

Singapore's Increased Carbon Tax Signals Urgent Need to Decarbonise

Canonical:

<https://northmoregordon.com/articles/singapores-increased-carbon-tax-and-urgent-need-to-decarbonise/>

Details:

Home > Articles > Singapore's Increased Carbon Tax Signals Urgent Need to Decarbonise

Singapore's Increased Carbon Tax Signals Urgent Need to Decarbonise

Published: April 26, 2022.

Singapore's Carbon Pricing Act (CPA), introduced in 2019, makes Singapore the first Southeast Asian country to establish a carbon price. It requires facilities emitting more than 25,000 tCO₂e annually to pay S\$5/tCO₂e for direct fuel combustion and Industrial Processes and Product Uses (IPPU) emissions such as CO₂ from steam methane reforming. The 25,000 tCO₂e threshold targets relatively few facilities while addressing roughly 80% of national greenhouse gas emissions. The carbon price is increasing to S\$25/tCO₂e in 2024, S\$45/tCO₂e in 2026, and potentially S\$50 - 80/tCO₂e by 2030. We provide Singapore energy-efficiency assessments and can help industrial facilities evaluate their emissions exposure and compliance obligations under the CPA.

Publication context: This article reflects its publication date. Market prices, program rules, reporting duties and deadlines may have changed. Confirm current official guidance before making a decision.

Singapore is one of 27 countries that has implemented a carbon tax, and it recently announced that it will ramp up its price on carbon, revealing the nation's commitment to decarbonise its economy and do its part in addressing climate change.

To stay competitive, businesses will need to reduce energy consumption, direct carbon emissions, and the use of carbon-intensive goods and services.

The Singapore Carbon Pricing Act

The 2019 introduction of the Carbon Pricing Act (CPA) marked Singapore as the first country in Southeast Asia to establish a carbon price. The CPA requires any facility emitting more than 25,000 tCO₂e annually to pay S\$5/tCO₂e.

The CPA considers emissions from direct fuel combustion as well as from Industrial Processes and Product Uses (IPPU) such as the production of CO₂ from steam methane reforming used in ammonia or hydrogen production.

Setting the taxable emissions threshold at 25,000 tCO₂e allows Singapore to target a relatively low number of the country's C&I facilities while still addressing roughly 80% of its national GHG emissions. By addressing the majority of the nation's heavy polluters with an easy-to-understand tax, the CPA could prove to be a more effective policy measure than a highly complex carbon cap-and-trade mechanism.

Tax to Increase

The price per tonne of CO₂ equivalent (tCO₂e) is set to go through steep price increases in the coming years:

S\$25/tCO₂e in 2024

S\$45/tCO₂e in 2026

and potentially between S\$50-\$80/tCO₂e by 2030

The 2022 CPA update offers businesses time to assess, plan, and execute strategies to reduce their carbon emissions and thus lower their tax liability.

Demonstrating Strong Intention for Social Good

Singapore's carbon price commitment showcases the nation's determination to decarbonise in a meaningful way. According to Singapore's National Climate Change Secretariat (NCCS), the government will not receive additional revenue from this carbon price increase. Rather, the money will go towards supporting businesses and further efforts to promote decarbonisation - such as grants and tax incentives for ESG reporting - as the country advances its transition away from carbon.

Additionally, the CPA will allow for 5% of a business's taxable emissions to be offset via certified international carbon credits. This gives businesses access to a wide range of options to mitigate their tax liability, yet the CPA still places overwhelming emphasis on reducing on-site emissions, which will compel businesses to reduce their actual carbon emissions and create a positive impact in Singapore.

Creating a Carbon Reduction Strategy

Decarbonising industry and the built environment is in the public's best interest and increasingly aligns with corporate agendas. Economists and business leaders alike have stressed the importance of expanding the price of carbon to accelerate global decarbonisation.

Effective decarbonisation requires a deeper understanding of baseline conditions and how to profitably transition away from fossil fuels. With many potential pathways in an ever-changing energy landscape, keeping up with current trends, technologies, and policies can be a daunting task.

A corporate carbon reduction strategy is the best way to achieve your goals at the lowest cost. The following diagram shows what needs to be taken into account. A simplified approach is to be considered:

Increase energy efficiency

Electrify as much as possible

Buy renewable energy

Offset the remaining carbon emissions

How Businesses can Decarbonise through Energy Efficiency

There are no one-size-fits-all solutions to decarbonise the industry. There is however a universal principle that can be applied across all sites in which reducing energy waste means less energy use, fewer emissions and that businesses will save money at the same time. This is a 'no regrets' strategy.

How Electrification and Renewables Decarbonise Business

Beyond improving energy efficiency, plants can also undergo electrification to transition away from equipment and machinery that burn fuel on site. For instance, a natural gas water heater can be replaced with an electric heat pump, or a traditional furnace can be replaced with an electric one. In addition to helping transition away from burning fossil fuels, electrified equipment typically comes with fewer maintenance costs.

When purchased electricity is produced from clean, renewable sources with minimal carbon intensity, such as wind and solar power, the electrification process can significantly reduce a business' overall emissions.

Current studies suggest that electrification could transition roughly 50% of the fuel that global industry uses for energy to electric-powered operations. This includes processes requiring low-temperature heat (≤ 100 degrees C), such as food preparation, to industrial activities like steam reforming that require high-temperature heat up to 1,000 degrees C.

The remaining fuel in the industry is often natural gas. There is an increasing amount of renewable gas available in the network, for example between 40%-50% of Denmark and Germany's piped methane gas is from renewable sources.

Certificates and Carbon Offsets

Northmore Gordon will Guide You Through Profitable Decarbonisation

As a full-service Consultant, Northmore Gordon has energy experts prepared to guide businesses through all phases of their decarbonisation journeys to ensure a successful and profitable transition.

Northmore Gordon assists with the design and implementation of a carbon reduction strategy, which includes but is not limited to:

Develop the carbon strategy

Implement energy efficiency

Electrify fuel use

Create and competitively buy priced renewable energy and high-quality carbon offsets

We help businesses design and implement carbon reduction strategies and long-term roadmaps so that they can meet corporate goals and stay ahead of the changing landscape. This can include alignment with and commitment to the Science-Based Targets Initiative (SBTi), a robust framework strategy developed to keep the global temperature rise well under 2 degrees Celcius from pre-industrial levels. In addition, Northmore Gordon helps businesses capture available grants, certifications, and incentives to make the process as profitable and streamlined as possible.

The world recognizes the threat of climate change and the risk of continued fossil-fuel dependence. Acceleration of decarbonisation is needed, and policy measures such as Singapore's Carbon Policy Act showcase that more and more countries are making definitive steps to reaching a net-zero carbon economy. With an energy partner like Northmore Gordon, your business can incorporate our energy policy and engineering expertise to demonstrate leadership in sustainability and build a thriving business as the world undergoes this pivotal energy transition.

Procurement context

Check the current market date, contract term, meter and load data, instrument ownership and retirement evidence before making a purchasing or public claim.

Related guidance

Energy services

Certificate services

Contact us

Read the original article for the source publication and its full context.

What is Singapore's Carbon Pricing Act and how does it affect industrial facilities?

Singapore's Carbon Pricing Act (CPA), introduced in 2019, makes Singapore the first Southeast Asian country to establish a carbon price. It requires facilities emitting more than 25,000 tCO₂e annually to

pay S\$5/tCO₂e for direct fuel combustion and Industrial Processes and Product Uses (IPPU) emissions such as CO₂ from steam methane reforming. The 25,000 tCO₂e threshold targets relatively few facilities while addressing roughly 80% of national greenhouse gas emissions. The carbon price is increasing to S\$25/tCO₂e in 2024, S\$45/tCO₂e in 2026, and potentially S\$50–80/tCO₂e by 2030. We provide Singapore energy-efficiency assessments and can help industrial facilities evaluate their emissions exposure and compliance obligations under the CPA.

How can industrial facilities offset their taxable emissions under Singapore's CPA?

The CPA allows businesses to offset up to 5% of taxable emissions using certified international carbon credits, though the Act emphasises reducing on-site emissions as the primary strategy. This limited offset pathway means facilities should prioritise direct emissions reductions through energy efficiency, electrification and renewable energy procurement rather than relying on offsets. Our carbon advisory services—including diagnostic workshops, opportunity assessment and transition planning—help industrial facilities develop practical reduction pathways that minimise reliance on offsetting, connect emissions information with engineering and procurement decisions, and prepare evidence for compliance and potential reporting obligations.

What is the recommended four-step approach to industrial decarbonisation in Singapore?

The recommended simplified approach is: 1) increase energy efficiency through audits and targeted improvements; 2) electrify equipment and processes where technically feasible, replacing fuel-burning equipment with electric alternatives; 3) procure renewable electricity to power electrified operations; and 4) offset remaining unavoidable emissions using certified credits. We deliver services across all four steps: energy audits and measurement-and-verification to establish efficiency gains; feasibility assessments for electrification of process heat, heating and other applications; renewable electricity procurement through moREnewable100; and environmental-attribute due diligence for carbon credits. Our carbon and energy strategy service connects these elements into a coherent transition pathway tailored to each facility's operational requirements and investment constraints.

How can electrification support industrial decarbonisation according to current technical evidence?

Electrification allows industrial facilities to transition away from on-site fuel combustion by replacing gas boilers, furnaces and heating equipment with electric alternatives such as heat pumps and electric process heaters. Current studies suggest electrification could transition roughly 50% of global industrial fuel consumption to electric-powered operations, covering both low-temperature processes ($\leq 100^{\circ}\text{C}$) like food preparation and high-temperature processes (up to $1,000^{\circ}\text{C}$) such as steam reforming. Electrified equipment typically incurs lower maintenance costs, and when powered by renewable electricity, delivers significant emissions reductions. We provide renewable heat and electrification feasibility assessments, including evaluation of temperature requirements, process profiles and electrical constraints, and connects feasibility findings with investment case and funding-pathway analysis to support implementation decisions.

What role does renewable gas play in industrial decarbonisation in Singapore?

Renewable gas addresses fuel consumption that cannot be electrified. An increasing proportion of piped methane gas globally originates from renewable sources—for example, 40–50% of Denmark's and Germany's piped methane is renewable. For Singapore industrial facilities unable to fully electrify high-temperature or specialised processes, renewable gas provides an intermediate pathway to reduce emissions while maintaining process compatibility. Our energy-optimisation services include assessment of renewable heat and alternative-fuel feasibility, helping facilities identify which processes can electrify and which require fuel-based solutions, then evaluate renewable-gas availability and procurement options as part of a staged decarbonisation transition plan.

How will Singapore's government use revenue from the increased carbon tax?

The Singapore National Climate Change Secretariat (NCCS) has stated that the government will not retain additional revenue from the carbon price increase. Instead, the funds will support businesses and decarbonisation efforts through grants, tax incentives for ESG reporting, and other business-support mechanisms. This policy creates potential funding opportunities for facilities investing in emissions reductions. We assess funding options as part of our project-development scope, including identification of applicable grants, tax incentives and financing routes. Our carbon advisory and energy-optimisation services help facilities prepare applications and investment cases that demonstrate eligibility for support programmes funded through carbon-revenue allocation.

What is the National Environment Agency's role in administering Singapore's industrial energy-management obligations?

The National Environment Agency (NEA) is the regulatory body responsible for overseeing energy-efficiency requirements and mandatory energy management practices for industrial facilities in Singapore under the Energy Conservation Act. Facilities exceeding specified energy-use thresholds must register with the NEA and comply with energy-management obligations. These requirements operate independently of the CPA but reinforce the broader policy environment favouring industrial decarbonisation. Our Singapore energy-efficiency assessments are specifically designed for facilities operating under NEA oversight. Our expertise in industrial energy management and measurement helps facilities meet NEA registration and energy-management requirements while simultaneously developing strategies to manage carbon tax exposure under the CPA.

How can Northmore Gordon support Singapore industrial facilities in managing both energy efficiency and carbon tax obligations?

We operate in Singapore and provide integrated support spanning energy performance, carbon management and environmental certificates. Our service range includes energy audits to identify cost-effective efficiency gains; Singapore energy-efficiency assessments aligned with NEA requirements; carbon diagnostic workshops to establish baseline emissions and identify reduction opportunities; transition planning to develop staged decarbonisation pathways; renewable electricity procurement through moREnewable100; and measurement-and-verification services to demonstrate outcomes. By connecting technical energy assessment with commercial decision-making and regulatory compliance, we help facilities reduce both energy costs and carbon tax exposure, while preparing evidence for energy-management and carbon-reporting obligations. An initial inquiry should identify the facility's current energy consumption, emissions profile, equipment, operational constraints and decision timeline to establish an appropriate starting scope.