SDG outcomes.

“ Guided by our vision to deliver sustainable growth and prosperity for Sarawak through reliable and renewable energy, Sarawak Energy is advancing a 1.5°C, science-based pathway to Net Zero. Our recent recognition as an ESG Select List 5-Star Lister by the UN Global Compact Network Malaysia & Brunei affirms the strength of our sustainability journey and further reinforces our commitment to deliver on it – anchored by a clear sustainability roadmap, aligned with the Sarawak Government's Post COVID-19 Development Strategy 2030, and driven through renewable hydropower, strong governance, and collaboration with like-minded partners. ”

Datuk Haji Sharbini Suhaili,  
Group Chief Executive Officer, Sarawak Energy



Disclaimer: This case study was prepared as of 23 Dec 2025. Please note that due to the dynamic nature of the company's operations, changes may have occurred subsequent to this date. Readers are advised to refer to the company's latest announcements and disclosures for the most current information.

## THE TEN PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT



### HUMAN RIGHTS

- 1 Businesses should support and respect the protection of internationally proclaimed human rights; and
- 2 make sure that they are not complicit in human rights abuses.



### LABOUR

- 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- 4 the elimination of all forms of forced and compulsory labour;
- 5 the effective abolition of child labour; and
- 6 the elimination of discrimination in respect of employment and occupation.



### ENVIRONMENT

- 7 Businesses should support a precautionary approach to environmental challenges;
- 8 undertake initiatives to promote greater environmental responsibility; and
- 9 encourage the development and diffusion of environmentally friendly technologies.



### ANTI-CORRUPTION

- 10 Businesses should work against corruption in all its forms, including extortion and bribery.

The Ten Principles of the United Nations Global Compact are derived from: the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.

## ABOUT UN GLOBAL COMPACT NETWORK MALAYSIA & BRUNEI

United Nations Global Compact (UNGC) is a strategic policy initiative for businesses that are committed to take actions to advance broader societal goals. UN Global Compact Network Malaysia & Brunei (UNGCMYB), the official country network of UNGC, is the leading advocate for business sustainability action in Malaysia and Brunei. We empower both corporates and SMEs through value-creating initiatives across learning, connections, and enablers to Forward Faster a collective sustainable future. We support Malaysian and Bruneian companies in aligning with the Ten Principles and contributing meaningfully to the Sustainable Development Goals (SDGs), while providing access to partnerships, tools and knowledge sharing to advance responsible business practices.

Talk to us about joining us or visit our website at [www.ungcmyb.org](http://www.ungcmyb.org)



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