

MainStream Aquaculture: \$19K Grant funds a heat pump electrification project - 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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Solution Engineering the Switch from Gas to Geothermal-Electric Heat Pumps With a \$19,000 Victorian Government Large Energy User Electrification Support Program grant, MainStream Aquaculture commissioned Northmore Gordon to do a detailed electrification feasibility study. The study explored two primary solutions: • Option 1: Replace the two 650 kW gas boilers with a 550 kW water-to-water heat pump, tapping into geothermal bore resources for efficient heating. • Option 2: Add a geothermal and trade waste heat pump to capture and reuse biosolid-rich water, reducing water wastage and recovering energy. Northmore Gordon's modelling included thermal storage integration, boiler consolidation into an electrified system, and staged scalability to support future site expansion. Forecast Results Commercial, Environmental and Strategic Gains • \$113,000 annual energy cost savings projected. • 70 % reduction in annual gas use – equivalent to 537 tCO₂ avoided every year. • 10,413 GJ A gigajoule (GJ) is the equivalent to 1 billion joules. A joule is a measure of the energy required to send an electrical current of one ampere through a resistance of one ohm for one second. One GJ is equal to 277.8 kilowatt hours (kWh), 1.055 million British thermal units (Btu) or 0.17 barrels of oil. annual gas reduction. • 3,125 VEECs created – each representing one tonne of greenhouse gas abated. • 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. incentives worth up to ~\$281,250 identified. • Simple payback: 5 years. • Net Present Value (NPV): \$596,000. • Positions the business as a sustainable aquaculture leader with a strong circular economy approach. Program Context Turning Feasibility into Action MainStream Aquaculture was one of 36 facilities in Victoria to receive support under the Large Energy User Electrification Support program, which provides grants of up to \$60,000 for commercial and industrial sites using 10–100 TJ of gas per year. These feasibility studies are designed to underpin

Project Based Activity (PBA Project Based Activities) retrofits under the Victorian Energy Upgrades program, enabling accredited providers to create VEECs for each tonne of CO₂ avoided. Northmore Gordon View This is a textbook example of “Do more with less energy” – the opportunities were previously uncovered in an energy audit by Northmore Gordon with this latest report using engineering-led electrification, smart thermal integration, and certificate optimisation to deliver cost savings, emissions cuts, and long-term operational resilience. With industrial-scale heat pump technology now capable of replacing high-load gas boilers, businesses like MainStream Aquaculture can convert regulatory programs into significant financial advantage while driving sector leadership in sustainability. Book a consultation with our senior engineering team to explore your site’s electrification potential. Call or email Craig Morgan today or submit your interest here . Established in 2001 near Melbourne, MainStream operates the world’s largest warm-water Barramundi hatchery, producing sustainable fish and fingerlings for global aquaculture markets. Industry Aquaculture & Food Production Location Werribee, Victoria Hamish McGovern Group Managing Director Contact Hamish > You may also like: Case Studies Turning a Regional Utility into an Active Energy Market Participant Case Studies Visy Gibson Island: 34,000 t CO₂e Cut a Year With Waste-to-Energy Case Studies Kalafatis Fresh Produce: \$283K in Solar Certificates Case Studies Poultry Client Set to Hit 2030 & 2050 Carbon Emissions Targets Case Studies Greenham: Moving Towards Decarbonisation Case Studies AJ Bush & Sons: 10MW Boiler Upgrade Funded by Energy Savings Certificates 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