# Exhaust Heat Exchanger Pays for Engine Generator and Itself in Less Than 6 Years!

## Take a prime power generator, install a Cain Industries exchanger and great things happen...

Let's start with a new 1000kW engine generator at a cost of \$500K. Now we're going to place a Cain HRSR heat exchanger into the exhaust stream at a cost of \$62K. With a conservative fuel cost of 65¢ per therm and 8,000 annual operating hours our exchanger is going to yield almost \$101K of recovered heat energy per year for approximately 20 years.

#### Generator \$500K + Exchanger \$62K ÷ Recovered Energy \$101K = 5.6 Years Payback

Here's the heat recovery science behind it all:

#### **Combustion Source:**

### **1000kW Engine Generator**

Return Water Heat Sink	
Waste Exhaust Temp.	953°F
Water Temp. Inlet	185°F
SCFM	2,474
Fuel Type	Natural Gas
Fuel Cost per Therm	\$.65
Annual Operating Hours	8,000

**Cain Model Installed:** 

#### **HRSR Exchanger**

Liquid Flow Rate	190 gpm
Final Exhaust Temp.	314°F
Liquid Temp. Outlet	205.9°F
Pressure Drop, Water	0.77 psig
Pressure Drop, Exhaust	1.11" WC
BTU/hr Recovered	1,935,000
BTU/hr Saved	1,935,000
Total Cost	\$62,242

Life Expectancy Savings: \$2,012,400 (20 years)



Every exhaust heat recovery application is unique and will provide different payback results. Contact Cain Industries today to evaluate your specific requirements and to receive a **FREE Savings Analysis Study with Guaranteed Performance!** 



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