

Sembcorp Business Description:

Sembcorp is a leading Singapore-based energy and urban development company with operations in 11 countries worldwide. Its main business interests are in natural gas, renewable energy, and integrated urban solutions like waste disposal and water management.

Why is Sembcorp's environmental problem its most pressing issue?

Sembcorp's core business interests are in environmentally unfriendly natural gas operations, forming more than 75% of its gross revenue in 2024. As such, its greatest ESG impact and risk exposure lies in its massive environmental footprint.

In 2024 alone, Sembcorp produced a staggering 10,183.9 *ktCO₂e* of Scope 1 carbon emissions, close to thrice of Singapore's entire public sector emissions (3,617 *ktCO₂e*) — highlighting its severe environmental impact. This has also posed significant business risks to Sembcorp. For instance, it paid SGD\$52.2 million in 2024 for carbon compliance taxes. With the government planning to double carbon taxes by 2030, such environmental business risks are only going to exacerbate in the future.

Sembcorp needs to improve its environmental performance urgently. With climate policies in the region tightening rapidly, Sembcorp faces quickly increasing fines, operational restrictions, and lost business interests if it does not act now. Furthermore, environmental transition is a long-term process requiring years of planning and investment. Delayed actions only lead to more costly and drastic future measures...

Solution 1: Capturing renewable energy opportunities in the Johor-Singapore Special Economic Zone (JS-SEZ)

The recently signed JS-SEZ agreement includes provisions to promote investments in the green economy sector between Malaysia and Singapore. Proposed initiatives involve the development of large-scale clean energy production facilities — such as solar farms and biofuel plants — which will generate clean electricity to be exported to Singapore via existing infrastructure like the Malaysia-Singapore 230kV link.

This initiative also aligns with Singapore's Green Plan 2030 of producing and importing up to 6 GW of low-carbon electricity by 2035 from neighbouring countries, which is designed to overcome Singapore's land constraint which limits its renewable production capacity. In fact, Singapore plans to import 30% of its electricity supply by 2035, with deals already being secured in Indonesia, Cambodia and Vietnam.

Leveraging the JS-SEZ's proximity and regulatory alignment, this solution enables faster deployment, lower transmission losses, and simpler logistics than distant imports. Beyond environmental gains, it also boosts Singapore's energy security, creates green jobs in Johor, and positions Sembcorp as a leading force in Southeast Asia's transition to clean energy.

Solution 2: Investing in emerging energy technologies like Hydrogen

Singapore launched its National Hydrogen Strategy in 2022, with potential plans for hydrogen as a low-carbon fuel that meets 50% of Singapore's power needs by 2050. For instance, the government plans to have at least 9 hydrogen-compatible power plants in Singapore by 2030.

As a leading energy company with expertise in developing emerging energy solutions, Sembcorp is well-positioned to capitalize on this state initiative. For instance, it can leverage its wide industry networks to secure supply chains for low-carbon hydrogen or direct its world-class research & development (R&D) capabilities towards solving hydrogen technological bottlenecks. This will enable Sembcorp to capture the Hydrogen's rise as a major energy source in Singapore and improve its environmental performance.