

**PRODUCT OVERVIEW**

# ACTIVE COOLER - AC800

ACHIEVE NET-ZERO COOLING WHILE GENERATING PROFITABLE POWER

**THE RADIATOR WITH A PAYBACK**



# OVERVIEW

All engines produce heat. All radiators consume power.

Only the ElectraTherm Active Cooler removes heat while generating power - eliminating the parasitic load.

The Active Cooler uses available waste heat as fuel, utilizing this existing resource allows your company to benefit from a more circular economy and achieve sustainability goals.



All radiators need to be replaced eventually, plus they cost you money year after year. By upgrading to the ElectraTherm Active Cooler you benefit not only from a radiator that pays for itself but can further utilize the waste heat onsite by generating electricity that can be sold back to utility or used right away to offset grid costs.

It is the **radiator with a payback.**

# 100%

FUEL-FREE, EMISSION-FREE  
COOLING SOLUTION

RADIATOR REPLACEMENT  
THAT INCREASES

# PROFIT

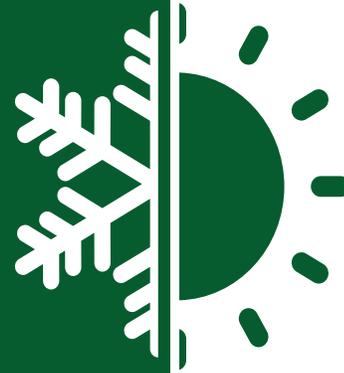
The Active Cooler has the ability to cover all operating costs during times of high utilization as well as generating profitable power for an additional income stream during times of underutilization - such as the winter months.

With a design life of 20 years and a payback period of 3-5 years, the Active Cooler offers an attractive return on investment, which only gets better if your radiator is needing to be replaced or are located in an area with high electric rates.

# HIGHLIGHTS

Historically, radiators are fully utilized during the summer and grossly underutilized during the winter - providing little to no benefit.

With the Active Cooler, maximum capital utilization can still be achieved with varying operating conditions such as ambient temperature differentials throughout the year. The Active Cooler has the ability to cover all operating costs during the summer as well as generating extra power and income during times of underutilized capacity.



## INCREASES EFFICIENCY

UP TO 5%

By utilizing the Organic Rankine Cycle (ORC) to recover waste heat you can benefit from increased horsepower and highly efficient cooling, which in turn increases the effective power.

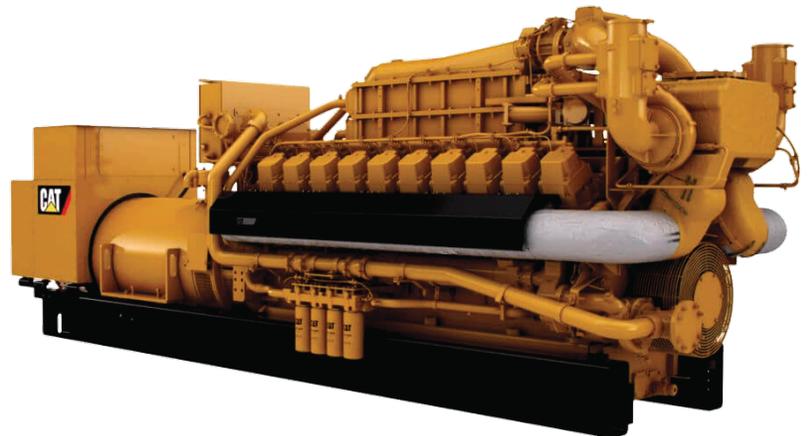
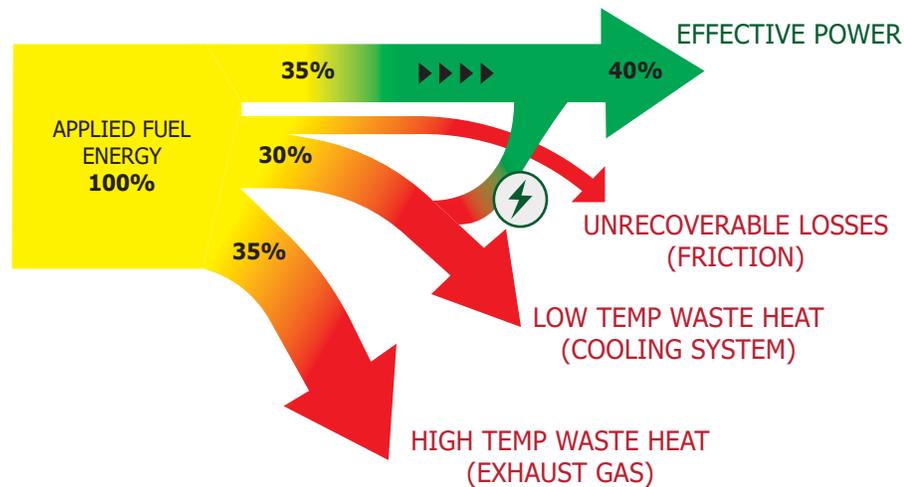
## CASE STUDY

- // 1.6 MW CAT 3520C + one Active Cooler
- // 8,500 operating hours per year
- // Parasitic cooling load: 170 MWh per year
- // Net output (potential): 595 MWh per year
- // 4.4% increase in engine efficiency

## ANNUAL SAVINGS

Radiator: - \$17,000 per year at \$0.10 per kWh

Active Cooler: \$59,500 per year at \$0.10 per kWh



# APPLICATIONS

The ElectraTherm Active Cooler is a perfect fit for any business that implements commercial radiators to expel excess heat greater than 800 kWth

Most of the time you'd be surprised by the amount of usable thermal available on site - landfills, hospitals, biogas, manufacturing.... all of these produce heat and need cooling - let us be your solution.



Designed to be both simple and flexible, standard interface connections and multiple cooling circuits allow the Active Cooler to be easily integrated into your existing system and is scalable to multiple megawatt heat loads.

Available in both 800 kWth and 1800 kWth sizes, the cooler is ideal for systems over 1.6 MW, however net zero cooling can still be achieved with even less input.



The ElectraTherm Active Cooler utilizes the same ORC technology found in the Power+ Generator. The primary difference is that while the Power+ Generator functions as a baseload heating and power unit, the Active Cooler functions as a net zero cooling unit with the ability to produce power during times of low utilization.

While the Active Cooler is ElectraTherm's premier cooling solution, the Power+ Generator is capable of providing the same cooling function, acting as a radiator replacement, while offering additional benefits for larger-scale operations.

To see which one of our solutions is right for you, please reach out to our sales team - contact info on the next page.



# ISSUES WITH STANDARD COOLING UNITS

- ✗ Insufficient cooling during the warmer months leads to reduced performance.
- ✗ Faulty coolers can lead to costly engine repairs and maintenance.
- ✗ Radiators suffer from reduced efficiency and wear down over time.
- ✗ Radiators costs you money year after year.
- ✓ The Active Cooler makes you money year after year.

## BENEFITS OF THE ACTIVE COOLER

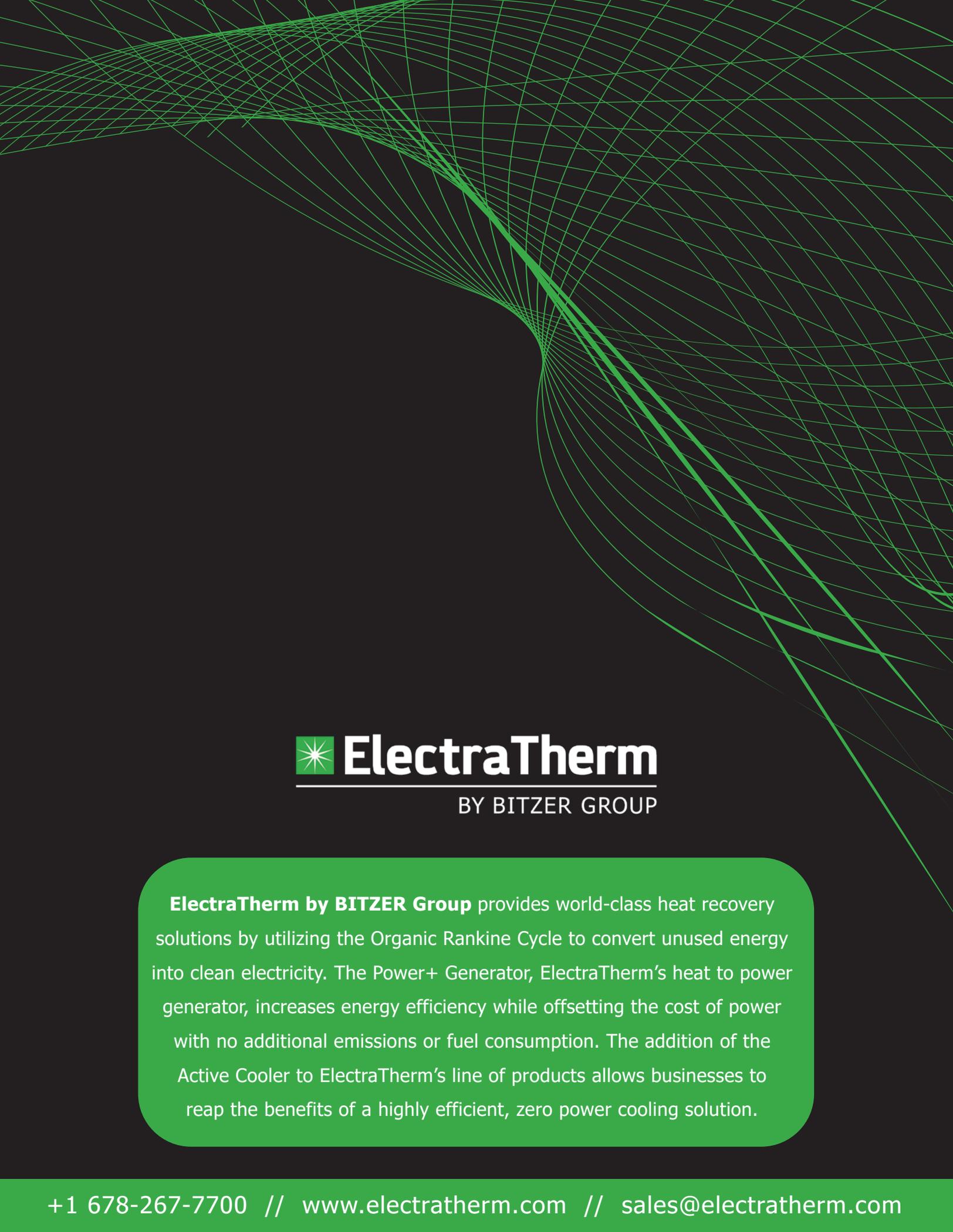
- // Net-zero power cooling system that generates profitable power
- // Reduces parasitic load, increases efficiency
- // Fuel-free, emission-free operation
- // Robust, 20-year design life
- // Scalable to fit any application
- // Multiple cooling circuits plus standard water and power connections
- // No engine derate at high ambient conditions up to 40°C
- // Powered by the commercially proven Power+ Generator

## CONTACT US

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 **ElectraTherm**  
BY BITZER GROUP

**ElectraTherm by BITZER Group** provides world-class heat recovery solutions by utilizing the Organic Rankine Cycle to convert unused energy into clean electricity. The Power+ Generator, ElectraTherm's heat to power generator, increases energy efficiency while offsetting the cost of power with no additional emissions or fuel consumption. The addition of the Active Cooler to ElectraTherm's line of products allows businesses to reap the benefits of a highly efficient, zero power cooling solution.