Cost Savings

The savings realized by running the GTI Bi-Fuel System is directly related to the cost of diesel fuel, cost of gas, and the number of hours of operation. The following is an example is a cost comparison between running a 1000 kW generator on 100% diesel and on Bi-Fuel with a 65% gas-to-diesel ratio in continuous operation. A number of assumptions are made in this example which are clearly stated in order to clarify the calculations.

FACTS AND ASSUMPTIONS	
Fuel consumption @ 1000 kW:	54 gph (100% diesel)
Hours per year	8000
Gas/Diesel ratio	65%
Diesel cost ($/gal)	$3.50 per gallon
Natural gas cost ($/mcf)	$11.00 per mcf
hhv of #2 diesel	140,000 btu/gal
hhv of natural gas	1,000 btu/scf
Gas Equivalent Gallon (GEG)	140 scf/gal
100% DIESEL OPERATION	
Diesel use per hour	54 gallons
Diesel cost per hour	$189.00 (54 x $3.50)
Diesel cost per year	$1,512,000 ($189 x 8000)
BI-FUEL OPERATION	
Diesel use per hour	18.9 gph (54 x 0.35)
Diesel cost per hour	$66.15 (18.9 x $3.50)
Gas use per hour	4914 scf (54 x 0.65 x 140)
Gas cost per hour	$54.05 (4914/1000 x $11.00)
Total fuel cost per hour	$120.20 ($66.15 + $54.05)
SAVINGS	
Bi-Fuel Savings per Hour	$68.80 ($189.00 -$120.20)
Bi-Fuel Savings per 8000 hours	$550,368.00 ($68.90 x 8000)