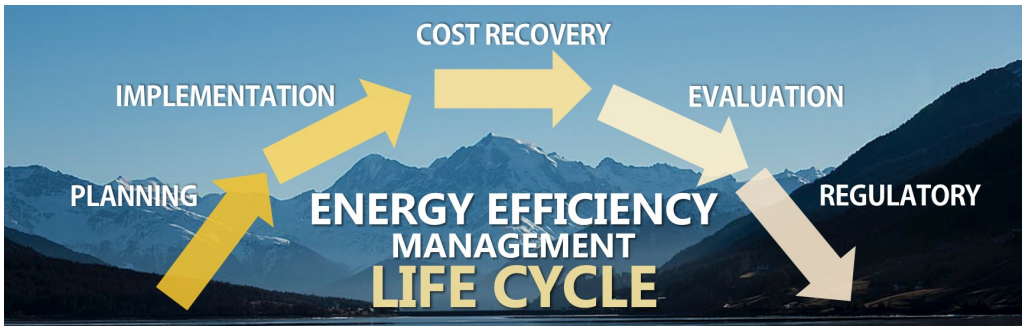
Energy Efficiency & Recovery

Maximum Heat Recovery

Improving Efficiency up to 50%



INDUSTRIAL ENERGY ASSESSMENT

As an engineering partner, we help our customers analyze current energy usage & offer cost-effective methods to reduce energy consumption, lower operating costs, & assist in taking advantage of qualifying rebate/incentive programs that can pay for up to 50% of energy efficiency projects.

S&SE has the expertise & experience to custom design systems capable of capturing waste heat from combustion, produced during various manufacturing processes, and redirect it to other areas of production, to save and reuse energy while reducing operating costs.

ENERGY EFFICIENCY FACT

In some cases, efficiency improvements resulting from waste heat recovery can improve energy efficiency by 10% to as much as 50%.

THIS CAN LEAD TO SIGNIFICANT ANNUAL UTILITY & OPERATING COST SAVINGS

We gather data and provide the information needed to make the best decision on any process upgrades, retrofits or equipment selection, and research possible incentives that can add to the performance and profitability of your company.

ITS A FACT! WE HAVE ASSISTED OUR CLIENTS IN RECEIVING **OVER 7 MILLION DOLLARS** IN CASH UTILITY REBATES

Clean Tech Products and Services

Air Pollution Abatement Systems
Engineering Design
Permit Compliance Consulting
Equipment Fabrication
Thermal Oxidizers:
- RTO
- Recuperative
- Catalytic
- Compact Catalytic
- Steam Generating

Concentrators & Absorption
Flares & Low NOx Alternatives
Vapor Recovery & Destruction
Collection System Design
Permanent Total Enclosures
Upgrades & Retrofits
Installation & Service
Preventive Maintenance
Troubleshooting & Spare Parts
Process Testing & Analysis
Industrial Energy Analysis
Energy Recovery Solutions
Waste Heat Recovery

From engineering, fabrication, delivery to installation along with technical support provided throughout the project, Ship & Shore excelled in all areas.
— FOAM FABRICATORS

CONTACT US *for a confidential consultation*

562.997.0233
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OPTIMIZING THE MANUFACTURING PROCESS

Captured industrial waste can be "reused" within the same process or transferred to another process. For example, thermal oxidizers, ovens, and furnaces all exhaust hot products of combustion.

These hot exhausts can be fed to air-to-air heat exchangers to provide preheated air to combustion equipment such as boilers, furnaces and ovens, or used for space heating and drying/curing room heating. The hot exhausts can also be fed to air-to-liquid heat exchangers to preheat water or oil for process equipment.

REGENERATIVE THERMAL OXIDIZERS AND SECONDARY HEAT RECOVERY

Regenerative Thermal Oxidizers (RTOs) have built-in primary heat exchangers that utilize "loose fill" or "structured" ceramic heat exchange media to provide high thermal efficiency, as compared to other VOC abatement equipment.

Relatively little support fuel is needed in most RTO systems, and many operate in self-sustain mode after initial start-up. Secondary and tertiary heat recovery can be implemented to improve overall energy efficiency, capture and reuse of waste heat from the RTO exhaust.

Energy and Cost Efficient Solutions

HEAT EXCHANGERS

AIR-TO-AIR | AIR-TO-LIQUID

Air-to-air heat exchangers & air-to-liquid heat exchangers are designed to optimize waste heat recovery opportunities from different types of manufacturing equipment. By transferring this heat energy to another process, facilities may improve energy efficiency, lower operating costs & reduce carbon footprint. Heat exchangers can also be used for transferring "heat of combustion" from thermal oxidizers and furnaces to drying ovens, curing rooms, and for space heating.

ECONOMIZERS

& CONDENSING ECONOMIZERS

Economizers recover hot flue gases which may be used to preheat boiler feed water, which reduces natural gas consumption and improves boiler operation with quicker response to steam demands. Condensing economizers capture and utilize sensible waste heat by cooling exhaust gases below the dew point to save energy and reduce water consumption. Depending upon conditions, it is possible to reach combined combustion efficiencies greater than 96%.

UPGRADE and **EXPAND** with

UTILITY CASH INCENTIVE PROGRAMS

SHIP & SHORE ENVIRONMENTAL, INC.
Clean Air Solutions for Industry

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