

# Electrification with a Payback Plan: Engineering Upgrades for Certificate Upside - Northmore Gordon

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Efficiency Assessments Energy Procurement Navigate energy markets with confidence Virtual Environmental Manager Leverage our teams wide experience Certificates Close Certificates Open Certificates Certificates Our Environmental Attribute Certificate services help businesses accelerate technology adoption, improve project ROI, and manage claims of renewable energy, energy efficiency and carbon offset 1 carbon offset = 1 tonne of CO<sub>2</sub>-e avoided or removed from the atmosphere. Avoided emissions covers activities that alter behaviour that would have otherwise caused emissions such as energy efficiency improvements or avoided deforestation. Removal covers activities that permanently remove CO<sub>2</sub> 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. Locations Find our offices near you. Contact Us Get in touch with our team. Careers Join our team making a sustainability difference Articles Learn about energy efficiency & carbon reduction. Latest News Stay informed on industry developments. Government Updates Track policy changes impacting your energy use. Accreditations See our certifications for trusted service. Glossary Define key terms in emissions reduction. Electrification with a Payback Plan: Engineering Upgrades for Certificate Upside Northmore Gordon August 15, 2025 Articles Share this article Electrification is no longer a fringe option. For Australian manufacturers and heavy industry, it is quickly becoming a mainstream pathway to decarbonise operations, reduce reliance on fossil fuels, and respond to evolving emissions regulations. Yet one question keeps surfacing at board tables: will it pay back? The good news is, it can. When electrification upgrades are underpinned by engineering-level planning and aligned with environmental certificate strategy from day one, the business case becomes far more compelling. Payback drops. Risk reduces. And projects move from hopeful proposals to funded implementation. Northmore Gordon has performed close to 30 electrification studies in the past two years. Why Electrification Is Inevitable Whether driven by Scope 1 emissions targets, gas network uncertainty, or ESG pressure, the push toward electrification is growing. But many energy-intensive sites are hesitant to take the leap due to potential high capex and uncertainty over return. Electrification measures – like industrial heat pumps, electric boilers, or fleet charging – often have higher upfront costs compared to gas or diesel alternatives. Without a clear plan for how that investment returns value, projects stall. Enter Certificates: Turning Compliance Into Capital Environmental certificates can change the economics of electrification. Programs like the Victorian Energy Upgrades ( VEU Victorian Energy Upgrades is a Victorian government energy efficiency program that gives every Victorian household and business the opportunity to receive rebates or discounts on energy saving products. ) scheme and the NSW Energy Saving Scheme ( ESS The NSW Energy Savings Scheme (ESS) provides financial incentives to install, improve or replace energy savings equipment and appliances in NSW households and businesses. The ESS was established in 2009. Financial incentives are in the form of tradeable certificates, called energy savings certificates (ESCs). Generally, householders and businesses who fund energy savings activities transfer the right to create ESCs to Accredited Certificate Providers (ACPs) in return for a discount on the cost of the energy savings activity. The MWh savings from the project determines the number of ESCs that can be created. The ESS works by allowing ACPs to create and register ESCs for energy savings that are supported with appropriate evidence. ESCs are then purchased each year by mainly electricity retailers operating in NSW to meet their share of a legislated annual energy savings target. ) reward eligible energy savings Electricity or

gas savings or both. with tradable certificates, creating a direct revenue stream linked to the efficiency uplift. But to unlock this value, certificate strategy must be designed into the project. Too often, certificates are considered after the upgrade is scoped, or worse after works has started, leading to missed value or ineligibility. • VEECs: Generated through verified energy savings (CO<sub>2</sub>t equivalent) • ESCs: Generated through verified energy savings (MWh equivalent) • ACCU An ACCU is a unit issued to a person by the Clean Energy Regulator (Regulator) by making an entry for the unit in an account kept by the person in the electronic [Australian National Registry of Emissions Units] registry. Each ACCU issued represents one tonne of carbon dioxide equivalent (tCO<sub>2</sub>-e) stored or avoided by a project. An ACCU can only be issued to a person if the person has a Registry account. /ERF: Carbon abatement credits (particularly relevant for Scope 1 electrification) Engineering the Payback Plan At Northmore Gordon, we believe electrification upgrades need the same financial rigour as any capital investment. That's why we start with engineering-led feasibility studies that integrate certificate modelling, capex timelines, and ROI projections. • Thermal profiling to assess heat loads and temperature demands • Electrical capacity checks to flag grid or transformer constraints • Simulation modelling to compare electric vs hybrid vs staged solutions • Certificate eligibility mapping to ensure all claimable activities are captured • Grant eligibility scan to ensure all grants available are included A well-scoped feasibility study doesn't just assess viability – it becomes a tool for project approval. The Risks of Going Without Engineering Depth Many electrification projects fail to deliver on expectations because the technical and commercial modelling isn't robust. Common pitfalls include: • Modelling for peak loads rather than continue loads with suitable storage • Not considering grid and switchboard upgrades and the required lead time. • Underclaiming certificates due to inaccurate baselining • Missed eligibility because project timing doesn't align with program requirements • Overloaded grid connections that weren't planned for • Longer downtime due to lack of staged implementation design These issues don't just affect technical outcomes – they erode trust in the business case. From Feasibility to Funded When engineering design, certificate modelling, and compliance planning are integrated, electrification becomes a lower-risk, financially viable strategy. Clients working with Northmore Gordon see benefits including: • Stronger business cases with certificate revenue embedded in ROI • Shortened payback periods, typically by 2-5 years • Faster board approvals due to clearer financial modelling • Avoided rework and better grid integration outcomes This approach isn't theory – it's what we deliver. Our engineers model upgrades, our advisors optimise certificates, and our compliance team ensures alignment from start to finish. What You Can Do Now If you're exploring electrification, ask: • Have we modelled certificate revenue in our payback assumptions? • Do we have accurate thermal and electrical baselining? • Are we using feasibility to build the business case, or just assess risk? If the answer is no, we can help. Northmore Gordon's integrated electrification planning service combines engineering, certificate strategy and compliance mastery in one engagement. Conclusion: Electrify with Confidence Electrification isn't just a compliance move – it can be a financially smart investment. But only if it's engineered for upside. By combining technical feasibility, regulatory knowledge, and market intelligence, we help clients move from uncertainty to implementation with confidence. Need to turn your electrification upgrade into a payback plan? Call or email Craig Morgan or submit your interest here today. For more information, read our article: Powering the Future: Maximising Electrification for Business Growth" Summary Electrification is rapidly becoming a strategic move for Australian businesses, offering reduced emissions, improved energy security, and long-term cost savings. Northmore Gordon highlights how shifting from fossil fuels to electricity – especially renewables – is not just environmentally necessary but also financially smart. Key Highlights Business advantage : Electrification improves cost stability, reduces emissions, and supports net-zero goals. Momentum building : Adoption is growing across manufacturing, commercial, and industrial sectors. Investment scale : Project values range from \$100k to \$50m+, with over \$2 billion in government support to date. Integrated approach : Success depends on planning—smart systems, storage, renewables, and potential alternatives like biomethane. Northmore Gordon support : They help clients assess feasibility, access funding, and design strategies tailored to specific needs. Read the full article Sources: – Victorian Energy Upgrades (VEU) Program: <https://www.energy.vic.gov.au/for-business/victorian-energy-upgrades-for-business> – Emissions Reduction Fund (ERF) The Emissions Reduction Fund is a voluntary scheme that aims to provide

incentives for a range of organisations and individuals to adopt new practices and technologies to reduce their emissions. ):

<https://www.cleanenergyregulator.gov.au/ERF/About-the-Emissions-Reduction-Fund> – IEA Electrification Reports: <https://www.iea.org/topics/electricity/electrification> Certificates , electrification , Energy Efficiency , Renewable Energy You may also like: Welcome to our August & September 2026 Compliance Update. Australian Certificate Markets – August 2026 Update Where's the value in renewable heat? Latest Updates ASRS Group 3: are you in scope and don't know it? September 18, 2026 Correct as at 13 September 2026. If your company is a large proprietary company, you Read More » Beyond annual matching: The evolution of time-stamped RECs August 18, 2026 For more than a decade, Renewable Energy Certificates (RECs)-RECs, GOs, TIGRs Tradeable Instrument for Global Renewables (TIGR) Registry is an online platform for tracking and transferring renewable energy certificates (RECs), enabling developers to generate, verify and sell RECs. The registry is run by APX, a US company that provides infrastructure for environmental markets around the world. , LGCs, ZNECs, J-Credits) have Read More » Solar irrigation upgrades: Don't let certificate funding go unclaimed August 10, 2026 Irrigation pumps are one of the biggest hidden costs on an Australian farm. In particular, if Read More » SRES expansion: STC eligibility to increase from 100 kW to 1 MW from October 2026 August 6, 2026 The Australian Government has announced a major expansion of the Small-scale Renewable Energy Scheme, increasing Read More » Get in touch Australia 1300 854 561 (Advisory) 1300 878 500 (Certificates) Melbourne Suite 1, Level 4 607 Bourke Street Melbourne VIC 3000 Singapore +65 6690 2480 Singapore 1 Keong Saik Road, Singapore 089109 Stay up to date Alternatively, complete the form and we will be in touch with you. First Name Last Name Email Phone Number Country Australia Singapore Subject Message Send Services Energy Audit Services M&V; Services EEO Assessments Corporate Energy and Carbon Management Grants and Program Strategic Energy Sourcing Virtual Energy Manager Climate Active Certification Sectors Animal Processing Chemical Processing Commercial Buildings Food & Beverage Manufacturing Mining Oil & Gas Pharmaceutical & Health Products Public Sector Waste & Wastewater Wood, Paper & Cardboard Processing Upgrades Boiler Upgrades Commercial Lighting Hot Water Systems Mid Scale Solar NABERS Public Lighting Refrigerated Display Cabinets Solar PV Small Scale UPS Certificates Live Certificate Prices International Renewable Energy Certificates Tradable Instrument for Global Renewables Australian Carbon Credit Units Energy Savings Certificates Large-scale Generation Certificates Small-scale Technology Certificates Victorian Energy Efficiency Certificates Government Schemes Emissions Reduction Fund Energy Savings Scheme Renewable Energy Target Victorian Energy Upgrades Helpful Links About us Meet the Team Careers Contact us Articles News Glossary Privacy Policy Complaints