

What Are Scope 1, 2 & 3 Emissions And How Can You Manage Them [Carbon 101 Series] - Northmore Gordon

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Removal covers activities that permanently remove CO₂ from the atmosphere such as new forestry plantations, soil carbon improvement or carbon capture and storage. certificates Live Certificate Prices The value of certificates change day-to-day, check todays prices Solar VEECs (VEU PBA) VEU PBA for Large-scale Solar Measurement & Verification (VEU & ESS) M&V; for Large C&I; Efficiency Projects (VEU PBA & ESS PIAM&V;) BESS Calculator Estimate the Peak Reduction Certificate revenue available to your NSW battery project in minutes ERF & Carbon Credit Registration ACCUs for Emission Reduction Projects Boiler Upgrades (VEU & ESS) NSW & VIC Boiler Rebates REC Registration (I-RECs & LGCs) Register renewable assets for I-RECs and LGCs Trade RECs & Carbon with us Trade Local & International Environmental Attribute Certificates moREnewable100 (RECs & Offsets) Reach Global Sustainability Goals with Certificates and Offsets Deemed Certificates (VEU & ESS) NSW & VIC Rebates Global Certificates Environmental Attribute Certificates Australian Programs Australian EAC Programs Case Studies Sectors Articles Team More Close More Open More Northmore Gordon Learn more about Northmore Gordon with the latest news and insights, were to find us, and the extensive terminology used in emissions reductions About Us Who we are & what we do in energy efficiency & decarbonization. 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Although this comes with advantages, it also makes solving issues such as climate change and supply-chain emissions a global problem — therefore, measuring greenhouse gas (GHG Greenhouse gases trap heat in the atmosphere. They all have different global warming potentials (GWP) over different time frames, the higher the number, the worse the impact. For simplicity of accounting everything is referenced back to carbon dioxide which has a global warming potential of 1. There are over 200 GHGs listed in the IPCC fifth assessment report, a sample are below. Note that in current carbon accounting standards the 100 year GWP is used. Greenhouse gas 20 year GWP100 year GWPCarbon dioxide CO₂11Methane CH₄8428Hydrofluorocarbon HFC-134a37101300Chlorofluorocarbon CFC-1169004660Nitrous Oxide N₂O264265Sulfur hexafluoride SF₆17,50023,500) emissions requires an international, standardized system so that governments, industries, and corporations can take a uniform approach to emissions measurement and reduction. The Greenhouse Gas Protocol The GHG Protocol is the most widely used greenhouse gas accounting standard for companies. It provides guidance on the calculation of scope 1, 2 and 3 emission sources. It is consistent with the ISO 14064 series of accounting standards on greenhouse gases. outlines a comprehensive method for measuring and reporting GHG emissions throughout an agency's entire supply-chain. Emissions are divided into three broad categories: Scope 1, Scope 2, and Scope 3 emissions. Scope 1 Emissions — Direct Emissions Scope 1 emissions are produced directly within the boundary of your company facilities either from operations done on-site or using company-owned equipment. This can include activity from on-site fuel-burning, emissions from company vehicles, or emission leakages from operating a refrigeration system. Any emissions produced from resources owned or controlled by your company contribute to Scope 1 emissions. Scope 1 emissions fall into four categories: 1. stationary combustion — emissions released from equipment that burns carbon-based fuels to generate heat. This includes emissions from equipment such as boilers, furnaces, ovens, and dryers. 2. mobile combustion — emissions from driving traditional

internal combustion engine vehicles owned by the company. 3. fugitive emissions — emissions that unintentionally escape or leak from pressurized equipment, such as pipes, storage tanks, or compressors. 4. process emissions — emissions produced as a result or byproduct of chemical processes, such as CO₂ emissions from steel smelting or cement manufacturing. Since Scope 1 emissions are under your direct control, they can be effectively reduced by implementing energy-efficiency measures such as smart lighting and thermostats, heat recovery systems, or other energy-conservation techniques. Under the National Greenhouse and Energy Reporting (NGER National Greenhouse and Energy Reporting Scheme. Large energy users and greenhouse gas emitters that exceed the thresholds must report their detailed energy and emissions data each year to the Australian Clean Energy Regulator. More) Act of 2007, companies are required to report their Scope 1 emissions. Scope 2 Emissions — Emissions From Purchased Energy Scope 2 emissions are indirect GHG emissions produced during the production of purchased energy. The energy can be used to provide electricity, deliver process steam, or heat and cool your facility. The power you use at your facility — whether it be to turn on the lights or control indoor temperature — is generated from somewhere else. When this power is purchased from a third party generator, such as a utility, then the emissions from that power generation contribute to your Scope 2 emissions. For instance, the emissions produced at a natural gas plant when providing electricity to your business would count as your Scope 2 emissions. Of course, your Scope 2 emissions would be that natural gas plant's Scope 1 emissions. To lower Scope 2 emissions, consider alternative options that generate power from clean energy sources. In addition, examine ways to improve your own company's energy efficiency. Doing so will lower your energy demand and consequently reduce the amount of power you need to pull from outside sources. Similar to Scope 1, Scope 2 emissions must be reported under the NGER scheme. Scope 3 Emissions — Emissions Along Wider Supply Chain Scope 3 emissions are GHG emissions generated throughout your company's supply chain but that come from sources that are not controlled or owned by your company. Scope 3 emissions look at the wider impact of upstream and downstream activity as it relates to the products and services your company provides. This may include emissions from extraction and production of raw materials, the end uses of products produced, the end-of-life product processing, or even the fuel emissions from employee commuting. Because they come from a wider economy perspective, Scope 3 emissions can be the most difficult to control and can also be the greatest contributor to overall GHG emissions. For example, when Kraft Foods measured emissions across its entire supply chain, it found that 90% of total GHG emissions came from Scope 3 emissions. The Greenhouse Gas Protocol describes 15 different activity types that make up Scope 3 emissions. Addressing these emissions requires transparent communication between constituents along the supply chain as well as a holistic understanding of the full product life-cycle of produced goods. Solutions may include incorporating more recycled material into your products, using less material in packaging, or even incentivizing employees to commute or travel less for work. Scope 3 emissions are not reported under the NGER scheme, yet understanding them is a critical way to measure and create an effective plan to mitigate your company's emissions across the wider economy. Understanding your scope 3 emissions also enables you to better understand your exposure to risks in a de-carbonising world Measure your GHG Emissions now Climate change impacts all of us. And it's going to take all of us to drive solutions that steer us towards a healthier, more sustainable economy. To lower your emissions, establish effective programs, and implement the most impactful technologies, it is critical to measure and understand your GHG emissions. Identifying Scope 1, 2, & 3 emissions under the GHG Protocol will paint a comprehensive assessment of your company's emissions. From there, we can develop a plan to lower emissions in a way that benefits the environment and your business' bottom line. We all have a role to play in decarbonizing Australia and creating a thriving economy. At Northmore Gordon, we are deeply involved in energy and carbon management , and we are here to help you assess your emissions and navigate a plan that works well for the longevity of your business and our community. We provide the support you need so that you can make the impact our state deserves. Reach out today to measure your GHG emissions and get started on a practical mitigation plan. Carbon Emissions , Carbon Series , Scope 1 2 3 Emissions You may also like: The audit shock: Why companies aren't ready for NGERS and ASRS. Are you ready to publish your mandatory Climate Change Mitigation and Adaptation Plan (CCMAP) for NSW sites with Environment Protection

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