

Benefiting from waste heat recovery - Northmore Gordon

Canonical: <https://northmoregordon.com/articles/benefiting-from-waste-heat-recovery/>

Details:

Benefiting from waste heat recovery - Northmore Gordon Skip to content Live AU Certificate Prices Twitter LinkedIn-in Youtube Buy and Sell Global RECs Contact Search Carbon moREnewable100 (RECs & Offsets) Trade RECs & Carbon with us Climate Active Net Zero Roadmaps Carbon and Energy Strategy NGERS Reporting Carbon Health Check Grants and Programs Funding Energy Grants and Programs Funding Energy Audit & Assessments Energy Optimisation Compressed Air Services EEO Assessments (SG) Strategic Energy Sourcing Energy Procurement Virtual Environmental Manager Certificates Live Certificate Prices Funding Solar VEECs (VEU PBA) Measurement & Verification (VEU & ESS) ERF & Carbon Credit Registration Boiler Upgrades (VEU & ESS) Hot Water Systems (VEU & ESS) Deemed Certificates (VEU & ESS) moREnewable100 (RECs & Offsets) Trade RECs & Carbon with us Global Certificates Australian Programs Case Studies Articles Team More About Us Locations Contact Us Careers Articles Latest News Government Updates Accreditations Glossary Carbon moREnewable100 (RECs & Offsets) Trade RECs & Carbon with us Climate Active Net Zero Roadmaps Carbon and Energy Strategy NGERS Reporting Carbon Health Check Grants and Programs Funding Energy Grants and Programs Funding Energy Audit & Assessments Energy Optimisation Compressed Air Services EEO Assessments (SG) Strategic Energy Sourcing Energy Procurement Virtual Environmental Manager Certificates Live Certificate Prices Funding Solar VEECs (VEU PBA) Measurement & Verification (VEU & ESS) ERF & Carbon Credit Registration Boiler Upgrades (VEU & ESS) Hot Water Systems (VEU & ESS) Deemed Certificates (VEU & ESS) moREnewable100 (RECs & Offsets) Trade RECs & Carbon with us Global Certificates Australian Programs Case Studies Articles Team More About Us Locations Contact Us Careers Articles Latest News Government Updates Accreditations Glossary Carbon Close Carbon Open Carbon Carbon Our decarbonisation services help businesses transition to low-carbon operations and covers footprints, reporting, certificates, carbon solutions and net-zero Net-zero is a term meaning to get to zero emissions, there is no current standard on what getting to net-zero means. For governments a net-zero target is one that covers all scope 1 emissions in their jurisdiction. For business it usually covers scope 1 and 2 emissions, although some companies also include some scope 3 emissions. The Science Based Targets Initiative is currently working on a standard for companies. roadmaps, to reduce emissions moREnewable100 (RECs & Offsets) Reach Global Sustainability Goals with Renewable Energy Certificates and Carbon Offsets Trade RECs & Carbon with us Trade Local & International Environmental Attribute Certificates Climate Active Achieve Climate Active Carbon Neutral Certification Net Zero Roadmaps Identify opportunities and build achievable pathways Carbon and Energy Strategy Integrate your carbon and energy strategies NGERS Reporting National Greenhouse Emissions Reporting Grants and Programs Review the latest grants and programs Energy Close Energy Open Energy Energy We offers comprehensive energy services, focusing on efficiency improvements, cost reduction, monitoring, benchmarking and strategic sourcing for sustainable and positive environmental impacts Grants and Program Review the latest grants and programs Energy Audit & Assessments Identify cost and emissions reductions Energy Optimisation Metering & Monitoring, Feasibility Studies, EnMS and ISO50001, & Benchmarking Strategic Energy Sourcing Feasibility & Assessments: Renewables, PPAs or Certificates Compressed Air Services Air Compressor Leak Audits, Surveys and Benchmarking EEO Assessments (SG) Singapore Energy Efficiency Assessments Energy Procurement Navigate energy markets with confidence Virtual Environmental Manager Leverage our teams wide experience Certificates Close Certificates Open

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 CO₂-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 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 today's 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. Benefiting from waste heat recovery Northmore Gordon November 19, 2019 Articles Share this article Do you have waste heat and don't know what to do with it? Energy costs are hurting business. Yet often there are concentrated sources of energy going to waste in manufacturing environments. Recovering waste heat back into processes can save substantial amounts of energy cost, and increase the spare heating capacity of existing systems. Data matters Doing heat recovery well requires good data and a good understanding of the existing systems, combined with a methodical approach to determining the optimum solution. Especially where there are multiple heat sources and heat sinks. A Pinch Analysis is the gold standard Accreditation scheme for voluntary carbon offset and renewable energy projects. The tradable instruments are Verified Emission Reductions (VERs). The Gold Standard label can also be applied to CERs and I-RECs where the project meets the Gold Standard requirements around sustainable development and project additionality. for optimising heat recovery in your plant, but discrete feasibility studies are also very useful. How can waste heat be recovered and used? Waste heat can be available from a range of sources, including exhaust air from gas burners, de-superheating a refrigerant prior to latent heat rejection, oil coolant systems on air compressor and refrigeration compressors, wastewater discharge, furnace exhaust, refrigeration condensers, and many other sources. Direct heat exchange using a tube or plate heat exchanger is a simple method for heat recovery, however, there are other methods. For example, a waste heat source at a relatively low temperature can be used to heat a process flow to a higher temperature using a heat pump. Indirect heat exchange can be achieved using a hot oil circuit where the heat source is too hot for direct heat exchange with the heat sink. Waste heat can also be used in many ways: re-heat combustion air for a furnace or oven Use directly in a dryer Heat water in pasteurisers Generate electricity using an Organic Rankine Cycle or Steam turbine to drive a generator Generate hot water up to 100°C or steam at up to 160 o C by extracting heat from a lower temperature waste heat source.. Optimising waste heat recovery Where a site has numerous heat sources and sinks, a "Pinch" analysis can be used to determine the optimum combination of heat recovery alternatives for that site. PinCH analysis attempts to identify similar heat loads nearest to available heat sources and minimise the use of artificial heating (e.g. from natural gas or electricity). The optimum combination from a heat recovery perspective is not always practical in a retrofit though, so the key is to determine how to get as close to the optimum as possible in a practical and cost-effective way. Implementing waste heat recovery Implementation should take into account a number of factors: The

operating characteristics of the process, to ensure the implementation doesn't impact on output, product quality, process reliability or productivity. Staging of projects if possible, to minimise process disruption and spread capital spend. Heat quality available (temperature and rate of supply) and proximity to heating loads Measurement, monitoring, and verification so that energy savings Electricity or gas savings or both. can be measured over time, and energy-saving or carbon abatement certificates can be created Future plans for expansion or plant upgrades Make informed and smart decisions about heat recovery. Northmore Gordon is passionate about helping large industrial and commercial customers increase energy productivity. We have done a number of pre-feasibility studies and business cases specifically investigating waste heat recovery options. We can help you identify and quantify your heat sinks and sources, determine the optimum solution for your situation, and develop an investment-grade business case. For more specific details on heat recovery contact Andrew at a.clarke@northmoregordon.com energy costs , Equipment Upgrade , Industrial , waste heat recovery You may also like: How to avoid costly energy project mistakes in manufacturing. How to Approach Decarbonisation in Industrial Bakeries Industrial metering and data systems should be Technology-Agnostic and Performance-Driven 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 » Welcome to our August & September 2026 Compliance Update. September 1, 2026 This edition confirms Northmore Gordon's accreditation for three new PDRS battery activities, tracks the VEUVictorian Read More » Australian Certificate Markets – August 2026 Update September 1, 2026 Price Summary Certificate Open Close Range Effective cap Movement / Reason PRC \$2.70 \$3.35 \$2.70 Read More » Where's the value in renewable heat? August 24, 2026 Most renewable heat conversations start with a technology question: heat pump, biomass, biogas, or electrify 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