



CHP TAP CHP Qualification Screen

Boiler/Steam Turbine (backpressure) CHP

Facility Information

Facility Name	Auto Parts, Inc.	
Location (City, State)	Kentucky	
Application	Automotive Components	
Annual Hours of Operation	8400	Annual operating hours with
Average Power Demand, MW	6	
Annual Electricity Consumption, kWh	57,000,000	
Average Steam Demand, MMBtu/hr	7.2	
Annual Steam Demand, MMBtu	60,480	

Current Fuel Costs, \$/MMBtu	\$5.79	
CHP Boiler Fuel Costs, \$MM/Btu	\$5.79	
Effective Electricity Costs, \$/kWh	\$0.077	
Percent Electric Price Avoided	90%	Typically 70 to 95%

CHP System

New Boiler = 1; Steam Turbine Only = 0	0	
CHP Availability, %	98%	Steam Turbine availability - %
Boiler Thermal Efficiency, %	80.0%	May need to modify for boiler
CHP Power to Heat Ratio	0.09	CHP System Specs 2 - user c
Net CHP Power, MW	0.2	Based on typical power to h
CHP Electric Efficiency, % (HHV)	7.2%	Typically between 5 to 20%
CHP Thermal Output, Btu/kWh	37,944	
Steam Turbine O&M Costs, \$/kWh	\$0.010	CHP system specs - include s

Annual Energy Consumption

	Base Case	CHP Case
Generated Electricity, kWh	0	1,562,031
Purchased Electricity, kWh	57,000,000	55,437,969
Boiler Steam, MMBtu	60,480	0
CHP Boiler Steam, MMBtu	0	60,480
Boiler Fuel, MMBtu	75,600	0
CHP Boiler Fuel, MMBtu	0	82,398
Total Fuel, MMBtu	75,600	82,398

Stand-by Costs

Stand-by Power Needed (yes=1, no=0)	0
Stand-by Demand Required (kW)	
Stand-by Rate (\$/kW)	
Administration Charge (\$/month)	
Total Stand-by Costs (\$)	\$0.00

Annual Operating Costs

Purchased Electricity, \$	\$4,389,000	\$4,280,751
Standby Power, \$	\$0	\$0
On-site Thermal Fuel, \$	\$437,724	\$0
CHP Fuel, \$	\$0	\$477,085
Incremental O&M, \$	\$0	\$15,620
Total Operating Costs, \$	\$4,826,724	\$4,773,456

Simple Payback

Annual Operating Savings, \$	\$53,268
Total Installed Costs, \$/kW	\$1,500
Total Installed Costs, \$	\$284,627
Simple Payback, Years	5.3

Operating Costs to Generate

Fuel Costs, \$/kWh	\$0.305
Thermal Credit, \$/kWh	(\$0.280)
Incremental O&M, \$/kWh	\$0.010
Total Operating Costs to Generate, \$/kWh	\$0.035