## Save on fuel, energy consuption, & engine wear with **Generator Block Heaters**



## Upgrade to Generator Block Heaters and maximize savings with utility rebates!

BPA research has shown that most generator block heaters (GBH) will use more electricity than they generate over their lifetime! Annual savings associated with a pumped block heater can be as high as \$3,000, and maintenance costs may also be reduced! Savings depend on the size, location and operation of existing block heater.

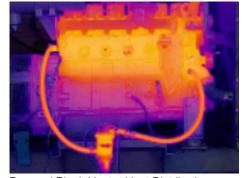
Most existing generator block heaters depend on thermo-siphoning to maintain engine block temperatures. These heaters tend to have extreme temperature gradients across the engine block and in the coolant hoses. Due to these inefficiencies, thermo-siphon heaters run longer and use more electricity. As shown below, the pumped block heater, on the right, eliminates wasteful hot spots. Since coolant hoses are replaced when the pumped block heater is installed, this helps reduce the chance of brittle hoses bursting, ensuring your generator will run when you need it.

The new heater has an integral pump, which provides more uniform temperatures across the engine and hoses, resulting in shorter heater runtimes and less electrical consumption.

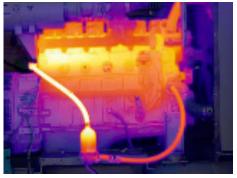
Installing a new generator block heater with a circulating pump will maintain block temperature at 120 F, while reducing both heater runtimes and your monthly electricity bill.

If the installer is certified to install the new engine generator block heater, your utility may provide incentives, based on the heater size:

Replacement Heater Size	Incentive
< 3 kW	\$200
> 3 kW	\$1,500



Pumped Block Heater Heat Distribution



Thermo-Siphon Hot Spots

Utility Name
Utility Address Line 1
Utility Address Line 2
Utility Phone Number
Utility Email / Website

