ENGINEERS GUILD / SUSTAINABILITY

Decarbonization, Energy Efficiency & Auditing

Cutting energy use, costs and emissions across facilities, industrial heat, fleets and supply chains.

SERVICE PROFILE

A detailed overview of scope, capabilities and potential areas of support.

Overview

Energy is one of the largest controllable costs for industry and commercial buildings, and emissions are increasingly scrutinized by export buyers, lenders and regulators. Engineers Guild helps organizations understand where energy is used and emissions arise, and then reduce both through practical, bankable measures.

Our work spans energy audits and energy management systems, low-carbon fuels and industrial heat, and the decarbonization of logistics and Scope 3 supply-chain emissions. Every recommendation is supported by measured data, clear business cases and robust measurement, reporting and verification (MRV).

Our Services

Our decarbonization, energy efficiency and auditing services are organized into three areas.

i. Energy Efficiency & Management

Energy Audits
ASHRAE Level 1 to 3 energy audits, from walk-through to investment-grade, that identify and cost energy-saving measures, together with ISO 50001 energy management programs and gap closure.

Building/Industrial Benchmarking & Load-Profile Analytics
Benchmarking of building and industrial energy performance against peers and best practice, with load-profile analysis to pinpoint waste and peak drivers.

HVAC & Lighting Optimization
Optimization of HVAC and lighting systems through scheduling, controls, sensors and recommissioning.

Power Quality & Load Management
Assessment and correction of harmonics, voltage imbalance and power factor, with load management and peak shaving to reduce demand charges.

Smart Metering & Continuous Monitoring
Sub-metering, dashboards and alerts that track energy performance in real time and sustain savings.

Renewable Energy Feasibility
Feasibility of solar PV, hybrid PV-thermal and battery storage systems, including sizing, yield, costs and financial returns.

ii. Low-Carbon Fuels & Heat

Biomass Pellets/Briquettes Enablement
Feedstock mapping, fuel specifications, supply-chain quality assurance, boiler-side logistics and ash handling for biomass pellet and briquette use.

Industrial Boiler Decarbonization
Combustion tuning, co-firing with biomass, burner and tube upgrades, and O_2 trim and controls to cut fuel use and emissions from industrial boilers.

Generator Fuel Switching & Compliance
Assessment of switching diesel generators to biodiesel or renewable diesel, including engine compatibility, fuel quality and compliance.

Waste Heat Recovery & Heat Pumps
Identification and sizing of waste heat recovery and industrial heat pump opportunities to reduce fuel demand for process heat.

Process Heat Electrification Pre-Feasibility
Pre-feasibility assessment of electrifying process heat, comparing technology options on capital cost and levelized cost of heat (LCOH).

Fuel-Switch Business Cases
CAPEX/OPEX, IRR/NPV and sensitivity analysis for fuel-switching projects, with notes on bankability for lenders and investors.

MRV Frameworks & Certification
Measurement, reporting and verification frameworks for heat and fuel savings, prepared to support third-party certification.

Green Hydrogen & E-fuels (Pre-Feasibility)
Pre-feasibility studies of green hydrogen and e-fuels, recommended only where economics or policy justify a phased pathway.

iii. Logistics & Scope-3

Fleet Decarbonization Roadmaps
Route and fleet analysis leading to a costed roadmap that combines biofuels, electrification and efficiency measures.

Biofuels for Fleets
B5 to B100 deployment roadmaps, dual-tank and dual-fuel retrofit guidance, fuel quality assurance and cold-flow planning suited to hot climates.

Supplier Engagement Programs
Supplier data-collection kits, product carbon footprint (PCF) targets and performance clauses that drive emissions reductions across the supply chain.

Scope-3 Accounting & MRV
Accounting, measurement, reporting and verification of Scope 3 emissions from transport and suppliers, aligned with the GHG Protocol.

Our Approach

- Measure: collect metering, production and fuel data to establish an accurate energy and emissions baseline.
- Identify: audit sites, processes, fleets and suppliers to find savings and decarbonization opportunities.
- Evaluate: develop costed measures and business cases, and prioritize them by savings, payback and emissions impact.
- Implement: support specification, procurement and implementation of the selected measures.
- Verify: track and verify savings and emission reductions through MRV and continuous monitoring.

Who We Work With

- Industrial manufacturers, including textiles, cement, metals and food processing
- Commercial buildings, hospitals, hotels and campuses
- Exporters responding to buyer and carbon-border requirements
- Logistics operators and fleet owners
- Development finance institutions, banks and donor programs

Value to Clients

- Lower energy and fuel costs with clear, measured payback
- Reduced Scope 1, 2 and 3 emissions supported by credible data
- Stronger position with export buyers, lenders and regulators
- Bankable projects ready for green finance

Contact Us

To discuss your project requirements, please contact:

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