FINAL REPORT

DATA COLLECTION AND ANALYSIS OF THE COMBINED HEAT AND POWER SYSTEM AT EASTERN MAINE MEDICAL CENTER

Revised
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Submitted to:

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EXECUTIVE SUMMARY

Eastern Maine Medical Center (EMMC) installed a Centaur 50 gas turbine in 2006. The turbine has a nameplate rating of 4,570 kW and can be operated on either natural gas or #2 heating oil. The combined heat and power (CHP) system consists of the turbine, a Deltak heat recovery steam generator (HRSG), and a feedwater economizer to produce 100 psig steam from the turbine exhaust. The steam produced by the HRSG is the primary source of steam in the facility. A dual fuel boiler provides backup steam capacity. Steam is used to meet space heating, water heating, and other loads in the facility as well as provide space cooling during the summer with a 500-ton absorption chiller.

The process of considering CHP for the facility starting in 2003 with a feasibility study and continued through the completion of the construction process in late 2006. The use of packaged CHP technology and modular building techniques helped the hospital complete the construction project on a relatively fast timeline (under 12 months).

In the first 12 months of operation (ending November 2007), the turbine produced 26.1 million kWh, or 95.7% of the facility energy needs. The turbines availability was good, though there were a handful of days when the turbine was off-line and power was purchased from the utility instead. The turbine modulated its electrical output to match the facility electrical loads while always ensuring that at least 30 kW was imported from the utility. The gas-turbine produced electricity with an overall electrical efficiency of 27% on an LHV basis. Electrical efficiency was higher in the summer when the turbine was closer to fully loaded (i.e., the performance benefit of full load operation had more impact than the penalty of higher inlet temperatures). The overall CHP efficiency averaged 70% (on an LHV basis) for the 12 month period. The CHP efficiency was highest in the summer months (74% LHV in August) when the absorption chiller was used to provide cooling.

All the components functioned as expected, though some noteworthy issues were observed:

- The 500-ton absorption chiller never provided more than 400 tons of cooling, presumably due to the lower chilled water temperatures (43°F) and the fairly modest steam pressure (100 psig).
- The measured turbine efficiency was often higher than the expected performance data provided by the manufacturer. It is unclear if this was caused by instrument and control system settings or if turbine performance actually exceeded expectations.

The measured performance data from this site were used to develop models and correlations to predict system performance over a range of operating conditions. Then typical year weather data for Maine and other US locations were used to predict system performance for each hour of the year. The results were used with the detailed utility rates to predict annual operating costs. The savings for a typical year at the hospital were predicted to be just over $1 million per year. The simulation model predicted turbine availability was more ideal than actually occurred in 2007, so electric costs were $300,000 to $400,000 lower than the actual utility bill from the site.

The predicted savings are consistent with the direct cost savings of $800,000 reported by the site in 2007 (compared to previous year's bills) as well as the savings projected in the initial feasibility study. The savings are highly dependent on the cost natural gas: each $0.20/therm increase in gas costs will decrease annual savings by $500,000.

The models were also used with weather data and utility rates for other locations around the US to predict economics. The annual savings ranged as high as $1.33 to 0.8 million in Boston, Chicago and New York to losses of $1 million in Harrisburg.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. Introduction

1.1. Overview

Eastern Maine Medical Center (EMMC) located in Bangor, ME has installed a combined heat and power (CHP) system. The CHP system includes a bi-fuel Centaur 50 combustion turbine running primarily on natural gas (the backup fuel is #2 heating oil). The system includes a heat recovery steam generator (HRSG) and a feedwater economizer to recover additional heat from the turbine exhaust. The heat recovery is used to displace steam boiler operation throughout the year and reduce electric chiller loads during the summer with a steam-driven absorption chiller.

This report summarizes the measured performance data for a period of one year beginning in December 2006 and ending in November 2007. This annual period included both heating and cooling operation.

Sufficient measured data were collected to predict the annual economic performance of the system.

1.2. Report Organization

This report is organized into the following sections:

Section 2 describes the process of considering, developing, and ultimately constructing and operating the CHP system at this facility.

Section 3 describes the facility and its thermal and electrical loads as well as the Centaur 50 and HRSG system installed at the site.

Section 4 describes the monitoring approach used to evaluate the performance of the system and lists the monitored data points collected at the site.

Section 5 summarizes the measured performance of the system. The detailed performance of the individual CHP components are analyzed and compared to manufacturer's published performance data. The energy produced by the system and consumed at the site are also evaluated and compared to baseline facility performance.

Section 6 summarizes the economic analysis of the CHP system for this site as well as for other locations around the US.

2. Development and Procurement of CHP System

2.1. Motivation

Eastern Maine Medical Center (EMMC) first considered on-site power generation or combined heat and power (CHP) as a means to lower their operating costs and improve their energy security. Like many regional medical centers, EMMC has significant thermal and electrical loads that persist year round. The facility's electrical demand varies from 5 MW in the summer to 3 MW in the winter. The dual fuel boiler plant consumes natural gas or #2 fuel oil to provide 100 psig steam with a historical maximum of 42,000 lbs/h. Steam is used to provide space heating in the 1.48 million sq ft complex as well as meet year-round process needs for laundry, sterilization, humidification and service water heating. To make the CHP project more cost effective (and ensure year-round steam demand) a 500 ton steam-fired absorption chiller was also installed at the facility.

EMMC first assembled a team to evaluate the potential of CHP in their facility in 2003. The team included Cianbro Construction Corporation, Vanderweil Engineers, Solar Turbines, Inc., and the International District Energy Association. EMMC commissioned Vanderweil Engineers to complete a feasibility study of combined heat and power (cogeneration) at their facility. EMMC's motivations for considering CHP included:

- Reducing energy costs for the facility,
- Ensuring facility operation continues under all conditions (blackout, ice storms, etc),
- Enhancing the dual fuel capabilities (natural gas / fuel oil) of the facility,
- Complying with emissions requirements and reducing environmental impacts,
- Providing additional capacity for growing chilled water and steam loads.

The study recommended a CHP system based around a gas-turbine HRSG which would also include diesel standby generators to maintain facility operations at all times. The addition of an absorption chiller provided a summertime demand for steam that improved the overall economics of the project. The feasibility study predicted that the project would save the project more than $1 million per year and have a simple payback of 5 years. The CHP system also reduced overall air emissions from the facility which helped the hospital secure the support from various environmental organizations, including the Northeast States for Coordinated Air Use Management. The project also gained the backing Maine's two Senators (Collins and Snowe) as well as Congressional Representative for Bangor (Michaud). EMMC ultimately won an award from the Department of Energy's competitively-selected CHP demonstration program in 2005 which improved project economics and provided funding to widely disseminate EMMC's experiences to the health care industry.

The project team addressed many of the concerns of EMMC management by proposing a packaged CHP system and employing modular building techniques. This approach minimized construction costs as well as the risk of construction delays. The modular, factory-constructed Solar Turbine, heat recovery steam generator, and stacks were installed in a new building next to the boiler house. This minimized construction time and ensured that commissioning and startup

proceeded quickly and efficiently. The overall timeline for this project is summarized in Table 1 below.

Table 1. Summary of Project Timeline

Initial Planning and Feasibility Study	Summer 2003
Design Process	Early 2005
Construction Begins	Summer 2005
Major Construction Complete	Summer 2006
Commissioning and Startup	April to November 2006
Project Closeout Meeting	November 2006
Initial System Operation	October 2006
Web-based Monitoring System Begins	December 2006

2.2. Design and Construction

The hospital managed this important capital project by assigning Mr. Jeff Mylen, its Director of Construction Services and Special Projects, to lead the team. The general contractor (Cianbro) was involved from the beginning of the project.

Vanderweil Engineers started the design process in early 2005. The design was complete in mid 2005 and was sent out for bid. The design was based around a Solar Centaur 50 gas-turbine based on the recommendations of the initial feasibility study. The major components (HRSG, electrical switch gear, transfer switch, absorption chiller) were competitively bid (see Table 2).

Table 2. Summary of Major Components

Solar Centaur 50	Selected based on load characteristics and project requirements identified in feasibility study. Price negotiated in initial project phases.
Deltek HRSG	Selected from 3 responsive bids based on experience and price.
Square-D Electrical Switch Gear	Selected from 3 responsive bids based on quality, price and past experience at EMMC.
ASCO 600-amp Automatic Transfer Switch (ATS)	Selected to be compatible with EMMC electrical standards
Trane 500 ton Absorption Chiller	Selected based on size constraints in the chiller room
Marley Cooling Towers	Selected from 3 responsive bids based on experience and price.
Honeywell Controls	Selected to be compatible with existing facility controls. Price negotiated early in project

The procurement and construction process started in summer of 2005 and continued through Summer 2006. By the Fall of 2006, the system was commissioned and fully operating.

2.3. Operations and Maintenance

The hospital staff has successfully integrated the CHP system into its normal facility operating practices. The new CHP facility includes a new control room where CHP, boiler and chiller operations can be monitored. The new combined system is manned 24 hours a day by a licensed boiler operator. EMMC staff successfully completed the Solar Turbine Technical Training program in July 2006. All EMMC operators completed very comprehensive training on Centaur turbine operation at EMMC. EMMC has contracted with Solar Turbine to provide routine turbine maintenance.

The economics of this project strongly depended on favorable fuel prices. Therefore, EMMC contracted with Competitive Energy early on the project to lock in gas contracts that would ensure the project economics and minimize risks to EMMC.

2.4. Surprises and Lessons Learned

This project required coordination and approval of the electrical interconnection with Bangor Hydro, the local electric utility. In hindsight, more attention should have been paid earlier in the project to resolve interconnection and utility tie-in issues.

In order for a hospital in Maine to initiate a capital project of this magnitude the hospital had to submit a Certificate of Need (CON) to the Department of Health and Human Services. More detailed engineering and cost information were ultimately required to justify the need and capital expenditure for this project. Providing a committed cost to the State prior to having detailed engineering documents left EMMC having to make difficult cuts in project scope.

The use of packaged, factory-built skids for the turbine and HRSG helped to speed the installation and commissioning process. Still, better coordination between the design engineers and the vendor's field technicians (Solar, Deltak, and Honeywell) would have sped the process of startup and commissioning. Activities involving electrical interconnection with the utility would have especially benefited from closer coordination.

2.5. Cost Savings

After 12 months of running the new plant the total energy expenses for the hospital dropped approximately $800,000 compared to the previous year. However a direct energy comparison was closer to $1.6 million in savings due to the increased energy usage of the EMMC campus. Six months in to the next fiscal year indicates an even greater saving potential. As the plant shakedown period was passed, operator experience increased, and minor adjustments were made to add electrical load discriminately by the operators to produce more steam output and avoid running the direct fired boilers.

3. CHP System Description

3.1. Site Description

Eastern Maine is a typical hospital complex with year-round heating and cooling loads. The baseline facility has a peak demand of 5300 kW and consumes 27 million kWh per year at an annual cost of nearly $3 million (an annual load factor of 58% and an average cost of $0.11/kWh) before the CHP system was installed. The facility boilers are dual fuel but recently have used #2 fuel oil to meet steam loads (peak load of 42,000 lb/h). For the year before the CHP system was installed, the facility used 1 million gallons of oil to supply 117 million lbs of steam. The 2,300 ton electric chiller plant meets the facility cooling needs.

3.2. CHP System

The CHP system at EMMC was installed in 2006. The system is based around a bi-fuel combustion turbine that includes exhaust heat recovery to provide steam generation. Figure 1 shows the turbine enclosure and exhaust stacks. A 500-ton steam-driven absorption chiller was also added as part of the project to ensure a year-round steam load.

The exhaust from the turbine is used in a Deltak heat recovery steam generator (HRSG) capable of producing 24,000 lb/h of 100 psig steam. The HRSG system has a modulating diverter damper to bypass turbine exhaust around the HRSG in order to maintain the desired leaving steam pressure. Downstream of the HRSG is an exhaust-to-water heat recovery unit (i.e., economizer) for pre-heating the feedwater entering the HRSG.

Steam is used in the hospital complex to meet various space and water heating needs as well as by absorption chillers at the hospital. The facility added a 500-ton Trane absorption chiller to displace electric chiller operation for space cooling. The absorption chiller operates off steam created by the HRSG. Two additional single-cell cooling towers were also installed for absorption chiller heat rejection.

Figure 1. Solar Turbine Enclosure and Exhaust Stacks at EMMC

Figure 2 shows a schematic of the Solar Centaur power generation and heat recovery system with the major components noted. The turbine is located indoors in a two-story structure that was added next to the boiler house. The combustion air intake is located on the second floor. Ventilation stacks bring in outdoor air to turbine enclosure for cooling. A dry cooler on the roof for provides cooling for the lubrication oil.

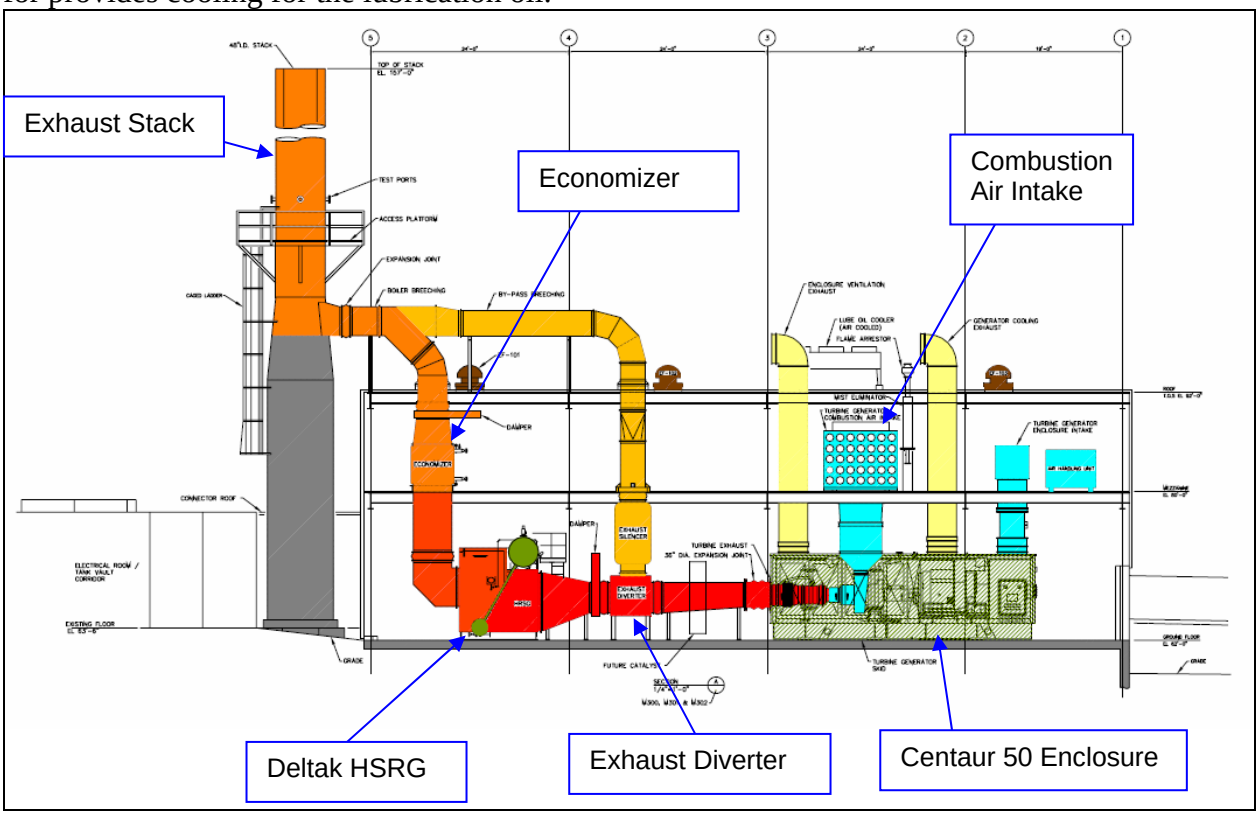


Figure 2. Schematic of Solar Turbine Electrical Generation and Heat Recovery System

3.3. Centaur 50 Turbine

The turbine is a Centaur 50 from Solar Turbines. The turbine can operate either on natural gas or #2 fuel oil. The rated performance data for the turbine is summarized in Table 3. The capacity and efficiency trends with inlet air temperature are shown in Figure 3.

Table 3. Summary of Centaur 50 Catalog Data

Output Power	4,570 kW
Heat Rate (shaft)	8,500 Btu/hp-hr
Engine Efficiency (shaft)	29.9% LHV
Heat Rate (electrical)	11,630 Btu/kWh
Engine Efficiency (electrical)	29.3% LHV
Exhaust Flow	149,380 lb/h
Exhaust Temp	960°F
Relative Humidity	60%
Natural Gas LHV	940 Btu/scf

Performance at ISO Conditions (59°F Ambient at Sea Level)

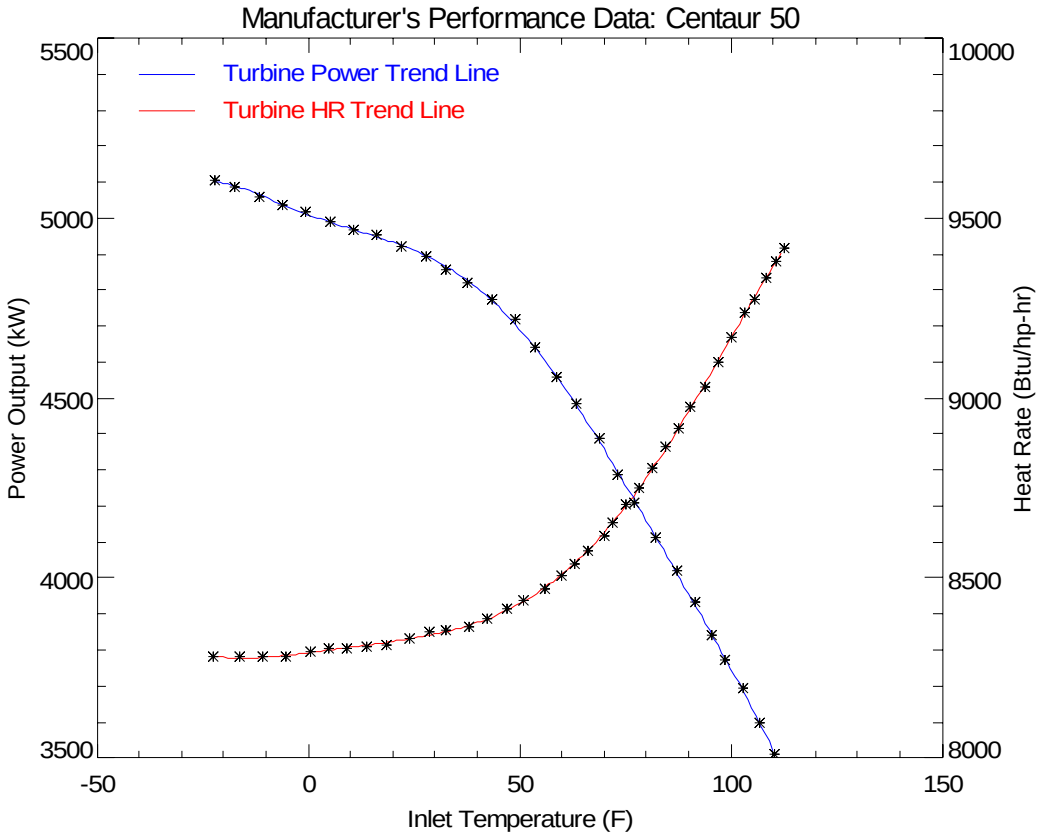


Figure 3. Manufacturer's Performance Data for Power Output and Heat Rate at Full Load

4. Monitoring Approach

The existing Honeywell HC900 series control system at the facility was interfaced to the Solar Turbine control system and the Deltak PLC that controlled HRSG operation. The Honeywell system was also expanded to monitor and control the new absorption chiller and its ancillary equipment. This system was used to measure the performance of the CHP system at this site.

4.1. Controls and Instrumentation

Monitored data was collected from three different control systems:

- PLC for Solar Turbine (SOLAR),
- PLC for the HRSG (Deltak),
- Honeywell control modules in the CHP building or chiller plant (HC900)

Measured points from all these systems are captured by the Honeywell control system via a Modbus connection. Table 4 below lists the monitored data that were collected for this project. The primary points shown in Figure 4 and Figure 5 are also highlighted in the table. The other data in the table were also collected but not used in the analysis.

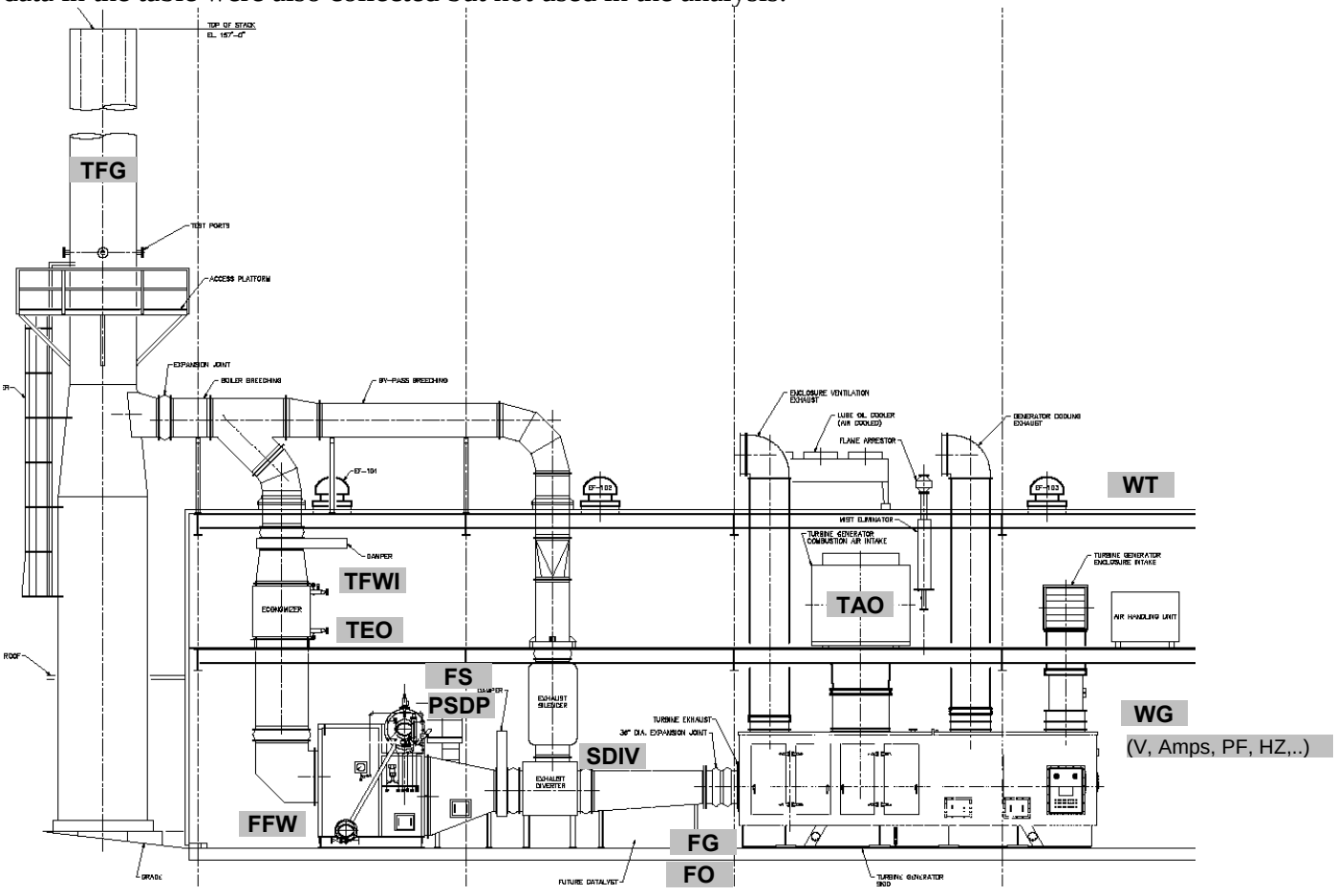


Figure 4. Schematic of CHP System (with Monitored Points Shown)

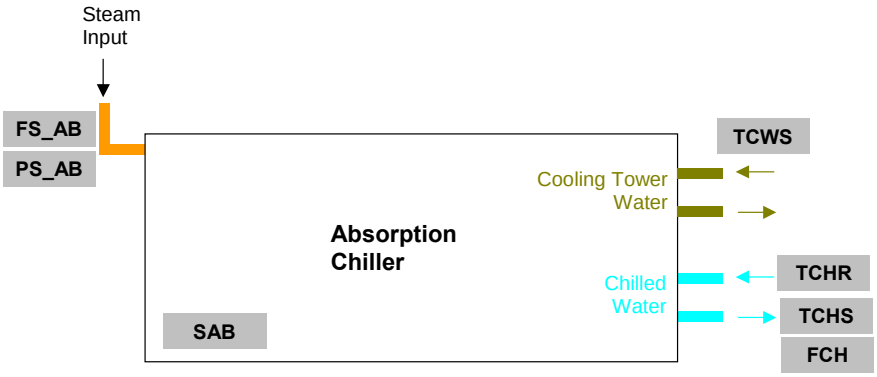


Figure 5. Schematic of Absorption Chiller System (with Monitored Points Shown)

Table 4. EMMC Point List

System	CDH Name	Honeywell "TAG"	Description	Eng Units	Min Value	Max Value
Main Electrical System	WT_HZ	AN_Active_Bus_Freq	Active Reference Bus Frequency	Hz	0.00	60.07
	WT_VA_A	AN_Bus_A_PH_A_V	Bus A Phase A Voltage	Vac	0.00	13,080.83
	WT_VLL	AN_Bus_Avg_LL_V	Bus Average LL Voltage	Vac	0.00	13,080.83
	WT_VA_B	AN_Bus_B_PH_A_V	Bus B Phase A Voltage	Vac	0.00	13,089.75
	WT_VAB	AN_Bus_Ph_AB_V	Bus Phase AB Voltage	Vac	0.00	0.00
	WT_VBC	AN_Bus_Ph_BC_V	Bus Phase BC Voltage	Vac	0.00	0.00
	WT_VAC	AN_Bus_Ph_CA_V	Bus Phase CA Voltage	Vac	0.00	0.00
	WT_KW	AN_kW_Import	Plant kW Import Signal	kW	-22,437.91	4,737.32
Turbine Electrical System	WG_VLL	AN_Avg_LL_Gen_V	Generator Average LL Voltage	Vac	0.00	13,082.00
	WG_I	AN_Gen_Avg_I	Generator Average Current	A	0.00	207.80
	WG_PF	AN_Gen_Avg_PF	Generator Average Power Factor	None	0.00	0.93
	WG_HZ	AN_Gen_Freq	Generator Frequency	Hz	0.00	60.07
	WG_KVA	AN_Gen_kVA	Generator kVA	kVA	0.00	4,702.79
	WG_KVAR	AN_Gen_kVAR	Generator kVAR	kVAR	0.00	2,143.31
	WG_IA	AN_Gen_Ph_A_I	Generator Phase A Current	A	0.00	207.09
	WG_IB	AN_Gen_Ph_B_I	Generator Phase B Current	A	0.00	208.54
	WG_IC	AN_Gen_Ph_C_I	Generator Phase C Current	A	0.00	210.46
	WG_VAB	AN_Gen_Ph_AB_V	Generator Phase AB Voltage	Vac	0.00	13,087.33
	WG_VBC	AN_Gen_Ph_BC_V	Generator Phase BC Voltage	Vac	0.00	13,063.08
	WG_VAC	AN_Gen_Ph_CA_V	Generator Phase CA Voltage	Vac	0.00	13,115.58
	WG_KW	AN_Total_kW	Generator Total Real Power	kW	0.00	4,222.58
Turbine Fuel System	PG_PCD	AN_Engine_Pcd	Gas Producer Compressor Discharge Pressure	psig	-0.48	131.09
	FG_LBS	AN_Gas_Fuel_Flow	Gas Fuel Flow	Mlb/hr	-150.00	2,295.51
	PSG	AN_Gas_Fuel_Press	Gas Fuel Supply Pressure	psig	-0.19	327.66
	PVCG	AN_Gas_Valve_Pressure	Gas Fuel Valve Check Pressure	psig	-0.38	281.09
	POB	AN_Liquid_Fuel_Boost_Press	Liquid Fuel Boost Pressure	psig	-6.63	106.19
	FO	AN_Liquid_Fuel_Flow	Liquid Fuel Flow	lb/min	0.00	44.07
	FG_COR	AP_Eng_Fuel_Flow_Corr_GF	Engine Corrected Fuel Flow - Gas Fuel	MMBtu/h	0.00	47.85
	FO_COR	AP_Eng_Fuel_Flow_Corr_LF	Engine Corrected Fuel Flow - Liquid Fuel	MMBtu/h	0.00	49.88
	FG_DEL	AP_Eng_Fuel_Flow_Delta_GF	Engine Fuel Flow Delta - Gas Fuel	MMBtu/h	-13.07	19.04
	FO_DEL	AP_Eng_Fuel_Flow_Delta_LF	Engine Fuel Flow Delta - Liquid Fuel	MMBtu/h	-1.30	7.91
	FG_PRE	AP_Eng_Fuel_Flow_Pred_GF	Engine Predicted Fuel Flow - Gas Fuel	MMBtu/h	0.00	57.92
	FO_PRE	AP_Eng_Fuel_Flow_Pred_LF	Engine Predicted Fuel Flow - Liquid Fuel	MMBtu/h	0.00	48.59
	FG	AP_Eng_Fuel_Flow_Std_GF	Engine Standard Fuel Flow - Gas Fuel	Mscfh	0.00	47.99
	FG_CPCD	AP_Eng_PCD_Corr_GF	Engine Corrected PCD - Gas Fuel	psig	0.00	133.06
	FO_CPCD	AP_Eng_PCD_Corr_LF	Engine Corrected PCD - Liquid Fuel	psig	0.00	123.54
	FG_PCDD	AP_Eng_PCD_Delta_GF	Engine PCD Delta - Gas Fuel	psig	-26.61	82.27
	FO_PCDD	AP_Eng_PCD_Delta_LF	Engine PCD Delta - Liquid Fuel	psig	-8.78	42.30
	FG_PPCD	AP_Eng_PCD_Pred_GF	Engine Predicted PCD - Gas Fuel	psig	0.00	155.07
	FO_PPCD	AP_Eng_PCD_Pred_LF	Engine Predicted PCD - Liquid Fuel	psig	0.00	130.44
	FG_T5D	AP_Eng_T5_Delta_GF	Engine T5 Delta - Gas Fuel	deg F	0.00	0.00
	FO_T5D	AP_Eng_T5_Delta_LF	Engine T5 Delta - Liquid Fuel	deg F	0.00	0.00
	FG_PT5	AP_Eng_T5_Pred_GF	Engine Predicted T5 - Gas Fuel	deg F	0.00	0.00
	FO_PT5	AP_Eng_T5_Pred_LF	Engine Predicted T5 - Liquid Fuel	deg F	0.00	0.00
Turbine Temps	TENC	AN_Encl_Temperature	Turbine Enclosure Temperature	deg F	0.00	181.25
	TAO	AN_T1_Temperature	Air Inlet Temperature	deg F	-9.77	101.42
	TT5_1	AN_T5_TC1	T5 Thermocouple 1	deg F	0.00	1,279.77
	TT5_2	AN_T5_TC2	T5 Thermocouple 2	deg F	0.00	1,288.90
	TT5_3	AN_T5_TC3	T5 Thermocouple 3	deg F	0.00	1,280.07
	TT5_4	AN_T5_TC4	T5 Thermocouple 4	deg F	0.00	1,272.08
	TT5_5	AN_T5_TC5	T5 Thermocouple 5	deg F	0.00	1,256.00
	TT5_6	AN_T5_TC6	T5 Thermocouple 6	deg F	0.00	1,323.60
Deltak HRSG System	SDIV	Deltak_17_20	HRSG Diverter Position	%	-2.63	99.82
	FS	Deltak_80_1	HRSG Compensated Steam Flow	lb/hr	0.00	30,000.00
	TFWI	Deltak_80_13	HRSG Feedwater Inlet Temperature	deg F	0.00	262.50
	TFG	Deltak_80_16	HRSG Outlet Stack Temperature	deg F	0.00	332.83
	TEO	Deltak_80_17	HRSG Econ Out Feedwater Temp	deg F	0.00	337.17
	PSDP	Deltak_80_4	HRSG Scaled Steam Drum Press	psig	0.00	299.95
	FFW	Deltak_80_5	HRSG Scaled Feedwater Flow	lb/hr	0.00	30,000.00
Chilled Water System	SEV	EVAP_RT	Evap run time	Secs	0.00	0.10
	FS_AB	FI_0401	Steam Flow to Chillers	lb/hr	-15.38	11,521.90
	TCWS	TI0313	Condenser Water SupplyTemperature	deg F	0.00	103.70
	SSV	ZI0403	Steam Valve % OP	%	0.00	71.57
	SCT3	CT3_RT	Cooling Tower 3 Run Time	Secs	0.00	0.10
	SCT4	CT4_RT	Cooling Tower 4 Run Time	Secs	0.00	0.10
	PS_AB	Steam_Pressure__Supply	Steam Supply Pressure	psig	-13.33	8.65
	FCH	Chilled_Water_Flow_Rate	Chiller Flow Rate	gpm	-0.52	1,302.71
	TCHR	Chilled_Water_Temp__Entering	Chilled Water Return Temperature	deg F	0.00	90.00
	TCHS	Chilled_Water_Temp__Leaving	Chilled Water Supply Temperature	deg F	0.00	87.80
	SAB	Chiller_Run_Time	Absorption Chiller Runtime	hrs	0.00	5,947.43
	TCWL	Condenser_Water_Temp__Leaving	Condenser Water Leaving Temperature	deg F	0.00	114.90

4.2. Data Collection Process

The Honeywell controller software was capable of automatically writing a fixed number of data records (240) to an EXCEL spreadsheet at regular intervals via a Microsoft OPC connection. The data file was created on the local computer (in the control room) that was connected to the Honeywell control system. Data from the Honeywell system were sampled at 1-minute intervals and then averaged values were written to the file at 6-minute intervals. The 6-minute recording interval was chosen to provide good data resolution with a reasonable file size. The XLS file was updated every 6 minutes and contained the last 240 readings for each data point (i.e., 24 hours of data).

EMMC's IT staff setup a process to transfer the XLS file from the control room PC to a public FTP server every hour. CDH Energy setup a process to grab this file each hour. The data was loaded into CDH's in-house database system every 4 hours and also uploaded to the 30-minute database that was publicly available on the web (www.emmccogen.org/op_info.asp). The data collection and transfer process is summarized in Figure 6.

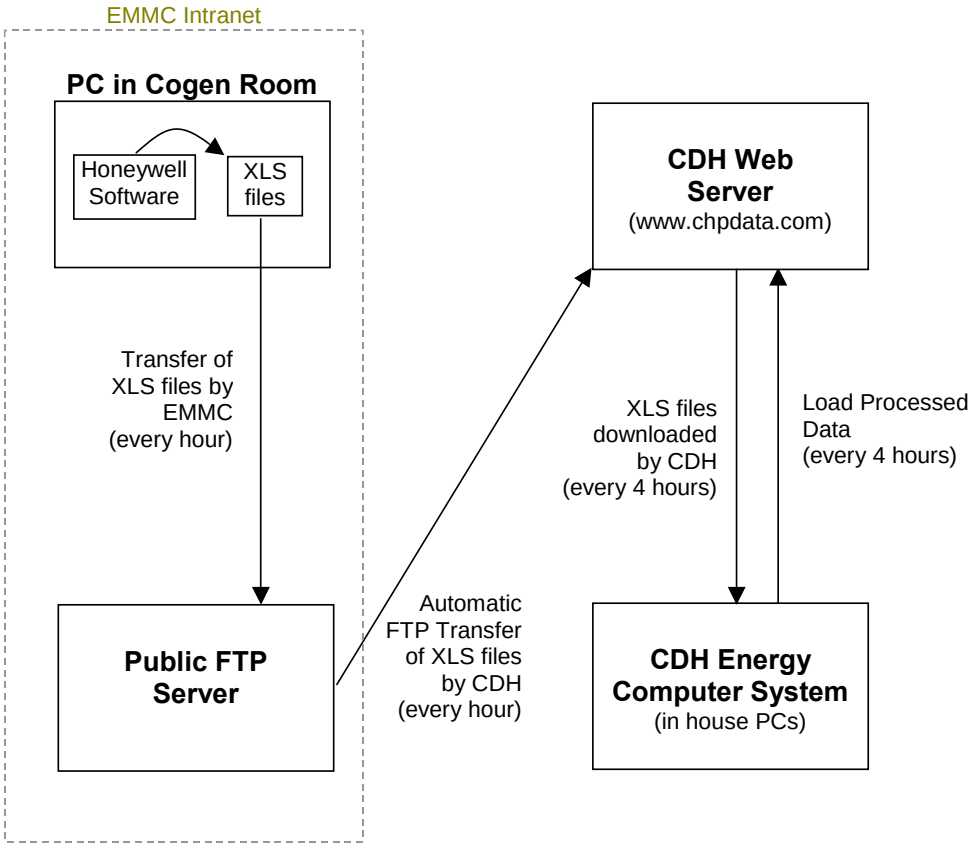


Figure 6. Data Transfer Process

4.3. Data Analysis

Sufficient data were collected to quantify the technical and economic performance of the system. The electric power imported from the utility (**WT**) and the power provided by the generator (**WG**) was used to determine the demand (kWh) and energy (kWh) impacts. This information was used with the detailed utility tariff information to calculate the electric cost savings for each month.

The thermal output from the CHP system was determined from the steam flow rate (**FS**), steam pressure (**PS**) from the HRSG and the feedwater inlet (**TFWI**) ("steam table" data was used to determine the energy content of the steam). The energy contribution of the feedwater economizer was separately determined from the water inlet and outlet temperatures and water flow rate (**TFWI, TEO, FFW**). The feedwater flow meter provided an independent confirmation of the reading provided by the steam flow meter.

The electrical and total CHP efficiency of the system were calculated using the thermal outputs, power output, and fuel inputs (**FNG or FOIL**). Plots are provided to show the variation in these values with inlet or outdoor temperature (**TAO**) as well as with turbine loading.

The operation of the 500-ton absorption chiller consumes steam and displaces electric use on the main electric chillers in the facility. The chiller cooling capacity was calculated using the chilled water flow and temperature difference (**FCH, TCHR, TCHS**). Generic performance curves for the electric chillers were used to convert the measured cooling capacity into displaced electric use (kW). The variation in absorption chiller performance (cooling output, COP, etc) with loading, steam input (**FS_AB, PS_AB**) and operating conditions (**TCWS**) was also determined.

4.4. Determining Fuel Heat Values

The controller for the Solar Turbine applies a factor that converts fuel flow in the fuel energy consumption using the operating parameters. The fuel flow is expressed as standard cubic feet per hour for natural gas and lbs per minute for #2 fuel oil.

Dividing engine fuel energy input (Honeywell AP_Eng_Fuel_Flow_Corr_GF) and the standard volumetric gas input (Honeywell AP_Eng_Fuel_Flow_Std_GF in cubic feet) implied that the heating value of natural gas is 995 BTU per cubic foot. We assumed this value was the "lower" heating value of the fuel, even though it was higher than what is normally used for methane (e.g., 940 Btu/cf). The difference may be explained by the higher energy content of natural gas in the New England region (since it includes more propane).

Similarly, the fuel energy input for oil (AN_Liquid_Fuel_Flow_corr_LF) and the mass flow rate (AN_Liquid_Fuel_Flow) imply that the lower heating value for fuel oil is 111,300 Btu/gallon, This value is close to the nominal value of 115,000 Btu/gal LHV that is normally assumed for #2 fuel oil.

5. Test Results

5.1. Summary of Energy Production and Consumption

Table 5 summarizes the data collected for utility electricity import, turbine electricity production and fuel consumption. The peak turbine output was 4,223 kW on May 22, which also had the highest daily electrical efficiency at 28.1% (see Appendix A for summaries of the data for each day). For the year, the turbine has averaged 27.0% LHV electrical efficiency while meeting 95.7% of the facility's electrical load.

Table 5. Summary Table of Power Generation, Turbine Performance and Imported Electricity

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Dec 2006	100.0%	3,507	1,857,441	25,516	1,436	24.8%	3,212	138,467	93.1%
Jan 2007	100.0%	3,495	2,050,548	27,782	0	25.3%	373	37,374	98.2%
Feb 2007	100.0%	3,569	1,871,190	25,348	0	25.3%	96	24,482	98.7%
Mar 2007	100.0%	3,584	2,045,429	27,370	0	25.6%	2,454	29,642	98.6%
Apr 2007	100.0%	4,097	1,869,522	24,246	0	26.4%	3,036	153,949	92.4%
May 2007	100.0%	4,223	2,328,845	28,797	0	27.7%	3,148	50,652	97.9%
Jun 2007	100.0%	4,186	2,284,792	27,276	0	28.7%	3,463	82,741	96.5%
Jul 2007	100.0%	4,174	2,609,239	30,986	0	28.9%	4,737	160,154	94.2%
Aug 2007	100.0%	4,145	2,653,821	31,207	26	29.2%	3,904	75,592	97.2%
Sep 2007	100.0%	4,127	2,384,175	29,103	19	28.1%	4,127	142,133	94.4%
Oct 2007	100.0%	4,069	2,348,626	27,756	18,783	27.0%	4,072	72,146	97.0%
Nov 2007	100.0%	4,047	1,803,714	24,206	6	25.6%	3,364	200,518	90.0%
Total	100.0%	4,223	26,107,340	329,592	20,270	27.0%	4,737	1,167,850	95.7%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Figure 7 shows shade plots of the gas turbine power output and gas input. The shade plot qualitatively shows power output with shades of gray. Each day is shown as a vertical stripe on the plot. Consecutive days are shown along the x-axis. Darker shades represent greater power generation (or gas use). The shade plots show that power generation is lower during non-business hours (i.e., after 5 pm and before 7 am on weekdays and on weekends).

Figure 8 compares generator output, utility import and total facility load. Before February 9th, the utility import was nominally 50 kW for periods when the turbine was operating. After February 9th, the import control setpoint was changed to 30 kW. Periods when the generator was off – and consequently all power was imported from the utility – are apparent on the plots. The generator was off for multiple-day periods in December, April, June and November. For the outage in early June, power was not imported from the utility. This implies that the utility grid was down and that hospital power was provided by the backup generators (which are not metered by the control system). Shorter outages (less than 24 hours) occurred in July and September. The July outage set the peak demand imposed on the utility.

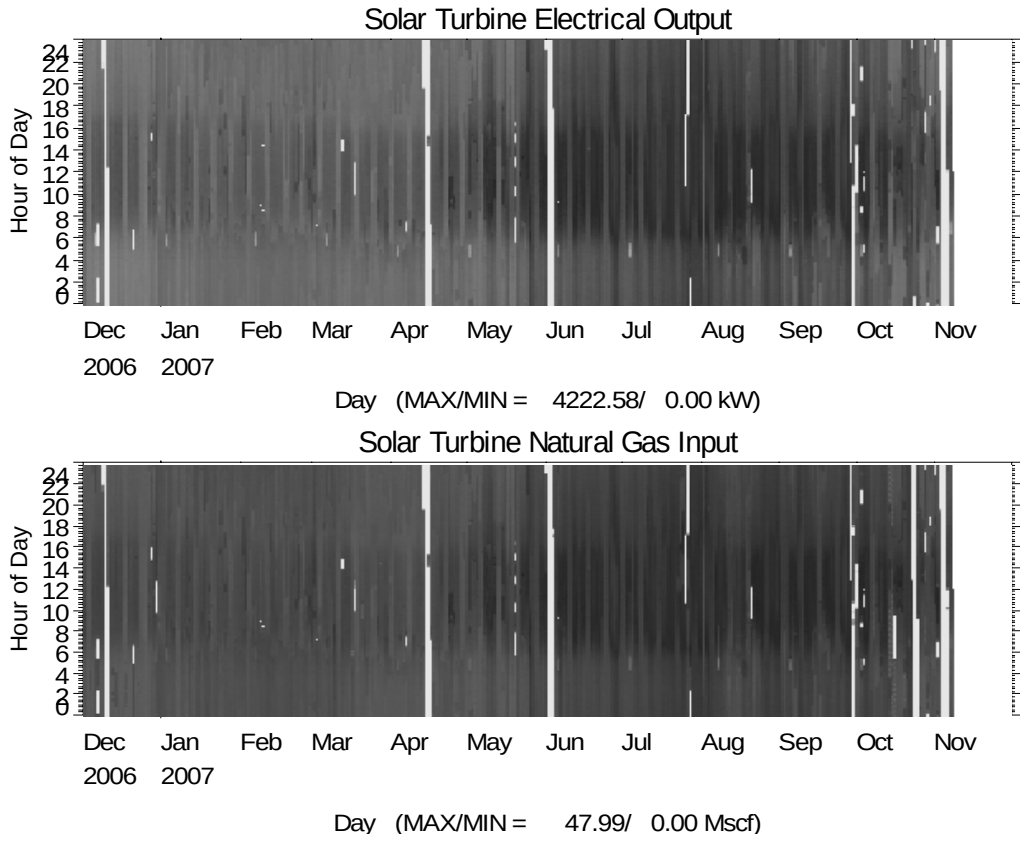


Figure 7. Shade Plot of Solar Turbine Activity

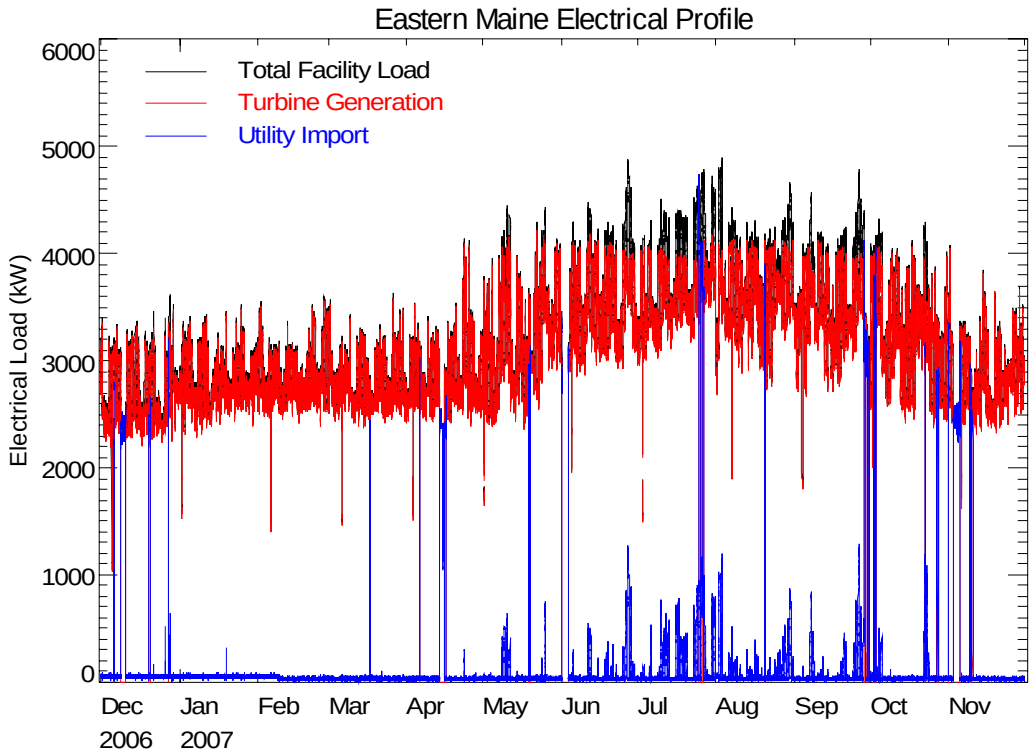


Figure 8. EMMC Facility Electric Load

Figure 9 shows the trend of facility power use with ambient temperature. The data are shown separately for business hours (Mondays through Fridays from 7 am to 5 pm) and non-business hours (nights and weekends). The two periods have distinctly different energy use patterns, as shown in Figure 9 as well as by the shade plot (Figure 7). The facility electric load clearly increases with ambient temperature above 50°F due to space cooling needs. Electric demand is fairly constant below the balance point for both the periods. Table 6 shows the linear models or trend lines that were fit to the data by regression analysis.

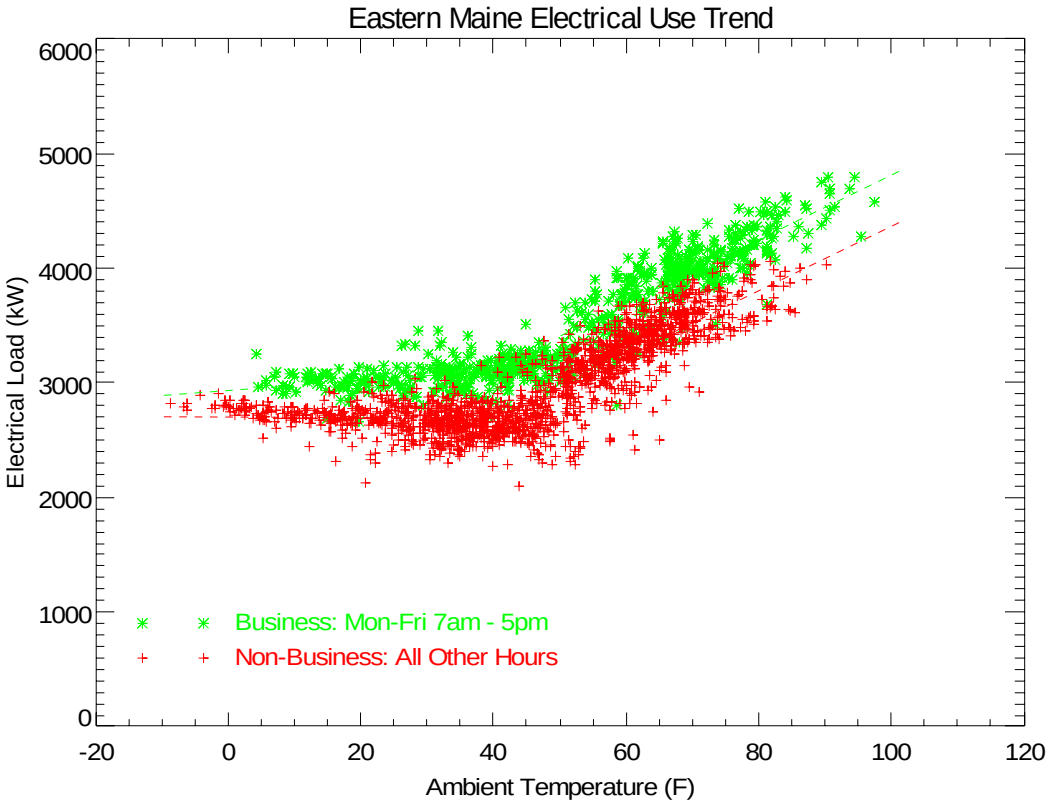


Figure 9. Facility Power Use Trend with Ambient Temperature

Table 6. Linear Models Fit to Facility Power Data by Regression Analysis

Period	Trend Line (TAO<40 F)	Trend Line (TAO≥40 F)
Business	kW = 2937.84 + 4.37 * TAO	kW = 1993.39 + 28.23 * TAO
Non-Business	kW = 2696.50 - 0.14 * TAO	kW = 1571.81 + 27.97 * TAO

5.2. Power Quality

The monitoring system also recorded power quality parameters such as voltage, current, apparent power and true power. Table 7 summarizes the power quality measurements for the generator (when its output was above 2,000 kW). The average power factor was 0.90 for the year.

Table 7. Generator Power Quality at Full Loaded Conditions

		Min	Max	Avg	Std Dev
Phase A	Voltage to Neutral (VAC)	5,283.1	7,564.3	7,499.3	27.6
	Current (Amps)	94.3	207.1	150.3	23.3
	Apparent Power (kVA)	534.8	1,549.8	1,127.1	172.4
Phase B	Voltage to Neutral (VAC)	5,269.4	7,545.0	7,477.9	26.9
	Current (Amps)	98.1	208.5	152.8	22.7
	Apparent Power (kVA)	542.4	1,562.6	1,142.7	168.2
Phase C	Voltage to Neutral (VAC)	5,271.6	7,559.7	7,491.8	28.2
	Current (Amps)	100.1	210.5	155.0	22.9
	Apparent Power (kVA)	560.7	1,579.5	1,161.1	169.3
Phases Combined	Power (kW)	2,005.1	4,222.6	3,095.1	459.2
	Apparent Power (kVA)	2,200.5	4,702.8	3,438.7	510.1
	Power Factor (-)	0.864	0.936	0.900	0.002

Notes Data from 12/01/06 - 11/30/07 when Power > 2000 kW (includes 8427 hours)

5.3. Ambient Temperature Verification

The turbine inlet temperature (Honeywell AN_T1_Temperature) was compared to temperature data for the Bangor (BGR) airport taken from Weather Underground (www.weatherunderground.com). The data correlated well, confirming that the turbine inlet temperature was representative of ambient temperature for the site.

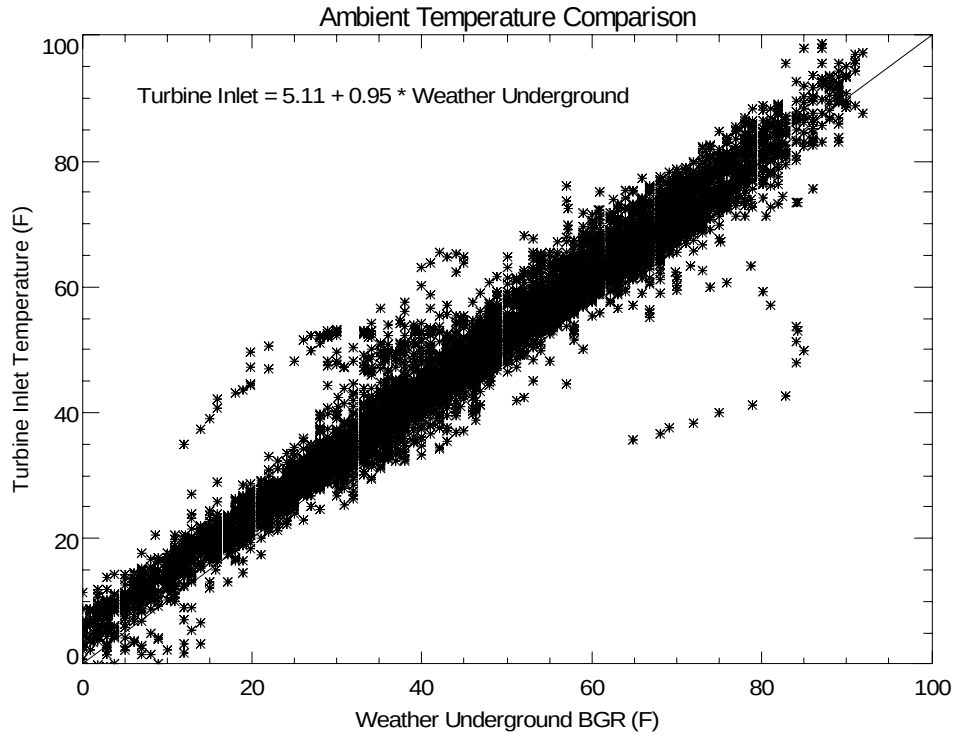


Figure 10. Comparison of Airport Temperature Data to the Turbine Inlet Temperature

5.4. Absorption Chiller Operation and Performance

Figure 11 shows a shade plot of the absorption chiller output. The absorption chiller operated primarily from mid-June through the mid-September, with sporadic operation from mid-April through mid-June. The maximum chiller capacity measured for the summer was 399 tons.

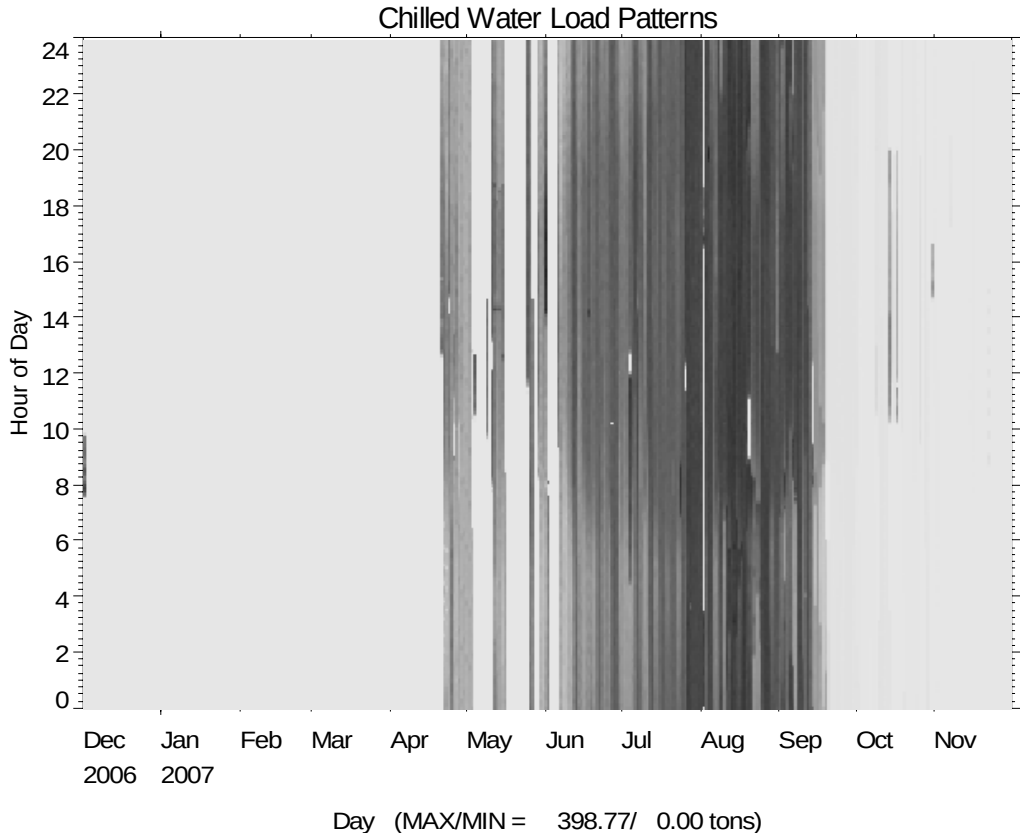


Figure 11. Shade Plot of Chilled Water Load

Figure 12 shows a histogram of the absorption chiller outlet (or supply) temperature. The histogram shows over 3,100 hours with the outlet temperature between 43 and 45°F (the assumed set point for the chiller). Figure 13 shows that the temperature difference across the chiller was typically 5-6°F.

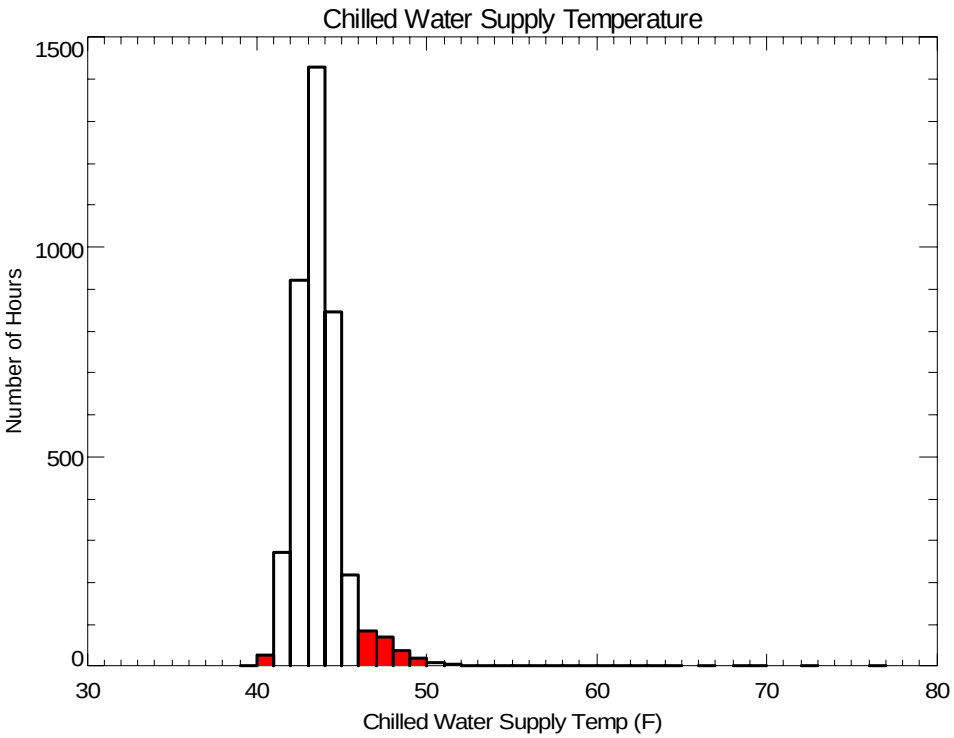


Figure 12. Histogram of Absorption Chiller Output Temperature

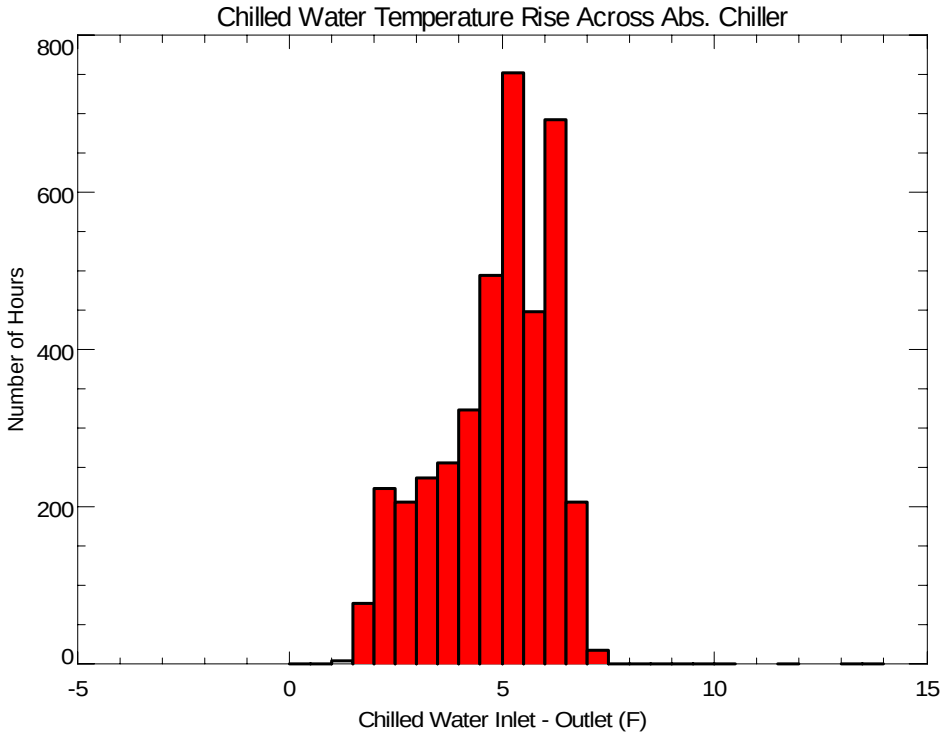


Figure 13. Histogram of Temperature Difference Across the Absorption Chiller

Figure 14 shows the variation of the absorption chiller runtime with ambient temperature. The chiller begins operating when the ambient temperature is above 45°F and operates continuously when the outside temperature reaches 60-65°F. This implies the absorption chiller was based loaded.

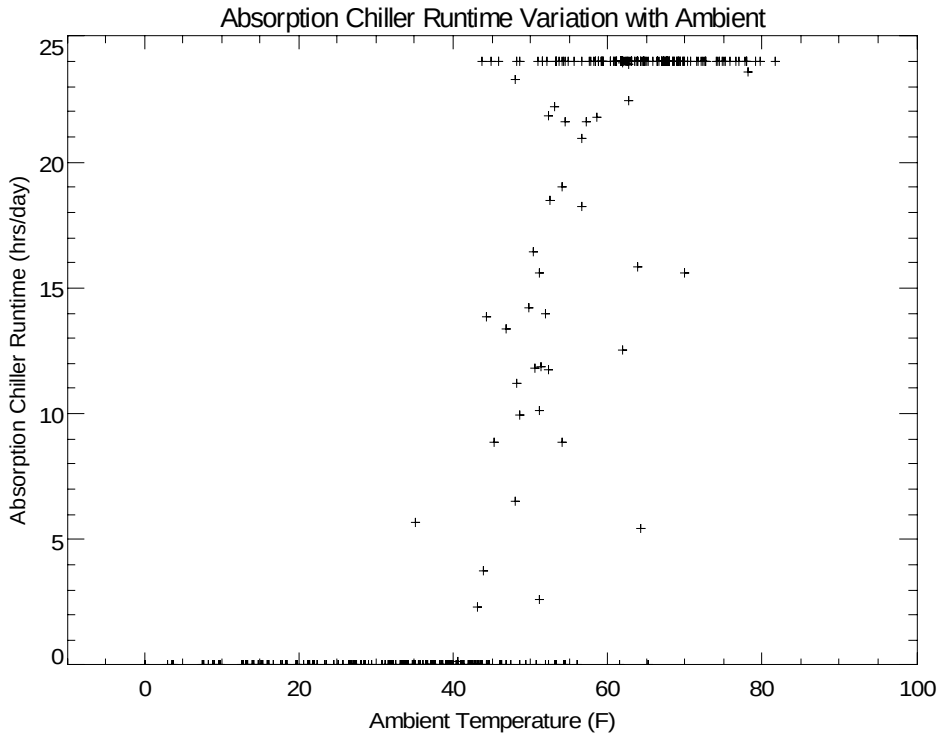


Figure 14. Absorption Chiller Runtime with Ambient Temperature

Figure 15 shows the chiller operation from June-August 2007. The chiller operated continuously except for a short period on August 1st. The chiller flow rate typically around 1,200-1,300 gpm. The chilled water supply temperature is 42-43°F during normal operation.

The steam valve status is at maximum for many extended periods during the summer, implying the chiller is at full capacity. As result the chilled supply temperature starts to rise above the 43°F setpoint since the absorption chiller is unable to satisfy the chilled water load. The other electric chillers at the facility start to stage on to meet the load.

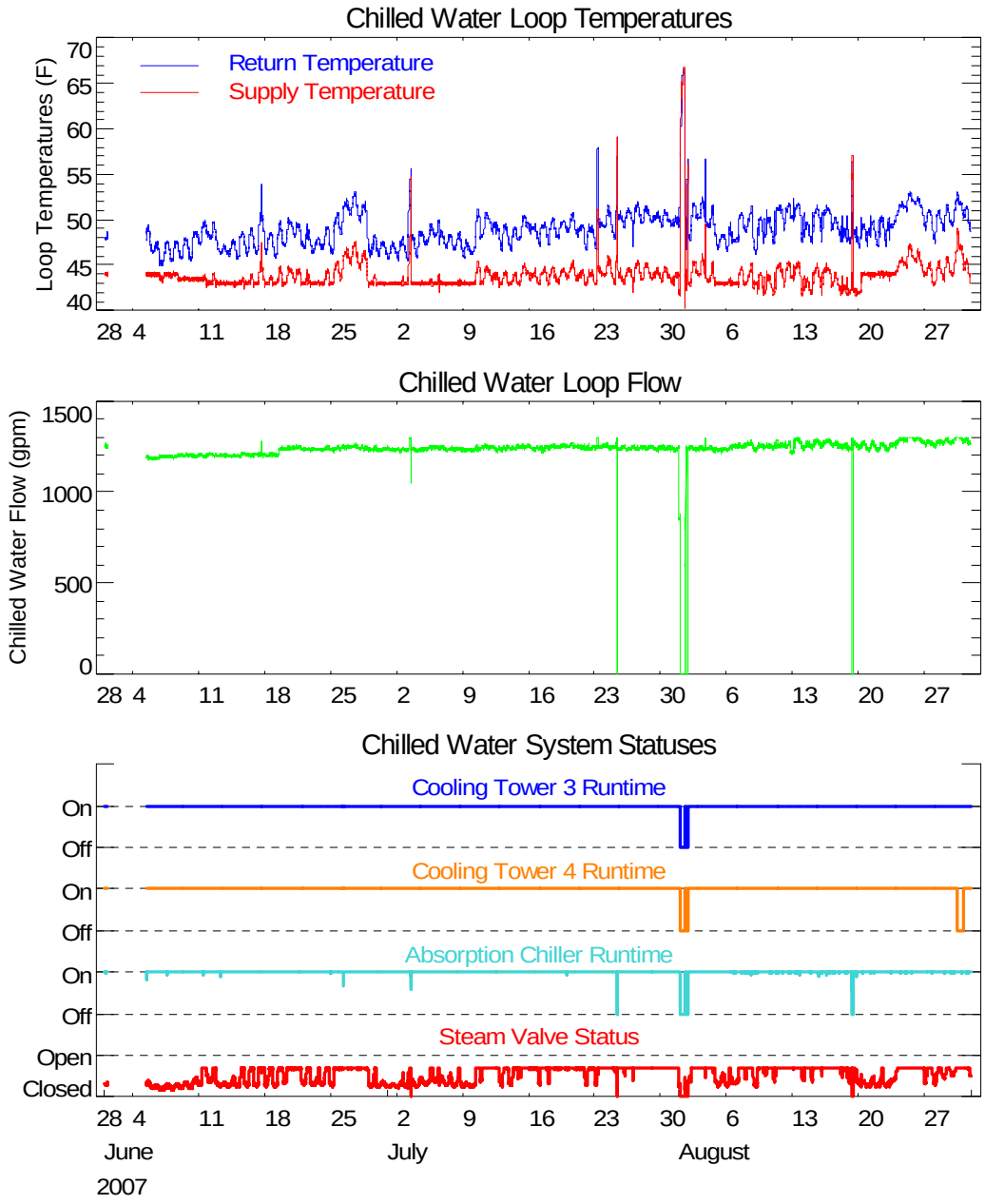


Figure 15. Chilled Water System Performance

Figure 16 shows the between the delivered chilled water load (tons-hrs/day) and the steam consumption (lbs/day) for the absorption chiller. The maximum daily chilled water load is 8,000 ton-hours (350 ton average) with 220,000 lbs of steam use. Figure 17 shows the effective efficiency (lb/ton-hr) of the absorption chiller. The efficiency varies widely on an hourly basis; however, the typical efficiency is 25 lbs/ton-hr at 350 tons. The data indicate that, while the chiller is nominally rated 500 tons, its maximum output is 360 tons with the steam pressures available at this site.

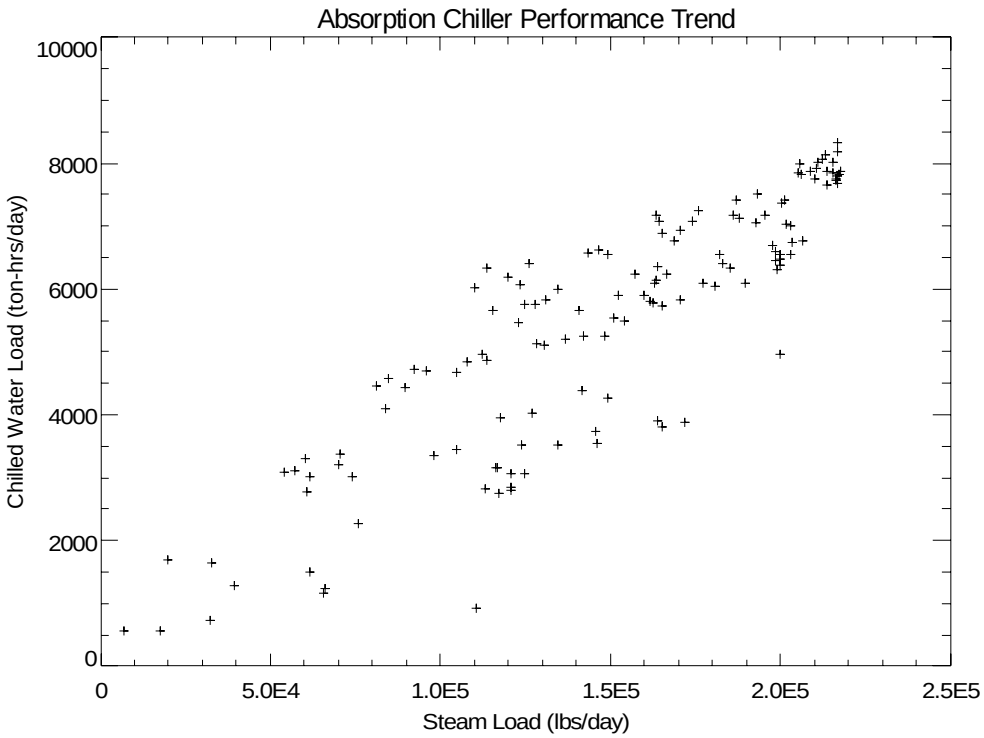


Figure 16. Cooling Output and Steam Input for the Absorption Chiller

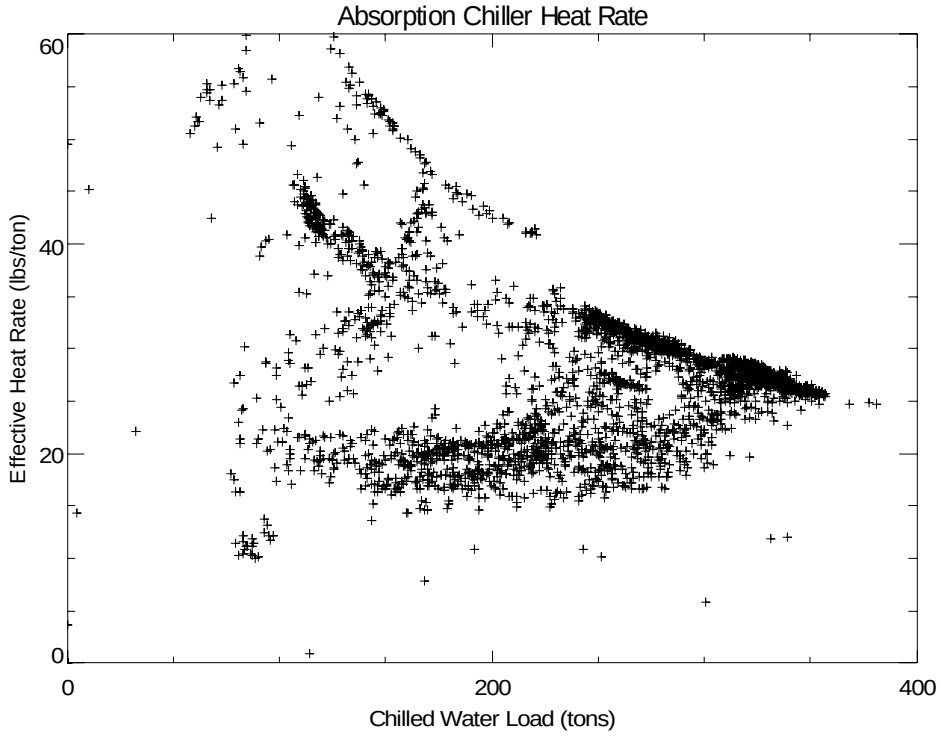


Figure 17. Effective Heat Rate (Efficiency) of the Absorption Chiller

Figure 18 shows the trend of daily cooling output from the absorption chiller with ambient temperature. A linear trend line was fit to the data and is used for the economic analysis in the next section.

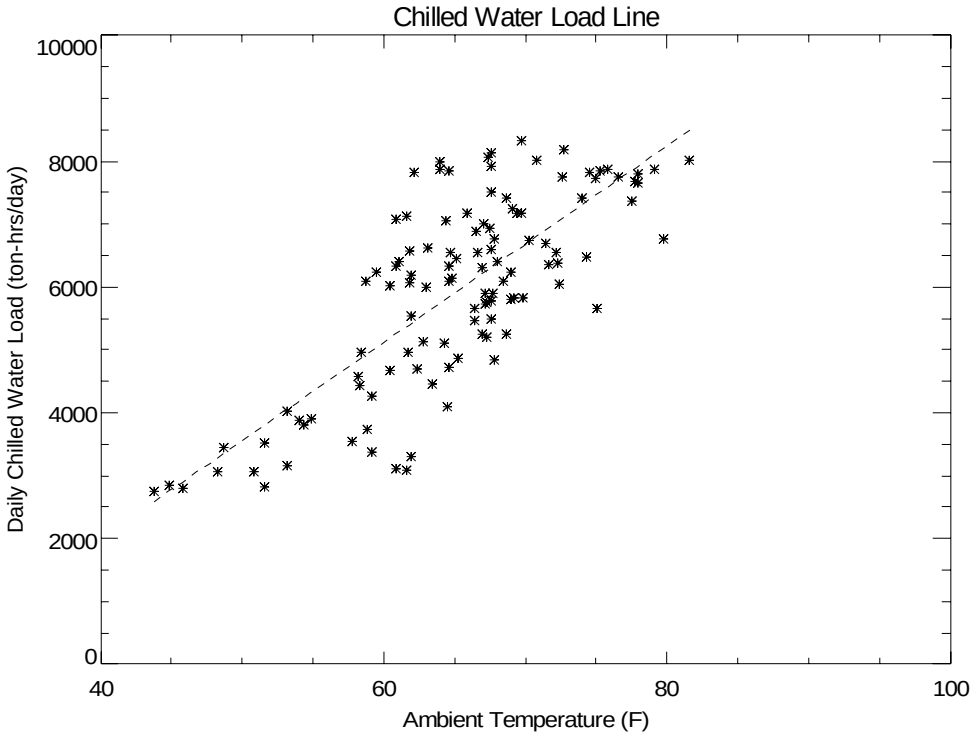


Figure 18. Absorption Chiller Delivered Output verses Ambient Temperature

5.5. Solar Turbine Performance

For the Solar turbine, the electrical generation efficiency decreases significantly at part-load conditions. Figure 19 shows the efficiency trend with turbine output. The generator efficiency is approximately 30% LHV at 4,200 kW but drops to around 22% at 2,250 kW.

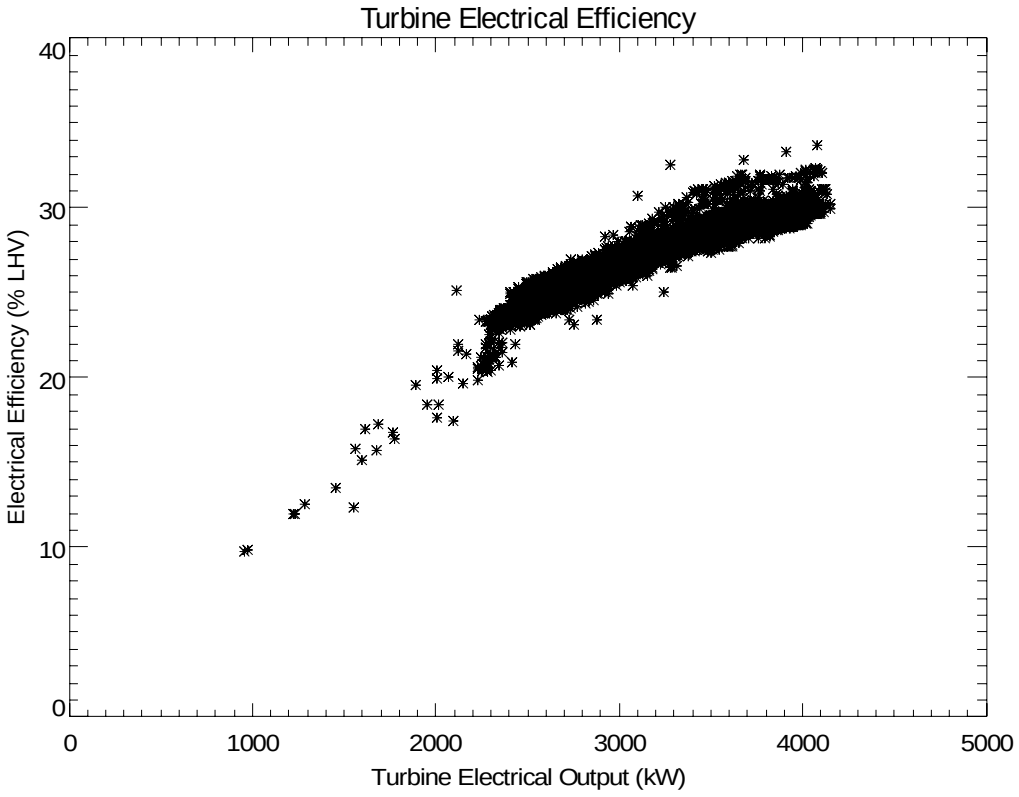


Figure 19. Trend of Electrical Efficiency with Solar Turbine Output

The rated performance of Centaur 50 only applies at full load operation (see Section 2 and Appendix E for the full load performance trends). As shown in Figure 19 above, the turbine follows the load, so it does not always operate at full load. The plots below compare the performance data with the turbine operating near full load to the manufacturer's performance curve. Measured data for full load conditions was identified as where the imported power from the utility was above 200 kW and the turbine was operating above 3,500 kW output. Figure 20 shows the power output at this condition is still 100-200 kW below of the expected performance trend.

Figure 21 compares the measured electrical efficiency for the system to the manufacturer's data. Surprisingly, the measured efficiency based on Lower Heating Value is always higher than the expected efficiency.

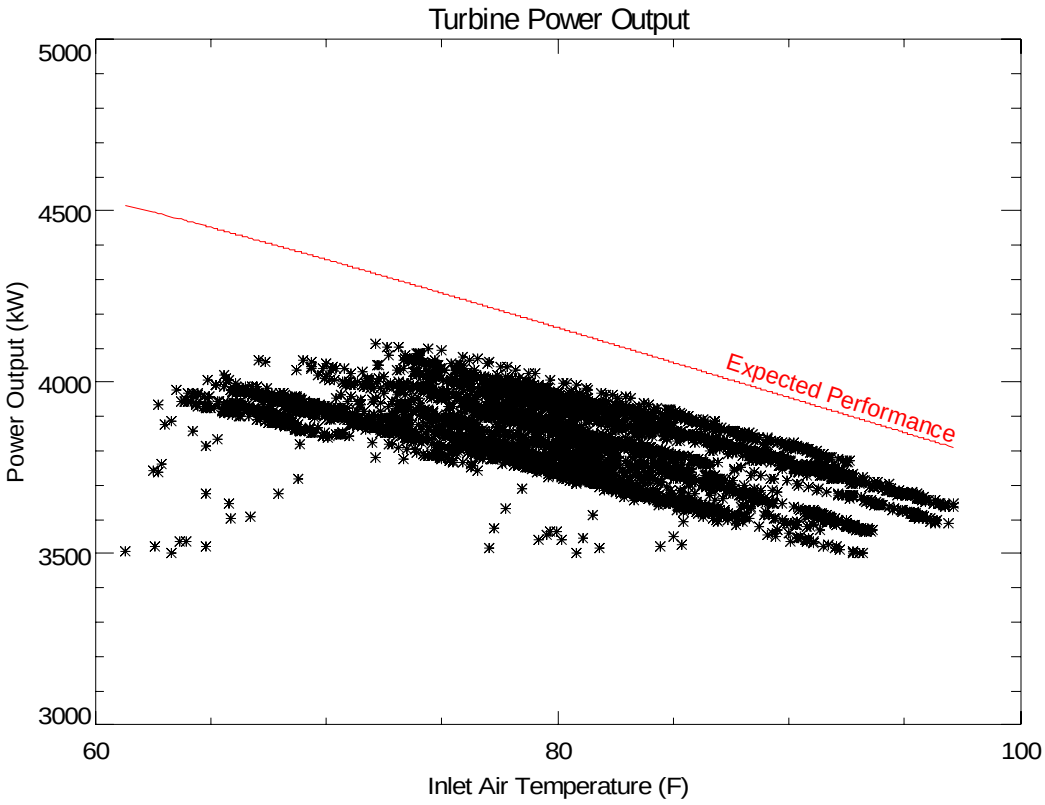


Figure 20. Solar Turbine Output Compared to Manufacturer's Performance Trend

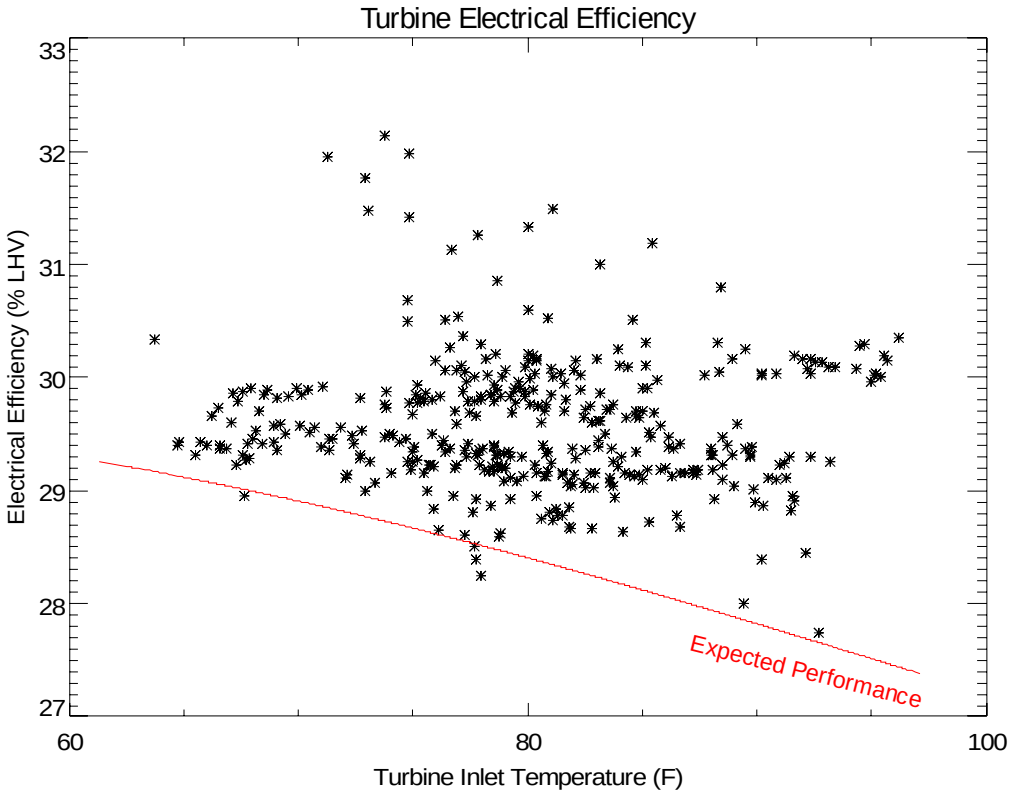


Figure 21. Solar Turbine Electrical Efficiency Compared to Manufacturer's Trend

5.6. HRSG Heat Recovery

The water entering the HRSG (Heat Recovery Steam Generator) is first preheated by an economizer. The steam drum pressure (**PS** or Honeywell Deltak_80_4) for the data collected was around 100 psig. Using steam tables and the drum pressure (**PS**) , the saturation temperature inside the steam drum was calculated and compared to the economizer outlet (also the steam drum inlet) for a quick reality check. Figure 22 shows the corresponding saturation temperature is always above the economizer outlet temperature as expected.

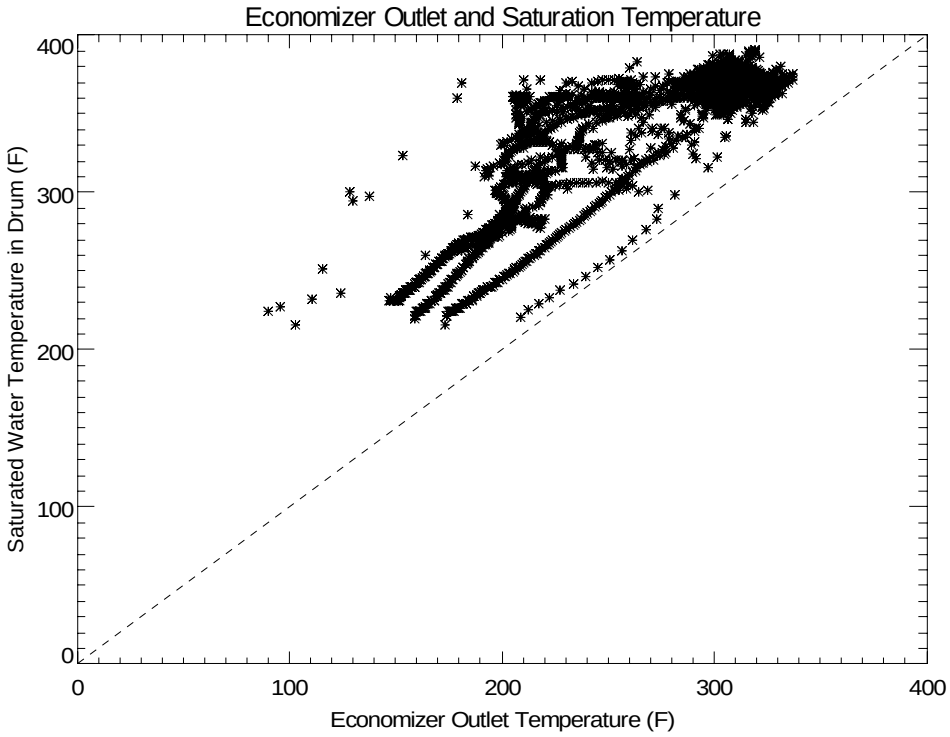


Figure 22. Drum Saturation Temperature and Economizer Outlet Temperature Comparison

The typical water temperature entering the economizer is 230 to 240°F in the winter and 220°F in the summer. The economizer typically increases the feedwater temperature by 50 to 70°F before sending it to the HRSG.

The heat recovered from the HRSG is calculated by using the steam flow rate (**FS**, Deltak_80_1), the economizer outlet temperature (**TEO**, Deltak_80_17) and the steam pressure (**FS**, Honeywell Deltak_80_4). The HRSG first provides sensible heating by increasing the water temperature from **TEO** to the saturation temperature ($\mathbf{T_{SAT}}$). Then heat is used to change phase from liquid to gas (i.e., water to steam). The enthalpy of the phase change (h_{fg}) is calculated using steam tables and the saturated pressure. Finally, the steam may be superheated in cases (though in this case no data are available). The formula for HRSG heat recovery is given below.

$$Q_{hrsg} = \left[c_p \cdot (T_{SAT}(PS) - TEO) + h_{fg}(PS)\right] \cdot FS$$

c_p is the specific heat of water (1 Btu/lb-°F). The average value of h_{fg} is 870 Btu/lb at 101 psig. The combined factor for the economizer and the HRSG is 936 Btu/lb.

Figure 23 shows the heat recovered by the HRSG and the economizer. The HRSG recovers up to 20 MMBtu/h from the turbine exhaust while the economizer recovers an additional 1-2 MMBtu/h. The heat recovery is slightly higher during the summer months.

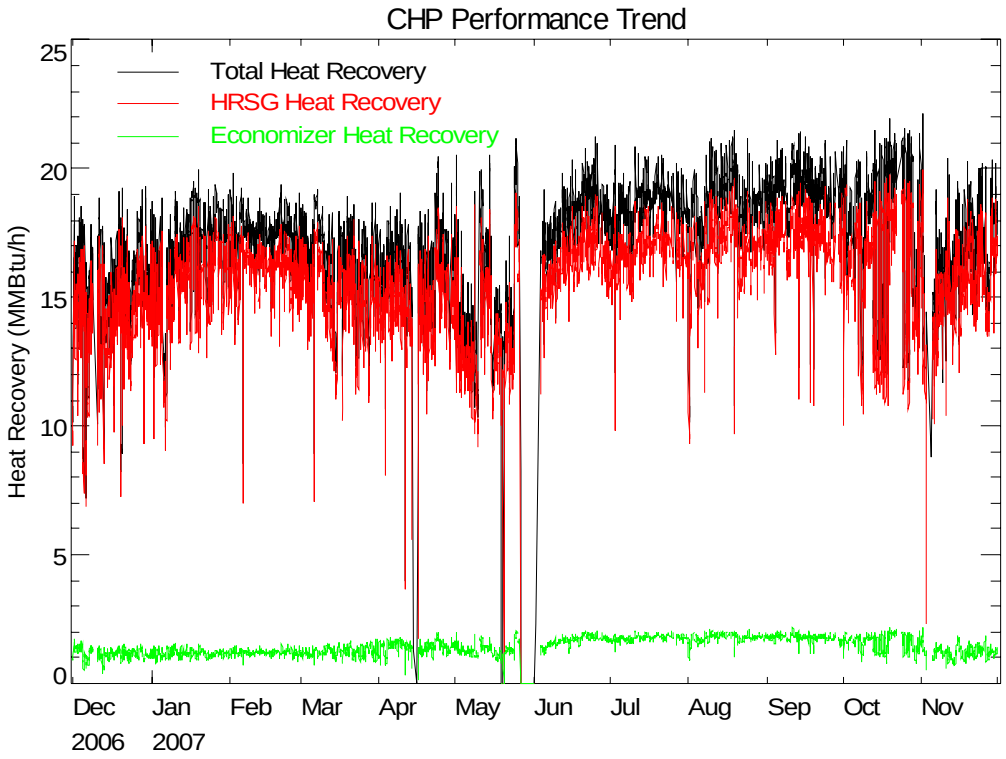


Figure 23. Heat Recovery during Monitoring Period

There is a notable difference in the heat recovery rates with and without cooling operation. The status of the absorption chiller was used to separate heat recovery periods with and without cooling operation. Figure 24 shows the data plotted against ambient temperature with and without the chiller operating. The trend "without cooling" (red points) shows heat recovery rates decreasing below 26°F (i.e., the point where the steam load becomes bigger than the HRSG output). The trend "with cooling" (blue points) also has a change point around 65°F. Below this point, the steam load increases with ambient temperature because of increased cooling load. Above the change point, the absorption chiller is fully loaded but other loads in the facility decrease with higher ambient temperatures.

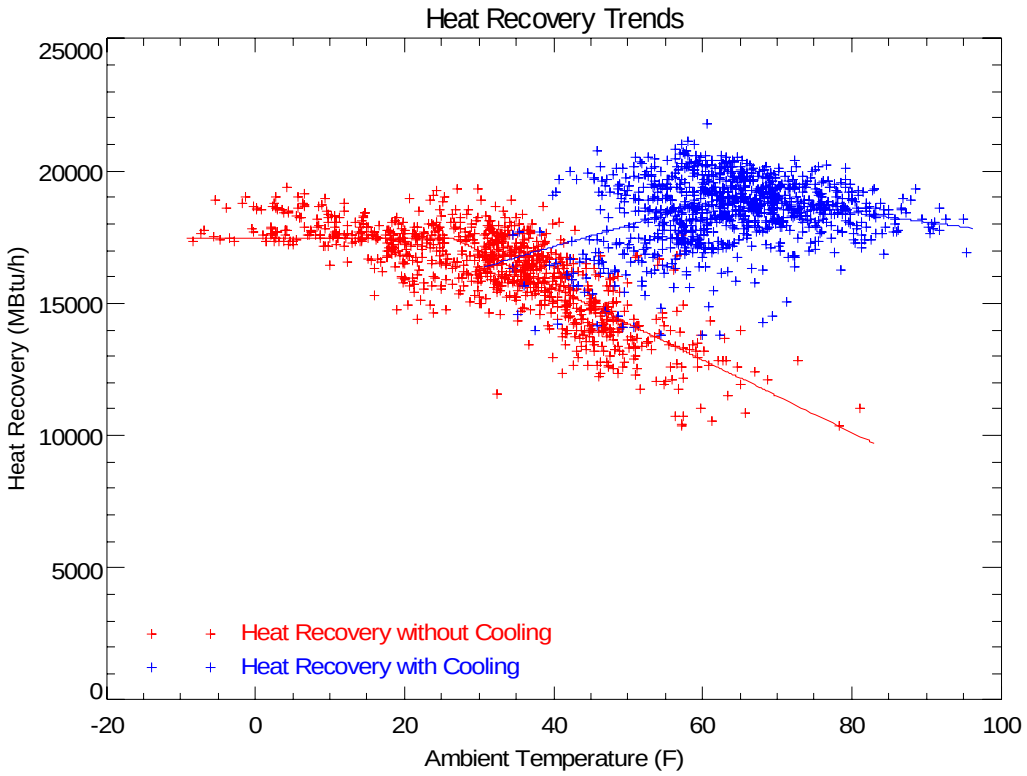


Figure 24. Trend of Heat Recovery with Ambient Temperature (with and without Cooling)

Figure 25 shows when the HRSG Steam Output goes towards meeting facility heating loads or the absorption chiller loads. The total steam output is higher in the summer (with simultaneous cooling and heating) than the winter (heating only). The total steam from the HRSG is typically 19,500 lbs/h with cooling operation and 17,500 lbs/h without cooling. The steam provided to the absorption chiller is approximately 9,500 lbs/h.

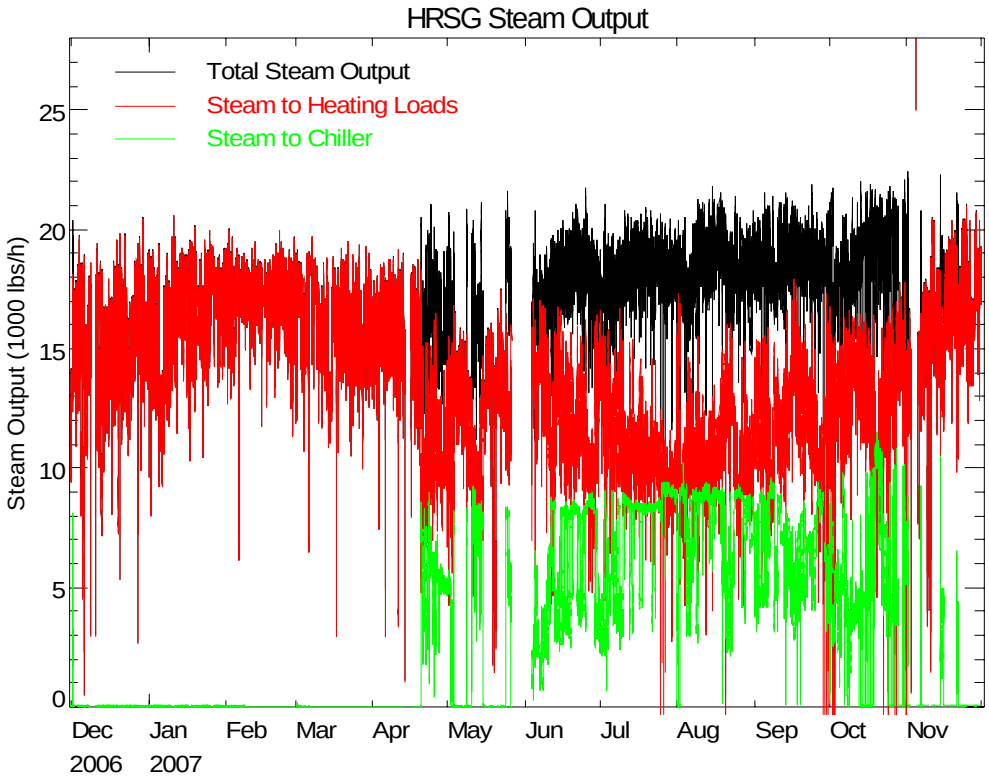


Figure 25. HRSG Steam Output to Heating and Chiller Loads

Figure 26 shows a load line of the daily steam use to both the absorption chiller and the boiler. The steam to boiler load line has a change point at 26°F and decreases with increasing temperature. The steam to the chiller increases with the ambient temperature. Both sets of data were fit with change point models and the trend lines are displayed on the figure.

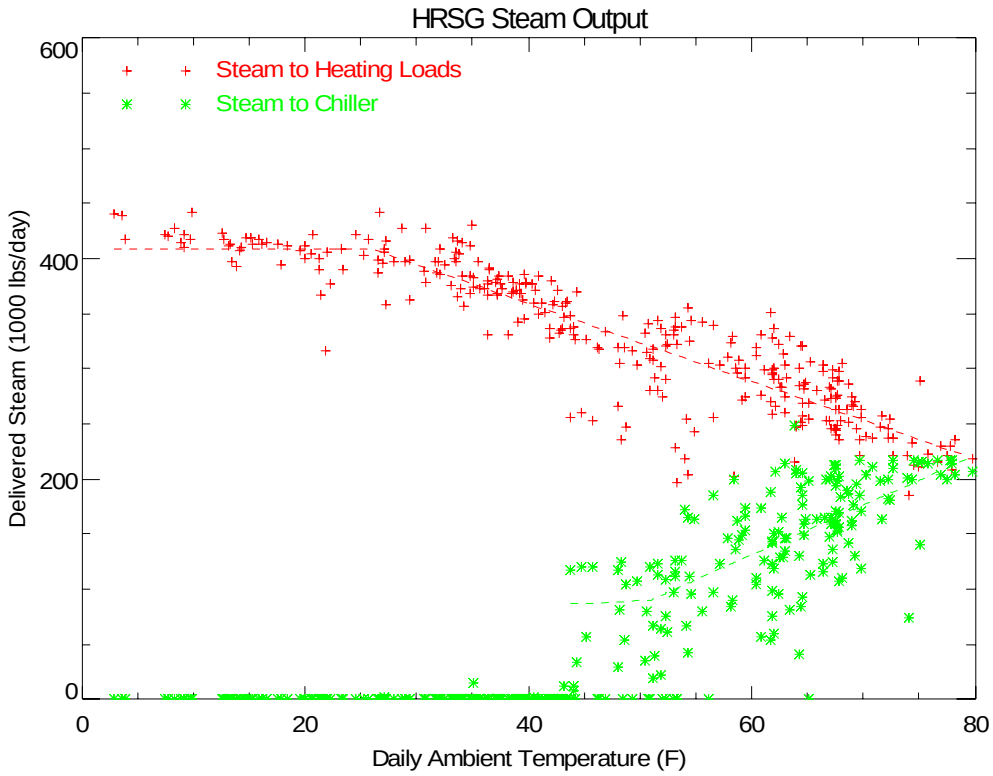


Figure 26. Daily Steam Use Load Line

5.7. CHP Efficiency

Figure 27 shows the efficiency trend with ambient temperature. The electrical efficiency somewhat surprisingly decreases at lower ambient temperature. This occurs because the turbine performance penalty at part load operation has a larger impact than the benefit of operating the turbine with lower inlet temperatures. The CHP efficiency does not vary significantly with ambient temperature.

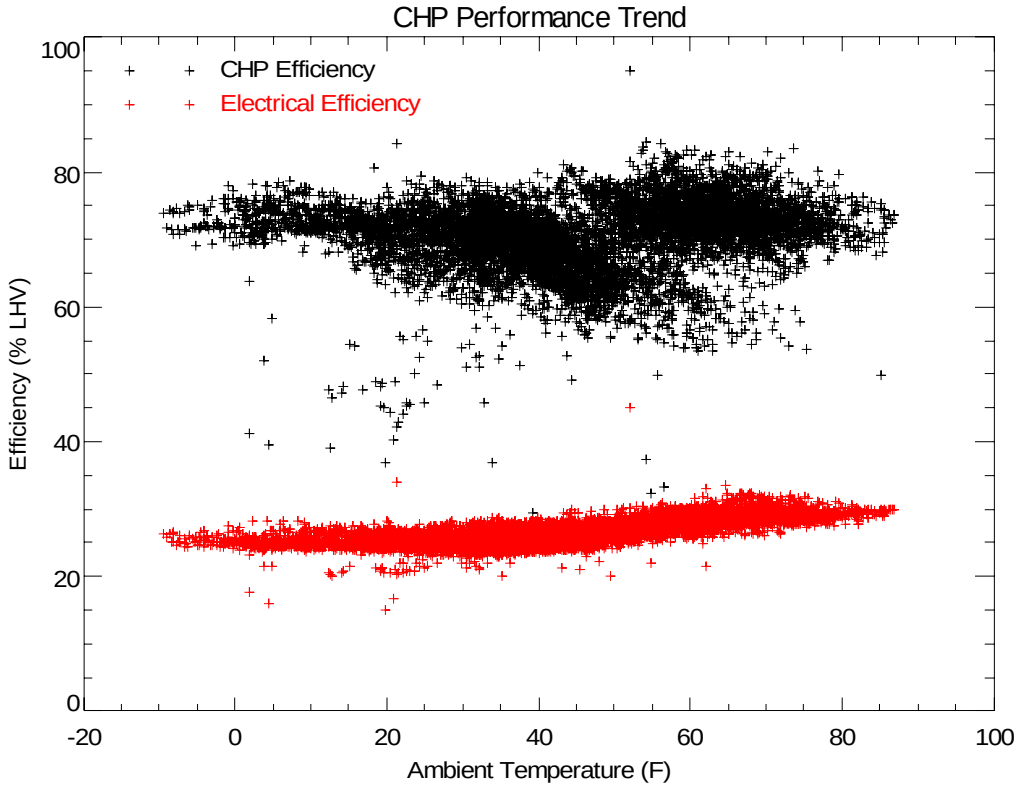


Figure 27. Trend of CHP Efficiency with Ambient Temperature

Table 8 summarizes the overall performance of the CHP system. The daily CHP efficiency (see Appendix A) varied from a high of 79.8% on August 18 to 27.9% on May 27 (a day with no heat recovery). The average CHP efficiency for the year was 69.9%

Table 8. Summary Table of CHP Performance

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Dec 2006	1,857,441	25,516	1,436	9831.4	799.6	66.4%
Jan 2007	2,050,548	27,782	0	11485.5	858.8	70.0%
Feb 2007	1,871,190	25,348	0	10863.3	803.8	71.6%
Mar 2007	2,045,429	27,370	0	11050.4	899.1	69.5%
Apr 2007	1,869,522	24,246	0	9594.1	920.7	70.0%
May 2007	2,328,845	28,797	0	8063.9	785.4	58.6%
Jun 2007	2,284,792	27,276	0	10744.7	1092.4	72.3%
Jul 2007	2,609,239	30,986	0	12218.8	1283.8	72.7%
Aug 2007	2,653,821	31,207	26	12411.4	1313.6	73.4%
Sep 2007	2,384,175	29,103	19	11973.4	1237.7	73.7%
Oct 2007	2,348,626	27,756	18,783	11796.9	1178.4	70.7%
Nov 2007	1,803,714	24,206	6	9855.5	776.5	69.7%
Total	26,107,340	329,592	20,270	129,889	11,950	69.9%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

6. Economic Analysis

To complete an economic analysis of the CHP System installed at EMMC, we developed models to predict the electrical and thermal loads in the facility without the CHP equipment installed. The CHP system impacts the facility loads in the following ways:

1. Turbine electric output displaces electricity purchased from the utility,
2. Cooling provided by the absorption chiller displaces electricity use by the electric chiller,
3. Heating provided by the HRSG system displaces fuel consumption by the steam boilers.

The first is directly measured as the net turbine power output. The second item is inferred and measured from the total cooling performance as described in Section 5.4. The last is directly measured as the steam flow at the outlet of the HRSG (using boiler efficiency to predict the amount of fuel displaced in the main boilers).

This section describes the approach used to predict the technical and economic performance of the facility both with and without the CHP system installed, on an annual basis. The analysis is also used to predict cost savings for variety of assumptions and scenarios.

6.1. Simulation Approach

A simulation approach was developed using performance trends developed from the measured data presented above. This approach provided the means to estimate the energy production, consumption and facility loads as a function of ambient temperature and season. The performance trends were combined with Typical Meteorological Year (TMY2) weather data for Portland, ME to predict electric and thermal loads, equipment performance, and savings for each hour of the year. Then detailed electric rate tariffs could be used with the hourly predictions of electric and gas consumption to predict monthly economics.

This hourly simulation approach also allows us to predict the performance of the CHP system with weather data and utility cost savings from several other locations around the region and nation. TMY weather data and utility rates for the 7 additional cities listed in Table 9 were used to evaluate system performance and economics in these locations.

Table 9. Utility Tariffs and TMY Weather Cities used for Evaluating Eight Locations

Location	Weather City	Electric Utility	Base Rate	CHP Rate
Bangor, ME	Portland	Bangor Hydro-Electric	Class D-4	Class SB-L5
Providence, RI	Providence	National Grid – RI	Rate G62	Rate B62
Massachusetts	Boston	Commonwealth Electric	Rate G-3	Rate G-3
New York, NY	New York	Consolidated Edison	Rate SC 9-2	Rate SC14
Syracuse, NY	Syracuse	Niagara Mohawk	Rate SC-3a	Rate SC-7
Chicago, IL	Chicago	Commonwealth Edison	Rate R6L	Rate R18
Orange Co., CA	Los Angeles	Southern California Edison	Rate TOU8	Rate TOU8
Pennsylvania	Harrisburg	PPL Electric	Rate GS3	Rate GS3

The natural gas cost at the hospital has been about $1.00 per therm this past year (see Appendix D). This is cheaper than market rates, which implies the hospital has a long term contract with a natural gas provider. We assumed that the base case facility would have much lower gas use, so the costs would be 10% higher than in the CHP case. Oil costs were obtained from the EIA database for average commercial gas and oil prices in Maine as well as other states considered in the analysis[1]. The price of #2 fuel oil was $2.65/gal in Maine (October 2007) and ranged from $2.52 to $2.66 per gallon for the other states included in the analysis.

The building load profile for each hour was calculated by summing the generator power output and the imported power from the utility grid. We used the regression analysis of the Business and Non-Business trends from the previous Section (Figure 9). Then the electric power displaced by absorption chiller operation is added back in to the base case facility.

Heat recovery from the HRSG to meet chiller and heating loads were separated for the simulation based on the average ambient temperature for the day. Above 50°F was defined as a heating day and below 50 defined as a cooling day. The heat recovery performance for each hour of the day was based on the trend lines developed in the previous Section (Figure 26).

All the equations used in the simulation analysis to calculate the facility energy loads and CHP system inputs and outputs are listed in Table 10 and Table 11. In general the hourly outdoor temperature (tao) from the TMY2 file was used with the equations to predict energy use and equipment performance for each hour of the year. From this data the energy inputs and costs could be calculated for the facility with and without the CHP system installed. The facility energy use in each case:

kw_{base} - electric power imported from utility for base case facility
oil_{base} - (additional) boiler oil consumption for base case facility
gas_{base} - (additional) boiler natural gas consumption for the base case facility

kw_{chp} - electric power imported from utility for the facility with CHP system installed

[1] Heating Oil: http://tonto.eia.doe.gov/dnav/pet/pet_sum_mkt_dcu_SME_m.htm

The base case fuel use is the additional load placed on the facility boiler if the CHP system was not installed. The energy output and consumption of the key CHP components (Table 11) are:

kw_{tur} - electric power provided by Solar turbine
gas_{tur} - gas consumption by Solar turbine
$tons_{abs}$ - cooling provided by absorption chiller
fs_{cool} - HRSG steam consumed by absorption chiller
fs_{heat} - HRSG steam consumed by facility heating loads

A parameter for fraction of oil used in the boiler system ($fuel_{frac}$) was used to determine the economics of the system depending on which fuel is used.

Table 10. Equations Used in Simulation for Estimating Facility Energy Use

Eqn.	Parameter	Equation	References / Data Source
(1)	Facility Power Use (kW)	*Business Hours (Mon-Fri, 7am-5pm)* $kw_{fac}(tao < 50F) = 2937.84 - 4.37 * tao$ $kw_{fac}(tao > 50F) = 1993.39 + 28.23 * tao$ *Non-Business Hours* $kw_{fac}(tao < 50F) = 2696.50 - 0.14 * tao$ $kw_{fac}(tao > 50F) = 1571.81 + 27.97 * tao$	Figure 9, Table 6
(2)	Base Case Utility Load (kW)	$kw_{base} = kw_{fac} + tons_{abs} * 0.5$ where 0.5 kW/ton is assumed net efficiency for electric chiller (after considering cooling tower energy use)	Eqns. 1 & 12
(3)	Facility Import With CHP (kW)	$kw_{chp} = kw_{fac} - kw_{tur}$	Eqns. 1 & 6
	Facility Boiler Load (additional)		
(4)	Fuel Oil Use (gals/h)	$oil_{base} = fs_{heat} * 935.7 / 138{,}500 / 0.8 * fuel_{frac}$ where 935.7 Btu/lb average for HRSG steam output, 138,500 Btu/gal and Boiler Efficiency is 80%	Eqn. 11
(5)	Natural Gas Use (therms/h)	$gas_{base} = fs_{heat} * 935.7 / 994 / 100 / 0.8 * (1 - fuel_{frac})$ where 935.8 Btu/lb average for HRSG steam output, 994 Btu/cf average Natural Gas HHV, 100 therms/cf and Boiler Efficiency of 80%	Eqn. 11

Table 11. Equations Used for Simulation of CHP System Components

Eqn.	Parameter	Equation	References / Data Source
(6)	Turbine Power Output (kW)	$kw_{tur} = (kw_{fac} - 30) < kw_{turb,\max}$ Controls set to always import 30 kW	Eqns. 1 & 7
(7)	Turbine Maximum Output (kW)	$kw_{turb,\max} = \left[c_0 + c_1 * tao + c_2 * tao^2 + ... + c_6 * tao^6\right] - 150$ Manufacturer's performance data derated by 150 kW	Figure 3 & Figure 20
(8)	Turbine Efficiency LHV (-)	$\eta_{partload} = \eta_{LHV} \cdot (1 - (1 - Loading) \cdot 0.5)$ η_{LHV} at full load, varies with outdoor temperature; efficiency also derated with at part load: $Loading = kw_{tur} / kw_{turb,\max}$	Figure 3 & Figure 19
(9)	Turbine Gas Use (cf/h)	$gas_{tur} = \frac{kw_{tur} \cdot 3.413}{\eta_{part} \cdot 0.940}$ 0.940 is lower heating value	Eqns. 6 & 8
(10)	HRSG Steam to Absorption Chiller (lbs/h)	$fs_{cool}(tao > 51.0F) = (63{,}449 + 533 * tao) / 24$ $fs_{cool}(tao < 51.0F) = (-139{,}561 + 4{,}515 * tao) / 24$ where 24 hours/day	Figure 24
(11)	HRSG Steam to Heating Load (MBtu/h)	$fs_{heat}(tao > 25.8F) = (500{,}325 - 3524.39 * tao) / 24$ $fs_{heat}(tao < 25.8F) = (409{,}396) / 24 = 17{,}058$ where 24 hours/day	Figure 24
(12)	Absorption Chiller Cooling Load (tons)	$tons_{abs} = (-4{,}243 + 156.2 * tao) / 24 < 350$ max chiller output is 350 tons	Figure 18

Figure 28 compares the measured facility electric load to the electric load estimated for the simulation. Figure 29 and Figure 30 show the comparison between simulation steam use and the measured steam use on a daily basis. Figure 31 compares measured and simulated turbine electrical efficiencies. In all cases, the loads predicted for simulation with typical year data compare favorably with the measured data. The measured turbine efficiency is typically higher than what was expected based on the manufacturer's performance specifications.

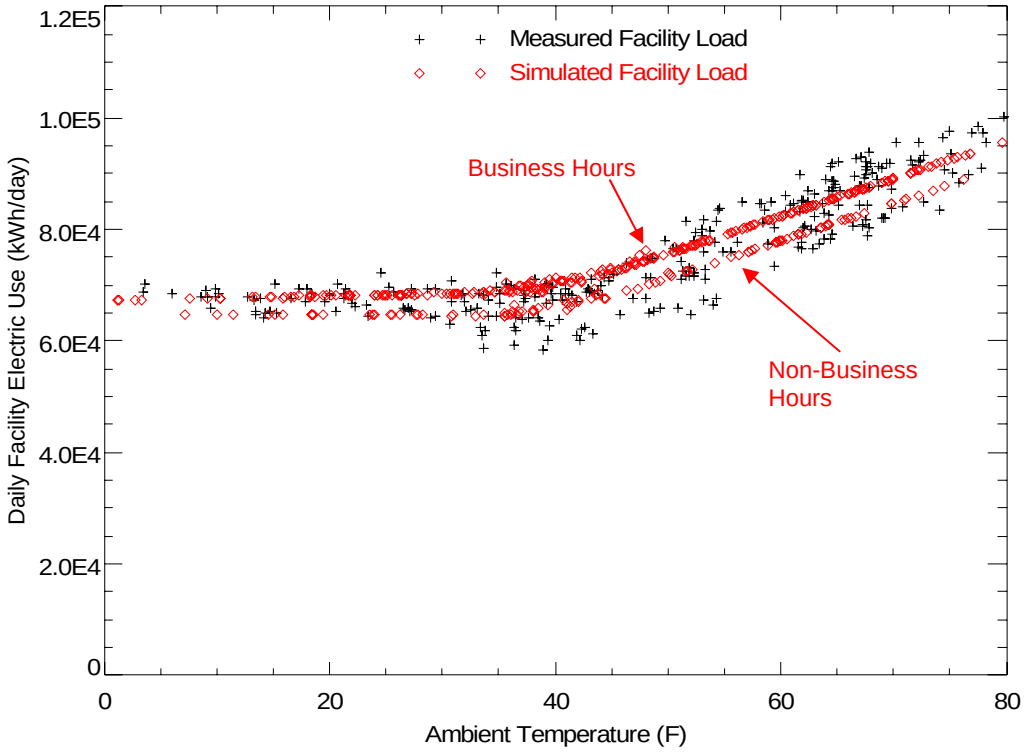


Figure 28. Comparison of Measured Facility Electric Load with Load Estimated for the Simulation

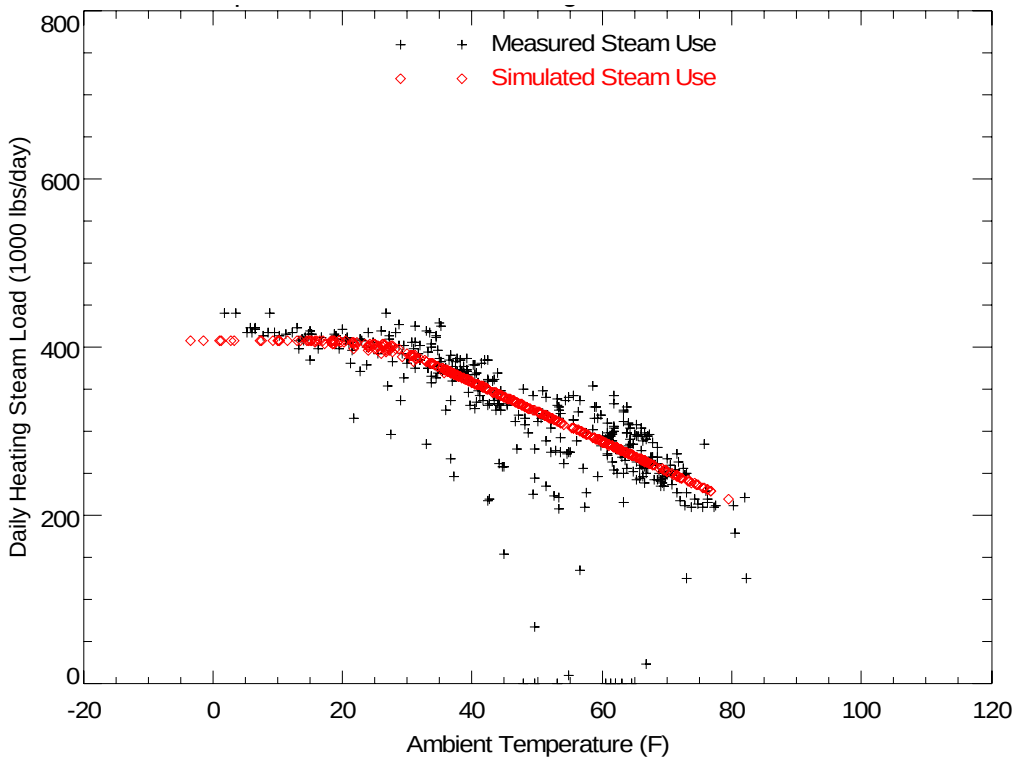


Figure 29. Comparison of Measured HRSG Steam Output with Load Estimated for the Simulation

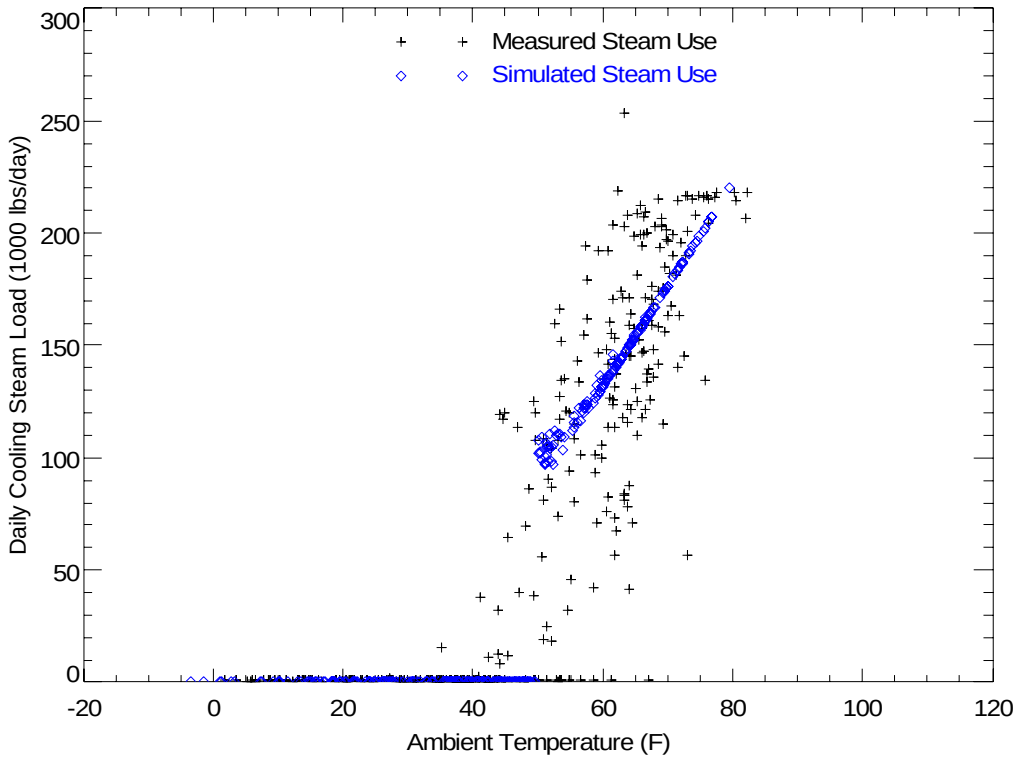


Figure 30. Comparison of Measured Absorption Chiller Load with Load Estimated for the Simulation

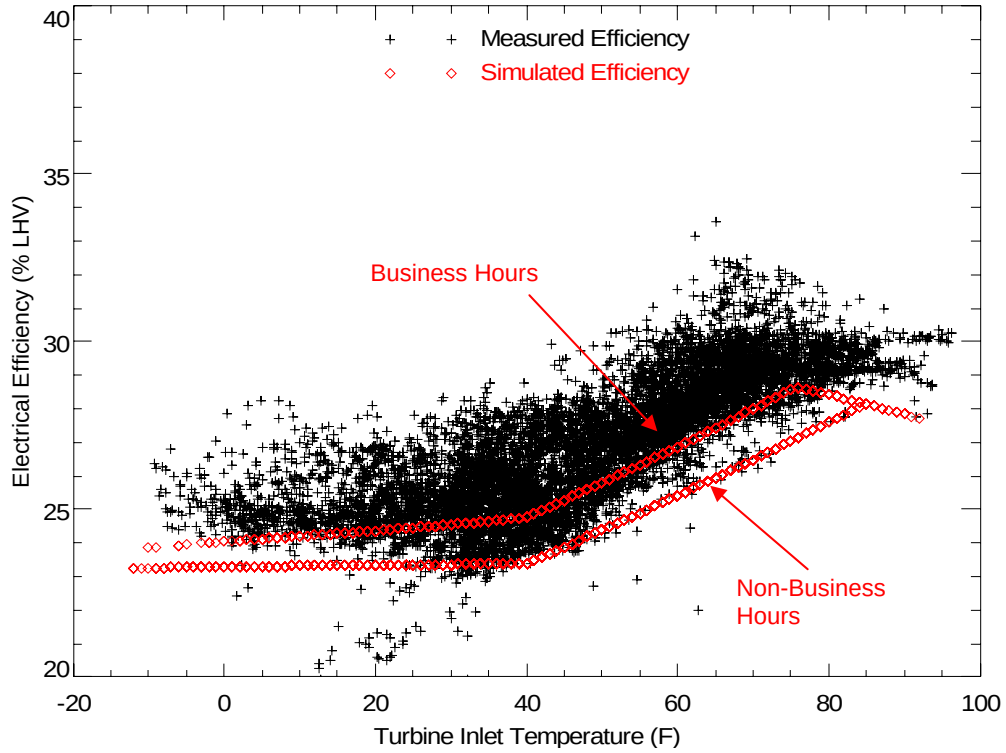


Figure 31. Comparison of Measured Efficiency with Efficiency Estimated for the Simulation

6.2. Economic Analysis of EMMC CHP System

Table 12 shows the details of the electric tariff calculations for Bangor Hydro-Electric for the simulated facility load with and without the CHP system installed. The base facility would be served under rate D-4. We assumed that the facility was required to switch to "standby" rate SB-L5 when the CHP system was installed[2]. The electric cost savings are the difference between the base facility cost of $3,832,330 and $111,701 for the facility with CHP (these values are highlighted in the table). The average rate for base case is $0.1377/kWh while average cost with the CHP system is $0.1882/kWh. The SB-L5 rate has a much larger customer charge ($900 vs. $39.50/month) which accounts for some of the differences between the two rates. The average value of generated electricity from the turbine is $0.1366/kWh.

Table 12. Example of Electric Tariff Calculations with Bangor Hydro-Electric Rates

Monthly Electric Costs for
Bangor Hydro-Electric - Class D-4 Large General - Primary Service

Month	Service Charge	Shoulder Demand	Shoulder Energy	Peak Demand	Peak Energy	Off-Peak Demand	Off-Peak Energy	Total
January 2007	39.50	11526.30	70192.53	30473.77	69932.33	701.53	105842.66	288708.59
February 2007	39.50	10680.24	62783.48	28452.50	63467.37	721.38	95652.90	261797.36
March 2007	39.50	6488.60	75158.42	22692.92	75085.91	728.65	112128.45	292322.44
April 2007	39.50	7646.67	77900.50	26743.12	72376.52	929.60	106359.91	291995.81
May 2007	39.50	8301.21	87862.91	28616.07	86913.82	913.36	121842.09	334488.97
June 2007	39.50	8909.63	94551.41	30973.54	90902.49	1010.78	127716.05	354103.41
July 2007	39.50	9016.34	109974.45	31346.73	100320.74	1043.25	148095.64	399836.66
August 2007	39.50	8696.21	96075.27	30227.13	104566.95	986.42	141562.42	382153.91
September 2007	39.50	8301.21	95138.16	28616.07	76695.77	962.07	120457.55	330210.31
October 2007	39.50	8241.71	76597.24	28616.07	82884.49	913.36	112782.31	310074.69
November 2007	39.50	13996.90	72388.59	36773.97	70526.00	872.77	105065.36	299663.09
December 2007	39.50	11150.27	75415.60	29715.79	63966.79	735.92	105951.20	286975.06
Total	474.00	112955.29	994038.56	353247.66	957639.19	10519.08	1403456.50	**3832330.25**
Total Monthly Demands or Total Energy (kW-mo or kWh)		48930.2	8180676	48480.7	7763626	40458.0	11887791	27832094
Average Rate ($/kW-mo or $/kWh)		2.3085	0.1215	7.2864	0.1233	0.2600	0.1181	0.1377

Monthly Electric Costs for
Bangor Hydro-Electric - Class SB-L5 Standby greater than 50% of Peak Demand - Primary Service

Month	Service Charge	Shoulder Demand	Shoulder Energy	Peak Demand	Peak Energy	Off-Peak Demand	Off-Peak Energy	Total
January 2007	900.00	70.80	729.70	218.70	715.41	3.90	1178.70	3817.21
February 2007	900.00	70.80	654.95	218.70	650.38	3.90	1064.63	3563.36
March 2007	900.00	49.20	771.89	183.60	756.16	3.90	1248.88	3913.63
April 2007	900.00	4871.31	9432.48	183.60	680.40	386.14	7978.54	24432.46
May 2007	900.00	316.39	786.72	588.21	757.13	3.90	1236.19	4588.55
June 2007	900.00	1193.33	1345.61	4155.31	1289.05	3.90	1177.70	10064.89
July 2007	900.00	1353.02	3291.12	4751.05	2678.97	3.90	1278.95	14257.02
August 2007	900.00	874.14	1947.44	2964.34	1864.45	3.90	1235.99	9790.27
September 2007	900.00	316.39	826.63	588.21	643.89	3.90	1140.68	4419.71
October 2007	900.00	5054.79	9544.44	588.21	755.90	393.41	8068.90	25305.66
November 2007	900.00	70.80	715.46	218.70	682.89	3.90	1140.68	3732.43
December 2007	900.00	70.80	793.77	218.70	650.38	3.90	1178.70	3816.25
Total	10800.00	14311.76	30840.21	14877.34	12125.01	818.55	27928.55	**111701.42**
Total Monthly Demands or Total Energy (kW-mo or kWh)		8674.0	256363	2408.0	97390	6296.6	239861	593616
Average Rate ($/kW-mo or $/kWh)		1.6500	0.1203	6.1783	0.1245	0.1300	0.1164	0.1882

The costs for the CHP case assume that the turbine is down for scheduled maintenance for two contiguous days on the first weekends in April and October. If this outage partially occurs

[2] However the facility has remained on the standard rate instead of moving to the standby rate according to the bills (see Appendix D).

during the week in April and October (e.g., the unit is down for Sunday and Monday), the electric cost increases to $154,860 per year. With no outage, the electric costs with CHP decrease to $70,012 per year.

The actual electric utility costs for facility for the 12 months ending November 2007 are summarized in Appendix D. The total costs from the utility bills for that period totaled $503,998 (compared to $111,701 in the table above). The difference was mostly due to the number turbine outages that occurred. We used the utility rate calculations with the actual, measured power data and the result was an annual cost of $404,423 (or 20% less than the actual bill). In reality the facility remained on the standard rate. The annual costs using the actual data with the standard rate are slightly higher at $432,517. This is within 14% of what the facility was billed for the period. Appendix D provides more details about this billing discrepancy.

Table 13 shows the simulation results for the facility with natural gas as the base case boiler fuel. The total annual savings are estimated to be just over $1 million, after accounting for turbine maintenance costs of 0.8¢ per kWh produced.

Table 14 shows the facility assuming that #2 fuel oil is used in the boilers for the base case facility. In Bangor, ME, the analysis shows a savings of $2.17 million year, double the savings assuming natural gas is the base case fuel.

Table 13. Simulation Results from CHP and Base Case Facility – Using Natural Gas as the Boiler Fuel

Bangor, ME: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Fuel Oil Used (gals)	Fuel Oil Costs	Natural Gas Used (therms)	Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,461.4	2,090,847	$ 288,709	0	$ -	143,635	$ 157,998	30.0	22,320	$ 3,817	330,416	$ 330,416
February	3,207.3	1,886,287	$ 261,797	0	$ -	129,956	$ 142,952	30.0	20,160	$ 3,563	298,203	$ 298,203
March	3,433.1	2,107,142	$ 292,322	0	$ -	137,469	$ 151,216	30.0	22,320	$ 3,914	331,367	$ 331,367
April	4,045.9	2,188,780	$ 291,996	0	$ -	119,614	$ 131,576	2,970.3	154,976	$ 24,432	310,191	$ 310,191
May	4,392.2	2,404,789	$ 334,489	0	$ -	114,448	$ 125,893	192.9	22,567	$ 4,589	352,303	$ 352,303
June	4,714.1	2,578,169	$ 354,103	0	$ -	97,567	$ 107,324	727.6	31,275	$ 10,065	356,125	$ 356,125
July	4,770.5	2,811,017	$ 399,837	0	$ -	92,803	$ 102,083	825.0	56,421	$ 14,257	375,752	$ 375,752
August	4,601.2	2,774,555	$ 382,154	0	$ -	95,063	$ 104,569	533.0	40,696	$ 9,790	374,744	$ 374,744
September	4,392.2	2,484,092	$ 330,210	0	$ -	102,428	$ 112,671	192.9	22,213	$ 4,420	350,709	$ 350,709
October	4,360.7	2,312,597	$ 310,075	0	$ -	120,505	$ 132,556	3,082.2	156,749	$ 25,306	324,885	$ 324,885
November	4,203.3	2,107,539	$ 299,663	0	$ -	126,690	$ 139,359	30.0	21,600	$ 3,732	326,264	$ 326,264
December	3,348.4	2,086,279	$ 286,975	0	$ -	142,049	$ 156,254	30.0	22,320	$ 3,816	329,797	$ 329,797
Totals	*4,770.5*	*27,832,093*	*$ 3,832,330*	*0*	*$ -*	*1,422,227*	*$ 1,564,450*	*3,082.2*	*593,617*	*$ 111,701*	*4,060,755*	*$ 4,060,755*
Average Rate		$ 0.1377 per kWh				$ 1.10 per therm			$ 0.1882 per kWh		$ 1.00 per therm	

Bangor, ME: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Fuel Oil Saved (gals)	Fuel Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Turbine Maintenance Costs	Total Savings
January	3,431.4	2,068,527	$ 284,891	0	$ -	(186,781)	$ (172,417)	$ 16,548	$ 95,926
February	3,177.3	1,866,127	$ 258,234	0	$ -	(168,247)	$ (155,252)	$ 14,929	$ 88,053
March	3,403.1	2,084,822	$ 288,409	0	$ -	(193,898)	$ (180,151)	$ 16,679	$ 91,579
April	1,075.5	2,033,804	$ 267,563	0	$ -	(190,577)	$ (178,615)	$ 16,122	$ 72,826
May	4,199.3	2,382,222	$ 329,900	0	$ -	(237,855)	$ (226,410)	$ 18,717	$ 84,773
June	3,986.5	2,546,894	$ 344,039	0	$ -	(258,558)	$ (248,801)	$ 19,704	$ 75,534
July	3,945.5	2,754,596	$ 385,580	0	$ -	(282,949)	$ (273,669)	$ 21,224	$ 90,686
August	4,068.2	2,733,859	$ 372,364	0	$ -	(279,681)	$ (270,174)	$ 21,090	$ 81,100
September	4,199.3	2,461,879	$ 325,791	0	$ -	(248,281)	$ (238,038)	$ 19,110	$ 68,643
October	1,278.5	2,155,848	$ 284,769	0	$ -	(204,380)	$ (192,329)	$ 17,035	$ 75,405
November	4,173.3	2,085,939	$ 295,931	0	$ -	(199,574)	$ (186,905)	$ 16,665	$ 92,360
December	3,318.4	2,063,959	$ 283,159	0	$ -	(187,748)	$ (173,543)	$ 16,512	$ 93,104
Totals	*1,688.4*	*27,238,476*	*$ 3,720,629*	*0*	*$ -*	*(2,638,528)*	*$ (2,496,306)*	*$ 214,334*	*$ 1,009,989*
Average Rate		$ 0.1366 per kWh				$ 0.95 per therm			

Bangor, ME: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Heating (Mlbs)	HRSG Steam to Cooling (Mlbs)	HRSG Heat Recovered (MMBtu)	Total CHP Efficiency (% LHV)
January	3,431	2,068,527	330,416	23.7	0	12,280	0	11,490.8	62.4%
February	3,177	1,866,127	298,203	23.7	0	11,111	0	10,396.5	62.5%
March	3,403	2,084,822	331,367	23.9	0	11,753	0	10,997.5	60.7%
April	3,883	2,015,280	310,191	24.6	18,524	10,227	1,004	10,508.8	62.3%
May	4,091	2,339,628	352,303	25.2	42,594	9,785	2,243	11,254.9	60.7%
June	4,091	2,462,953	356,125	26.2	83,941	8,342	4,396	11,918.9	63.4%
July	4,091	2,653,040	375,752	26.8	101,556	7,934	5,379	12,457.3	63.6%
August	4,091	2,636,220	374,744	26.7	97,639	8,128	5,135	12,409.7	63.5%
September	4,091	2,388,692	350,709	25.8	73,187	8,757	3,829	11,776.6	63.1%
October	4,081	2,129,366	324,885	24.9	26,483	10,303	1,409	10,958.9	62.3%
November	4,024	2,083,187	326,264	24.2	2,752	10,832	142	10,268.3	59.2%
December	3,318	2,063,959	329,797	23.7	0	12,145	0	11,363.9	62.0%
Totals	*4,091*	*26,791,801*	*4,060,755*	*25.0*	*446,676*	*121,597*	*23,537*	*135,802.2*	62.2%
							26.3 lbs/ton		

Table 14. Simulation Results from CHP and Base Case Facility – Using #2 Fuel Oil as the Boiler Fuel

Bangor, ME: 100% Fuel Oil

	Base Facility						CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Fuel Oil Used (gals)	Fuel Oil Costs	Natural Gas Used (therms)	Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,461.4	2,090,847	$ 288,709	103,708	$ 275,136	0	$ -	30.0	22,320	$ 3,817	330,416	$ 330,416
February	3,207.3	1,886,287	$ 261,797	93,831	$ 248,934	0	$ -	30.0	20,160	$ 3,563	298,203	$ 298,203
March	3,433.1	2,107,142	$ 292,322	99,256	$ 263,326	0	$ -	30.0	22,320	$ 3,914	331,367	$ 331,367
April	4,045.9	2,188,780	$ 291,996	86,364	$ 229,124	0	$ -	2,970.3	154,976	$ 24,432	310,191	$ 310,191
May	4,392.2	2,404,789	$ 334,489	82,634	$ 219,227	0	$ -	192.9	22,567	$ 4,589	352,303	$ 352,303
June	4,714.1	2,578,169	$ 354,103	70,446	$ 186,892	0	$ -	727.6	31,275	$ 10,065	356,125	$ 356,125
July	4,770.5	2,811,017	$ 399,837	67,006	$ 177,766	0	$ -	825.0	56,421	$ 14,257	375,752	$ 375,752
August	4,601.2	2,774,555	$ 382,154	68,638	$ 182,096	0	$ -	533.0	40,696	$ 9,790	374,744	$ 374,744
September	4,392.2	2,484,092	$ 330,210	73,955	$ 196,203	0	$ -	192.9	22,213	$ 4,420	350,709	$ 350,709
October	4,360.7	2,312,597	$ 310,075	87,007	$ 230,831	0	$ -	3,082.2	156,749	$ 25,306	324,885	$ 324,885
November	4,203.3	2,107,539	$ 299,663	91,473	$ 242,677	0	$ -	30.0	21,600	$ 3,732	326,264	$ 326,264
December	3,348.4	2,086,279	$ 286,975	102,562	$ 272,098	0	$ -	30.0	22,320	$ 3,816	329,797	$ 329,797
Totals	*4,770.5*	*27,832,093*	*$ 3,832,330*	*1,026,879*	*$ 2,724,309*	*0*	*$ -*	*3,082.2*	*593,617*	*$ 111,701*	*4,060,755*	*$ 4,060,755*
Average Rate		$ 0.1377 per kWh		$ 2.65 per gal					$ 0.1882 per kWh		$ 1.00 per therm	

Bangor, ME: 100% Fuel Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Fuel Oil Saved (gals)	Fuel Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Turbine Maintenance Costs	Total Savings
January	3,431.4	2,068,527	$ 284,891	103,708	$ 275,136	(330,416)	$ (330,416)	$ 16,548	$ 213,064
February	3,177.3	1,866,127	$ 258,234	93,831	$ 248,934	(298,203)	$ (298,203)	$ 14,929	$ 194,035
March	3,403.1	2,084,822	$ 288,409	99,256	$ 263,326	(331,367)	$ (331,367)	$ 16,679	$ 203,689
April	1,075.5	2,033,804	$ 267,563	86,364	$ 229,124	(310,191)	$ (310,191)	$ 16,122	$ 170,374
May	4,199.3	2,382,222	$ 329,900	82,634	$ 219,227	(352,303)	$ (352,303)	$ 18,717	$ 178,108
June	3,986.5	2,546,894	$ 344,039	70,446	$ 186,892	(356,125)	$ (356,125)	$ 19,704	$ 155,102
July	3,945.5	2,754,596	$ 385,580	67,006	$ 177,766	(375,752)	$ (375,752)	$ 21,224	$ 166,369
August	4,068.2	2,733,859	$ 372,364	68,638	$ 182,096	(374,744)	$ (374,744)	$ 21,090	$ 158,626
September	4,199.3	2,461,879	$ 325,791	73,955	$ 196,203	(350,709)	$ (350,709)	$ 19,110	$ 152,175
October	1,278.5	2,155,848	$ 284,769	87,007	$ 230,831	(324,885)	$ (324,885)	$ 17,035	$ 173,680
November	4,173.3	2,085,939	$ 295,931	91,473	$ 242,677	(326,264)	$ (326,264)	$ 16,665	$ 195,679
December	3,318.4	2,063,959	$ 283,159	102,562	$ 272,098	(329,797)	$ (329,797)	$ 16,512	$ 208,948
Totals	*1,688.4*	*27,238,476*	*$ 3,720,629*	*1,026,879*	*$ 2,724,309*	*(4,060,755)*	*$ (4,060,755)*	*$ 214,334*	*$ 2,169,848*
Average Rate		$ 0.1366 per kWh		$ 2.65 per gal			$ 1.00 per therm		

Bangor, ME: 100% Fuel Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Heating (Mlbs)	HRSG Steam to Cooling (Mlbs)	HRSG Heat Recovered (MMBtu)	Total CHP Efficiency (% LHV)
January	3,431	2,068,527	330,416	23.7	0	12,280	0	11,490.8	62.4%
February	3,177	1,866,127	298,203	23.7	0	11,111	0	10,396.5	62.5%
March	3,403	2,084,822	331,367	23.9	0	11,753	0	10,997.5	60.7%
April	3,883	2,015,280	310,191	24.6	18,524	10,227	1,004	10,508.8	62.3%
May	4,091	2,339,628	352,303	25.2	42,594	9,785	2,243	11,254.9	60.7%
June	4,091	2,462,953	356,125	26.2	83,941	8,342	4,396	11,918.9	63.4%
July	4,091	2,653,040	375,752	26.8	101,556	7,934	5,379	12,457.3	63.6%
August	4,091	2,636,220	374,744	26.7	97,639	8,128	5,135	12,409.7	63.5%
September	4,091	2,388,692	350,709	25.8	73,187	8,757	3,829	11,776.6	63.1%
October	4,081	2,129,366	324,885	24.9	26,483	10,303	1,409	10,958.9	62.3%
November	4,024	2,083,187	326,264	24.2	2,752	10,832	142	10,268.3	59.2%
December	3,318	2,063,959	329,797	23.7	0	12,145	0	11,363.9	62.0%
Totals	*4,091*	*26,791,801*	*4,060,755*	*25.0*	*446,676*	*121,597*	*23,537*	*135,802.2*	62.2%
							26.3 lbs/ton		

The detailed results for several other scenarios are given in Appendix C. The most important factor is the cost of natural gas.

The results above show that the economics of the CHP system are highly dependent on natural gas costs. Figure 32 shows the impact of varying the costs of natural gas on overall CHP savings. Increasing the cost of natural gas by $0.20/therm decreases savings by nearly $500,000 per year. The analysis indicates that the savings go to zero when gas is slightly more than $1.40 per therm. The current price of natural gas (October 2007) from the EIA for Maine is $1.31/therm for commercial customers. Current savings at the facility depend on the facility being able to continue purchasing gas at a reasonable rate.

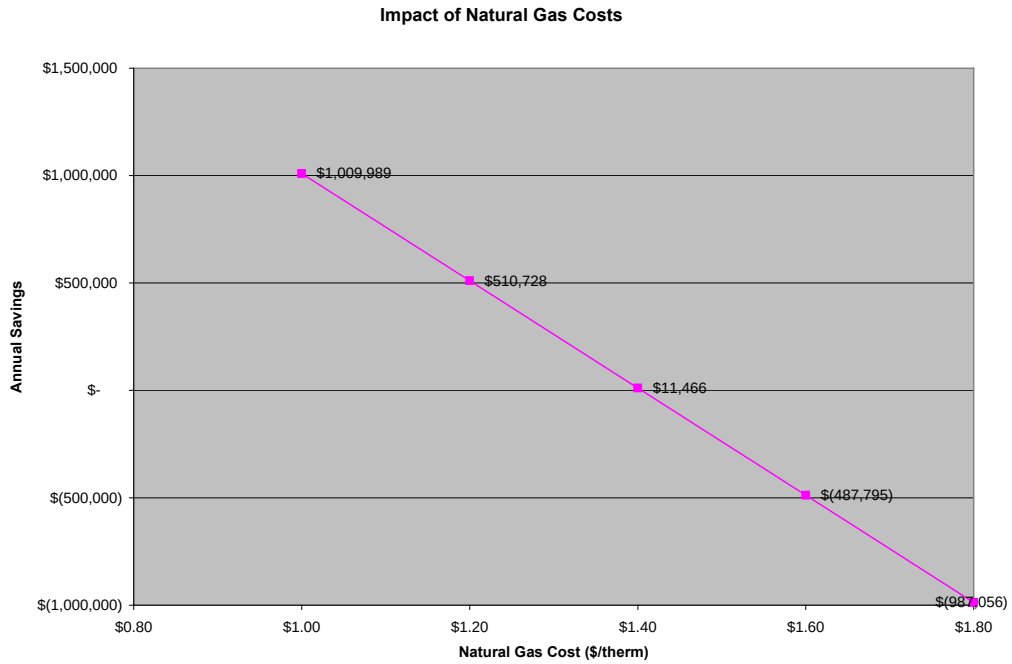
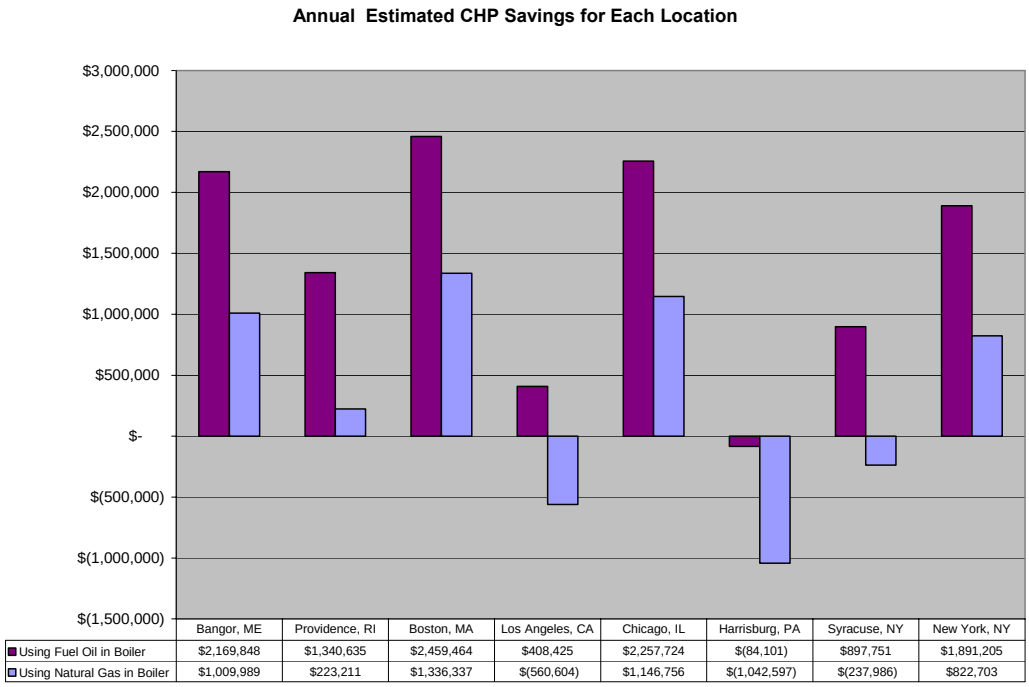


Figure 32. Impact of Natural Costs on Overall CHP Savings

6.3. CHP Economics for Other Locations

The simulation approach used for this analysis facilitated using the measured performance trends from this site with weather data and utility rates for other locations around New England and the U.S. This allowed us to evaluate the economics of this CHP system as if it were installed in other locations.

Results similar to Table 13 and Table 14 are given in Appendix C for each run (including the gas cost sensitivity analysis). Figure 33 summarizes the annual savings from each location. Table 15 summarizes the economics in tabular form. Bangor, Boston, Chicago and New York both show savings neat $1 million when natural gas is used as the boiler fuel. Savings are proportionally greater if the boiler uses fuel oil. CHP is not cost effective in Harrisburg due to the low electric rates (Chicago and Harrisburg). Providence and Syracuse both have savings near zero because of greater standby charges reduce the electric savings. Los Angeles surprisingly showed very negative savings primarily due to the punitive impact of the standby charge.



	Bangor, ME	Providence, RI	Boston, MA	Los Angeles, CA	Chicago, IL	Harrisburg, PA	Syracuse, NY	New York, NY
Using Fuel Oil in Boiler	$2,169,848	$1,340,635	$2,459,464	$408,425	$2,257,724	$(84,101)	$897,751	$1,891,205
Using Natural Gas in Boiler	$1,009,989	$223,211	$1,336,337	$(560,604)	$1,146,756	$(1,042,597)	$(237,986)	$822,703

Figure 33. Annual Cost Savings with CHP for Each Location

Obviously, utility rates play a significant role in the economics of the CHP system in these locations. Table 15 shows the average electric and fuel cost for each location. The locations with the highest savings typically have high electric costs, relative to gas costs. The locations unfavorable to CHP typically have low electric costs.

Table 15. Average Energy Costs for Eight Locations

Location	Base Avg. Electric Rate ($/kWh)	CHP Avg. Electric Rate ($/kWh)	Savings Electric Rate ($/kWh)	Natural Gas Rate ($/therm)	Fuel Oil Rate ($/gal)	Savings from 100% Fuel Oil	Savings from 100% Natural Gas
Bangor, ME	$ 0.138	$ 0.188	$ 0.137	$ 1.00	$ 2.65	$ 2,169,848	$ 1,009,989
Providence, RI	$ 0.110	$ 0.148	$ 0.109	$ 1.00	$ 2.65	$ 1,340,635	$ 223,211
Boston, MA	$ 0.152	$ 0.276	$ 0.149	$ 1.00	$ 2.66	$ 2,459,464	$ 1,336,337
Los Angeles, CA	$ 0.102	$ 0.868	$ 0.086	$ 1.00	$ 2.64	$ 408,425	$ (560,604)
Chicago, IL	$ 0.151	$ 0.542	$ 0.142	$ 1.00	$ 2.64	$ 2,257,724	$ 1,146,756
Harrisburg, PA	$ 0.068	$ 0.173	$ 0.065	$ 1.00	$ 2.52	$ (84,101)	$ (1,042,597)
Syracuse, NY	$ 0.099	$ 0.434	$ 0.091	$ 1.00	$ 2.64	$ 897,751	$ (237,986)
New York, NY	$ 0.146	$ 0.784	$ 0.131	$ 1.00	$ 2.64	$ 1,891,205	$ 822,703

Appendix A

Tables of Daily CHP System Efficiency and Outputs

Table A-1. Daily Summary Table of Solar Turbine Generation - December 2006

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Dec 1, 2006	100.0%	3,355	68,639	907	0	26.0%	94	1,229	98.2%
Dec 2, 2006	100.0%	2,620	58,812	847	0	23.8%	74	1,194	98.0%
Dec 3, 2006	100.0%	2,544	57,398	851	0	23.1%	75	1,203	97.9%
Dec 4, 2006	100.0%	3,191	64,620	892	0	24.8%	93	1,202	98.2%
Dec 5, 2006	100.0%	3,101	60,974	913	0	22.9%	93	1,222	98.0%
Dec 6, 2006	100.0%	3,169	54,796	770	0	24.4%	2,796	5,399	91.0%
Dec 7, 2006	100.0%	3,325	67,149	908	0	25.4%	90	1,192	98.3%
Dec 8, 2006	100.0%	3,077	57,890	824	0	24.1%	2,425	7,132	89.0%
Dec 9, 2006	100.0%	0	0	0	0		2,518	56,238	0.0%
Dec 10, 2006	100.0%	2,581	28,480	407	0	24.0%	2,576	29,883	48.8%
Dec 11, 2006	100.0%	3,254	65,707	888	0	25.4%	74	1,195	98.2%
Dec 12, 2006	100.0%	3,158	64,408	887	0	24.9%	91	1,218	98.1%
Dec 13, 2006	100.0%	3,240	66,631	906	0	25.2%	78	1,187	98.3%
Dec 14, 2006	100.0%	3,271	67,508	886	0	26.1%	80	1,227	98.2%
Dec 15, 2006	100.0%	3,320	67,569	889	0	26.1%	85	1,201	98.3%
Dec 16, 2006	100.0%	2,681	59,960	840	0	24.5%	75	1,253	98.0%
Dec 17, 2006	100.0%	2,604	58,069	836	0	23.8%	82	1,221	97.9%
Dec 18, 2006	100.0%	3,209	66,037	885	0	25.6%	77	1,208	98.2%
Dec 19, 2006	100.0%	3,146	64,230	872	0	25.3%	86	1,197	98.2%
Dec 20, 2006	100.0%	3,118	59,555	840	0	24.3%	2,665	5,476	91.6%
Dec 21, 2006	100.0%	3,310	65,607	891	0	25.3%	160	1,218	98.2%
Dec 22, 2006	100.0%	3,076	63,298	876	0	24.8%	80	1,180	98.2%
Dec 23, 2006	100.0%	2,677	59,903	835	0	24.6%	72	1,222	98.0%
Dec 24, 2006	100.0%	2,578	58,864	827	0	24.4%	70	1,188	98.0%
Dec 25, 2006	100.0%	2,533	57,227	822	0	23.9%	77	1,218	97.9%
Dec 26, 2006	100.0%	3,507	64,878	868	0	25.6%	521	1,251	98.1%
Dec 27, 2006	100.0%	3,354	64,400	843	235	25.4%	3,212	3,357	95.0%
Dec 28, 2006	100.0%	3,501	66,804	899	0	25.5%	643	1,959	97.2%
Dec 29, 2006	100.0%	3,478	68,265	812	1,201	24.7%	85	1,189	98.3%
Dec 30, 2006	100.0%	2,897	65,132	901	0	24.8%	74	1,198	98.2%
Dec 31, 2006	100.0%	2,814	64,630	896	0	24.7%	77	1,208	98.2%
Total	100.0%	3,507	1,857,441	25,516	1,436	24.8%	3,212	138,467	93.1%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-2. Daily Summary Table of CHP Performance - December 2006

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Dec 1, 2006	68,639	907	0	317.8	30.6	64.6%
Dec 2, 2006	58,812	847	0	345.3	32.8	68.7%
Dec 3, 2006	57,398	851	0	342.4	32.5	67.4%
Dec 4, 2006	64,620	892	0	352.9	30.2	68.0%
Dec 5, 2006	60,974	913	0	298.0	22.0	58.1%
Dec 6, 2006	54,796	770	0	244.3	17.6	58.6%
Dec 7, 2006	67,149	908	0	308.5	25.7	62.4%
Dec 8, 2006	57,890	824	0	313.0	28.0	65.7%
Dec 9, 2006	0	0	0	0.0	0.0	
Dec 10, 2006	28,480	407	0	162.2	13.9	67.4%
Dec 11, 2006	65,707	888	0	351.5	29.8	68.5%
Dec 12, 2006	64,408	887	0	339.1	20.1	65.6%
Dec 13, 2006	66,631	906	0	312.0	21.2	62.2%
Dec 14, 2006	67,508	886	0	310.8	27.5	64.5%
Dec 15, 2006	67,569	889	0	316.7	25.8	64.8%
Dec 16, 2006	59,960	840	0	338.1	29.5	68.5%
Dec 17, 2006	58,069	836	0	311.4	26.4	64.4%
Dec 18, 2006	66,037	885	0	356.4	28.3	69.3%
Dec 19, 2006	64,230	872	0	369.9	29.5	71.3%
Dec 20, 2006	59,555	840	0	296.3	25.5	62.9%
Dec 21, 2006	65,607	891	0	353.3	29.9	68.5%
Dec 22, 2006	63,298	876	0	340.9	25.8	66.9%
Dec 23, 2006	59,903	835	0	317.1	25.4	65.8%
Dec 24, 2006	58,864	827	0	336.8	29.4	68.9%
Dec 25, 2006	57,227	822	0	349.0	29.0	70.1%
Dec 26, 2006	64,878	868	0	354.3	27.6	69.8%
Dec 27, 2006	64,400	843	235	357.9	28.8	70.1%
Dec 28, 2006	66,804	899	0	373.6	28.6	70.5%
Dec 29, 2006	68,265	812	1,201	343.6	25.2	63.9%
Dec 30, 2006	65,132	901	0	354.5	25.8	67.2%
Dec 31, 2006	64,630	896	0	363.9	27.2	68.6%
Total	1,857,441	25,516	1,436	9,831	800	66.4%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-3. Daily Summary Table of Solar Turbine Generation - January 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Jan 1, 2007	100.0%	2,908	65,767	897	0	25.2%	70	1,202	98.2%
Jan 2, 2007	100.0%	3,305	65,629	890	0	25.3%	83	1,189	98.2%
Jan 3, 2007	100.0%	3,208	68,574	914	0	25.7%	80	1,194	98.3%
Jan 4, 2007	100.0%	3,310	69,020	911	0	26.0%	86	1,198	98.3%
Jan 5, 2007	100.0%	3,376	68,628	904	0	26.0%	85	1,202	98.3%
Jan 6, 2007	100.0%	2,839	63,508	851	0	25.6%	82	1,205	98.1%
Jan 7, 2007	100.0%	2,758	60,980	855	0	24.5%	74	1,196	98.1%
Jan 8, 2007	100.0%	3,167	67,029	897	0	25.6%	75	1,198	98.2%
Jan 9, 2007	100.0%	3,183	66,301	892	0	25.5%	82	1,230	98.2%
Jan 10, 2007	100.0%	3,336	68,313	912	0	25.7%	83	1,184	98.3%
Jan 11, 2007	100.0%	3,408	66,311	907	0	25.1%	80	1,200	98.2%
Jan 12, 2007	100.0%	3,129	65,752	899	0	25.1%	77	1,202	98.2%
Jan 13, 2007	100.0%	2,747	60,617	870	0	23.9%	70	1,226	98.0%
Jan 14, 2007	100.0%	2,863	64,067	904	0	24.3%	80	1,203	98.2%
Jan 15, 2007	100.0%	3,064	65,848	904	0	25.0%	86	1,231	98.2%
Jan 16, 2007	100.0%	3,213	65,769	897	0	25.2%	94	1,213	98.2%
Jan 17, 2007	100.0%	3,113	67,678	931	0	24.9%	80	1,201	98.3%
Jan 18, 2007	100.0%	3,095	68,152	915	0	25.6%	75	1,200	98.3%
Jan 19, 2007	100.0%	3,451	68,433	908	0	25.9%	373	1,260	98.2%
Jan 20, 2007	100.0%	2,838	63,273	878	0	24.7%	75	1,225	98.1%
Jan 21, 2007	100.0%	2,786	63,738	893	0	24.5%	77	1,203	98.1%
Jan 22, 2007	100.0%	3,081	66,361	900	0	25.3%	86	1,186	98.2%
Jan 23, 2007	100.0%	3,352	67,395	900	0	25.7%	91	1,239	98.2%
Jan 24, 2007	100.0%	3,131	67,271	900	0	25.7%	88	1,182	98.3%
Jan 25, 2007	100.0%	3,495	68,180	903	0	25.9%	82	1,211	98.3%
Jan 26, 2007	100.0%	3,279	69,160	898	0	26.4%	85	1,199	98.3%
Jan 27, 2007	100.0%	2,857	64,572	879	0	25.2%	72	1,196	98.2%
Jan 28, 2007	100.0%	2,835	64,163	882	0	24.9%	75	1,200	98.2%
Jan 29, 2007	100.0%	3,048	66,111	893	0	25.4%	86	1,203	98.2%
Jan 30, 2007	100.0%	3,076	66,621	896	0	25.5%	82	1,197	98.2%
Jan 31, 2007	100.0%	3,124	67,324	902	0	25.6%	83	1,201	98.2%
Total	100.0%	3,495	2,050,548	27,782	0	25.3%	373	37,374	98.2%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-4. Daily Summary Table of CHP Performance - January 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Jan 1, 2007	65,767	897	0	356.1	26.9	68.1%
Jan 2, 2007	65,629	890	0	354.1	28.0	68.4%
Jan 3, 2007	68,574	914	0	347.1	27.0	66.9%
Jan 4, 2007	69,020	911	0	351.5	25.6	67.6%
Jan 5, 2007	68,628	904	0	321.2	27.4	64.8%
Jan 6, 2007	63,508	851	0	257.9	24.7	59.0%
Jan 7, 2007	60,980	855	0	339.7	29.5	67.8%
Jan 8, 2007	67,029	897	0	345.5	28.6	67.5%
Jan 9, 2007	66,301	892	0	360.3	29.1	69.4%
Jan 10, 2007	68,313	912	0	389.6	32.5	72.2%
Jan 11, 2007	66,311	907	0	365.8	26.6	68.5%
Jan 12, 2007	65,752	899	0	359.1	27.1	68.2%
Jan 13, 2007	60,617	870	0	381.2	28.2	71.2%
Jan 14, 2007	64,067	904	0	380.9	29.3	69.9%
Jan 15, 2007	65,848	904	0	384.6	26.9	70.7%
Jan 16, 2007	65,769	897	0	371.0	26.6	69.7%
Jan 17, 2007	67,678	931	0	414.4	29.9	72.9%
Jan 18, 2007	68,152	915	0	389.5	26.5	71.3%
Jan 19, 2007	68,433	908	0	384.6	29.1	71.7%
Jan 20, 2007	63,273	878	0	367.9	29.0	70.2%
Jan 21, 2007	63,738	893	0	388.7	29.4	71.6%
Jan 22, 2007	66,361	900	0	371.2	25.7	69.6%
Jan 23, 2007	67,395	900	0	377.8	26.2	70.8%
Jan 24, 2007	67,271	900	0	378.3	25.4	70.7%
Jan 25, 2007	68,180	903	0	394.4	26.7	72.8%
Jan 26, 2007	69,160	898	0	413.7	28.1	75.9%
Jan 27, 2007	64,572	879	0	398.9	28.4	74.0%
Jan 28, 2007	64,163	882	0	375.0	26.5	70.7%
Jan 29, 2007	66,111	893	0	388.2	28.1	72.3%
Jan 30, 2007	66,621	896	0	390.6	28.3	72.5%
Jan 31, 2007	67,324	902	0	386.9	27.6	71.8%
Total	2,050,548	27,782	0	11,486	859	70.0%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-5. Daily Summary Table of Solar Turbine Generation - February 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Feb 1, 2007	100.0%	3,448	69,086	925	0	25.6%	78	1,219	98.3%
Feb 2, 2007	100.0%	3,516	71,159	937	0	26.0%	77	1,219	98.3%
Feb 3, 2007	100.0%	2,906	64,577	889	0	24.9%	77	1,205	98.2%
Feb 4, 2007	100.0%	2,809	62,967	882	0	24.5%	77	1,216	98.1%
Feb 5, 2007	100.0%	3,178	66,823	899	0	25.5%	75	1,242	98.2%
Feb 6, 2007	100.0%	3,114	66,176	899	0	25.3%	96	1,202	98.2%
Feb 7, 2007	100.0%	3,129	67,767	912	0	25.5%	90	1,191	98.3%
Feb 8, 2007	100.0%	3,114	67,802	895	0	26.0%	77	1,186	98.3%
Feb 9, 2007	100.0%	3,152	66,856	897	0	25.6%	74	822	98.8%
Feb 10, 2007	100.0%	2,900	64,256	898	0	24.5%	62	738	98.9%
Feb 11, 2007	100.0%	2,897	64,012	901	0	24.4%	51	797	98.8%
Feb 12, 2007	100.0%	3,327	68,441	920	0	25.5%	62	792	98.9%
Feb 13, 2007	100.0%	3,134	67,764	925	0	25.1%	58	708	99.0%
Feb 14, 2007	100.0%	3,158	66,340	895	0	25.4%	59	765	98.9%
Feb 15, 2007	100.0%	3,085	67,590	905	0	25.6%	59	716	99.0%
Feb 16, 2007	100.0%	3,095	66,971	896	0	25.6%	53	722	98.9%
Feb 17, 2007	100.0%	2,906	63,324	879	0	24.7%	59	716	98.9%
Feb 18, 2007	100.0%	2,947	66,139	903	0	25.1%	58	713	98.9%
Feb 19, 2007	100.0%	2,845	64,673	892	0	24.9%	58	723	98.9%
Feb 20, 2007	100.0%	3,060	67,083	913	0	25.2%	59	748	98.9%
Feb 21, 2007	100.0%	3,303	68,190	909	0	25.7%	59	721	99.0%
Feb 22, 2007	100.0%	3,489	67,887	916	0	25.4%	56	727	98.9%
Feb 23, 2007	100.0%	3,413	69,396	922	0	25.8%	58	746	98.9%
Feb 24, 2007	100.0%	2,961	64,736	888	0	25.0%	50	722	98.9%
Feb 25, 2007	100.0%	2,923	64,830	892	0	24.9%	74	719	98.9%
Feb 26, 2007	100.0%	3,281	68,926	918	0	25.8%	53	726	99.0%
Feb 27, 2007	100.0%	3,569	68,581	913	0	25.8%	67	744	98.9%
Feb 28, 2007	100.0%	3,461	68,838	928	0	25.4%	54	740	98.9%
Total	100.0%	3,569	1,871,190	25,348	0	25.3%	96	24,482	98.7%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-6. Daily Summary Table of CHP Performance - February 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Feb 1, 2007	69,086	925	0	395.3	28.4	71.7%
Feb 2, 2007	71,159	937	0	397.3	30.5	71.9%
Feb 3, 2007	64,577	889	0	372.7	29.0	70.3%
Feb 4, 2007	62,967	882	0	383.5	28.4	71.4%
Feb 5, 2007	66,823	899	0	415.2	30.4	75.4%
Feb 6, 2007	66,176	899	0	388.3	28.7	71.9%
Feb 7, 2007	67,767	912	0	396.6	28.9	72.4%
Feb 8, 2007	67,802	895	0	394.0	28.0	73.3%
Feb 9, 2007	66,856	897	0	388.4	26.9	72.1%
Feb 10, 2007	64,256	898	0	386.5	28.7	71.0%
Feb 11, 2007	64,012	901	0	388.4	29.2	70.9%
Feb 12, 2007	68,441	920	0	385.3	29.5	70.8%
Feb 13, 2007	67,764	925	0	397.4	29.0	71.5%
Feb 14, 2007	66,340	895	0	392.0	28.8	72.6%
Feb 15, 2007	67,590	905	0	386.8	28.6	71.7%
Feb 16, 2007	66,971	896	0	390.7	27.8	72.5%
Feb 17, 2007	63,324	879	0	374.9	28.0	70.8%
Feb 18, 2007	66,139	903	0	382.7	29.2	71.0%
Feb 19, 2007	64,673	892	0	393.4	29.4	72.5%
Feb 20, 2007	67,083	913	0	393.0	27.8	71.5%
Feb 21, 2007	68,190	909	0	392.4	30.3	72.5%
Feb 22, 2007	67,887	916	0	387.9	27.4	71.0%
Feb 23, 2007	69,396	922	0	396.4	30.6	72.4%
Feb 24, 2007	64,736	888	0	382.0	29.4	71.6%
Feb 25, 2007	64,830	892	0	371.9	27.6	70.0%
Feb 26, 2007	68,926	918	0	379.5	28.0	70.4%
Feb 27, 2007	68,581	913	0	376.4	26.1	70.0%
Feb 28, 2007	68,838	928	0	374.5	29.2	69.1%
Total	1,871,190	25,348	0	10,863	804	71.6%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-7. Daily Summary Table of Solar Turbine Generation - March 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Mar 1, 2007	100.0%	3,528	70,707	942	0	25.8%	64	713	99.0%
Mar 2, 2007	100.0%	3,070	67,207	911	0	25.3%	59	726	98.9%
Mar 3, 2007	100.0%	2,882	63,779	879	0	24.9%	46	716	98.9%
Mar 4, 2007	100.0%	2,893	63,324	876	0	24.8%	51	712	98.9%
Mar 5, 2007	100.0%	3,133	67,359	906	0	25.5%	53	718	98.9%
Mar 6, 2007	100.0%	3,192	66,370	907	0	25.1%	70	715	98.9%
Mar 7, 2007	100.0%	3,116	67,301	910	0	25.4%	62	710	99.0%
Mar 8, 2007	100.0%	3,072	67,863	906	0	25.7%	62	740	98.9%
Mar 9, 2007	100.0%	3,396	68,612	944	0	24.9%	66	732	98.9%
Mar 10, 2007	100.0%	2,734	61,771	880	0	24.1%	59	723	98.8%
Mar 11, 2007	100.0%	2,690	61,621	869	0	24.3%	58	719	98.8%
Mar 12, 2007	100.0%	3,210	64,752	872	0	25.5%	61	671	99.0%
Mar 13, 2007	100.0%	3,299	67,715	911	0	25.5%	64	760	98.9%
Mar 14, 2007	100.0%	3,259	67,825	907	0	25.6%	64	750	98.9%
Mar 15, 2007	100.0%	3,231	67,308	903	0	25.6%	70	772	98.9%
Mar 16, 2007	100.0%	3,023	65,619	877	0	25.7%	59	775	98.8%
Mar 17, 2007	100.0%	2,834	54,871	753	0	25.0%	2,454	7,733	87.6%
Mar 18, 2007	100.0%	2,702	62,234	838	0	25.5%	67	745	98.8%
Mar 19, 2007	100.0%	3,102	66,434	875	0	26.1%	59	732	98.9%
Mar 20, 2007	100.0%	3,179	67,350	869	0	26.6%	66	700	99.0%
Mar 21, 2007	100.0%	3,293	67,805	890	0	26.1%	62	710	99.0%
Mar 22, 2007	100.0%	3,203	67,951	877	0	26.6%	112	751	98.9%
Mar 23, 2007	100.0%	3,212	67,002	863	0	26.6%	66	737	98.9%
Mar 24, 2007	100.0%	2,840	63,373	860	0	25.3%	58	731	98.9%
Mar 25, 2007	100.0%	2,813	63,379	858	0	25.3%	56	750	98.8%
Mar 26, 2007	100.0%	3,584	68,409	889	0	26.4%	62	754	98.9%
Mar 27, 2007	100.0%	3,251	68,766	876	0	26.9%	59	730	99.0%
Mar 28, 2007	100.0%	3,246	67,878	878	0	26.5%	64	760	98.9%
Mar 29, 2007	100.0%	3,437	69,032	894	0	26.5%	59	714	99.0%
Mar 30, 2007	100.0%	3,484	68,620	892	0	26.4%	72	713	99.0%
Mar 31, 2007	100.0%	2,880	63,192	860	0	25.2%	54	731	98.9%
Total	100.0%	3,584	2,045,429	27,370	0	25.6%	2,454	29,642	98.6%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-8. Daily Summary Table of CHP Performance - March 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Mar 1, 2007	70,707	942	0	385.5	27.6	69.8%
Mar 2, 2007	67,207	911	0	389.9	28.0	71.4%
Mar 3, 2007	63,779	879	0	362.8	27.0	69.4%
Mar 4, 2007	63,324	876	0	356.8	27.2	68.9%
Mar 5, 2007	67,359	906	0	374.0	27.6	70.1%
Mar 6, 2007	66,370	907	0	393.7	30.6	72.1%
Mar 7, 2007	67,301	910	0	402.7	28.3	72.9%
Mar 8, 2007	67,863	906	0	392.4	27.1	72.3%
Mar 9, 2007	68,612	944	0	388.6	27.4	69.2%
Mar 10, 2007	61,771	880	0	356.8	29.0	68.1%
Mar 11, 2007	61,621	869	0	347.9	33.0	68.4%
Mar 12, 2007	64,752	872	0	337.4	31.4	68.0%
Mar 13, 2007	67,715	911	0	337.3	28.1	65.8%
Mar 14, 2007	67,825	907	0	299.7	26.5	61.8%
Mar 15, 2007	67,308	903	0	328.4	30.8	65.6%
Mar 16, 2007	65,619	877	0	384.2	31.3	73.3%
Mar 17, 2007	54,871	753	0	310.7	25.3	69.9%
Mar 18, 2007	62,234	838	0	365.1	30.5	72.9%
Mar 19, 2007	66,434	875	0	373.3	31.0	72.5%
Mar 20, 2007	67,350	869	0	372.8	33.6	73.6%
Mar 21, 2007	67,805	890	0	374.8	26.3	71.4%
Mar 22, 2007	67,951	877	0	327.3	27.3	67.2%
Mar 23, 2007	67,002	863	0	313.0	30.3	66.6%
Mar 24, 2007	63,373	860	0	351.2	25.6	69.3%
Mar 25, 2007	63,379	858	0	347.1	26.8	69.1%
Mar 26, 2007	68,409	889	0	344.8	30.2	68.8%
Mar 27, 2007	68,766	876	0	314.5	32.7	66.7%
Mar 28, 2007	67,878	878	0	338.2	35.0	69.2%
Mar 29, 2007	69,032	894	0	363.7	25.6	70.3%
Mar 30, 2007	68,620	892	0	361.5	26.6	70.1%
Mar 31, 2007	63,192	860	0	354.2	31.4	70.3%
Total	2,045,429	27,370	0	11,050	899	69.5%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-9. Daily Summary Table of Solar Turbine Generation - April 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Apr 1, 2007	100.0%	2,711	61,993	849	0	25.1%	56	736	98.8%
Apr 2, 2007	100.0%	3,224	68,627	884	0	26.6%	54	733	98.9%
Apr 3, 2007	100.0%	3,196	66,367	873	0	26.1%	56	723	98.9%
Apr 4, 2007	100.0%	3,527	67,917	875	0	26.6%	59	721	98.9%
Apr 5, 2007	100.0%	3,295	67,063	860	0	26.7%	66	698	99.0%
Apr 6, 2007	100.0%	3,178	64,916	833	0	26.7%	3,036	3,344	95.1%
Apr 7, 2007	100.0%	2,872	63,835	843	0	26.0%	54	731	98.9%
Apr 8, 2007	100.0%	2,874	63,340	840	0	25.9%	58	748	98.8%
Apr 9, 2007	100.0%	3,377	68,287	874	0	26.8%	61	711	99.0%
Apr 10, 2007	100.0%	3,187	66,791	869	0	26.4%	54	707	99.0%
Apr 11, 2007	100.0%	3,254	67,857	882	0	26.4%	62	746	98.9%
Apr 12, 2007	100.0%	3,302	69,163	888	0	26.7%	54	733	99.0%
Apr 13, 2007	100.0%	3,269	55,708	715	0	26.7%	2,553	11,393	83.0%
Apr 14, 2007	100.0%	0	0	0	0		2,550	57,911	0.0%
Apr 15, 2007	100.0%	2,932	2,715	41	0	22.6%	2,435	44,539	5.7%
Apr 16, 2007	100.0%	2,913	45,271	598	0	26.0%	2,676	17,860	71.7%
Apr 17, 2007	100.0%	3,350	68,897	880	0	26.9%	58	737	98.9%
Apr 18, 2007	100.0%	3,240	68,428	889	0	26.4%	54	704	99.0%
Apr 19, 2007	100.0%	3,328	70,535	904	0	26.8%	59	719	99.0%
Apr 20, 2007	100.0%	3,510	71,477	910	0	26.9%	58	726	99.0%
Apr 21, 2007	100.0%	3,043	66,653	888	0	25.8%	50	706	99.0%
Apr 22, 2007	100.0%	2,839	64,633	877	0	25.3%	62	735	98.9%
Apr 23, 2007	100.0%	4,097	76,089	943	0	27.7%	312	1,553	98.0%
Apr 24, 2007	100.0%	3,958	74,348	930	0	27.4%	61	706	99.1%
Apr 25, 2007	100.0%	4,085	70,756	896	0	27.1%	58	702	99.0%
Apr 26, 2007	100.0%	3,431	70,987	906	0	26.9%	59	725	99.0%
Apr 27, 2007	100.0%	3,369	70,069	904	0	26.6%	69	723	99.0%
Apr 28, 2007	100.0%	2,859	64,267	864	0	25.5%	96	740	98.9%
Apr 29, 2007	100.0%	3,027	64,048	859	0	25.6%	53	711	98.9%
Apr 30, 2007	100.0%	3,244	68,488	873	0	26.9%	54	728	98.9%
Total	100.0%	4,097	1,869,522	24,246	0	26.4%	3,036	153,949	92.4%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-10. Daily Summary Table of CHP Performance - April 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Apr 1, 2007	61,993	849	0	340.6	28.8	68.8%
Apr 2, 2007	68,627	884	0	341.9	35.5	69.5%
Apr 3, 2007	66,367	873	0	337.2	21.3	67.4%
Apr 4, 2007	67,917	875	0	363.3	32.2	72.1%
Apr 5, 2007	67,063	860	0	348.3	35.8	71.6%
Apr 6, 2007	64,916	833	0	337.6	34.8	71.7%
Apr 7, 2007	63,835	843	0	359.7	37.7	73.3%
Apr 8, 2007	63,340	840	0	365.0	36.2	73.8%
Apr 9, 2007	68,287	874	0	355.3	37.8	72.0%
Apr 10, 2007	66,791	869	0	347.6	36.6	70.8%
Apr 11, 2007	67,857	882	0	322.3	33.0	66.9%
Apr 12, 2007	69,163	888	0	349.5	33.4	70.1%
Apr 13, 2007	55,708	715	0	269.8	27.4	68.5%
Apr 14, 2007	0	0	0	0.0	0.0	
Apr 15, 2007	2,715	41	0	0.0	0.0	22.6%
Apr 16, 2007	45,271	598	0	239.4	20.0	69.6%
Apr 17, 2007	68,897	880	0	353.7	29.9	70.7%
Apr 18, 2007	68,428	889	0	335.1	30.8	67.8%
Apr 19, 2007	70,535	904	0	326.5	31.7	66.6%
Apr 20, 2007	71,477	910	0	342.6	35.0	68.6%
Apr 21, 2007	66,653	888	0	332.6	33.6	67.2%
Apr 22, 2007	64,633	877	0	329.1	30.9	66.5%
Apr 23, 2007	76,089	943	0	373.2	38.8	71.6%
Apr 24, 2007	74,348	930	0	392.5	40.7	74.2%
Apr 25, 2007	70,756	896	0	359.2	34.5	71.3%
Apr 26, 2007	70,987	906	0	378.4	33.6	72.6%
Apr 27, 2007	70,069	904	0	357.6	30.8	69.8%
Apr 28, 2007	64,267	864	0	338.8	30.0	68.4%
Apr 29, 2007	64,048	859	0	348.6	35.0	70.4%
Apr 30, 2007	68,488	873	0	348.7	34.6	71.1%
Total	1,869,522	24,246	0	9,594	921	70.0%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-11. Daily Summary Table of Solar Turbine Generation - May 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
May 1, 2007	100.0%	3,756	73,562	919	0	27.5%	96	769	99.0%
May 2, 2007	100.0%	3,697	71,855	898	0	27.4%	56	670	99.1%
May 3, 2007	100.0%	3,760	70,529	894	0	27.1%	94	703	99.0%
May 4, 2007	100.0%	3,899	72,132	912	0	27.1%	62	728	99.0%
May 5, 2007	100.0%	3,198	65,078	866	0	25.8%	59	721	98.9%
May 6, 2007	100.0%	3,180	65,296	870	0	25.7%	54	707	98.9%
May 7, 2007	100.0%	3,963	77,079	957	0	27.6%	61	761	99.0%
May 8, 2007	100.0%	4,061	80,540	982	0	28.1%	433	2,005	97.6%
May 9, 2007	100.0%	3,995	81,619	983	0	28.5%	516	2,849	96.6%
May 10, 2007	100.0%	4,068	83,766	999	0	28.8%	646	3,438	96.1%
May 11, 2007	100.0%	4,154	79,826	962	0	28.5%	419	1,502	98.2%
May 12, 2007	100.0%	3,167	66,834	872	0	26.3%	62	696	99.0%
May 13, 2007	100.0%	3,114	65,789	859	0	26.3%	53	709	98.9%
May 14, 2007	100.0%	3,970	75,268	934	0	27.6%	106	746	99.0%
May 15, 2007	100.0%	3,790	77,009	934	0	28.3%	64	725	99.1%
May 16, 2007	100.0%	3,684	73,261	901	0	27.9%	67	742	99.0%
May 17, 2007	100.0%	3,539	68,390	885	0	26.5%	66	724	99.0%
May 18, 2007	100.0%	3,206	66,293	871	0	26.1%	53	749	98.9%
May 19, 2007	100.0%	3,639	56,294	735	0	26.3%	3,148	14,898	79.1%
May 20, 2007	100.0%	3,068	70,445	900	0	26.8%	56	727	99.0%
May 21, 2007	100.0%	3,982	75,793	933	0	27.9%	61	748	99.0%
May 22, 2007	100.0%	4,223	78,279	963	0	27.9%	82	716	99.1%
May 23, 2007	100.0%	3,901	77,243	954	0	27.8%	67	735	99.1%
May 24, 2007	100.0%	4,060	84,105	996	0	29.0%	233	1,031	98.8%
May 25, 2007	100.0%	4,180	88,526	1,025	0	29.6%	756	5,016	94.6%
May 26, 2007	100.0%	3,675	82,862	981	0	29.0%	70	754	99.1%
May 27, 2007	100.0%	3,421	76,105	937	0	27.9%	61	720	99.1%
May 28, 2007	100.0%	3,545	77,495	937	0	28.4%	54	716	99.1%
May 29, 2007	100.0%	4,027	84,080	995	0	29.0%	54	726	99.1%
May 30, 2007	100.0%	4,094	84,117	990	0	29.1%	58	741	99.1%
May 31, 2007	100.0%	4,056	79,374	950	0	28.6%	2,809	3,180	96.1%
Total	100.0%	4,223	2,328,845	28,797	0	27.7%	3,148	50,652	97.9%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-12. Daily Summary Table of CHP Performance - May 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
May 1, 2007	73,562	919	0	373.2	38.8	72.5%
May 2, 2007	71,855	898	0	311.0	30.9	65.7%
May 3, 2007	70,529	894	0	315.6	31.2	66.1%
May 4, 2007	72,132	912	0	302.2	30.0	63.7%
May 5, 2007	65,078	866	0	290.6	28.1	62.7%
May 6, 2007	65,296	870	0	296.4	29.7	63.4%
May 7, 2007	77,079	957	0	285.8	29.0	60.7%
May 8, 2007	80,540	982	0	303.7	30.9	62.4%
May 9, 2007	81,619	983	0	252.2	25.7	56.9%
May 10, 2007	83,766	999	0	349.9	35.4	67.6%
May 11, 2007	79,826	962	0	375.5	37.3	71.6%
May 12, 2007	66,834	872	0	346.1	32.2	69.9%
May 13, 2007	65,789	859	0	365.5	33.7	73.0%
May 14, 2007	75,268	934	0	380.5	34.5	72.3%
May 15, 2007	77,009	934	0	301.3	29.5	63.9%
May 16, 2007	73,261	901	0	297.9	29.2	64.4%
May 17, 2007	68,390	885	0	318.1	22.9	65.2%
May 18, 2007	66,293	871	0	309.0	27.6	64.9%
May 19, 2007	56,294	735	0	162.3	13.9	50.3%
May 20, 2007	70,445	900	0	185.1	17.9	49.5%
May 21, 2007	75,793	933	0	318.8	31.6	65.6%
May 22, 2007	78,279	963	0	309.6	31.7	63.5%
May 23, 2007	77,243	954	0	299.9	30.8	62.6%
May 24, 2007	84,105	996	0	371.9	36.1	70.1%
May 25, 2007	88,526	1,025	0	399.4	42.1	73.0%
May 26, 2007	82,862	981	0	242.4	24.4	56.3%
May 27, 2007	76,105	937	0	0.0	0.0	27.9%
May 28, 2007	77,495	937	0	0.0	0.0	28.4%
May 29, 2007	84,080	995	0	0.0	0.0	29.0%
May 30, 2007	84,117	990	0	0.0	0.0	29.1%
May 31, 2007	79,374	950	0	0.0	0.0	28.6%
Total	2,328,845	28,797	0	8,064	785	58.6%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-13. Daily Summary Table of Solar Turbine Generation - June 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Jun 1, 2007	100.0%	0	0	0	0		3,463	23,809	0.0%
Jun 2, 2007	100.0%	0	0	0	0		0	0	
Jun 3, 2007	100.0%	3,136	18,588	240	0	26.6%	3,148	5,263	77.9%
Jun 4, 2007	100.0%	3,833	80,833	955	0	29.0%	70	718	99.1%
Jun 5, 2007	100.0%	4,105	84,128	974	0	29.6%	301	1,299	98.5%
Jun 6, 2007	100.0%	4,078	83,487	1,019	0	28.1%	59	780	99.1%
Jun 7, 2007	100.0%	4,013	82,478	1,006	0	28.1%	58	746	99.1%
Jun 8, 2007	100.0%	4,063	82,922	1,016	0	28.0%	70	738	99.1%
Jun 9, 2007	100.0%	3,492	77,608	966	0	27.6%	54	725	99.1%
Jun 10, 2007	100.0%	3,594	79,124	964	0	28.1%	64	733	99.1%
Jun 11, 2007	100.0%	4,119	88,394	1,037	0	29.2%	552	3,270	96.4%
Jun 12, 2007	100.0%	4,186	88,467	1,034	0	29.3%	499	2,449	97.3%
Jun 13, 2007	100.0%	3,963	83,999	1,003	0	28.7%	61	735	99.1%
Jun 14, 2007	100.0%	4,109	85,331	1,017	0	28.8%	56	746	99.1%
Jun 15, 2007	100.0%	4,122	85,722	1,019	0	28.8%	225	1,334	98.5%
Jun 16, 2007	100.0%	3,617	79,922	973	0	28.2%	51	717	99.1%
Jun 17, 2007	100.0%	3,762	81,340	971	0	28.7%	53	743	99.1%
Jun 18, 2007	100.0%	4,060	86,220	1,023	0	28.9%	277	1,746	98.0%
Jun 19, 2007	100.0%	4,085	85,677	1,012	0	29.0%	379	2,138	97.6%
Jun 20, 2007	100.0%	4,118	87,647	1,025	0	29.3%	157	1,064	98.8%
Jun 21, 2007	100.0%	4,081	86,668	1,020	0	29.2%	349	2,275	97.4%
Jun 22, 2007	100.0%	4,035	84,266	999	0	28.9%	168	878	99.0%
Jun 23, 2007	100.0%	3,368	75,889	942	0	27.6%	66	732	99.0%
Jun 24, 2007	100.0%	3,513	78,029	961	0	27.8%	53	733	99.1%
Jun 25, 2007	100.0%	4,033	85,911	1,013	0	29.1%	341	1,931	97.8%
Jun 26, 2007	100.0%	4,033	88,597	1,024	0	29.7%	867	7,113	92.6%
Jun 27, 2007	100.0%	4,003	89,705	1,028	0	29.9%	1,269	10,488	89.5%
Jun 28, 2007	100.0%	3,972	89,371	1,040	0	29.5%	887	6,985	92.8%
Jun 29, 2007	100.0%	4,005	85,882	1,027	0	28.7%	193	1,124	98.7%
Jun 30, 2007	100.0%	3,517	78,587	966	0	27.9%	62	731	99.1%
Total	100.0%	4,186	2,284,792	27,276	0	28.7%	3,463	82,741	96.5%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)

2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-14. Daily Summary Table of CHP Performance - June 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Jun 1, 2007	0	0	0	0.0	0.0	
Jun 2, 2007	0	0	0	0.0	0.0	
Jun 3, 2007	18,588	240	0	87.8	8.4	67.0%
Jun 4, 2007	80,833	955	0	372.0	31.6	71.5%
Jun 5, 2007	84,128	974	0	371.4	30.6	71.1%
Jun 6, 2007	83,487	1,019	0	362.0	35.8	67.3%
Jun 7, 2007	82,478	1,006	0	378.0	37.4	69.6%
Jun 8, 2007	82,922	1,016	0	370.5	37.2	68.4%
Jun 9, 2007	77,608	966	0	378.4	37.4	70.8%
Jun 10, 2007	79,124	964	0	378.3	37.1	71.4%
Jun 11, 2007	88,394	1,037	0	392.2	39.8	71.1%
Jun 12, 2007	88,467	1,034	0	402.4	41.5	72.5%
Jun 13, 2007	83,999	1,003	0	391.2	40.0	71.9%
Jun 14, 2007	85,331	1,017	0	395.8	40.9	71.9%
Jun 15, 2007	85,722	1,019	0	402.8	38.4	72.3%
Jun 16, 2007	79,922	973	0	398.9	41.2	73.6%
Jun 17, 2007	81,340	971	0	399.0	41.6	74.3%
Jun 18, 2007	86,220	1,023	0	398.2	41.6	72.1%
Jun 19, 2007	85,677	1,012	0	402.3	40.7	73.0%
Jun 20, 2007	87,647	1,025	0	414.9	43.9	74.3%
Jun 21, 2007	86,668	1,020	0	419.4	45.2	75.0%
Jun 22, 2007	84,266	999	0	408.8	43.7	74.5%
Jun 23, 2007	75,889	942	0	409.3	44.4	76.0%
Jun 24, 2007	78,029	961	0	412.1	42.9	75.4%
Jun 25, 2007	85,911	1,013	0	416.0	42.7	74.6%
Jun 26, 2007	88,597	1,024	0	408.9	42.7	74.0%
Jun 27, 2007	89,705	1,028	0	395.6	41.3	72.7%
Jun 28, 2007	89,371	1,040	0	402.2	42.4	72.5%
Jun 29, 2007	85,882	1,027	0	391.0	41.6	71.0%
Jun 30, 2007	78,587	966	0	385.4	40.5	72.2%
Total	2,284,792	27,276	0	10,745	1,092	72.3%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-15. Daily Summary Table of Solar Turbine Generation - July 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Jul 1, 2007	100.0%	3,390	76,732	955	0	27.5%	58	720	99.1%
Jul 2, 2007	100.0%	4,040	84,155	1,008	0	28.6%	93	794	99.1%
Jul 3, 2007	100.0%	4,073	81,845	993	0	28.3%	161	931	98.9%
Jul 4, 2007	100.0%	3,599	79,897	967	0	28.3%	56	725	99.1%
Jul 5, 2007	100.0%	4,071	87,833	1,028	0	29.3%	145	822	99.1%
Jul 6, 2007	100.0%	4,029	86,785	1,020	0	29.2%	531	2,651	97.0%
Jul 7, 2007	100.0%	3,494	80,086	972	0	28.3%	56	716	99.1%
Jul 8, 2007	100.0%	3,500	79,107	962	0	28.2%	59	720	99.1%
Jul 9, 2007	100.0%	4,033	83,732	1,003	0	28.6%	149	837	99.0%
Jul 10, 2007	100.0%	4,053	86,869	1,021	0	29.2%	766	4,348	95.2%
Jul 11, 2007	100.0%	4,036	89,683	1,046	0	29.4%	512	3,271	96.5%
Jul 12, 2007	100.0%	3,978	87,520	1,035	0	29.0%	641	4,848	94.8%
Jul 13, 2007	100.0%	3,939	85,281	1,017	0	28.8%	585	3,772	95.8%
Jul 14, 2007	100.0%	3,602	80,911	985	0	28.2%	51	743	99.1%
Jul 15, 2007	100.0%	3,735	83,601	1,002	0	28.6%	51	719	99.1%
Jul 16, 2007	100.0%	3,976	86,786	1,034	0	28.8%	715	5,277	94.3%
Jul 17, 2007	100.0%	3,978	86,452	1,029	0	28.8%	788	6,140	93.4%
Jul 18, 2007	100.0%	4,011	88,839	1,043	0	29.2%	436	3,105	96.6%
Jul 19, 2007	100.0%	3,992	89,068	1,056	0	28.9%	436	3,004	96.7%
Jul 20, 2007	100.0%	3,957	89,323	1,057	0	29.0%	462	3,556	96.2%
Jul 21, 2007	100.0%	3,639	83,697	1,024	0	28.0%	50	715	99.2%
Jul 22, 2007	100.0%	3,697	82,962	1,024	0	27.8%	51	725	99.1%
Jul 23, 2007	100.0%	3,950	87,584	1,016	0	29.6%	726	4,254	95.4%
Jul 24, 2007	100.0%	3,988	88,918	1,039	0	29.4%	910	6,601	93.1%
Jul 25, 2007	100.0%	3,957	64,179	742	0	29.7%	4,737	33,300	65.8%
Jul 26, 2007	100.0%	3,956	62,659	712	0	30.2%	4,106	36,792	63.0%
Jul 27, 2007	100.0%	4,126	82,755	955	0	29.7%	3,703	16,487	83.4%
Jul 28, 2007	100.0%	3,950	89,878	1,054	0	29.2%	114	880	99.0%
Jul 29, 2007	100.0%	3,894	89,078	1,050	0	29.1%	75	779	99.1%
Jul 30, 2007	100.0%	4,174	92,049	1,073	0	29.4%	831	5,475	94.4%
Jul 31, 2007	100.0%	4,082	90,975	1,067	0	29.2%	804	6,447	93.4%
Total	100.0%	4,174	2,609,238	30,986	0	28.9%	4,737	160,154	94.2%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-16. Daily Summary Table of CHP Performance - July 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Jul 1, 2007	76,732	955	0	382.6	39.6	72.0%
Jul 2, 2007	84,155	1,008	0	389.7	40.6	71.5%
Jul 3, 2007	81,845	993	0	383.9	39.8	71.2%
Jul 4, 2007	79,897	967	0	390.5	40.5	73.2%
Jul 5, 2007	87,833	1,028	0	400.9	42.7	72.7%
Jul 6, 2007	86,785	1,020	0	406.0	42.4	73.4%
Jul 7, 2007	80,086	972	0	395.4	40.5	73.3%
Jul 8, 2007	79,107	962	0	392.5	40.9	73.5%
Jul 9, 2007	83,732	1,003	0	380.4	39.4	70.7%
Jul 10, 2007	86,869	1,021	0	399.5	41.4	72.6%
Jul 11, 2007	89,683	1,046	0	416.5	44.7	73.8%
Jul 12, 2007	87,520	1,035	0	413.7	43.9	73.5%
Jul 13, 2007	85,281	1,017	0	402.8	42.2	72.7%
Jul 14, 2007	80,911	985	0	405.1	41.8	73.8%
Jul 15, 2007	83,601	1,002	0	416.0	44.0	74.8%
Jul 16, 2007	86,786	1,034	0	414.0	43.7	73.3%
Jul 17, 2007	86,452	1,029	0	404.8	42.0	72.4%
Jul 18, 2007	88,839	1,043	0	411.0	42.9	72.9%
Jul 19, 2007	89,068	1,056	0	421.4	44.5	73.3%
Jul 20, 2007	89,323	1,057	0	420.4	44.3	73.2%
Jul 21, 2007	83,697	1,024	0	421.1	43.6	73.7%
Jul 22, 2007	82,962	1,024	0	403.9	41.8	71.5%
Jul 23, 2007	87,584	1,016	0	405.4	43.2	73.9%
Jul 24, 2007	88,918	1,039	0	410.0	43.9	73.3%
Jul 25, 2007	64,179	742	0	296.4	31.5	74.1%
Jul 26, 2007	62,659	712	0	285.8	30.2	74.8%
Jul 27, 2007	82,755	955	0	352.2	37.4	70.7%
Jul 28, 2007	89,878	1,054	0	399.9	42.5	71.4%
Jul 29, 2007	89,078	1,050	0	401.1	43.1	71.6%
Jul 30, 2007	92,049	1,073	0	396.3	42.4	70.5%
Jul 31, 2007	90,975	1,067	0	399.7	42.4	70.9%
Total	2,609,238	30,986	0	12,219	1,284	72.7%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-17. Daily Summary Table of Solar Turbine Generation - August 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Aug 1, 2007	100.0%	3,429	71,930	924	0	26.7%	94	1,234	98.3%
Aug 2, 2007	100.0%	4,092	90,418	1,057	0	29.3%	1,026	8,203	91.7%
Aug 3, 2007	100.0%	4,043	90,218	1,051	0	29.4%	1,198	7,821	92.0%
Aug 4, 2007	100.0%	3,859	86,471	1,025	0	28.9%	91	814	99.1%
Aug 5, 2007	100.0%	3,560	81,347	999	0	27.9%	56	719	99.1%
Aug 6, 2007	100.0%	4,106	87,075	1,040	0	28.7%	277	1,496	98.3%
Aug 7, 2007	100.0%	4,130	87,306	1,007	0	29.7%	515	3,062	96.6%
Aug 8, 2007	100.0%	4,145	90,472	1,031	0	30.1%	216	1,701	98.2%
Aug 9, 2007	100.0%	4,055	86,188	1,019	0	29.0%	238	1,441	98.4%
Aug 10, 2007	100.0%	4,060	84,183	975	0	29.6%	161	898	98.9%
Aug 11, 2007	100.0%	3,907	83,481	952	0	30.1%	69	747	99.1%
Aug 12, 2007	100.0%	3,753	84,216	947	0	30.5%	51	717	99.2%
Aug 13, 2007	100.0%	4,121	89,978	979	0	31.5%	302	1,932	97.9%
Aug 14, 2007	100.0%	4,056	86,134	971	0	30.4%	149	965	98.9%
Aug 15, 2007	100.0%	4,121	88,107	971	0	31.1%	115	915	99.0%
Aug 16, 2007	100.0%	4,069	88,506	1,010	0	30.1%	395	2,115	97.7%
Aug 17, 2007	100.0%	4,043	88,054	1,021	0	29.6%	261	1,296	98.5%
Aug 18, 2007	100.0%	3,772	79,945	954	0	28.7%	70	715	99.1%
Aug 19, 2007	100.0%	3,766	79,447	959	0	28.4%	133	713	99.1%
Aug 20, 2007	100.0%	4,133	73,113	880	26	28.4%	3,904	12,361	85.5%
Aug 21, 2007	100.0%	4,042	82,322	1,006	0	28.1%	114	860	99.0%
Aug 22, 2007	100.0%	4,060	83,665	1,028	0	27.9%	233	1,309	98.5%
Aug 23, 2007	100.0%	4,067	83,845	1,025	0	28.1%	69	749	99.1%
Aug 24, 2007	100.0%	4,124	90,083	1,056	0	29.2%	211	1,316	98.6%
Aug 25, 2007	100.0%	3,855	88,247	1,033	0	29.3%	273	1,784	98.0%
Aug 26, 2007	100.0%	3,817	86,724	1,026	0	29.0%	299	1,699	98.1%
Aug 27, 2007	100.0%	4,094	88,184	1,051	0	28.8%	430	3,047	96.7%
Aug 28, 2007	100.0%	4,105	87,094	1,044	0	28.6%	537	3,293	96.4%
Aug 29, 2007	100.0%	4,062	87,990	1,052	0	28.7%	604	3,979	95.7%
Aug 30, 2007	100.0%	4,027	89,226	1,055	0	29.0%	881	6,321	93.4%
Aug 31, 2007	100.0%	4,127	89,851	1,060	0	29.1%	241	1,368	98.5%
Total	100.0%	4,145	2,653,820	31,207	26	29.2%	3,904	75,592	97.2%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-18. Daily Summary Table of CHP Performance - August 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Aug 1, 2007	71,930	924	0	303.4	29.4	62.9%
Aug 2, 2007	90,418	1,057	0	392.3	41.6	70.6%
Aug 3, 2007	90,218	1,051	0	394.5	41.9	71.2%
Aug 4, 2007	86,471	1,025	0	392.6	41.9	71.5%
Aug 5, 2007	81,347	999	0	373.5	39.1	69.5%
Aug 6, 2007	87,075	1,040	0	380.7	39.6	69.3%
Aug 7, 2007	87,306	1,007	0	391.5	41.3	73.0%
Aug 8, 2007	90,472	1,031	0	407.9	44.2	74.2%
Aug 9, 2007	86,188	1,019	0	402.1	43.1	72.9%
Aug 10, 2007	84,183	975	0	424.6	45.5	78.1%
Aug 11, 2007	83,481	952	0	416.0	44.1	78.7%
Aug 12, 2007	84,216	947	0	406.9	43.5	78.3%
Aug 13, 2007	89,978	979	0	407.4	44.4	77.9%
Aug 14, 2007	86,134	971	0	421.4	45.6	78.8%
Aug 15, 2007	88,107	971	0	421.5	45.1	79.5%
Aug 16, 2007	88,506	1,010	0	425.0	45.4	76.9%
Aug 17, 2007	88,054	1,021	0	426.2	45.0	76.0%
Aug 18, 2007	79,945	954	0	438.6	46.0	79.8%
Aug 19, 2007	79,447	959	0	417.5	43.5	76.7%
Aug 20, 2007	73,113	880	26	342.7	35.3	71.4%
Aug 21, 2007	82,322	1,006	0	392.7	40.5	71.3%
Aug 22, 2007	83,665	1,028	0	389.9	40.5	70.0%
Aug 23, 2007	83,845	1,025	0	395.1	42.1	70.9%
Aug 24, 2007	90,083	1,056	0	417.9	44.7	73.3%
Aug 25, 2007	88,247	1,033	0	399.6	42.8	72.3%
Aug 26, 2007	86,724	1,026	0	406.0	42.7	73.0%
Aug 27, 2007	88,184	1,051	0	407.8	42.9	71.9%
Aug 28, 2007	87,094	1,044	0	402.3	43.0	71.5%
Aug 29, 2007	87,990	1,052	0	410.1	43.6	72.0%
Aug 30, 2007	89,226	1,055	0	390.3	41.3	70.1%
Aug 31, 2007	89,851	1,060	0	413.4	43.8	72.5%
Total	2,653,820	31,207	26	12,411	1,314	73.4%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-19. Daily Summary Table of Solar Turbine Generation - September 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Sep 1, 2007	100.0%	3,520	78,905	982	0	27.6%	50	731	99.1%
Sep 2, 2007	100.0%	3,599	75,795	960	0	27.1%	54	732	99.0%
Sep 3, 2007	100.0%	3,663	81,221	997	0	28.0%	59	730	99.1%
Sep 4, 2007	100.0%	3,978	83,210	1,025	0	27.9%	157	958	98.9%
Sep 5, 2007	100.0%	3,995	79,898	995	0	27.6%	59	730	99.1%
Sep 6, 2007	100.0%	4,064	83,751	1,024	0	28.0%	58	768	99.1%
Sep 7, 2007	100.0%	4,049	87,909	1,039	0	29.0%	847	5,309	94.3%
Sep 8, 2007	100.0%	3,841	87,490	1,030	0	29.1%	476	3,397	96.3%
Sep 9, 2007	100.0%	3,518	79,736	983	0	27.8%	70	718	99.1%
Sep 10, 2007	100.0%	4,127	88,155	1,046	0	28.9%	86	814	99.1%
Sep 11, 2007	100.0%	4,110	88,816	1,051	0	29.0%	128	965	98.9%
Sep 12, 2007	100.0%	3,984	86,402	1,042	0	28.4%	246	1,794	98.0%
Sep 13, 2007	100.0%	4,014	82,824	1,015	0	28.0%	62	761	99.1%
Sep 14, 2007	100.0%	3,998	83,437	1,012	0	28.3%	117	821	99.0%
Sep 15, 2007	100.0%	3,435	76,882	959	0	27.5%	48	711	99.1%
Sep 16, 2007	100.0%	3,689	75,411	951	0	27.2%	56	738	99.0%
Sep 17, 2007	100.0%	3,984	80,788	1,003	0	27.6%	62	748	99.1%
Sep 18, 2007	100.0%	4,052	82,773	1,018	0	27.9%	88	777	99.1%
Sep 19, 2007	100.0%	4,037	83,875	1,023	0	28.1%	200	1,083	98.7%
Sep 20, 2007	100.0%	4,066	85,610	1,030	0	28.5%	457	2,075	97.6%
Sep 21, 2007	100.0%	4,006	84,927	1,026	0	28.4%	385	1,921	97.8%
Sep 22, 2007	100.0%	3,489	79,656	980	0	27.9%	72	724	99.1%
Sep 23, 2007	100.0%	3,504	79,568	989	0	27.6%	58	723	99.1%
Sep 24, 2007	100.0%	3,956	84,235	1,028	0	28.1%	374	2,072	97.6%
Sep 25, 2007	100.0%	3,978	85,161	1,024	0	28.5%	763	4,598	94.9%
Sep 26, 2007	100.0%	3,955	86,393	1,024	0	28.9%	1,289	10,853	88.8%
Sep 27, 2007	100.0%	4,002	89,302	1,048	0	29.2%	711	4,579	95.1%
Sep 28, 2007	100.0%	3,958	47,759	560	0	29.2%	4,127	41,185	53.7%
Sep 29, 2007	100.0%	3,414	38,164	485	19	26.9%	3,298	36,696	51.0%
Sep 30, 2007	100.0%	3,201	56,121	753	0	25.6%	3,198	13,422	80.7%
Total	100.0%	4,127	2,384,174	29,103	19	28.1%	4,127	142,133	94.4%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-20. Daily Summary Table of CHP Performance - September 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Sep 1, 2007	78,905	982	0	408.3	42.6	73.7%
Sep 2, 2007	75,795	960	0	408.8	42.2	74.3%
Sep 3, 2007	81,221	997	0	410.7	43.1	73.7%
Sep 4, 2007	83,210	1,025	0	412.0	44.2	72.6%
Sep 5, 2007	79,898	995	0	427.6	45.2	75.3%
Sep 6, 2007	83,751	1,024	0	426.6	44.1	74.2%
Sep 7, 2007	87,909	1,039	0	415.7	43.5	73.4%
Sep 8, 2007	87,490	1,030	0	414.7	43.2	73.8%
Sep 9, 2007	79,736	983	0	391.8	40.4	72.0%
Sep 10, 2007	88,155	1,046	0	419.1	44.5	73.4%
Sep 11, 2007	88,816	1,051	0	426.5	45.7	74.1%
Sep 12, 2007	86,402	1,042	0	419.4	44.7	73.2%
Sep 13, 2007	82,824	1,015	0	405.8	41.7	72.3%
Sep 14, 2007	83,437	1,012	0	425.4	42.9	74.8%
Sep 15, 2007	76,882	959	0	423.0	43.0	76.3%
Sep 16, 2007	75,411	951	0	431.6	43.4	77.4%
Sep 17, 2007	80,788	1,003	0	424.8	44.4	74.7%
Sep 18, 2007	82,773	1,018	0	406.9	41.7	72.2%
Sep 19, 2007	83,875	1,023	0	398.4	40.5	71.2%
Sep 20, 2007	85,610	1,030	0	414.5	42.6	73.1%
Sep 21, 2007	84,927	1,026	0	412.6	42.2	73.0%
Sep 22, 2007	79,656	980	0	423.8	43.6	75.8%
Sep 23, 2007	79,568	989	0	415.3	43.1	74.2%
Sep 24, 2007	84,235	1,028	0	418.8	43.0	73.2%
Sep 25, 2007	85,161	1,024	0	404.5	41.9	72.4%
Sep 26, 2007	86,393	1,024	0	404.1	41.9	72.7%
Sep 27, 2007	89,302	1,048	0	406.9	42.2	72.3%
Sep 28, 2007	47,759	560	0	228.9	24.0	74.6%
Sep 29, 2007	38,164	485	19	203.5	20.3	73.0%
Sep 30, 2007	56,121	753	0	343.7	31.9	75.7%
Total	2,384,174	29,103	19	11,973	1,238	73.7%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-21. Daily Summary Table of Solar Turbine Generation - October 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Oct 1, 2007	100.0%	3,996	79,335	993	0	27.4%	104	779	99.0%
Oct 2, 2007	100.0%	4,009	75,993	940	3	27.7%	3,797	7,062	91.5%
Oct 3, 2007	100.0%	4,068	79,356	958	0	28.4%	4,072	8,541	90.3%
Oct 4, 2007	100.0%	4,069	86,734	1,046	0	28.4%	499	3,520	96.1%
Oct 5, 2007	100.0%	4,009	84,236	1,031	0	28.0%	425	2,069	97.6%
Oct 6, 2007	100.0%	3,206	72,680	946	0	26.4%	56	721	99.0%
Oct 7, 2007	100.0%	3,353	70,857	928	0	26.2%	62	712	99.0%
Oct 8, 2007	100.0%	3,717	75,733	960	0	27.1%	56	728	99.0%
Oct 9, 2007	100.0%	4,010	78,833	990	0	27.3%	122	734	99.1%
Oct 10, 2007	100.0%	3,838	81,049	1,003	0	27.7%	66	738	99.1%
Oct 11, 2007	100.0%	4,018	84,103	1,028	0	28.1%	58	717	99.2%
Oct 12, 2007	100.0%	3,928	82,986	1,012	0	28.1%	61	747	99.1%
Oct 13, 2007	100.0%	3,662	71,062	925	0	26.4%	54	712	99.0%
Oct 14, 2007	100.0%	3,315	66,814	882	0	26.0%	53	735	98.9%
Oct 15, 2007	100.0%	3,860	74,195	778	1,776	26.1%	62	714	99.0%
Oct 16, 2007	100.0%	3,865	73,464	960	0	26.2%	56	729	99.0%
Oct 17, 2007	100.0%	4,069	73,820	958	0	26.4%	70	748	99.0%
Oct 18, 2007	100.0%	3,971	77,261	980	0	27.0%	53	745	99.0%
Oct 19, 2007	100.0%	3,675	78,101	968	0	27.7%	66	731	99.1%
Oct 20, 2007	100.0%	3,692	82,286	1,005	0	28.1%	62	735	99.1%
Oct 21, 2007	100.0%	3,599	81,516	1,013	0	27.6%	59	731	99.1%
Oct 22, 2007	100.0%	3,969	77,769	560	4,043	26.4%	3,170	8,522	90.1%
Oct 23, 2007	100.0%	3,551	73,155	0	9,218	24.3%	3,158	13,673	84.3%
Oct 24, 2007	100.0%	3,685	78,925	601	3,743	26.5%	139	732	99.1%
Oct 25, 2007	100.0%	3,808	73,988	940	0	27.0%	66	730	99.0%
Oct 26, 2007	100.0%	3,857	71,323	915	0	26.7%	58	755	99.0%
Oct 27, 2007	100.0%	3,414	65,173	816	0	27.4%	2,935	7,506	89.7%
Oct 28, 2007	100.0%	3,248	69,857	903	0	26.5%	2,782	1,381	98.1%
Oct 29, 2007	100.0%	3,249	66,623	877	0	26.1%	61	684	99.0%
Oct 30, 2007	100.0%	3,657	70,371	924	0	26.1%	66	754	98.9%
Oct 31, 2007	100.0%	3,978	71,024	916	0	26.6%	2,777	3,759	95.0%
Total	100.0%	4,069	2,348,626	27,755	18,783	27.0%	4,072	72,146	97.0%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-22. Daily Summary Table of CHP Performance - October 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Oct 1, 2007	79,335	993	0	403.3	40.1	72.3%
Oct 2, 2007	75,993	940	3	358.0	36.5	69.9%
Oct 3, 2007	79,356	958	0	346.7	35.9	68.6%
Oct 4, 2007	86,734	1,046	0	386.1	39.9	69.3%
Oct 5, 2007	84,236	1,031	0	376.1	38.1	68.4%
Oct 6, 2007	72,680	946	0	417.9	42.5	75.3%
Oct 7, 2007	70,857	928	0	409.7	41.0	75.0%
Oct 8, 2007	75,733	960	0	342.8	33.0	66.4%
Oct 9, 2007	78,833	990	0	357.6	36.4	67.3%
Oct 10, 2007	81,049	1,003	0	418.5	43.7	74.0%
Oct 11, 2007	84,103	1,028	0	405.9	42.5	71.9%
Oct 12, 2007	82,986	1,012	0	410.5	43.3	73.2%
Oct 13, 2007	71,062	925	0	373.7	37.3	71.0%
Oct 14, 2007	66,814	882	0	326.3	31.8	66.8%
Oct 15, 2007	74,195	778	1,776	348.8	33.7	65.4%
Oct 16, 2007	73,464	960	0	349.0	34.4	66.4%
Oct 17, 2007	73,820	958	0	360.5	34.8	67.9%
Oct 18, 2007	77,261	980	0	383.7	33.5	69.8%
Oct 19, 2007	78,101	968	0	410.1	44.0	74.8%
Oct 20, 2007	82,286	1,005	0	430.0	46.4	75.7%
Oct 21, 2007	81,516	1,013	0	439.6	47.1	75.9%
Oct 22, 2007	77,769	560	4,043	405.1	42.6	70.8%
Oct 23, 2007	73,155	0	9,218	407.9	41.1	68.0%
Oct 24, 2007	78,925	601	3,743	432.2	43.6	73.4%
Oct 25, 2007	73,988	940	0	367.6	35.9	70.1%
Oct 26, 2007	71,323	915	0	358.4	34.3	69.9%
Oct 27, 2007	65,173	816	0	346.5	34.5	74.3%
Oct 28, 2007	69,857	903	0	391.1	38.1	74.3%
Oct 29, 2007	66,623	877	0	327.0	26.0	66.5%
Oct 30, 2007	70,371	924	0	335.8	31.5	66.0%
Oct 31, 2007	71,024	916	0	370.4	35.0	71.1%
Total	2,348,626	27,755	18,783	11,797	1,178	70.7%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-23. Daily Summary Table of Solar Turbine Generation - November 2007

Date	Percent Valid Data (%)	Peak Turbine Output (kW)	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	Electrical Efficiency (% LHV)[1,2]	Peak Electric Import (kW)	Total Electricity Imported (kWh)	Percentage of Electricity Generated (%)
Nov 1, 2007	100.0%	4,047	69,658	898	0	26.6%	3,364	5,804	92.3%
Nov 2, 2007	100.0%	3,262	55,757	748	0	25.6%	2,569	7,025	88.8%
Nov 3, 2007	100.0%	0	0	0	0		2,592	41,106	0.0%
Nov 4, 2007	100.0%	0	0	0	0		2,619	58,457	0.0%
Nov 5, 2007	100.0%	3,329	34,244	467	6	25.1%	3,188	31,752	51.9%
Nov 6, 2007	100.0%	3,319	68,794	905	0	26.1%	280	741	98.9%
Nov 7, 2007	100.0%	3,335	67,716	885	0	26.2%	56	728	98.9%
Nov 8, 2007	100.0%	3,237	69,043	892	0	26.6%	58	728	99.0%
Nov 9, 2007	100.0%	3,213	45,625	600	0	26.1%	2,971	22,076	67.4%
Nov 10, 2007	100.0%	2,887	44,206	619	0	24.5%	2,565	17,637	71.5%
Nov 11, 2007	100.0%	2,898	61,780	871	0	24.3%	51	728	98.8%
Nov 12, 2007	100.0%	3,082	64,643	892	0	24.9%	70	746	98.9%
Nov 13, 2007	100.0%	3,375	69,612	909	0	26.3%	59	716	99.0%
Nov 14, 2007	100.0%	3,820	70,536	923	0	26.2%	58	741	99.0%
Nov 15, 2007	100.0%	3,617	75,323	946	0	27.3%	56	750	99.0%
Nov 16, 2007	100.0%	3,270	67,710	907	0	25.6%	58	733	98.9%
Nov 17, 2007	100.0%	2,761	61,196	878	0	23.9%	62	725	98.8%
Nov 18, 2007	100.0%	2,629	60,156	876	0	23.6%	54	730	98.8%
Nov 19, 2007	100.0%	3,647	68,561	927	0	25.4%	61	716	99.0%
Nov 20, 2007	100.0%	3,286	67,697	890	0	26.1%	58	734	98.9%
Nov 21, 2007	100.0%	3,323	67,718	913	0	25.5%	59	720	98.9%
Nov 22, 2007	100.0%	2,890	62,857	861	0	25.0%	53	714	98.9%
Nov 23, 2007	100.0%	3,120	66,518	908	0	25.1%	58	713	98.9%
Nov 24, 2007	100.0%	2,967	65,025	897	0	24.9%	50	697	98.9%
Nov 25, 2007	100.0%	2,998	67,630	909	0	25.5%	48	713	99.0%
Nov 26, 2007	100.0%	3,476	70,391	928	0	26.0%	59	716	99.0%
Nov 27, 2007	100.0%	3,439	69,653	930	0	25.7%	59	725	99.0%
Nov 28, 2007	100.0%	3,218	70,076	941	0	25.5%	51	694	99.0%
Nov 29, 2007	100.0%	3,671	71,460	942	0	26.0%	53	722	99.0%
Nov 30, 2007	100.0%	3,497	70,129	944	0	25.5%	64	730	99.0%
Total	100.0%	4,047	1,803,714	24,206	6	25.6%	3,364	200,518	90.0%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Table A-24. Daily Summary Table of CHP Performance - November 2007

Date	Total Electricity Generated (kWh)	Turbine Natural Gas Input (Mscf)	Turbine Heating Oil Input (gals)	HRSG Heat Recovery (MMBtu)	Economizer Heat Recovery (MMBtu)	Total CHP Efficiency (% LHV)[1,2]
Nov 1, 2007	69,658	898	0	349.6	36.5	69.9%
Nov 2, 2007	55,757	748	0	249.9	23.9	62.4%
Nov 3, 2007	0	0	0	0.0	0.0	
Nov 4, 2007	0	0	0	13.7	0.0	
Nov 5, 2007	34,244	467	6	154.7	11.1	60.7%
Nov 6, 2007	68,794	905	0	329.1	29.9	66.0%
Nov 7, 2007	67,716	885	0	329.1	30.8	67.1%
Nov 8, 2007	69,043	892	0	356.4	33.1	70.5%
Nov 9, 2007	45,625	600	0	226.0	18.3	67.0%
Nov 10, 2007	44,206	619	0	260.4	20.5	70.1%
Nov 11, 2007	61,780	871	0	379.0	25.6	71.1%
Nov 12, 2007	64,643	892	0	364.4	26.5	68.9%
Nov 13, 2007	69,612	909	0	350.1	21.2	67.3%
Nov 14, 2007	70,536	923	0	380.8	24.7	70.3%
Nov 15, 2007	75,323	946	0	394.4	40.2	73.5%
Nov 16, 2007	67,710	907	0	339.4	30.3	66.6%
Nov 17, 2007	61,196	878	0	370.4	24.0	69.0%
Nov 18, 2007	60,156	876	0	384.6	25.8	70.6%
Nov 19, 2007	68,561	927	0	402.6	32.3	72.5%
Nov 20, 2007	67,697	890	0	394.7	30.1	74.1%
Nov 21, 2007	67,718	913	0	375.6	26.2	69.7%
Nov 22, 2007	62,857	861	0	349.0	27.8	69.0%
Nov 23, 2007	66,518	908	0	390.7	32.6	72.0%
Nov 24, 2007	65,025	897	0	417.0	31.0	75.1%
Nov 25, 2007	67,630	909	0	391.5	33.9	72.5%
Nov 26, 2007	70,391	928	0	363.0	28.7	68.4%
Nov 27, 2007	69,653	930	0	341.6	25.5	65.4%
Nov 28, 2007	70,076	941	0	403.0	29.8	71.8%
Nov 29, 2007	71,460	942	0	388.7	26.8	70.3%
Nov 30, 2007	70,129	944	0	405.9	29.5	71.8%
Total	1,803,714	24,206	6	9,856	776	69.7%

Notes: 1 - 995 Btu/cf is used as the LHV of Natural Gas (based on Solar Data)
2 - 111.3 MBtu/gal is the LHV of #2 Fuel Oil (based on Solar Data)

Appendix B

Utility Rate Details

Bangor, Maine

Table B-1. Base Electric Rate for Bangor, Maine

Bangor Hydro-Electric Company

Class D-4 – Primary Power Large Rate – Time-of-Use

Service under this rate is available to commercial or industrial customers where the customer agree to pay for service on the basis of 500 kW or more of demand, takes service at primary voltage and owns and maintains such transformers and other substation facilities as may be required to transform the available voltage to the voltage or voltages required by the customer. Customers taking service under this rate schedule are responsible for paying both Distribution Service and Stranded Cost.

Customer Charge	$ 39.50 / month

Periods

Non-Winter	March – October
Winter	November – February
Peak	Monday – Friday, 7:00AM-12:00PM and 4:00-8:00PM
Shoulder	Mon – Fri, 12:00PM-4:00PM and Sat – Sun, 7:00AM to 8:00PM
Off-Peak	8:00PM-7:00AM

Demand Charges $ per peak kW in defined period

Distribution Service, Stranded Cost and Transmission Service

	Peak	Shoulder	Off-Peak
Winter	$ 8.95 / peak kW	$ 3.33 / peak kW	$ 0.26 / peak kW
Non-Winter	$ 6.61 / peak kW	$ 1.89 / peak kW	$ 0.26 / peak kW

Energy Charges $ per total kWh per defined period

Distribution Service, Stranded Cost, Transmission Service

	Peak	Shoulder	Off-Peak
Winter	$ 0.02246 / total kWh	$ 0.02067 / total kWh	$ 0.010724 / total kWh
Non-Winter	$ 0.02246 / total kWh	$ 0.02067 / total kWh	$ 0.010724 / total kWh

Standard Offer Service[1]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$0.09798	$0.09798	$0.10484	$0.09754	$0.10360	$0.10172	$0.10778	$0.10358	$0.09798	$0.09798	$0.09798	$0.09798

[1] – Standard Offer Prices are from Sep 06-Aug 07 as listed on the Maine Public Utility Commission website

Table B-2. CHP Electric Rate for Bangor, Maine

Bangor Hydro-Electric Company

Class SB-L5 – Standby Large General Service at Primary Voltage – 50% Generation Capacity

Service under this rate is available to all commercial or industrial customers who receive all or any portion of their electric supply from Customer owned generation unit(s) with a nameplate rating equal to or greater than 500 kW. The nameplate rating of Generation Units must be greater than or equal to 50% of the Customer's peak demand based upon the Customer's most recent historical load. Generation Units must have operated at a capacity factor of 80% or greater in the previous calendar year.

Customer Charge	$ 900 / month

Periods

Non-Winter	March – October
Winter	November – February
Peak	Monday – Friday, 7:00AM-12:00PM and 4:00-8:00PM
Shoulder	Mon – Fri, 12:00PM-4:00PM and Sat – Sun, 7:00AM to 8:00PM
Off-Peak	8:00PM-7:00AM

Demand Charges $ per peak kW in defined period

Distribution Service, Stranded Cost and Transmission Service

	Peak	Shoulder	Off-Peak
Winter	$ 7.29 / peak kW	$ 2.36 / peak kW	$ 0.13 / peak kW
Non-Winter	$ 6.12 / peak kW	$ 1.64 / peak kW	$ 0.13 / peak kW

Energy Charges $ per total kWh per defined period

Distribution Service, Stranded Cost, Transmission Service

	Peak	Shoulder	Off-Peak
Winter	$ 0.02246 / total kWh	$ 0.02067 / total kWh	$ 0.010724 / total kWh
Non-Winter	$ 0.02246 / total kWh	$ 0.02067 / total kWh	$ 0.010724 / total kWh

Standard Offer Service[1]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$0.09798	$0.09798	$0.10484	$0.09754	$0.10360	$0.10172	$0.10778	$0.10358	$0.09798	$0.09798	$0.09798	$0.09798

[1] – Standard Offer Prices are from Sep 06-Aug 07 as listed on the Maine Public Utility Commission website

Providence, Rhode Island

Table B-3. Base Electric Rate for Providence, Rhode Island

National Grid – Rhode Island

Service Classification B-62 – 3000 kW Supplemental – Standard Option – December 2007	
Electric delivery service under this rate is applicable to those Customers who would otherwise be served under the Company's 3,000 kW Demand Rate G-62 if the Generation Units were not supplying electricity to the Customer.	
Demand Charges Distribution and Transition Demand Charges:	$ per peak kW $ 3.64 / kW
Energy Charges Energy Charges:	$ per total kWh in Period: Transmission Adjustment, Transition, Conservation, Energy Supply and Renewable Standard Energy Charges $ 0.09625 / kWh

Table B-4. CHP Electric Rate for Providence, Rhode Island

National Grid – Rhode Island

Service Classification G-62 – 3000 kW Demand – Standard Option – December 2007	
This service is primarily available for large commercial and industrial customers with a 12-month maximum demand of 3,000 kW or greater. The standard offer service energy rate was last revised on January 1, 2007.	
Customer Charge	$ 17,118.72
Demand Charges Distribution and Transition Demand Charges:	$ per peak kW $ 3.64 / kW
Energy Charges Energy Charges:	$ per total kWh in Period: Transmission Adjustment, Transition, Conservation, Energy Supply and Renewable Standard Energy Charges $ 0.09625 / kWh

Harrisburg, Pennsylvania

Table B-5. Base and CHP Electric Rate for Harrisburg, Pennsylvania

PPL Electric Utilities

Rate Schedule GS-3 – Large General Service – Secondary Voltage or Higher – December 20007	
This Rate Schedule is for large general service at secondary voltage. Where necessary, the Company furnishes and maintains one transformation from line voltage to a lower Company standard service voltage. New applications with voltage levels higher than the secondary voltage will not be accepted after January 1, 2005.	
Demand Charges	
Distribution Charge and Capacity and Energy Charge	$ 8.654 / kW
Energy Charges	$ per total kWh
Transmission Charge	$ 0.00600 / kWh
Block Charges: Distribution Charge, Competitive Transition Charge, Intangible Transition Charge and Capacity and Energy Charge	
0-200 kWh	$ 0.06322 / kWh
200-400 kWh	$ 0.04842 / kWh
Over 400 kWh	$ 0.04624 / kWh

Chicago, Illinois

Table B-6. Base Electric Rate for Chicago, Illinois

Commonwealth Edison

Rate 6L – Large General Service – Time of Day – Less than 10,000 kW – December 2007	
This rate is applicable to any commercial, industrial, or governmental customer with a maximum 30-minute demand of 1,000 kilowatts or more established during the Demand Peak Periods in three of the twelve months preceding the billing month.	
Customer Charge	$ 246.39
Periods	
Summer[1]	July – September
Nonsummer	All Hours not in the Summer
Peak	9 AM – 10 PM, Monday-Friday
Off-Peak	All Hours not in the Peak
Demand Charges	$ per peak kW
Summer	$ 16.41 / kW
Nonsummer	$ 12.85 / kW
Energy Charges	$ per total kWh in defined period
Summer Peak	$ 0.17761 / kWh
Summer Off-Peak	$ 0.09310 / kWh
Nonsummer Peak	$ 0.17295 / kWh
Nonsummer Off-Peak	$ 0.09540 / kWh

[1] – From the tariff, the Summer begins on the first billing cycle after June 15th and lasts for three months; July 1st will be the average summer start date and is used for the rate definition.

Table B-7. CHP Electric Rate for Chicago, Illinois

Commonwealth Edison

Rate 18 Standby - 1000 kW to 10000 kW Generation – December 2007	
Except for customers that elect to take service under Rate HEP - Hourly Energy Pricing, this rate is applicable to any customer that (1) has installed its own electric generating facilities or is entitled to the output of electric generating facilities installed for its benefit but owned by a third party solely for financing or tax purposes (Customer's Own Electric Generating Facilities) used exclusively to produce all or a portion of the customer's electrical load requirements on a regular basis, and/or (2) uses another form of energy in the operation of its equipment, and desires to use the Company's electric service as a standby, auxiliary or reserve service.	
Customer Charge	$ 344.39
Facilities Charge[2]	$ 2.99 / kW of Standby Capacity
Periods	
Summer[1]	July – September
Nonsummer	All Hours not in the Summer
Peak	9 AM – 10 PM, Monday-Friday
Off-Peak	All Hours not in the Peak
Demand Charges	$ per peak kW
Summer	$ 15.16 / kW
Nonsummer	$ 13.41 / kW
Energy Charges	$ per total kWh in defined period
Summer Peak	$ 0.17761 / kWh
Summer Off-Peak	$ 0.09310 / kWh
Nonsummer Peak	$ 0.17295 / kWh
Nonsummer Off-Peak	$ 0.09540 / kWh

[1] – From the tariff, the Summer begins on the first billing cycle after June 15th and lasts for three months; July 1st will be the average summer start date and is used for the rate definition.

[2] – The customer shall elect a level of Standby Capacity which shall not exceed the sum of the Total Capability of the Customer's Own Electric Generating Facilities.

Los Angeles, California

Table B-8. Base and CHP Electric Rate for Los Angeles, California

Southern California Edison

Schedule TOU-8 – General Service – Large – 2 kV through 50 kV – December 2007	
Applicable to general service including lighting and power, except agricultural water pumping accounts as described in Special Condition 12. This Schedule is applicable to and mandatory for all customers whose monthly maximum demand, in the opinion of SCE, is expected to exceed 500 kW or has exceeded 500 kW in any three months during the preceding 12 months, except that customers served on this Schedule may elect service under any applicable schedules optional hereto.	
Customer Charge	$ 249.77
Facility Demand Charge	$ 9.20 per kW of Facility Demand: Transmission and Distribution Charges
Periods	
Summer On-Peak	12 - 6 PM, Monday – Friday from June – September
Summer Mid-Peak	8 AM – 12 PM and 6 PM to 11 PM, Monday – Friday from June – September
Summer Off-Peak	All Other Hours from June – September
Winter Mid-Peak	8 AM – 9 PM, Monday-Friday from October – May
Winter Off-Peak	All Other Hours from October – May
Demand Charges	$ per peak kW
Summer On-Peak	$ 15.62 / kW
Summer Mid-Peak	$ 5.29 / kW
Energy Charges	$ per total kWh
Summer Peak	$ 0.11538 / kWh
Summer Mid-Peak	$ 0.08754 / kWh
Summer Off-Peak	$ 0.05100 / kWh
Winter Mid-Peak	$ 0.09037 / kWh
Winter Off-Peak	$ 0.05485 / kWh

Filename: SCE_TOU8_2kVto50kV_Dec07.csv

Boston, Massachusetts

Table B-9. Base and CHP Electric Rate for Boston, Massachusetts

National Grid - Massachusetts

Service Classification G-3 – General Service Time-of-Use – Northeastern Mass – Variable Option – December 2006 to November 2007	
This service is primarily available for large commercial and industrial customers with demand greater than 200 kW. This rate is for the Northeastern Massachusetts service area.	
Customer Charge	$ 70.72
Periods	
	January 1 – March 10: 8AM – 9PM, Monday-Friday March 11 – March 31: 9AM – 10PM, Monday-Friday April 1 – October 27: 8AM – 9PM, Monday-Friday October 28 – November 3: 7AM – 8PM, Monday-Friday
Peak	November 4 – December 31: 8AM – 9PM, Monday-Friday
Off-Peak	All Hours not in the Peak Period
Demand Charges	$ per peak kW
Distribution and Transition Demand Charges:	$ 9.06 / kW
Energy Charges	$ per total kWh in Period: Distribution Energy, Transmission, Transition Energy, Demand Side Management and Renewables Charges
Peak Energy:	$ 0.04111 / kWh
Off-Peak Energy:	$ 0.02868 / kWh
Variable Pricing Option[1]	$ per total kWh within defined period

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$0.14107	$0.11804	$0.10803	$0.10406	$0.09403	$0.09878	$0.10435	$0.10990	$0.10099	$0.10435	$0.08718	$0.11117

[1] – The Variable Pricing Option Charges are the historical charges from May 2005 – April 2006 as available at the Mass. Electric Tariff webpage.

New York, New York

Table B-10. Base Electric Rate for New York, New York

Consolidated Edison

Service Classification 9-2 General Large – High Tension (Time-of-Use) for New York City – December 2006 to November 2007

This rate has multiple time of day periods with varying energy and demand charges. A facility will be billed under this classification if the peak demand is over 1,500 kW in any month. A facility will remain under this classification until the peak demand for a 12-month period is less than 900 kW. High Tension is any Alternating Current Service with a voltage level greater than 480V. Only facilities located in a New York City borough can take service under this rate.

Periods

On-Peak	Mon-Fri, 8am-10pm
Off-Peak	All Hours not included in On-Peak
M-F 8am - 6pm	June 1 – September 30 Mon-Fri, 8am-6pm

Demand Charges[1] $ per peak kW within the defined period

On-Peak Market Supply and Monthly Adjustment Charges and Demand Charge

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$18.33	$20.28	$20.10	$20.11	$24.54	$10.80	$10.80	$10.80	$10.80	$24.34	$18.72	$18.26

M-F 8am - 6pm

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					$22.10	$20.94	$21.54	$22.41			

Energy Charges $ per total kWh within defined period

System Benefits, Renewable Portfolio and Energy Delivery Charge $0.0077 per total kWh for all hours

On-Peak Market Supply and Monthly Adjustment Charges

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$0.1302	$0.1000	$0.1036	$0.1052	$0.1088	$0.1207	$0.1467	$0.1338	$0.1071	$0.1075	$0.1083	$0.1065

Off-Peak Market Supply and Monthly Adjustment Charges

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$0.0850	$0.0696	$0.0724	$0.0735	$0.0743	$0.0765	$0.0901	$0.0834	$0.0772	$0.0789	$0.0763	$0.0809

Table B-11. Base Electric Rate for New York, New York

Consolidated Edison

Service Classification 14RA – Standby (SC9 Rate 2 Base) – High Tension for New York City – December 2006 to November 2007

This tariff applies to a facility that generates all or part of its electric load by use of an onsite generator or other power-generating equipment and needs power from the utility to supplement all or part of its electric needs. This rate has variable energy and demand charges by month. The Energy Charges are the same as the otherwise applicable Service Classification. The facility's peak demand must be over 10 kW to qualify for service under this classification. Facilities may select between this classification and SC9-3 if they do not qualify for service under SC9-2. High Tension is any Alternating Current Service with 3 phases and greater than 480V. Only facilities located in New York City can take service under this rate.

Monthly Service Charge $ / month

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$1,592.71	$1,687.52	$1,643.63	$1,682.25	$1,506.01	$1,325.43	$1,123.64	$1,228.76	$1,315.61	$1,349.94	$1,669.87	$1,546.25

Contract Demand[1] $ per contract Kw

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$ 6.27	$ 6.64	$ 6.47	$ 6.62	$ 5.93	$ 5.22	$ 4.42	$ 4.83	$ 5.18	$ 5.31	$ 6.57	$ 6.09

Periods

Period 1 Monday – Friday 8:00AM – 6:00PM

Period 2 Monday – Friday 8:00AM – 10:00PM

Demand Charges $ per peak kW within defined period

Market Supply and Monthly Adjustment Charges $ per peak kW for All Hours

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$ 10.40	$ 12.35	$ 12.17	$ 12.18	$ 16.61	$ 16.39	$ 15.23	$ 15.83	$ 16.70	$ 16.41	$ 10.79	$ 10.33

As-used Daily Demand Charge and Monthly Adjustment Clauses $ per daily peak kW within Period 1

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					$0.4165	$0.3531	$0.3861	$0.4134			

As-used Daily Demand Charge and Monthly Adjustment Clauses $ per daily peak kW within Period 2

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$0.4571	$0.4844	$0.4718	$0.4828	$0.4322	$0.2625	$0.2225	$0.2433	$0.2605	$0.3874	$0.4792	$0.4438

Energy Charges $ per total kWh for All Hours

System Benefits, Renewable Portfolio and Energy Delivery Charge $0.0077 per total kWh for all hours

Market Supply and Monthly Adjustment Charge $ / kWh

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$ 0.1300	$ 0.1000	$ 0.1036	$ 0.1052	$ 0.1088	$ 0.1207	$ 0.1467	$ 0.1338	$ 0.1071	$ 0.1075	$ 0.1083	$ 0.1065

[1] – Contract Demand for the purpose of this Service Classification means the Customer's maximum potential demand.

Syracuse, New York

Table B-12. Base Electric Rate for Syracuse, New York

Niagara Mohawk

Service Classification 3a – Large General Time-of-Use - Primary – Electric Supply Charge (Central Region) – December 2006 to November 2007												
This service is for commercial or industrial customers whose monthly measured demand exceeds 100kW in each of the previous 12 consecutive months and the monthly demand has exceeded 2,000 kW in any two consecutive months of the previous twelve months. Primary customers are served at voltage levels between 2.2 and 15 kV. This rate is for facilities located in the Central Region.												
Service Charge	$ 902.00											
Periods												
On-Peak	8 AM – 10 PM, Monday – Friday											
Off-Peak	All hours not included in On-Peak											
Reactive Demand Charge	$ 1.02 / RkVA in excess of 1/3 peak demand in kW											
Demand Charges	$ per peak kW											
Distribution Delivery and Competitive Transition Charges	$ 10.07 / kW											
Energy Charges[1]	$ per total kWh											
System Benefits, Distribution Delivery and Renewable Portfolio Charges:	$ 0.00473 / kWh											
Transmission Revenue Adjustment	$ per total kWh											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
$0.00194	$0.00203	$0.00214	$0.00269	$0.00253	($0.00020)	$0.00140	$0.00074	$0.00006	($0.00002)	$0.00081	($0.00050)	
Competitive Transition Charge:	On-Peak					Off-Peak						
Up to 250 hours of peak demand	$ 0.00646 / kWh					$ 0.00497 / kWh						
Hourly Electric Charges[1]	See Figure B-1											

[1] – Variable Energy Charges are the hourly charges from December 2006 – November 2007 as available at the Niagara Mohawk website.

Table B-13. CHP Electric Rate for Syracuse, New York

National Grid – New York

Service Classification 7 – Standby – Based on SC3a Primary (Central Region) – December 2006 to November 2007

Standby service rates shall apply to: (a.) customers with on-site generation serving load that is not isolated from the grid in accordance with Rule 1.48; (b.) Wholesale Generators that rely on the electric utility to serve electric loads that would otherwise be served by the generator such as station power used for the heating, lighting, air-conditioning, and office equipment needs of the buildings housing the generator and associated support facilities located on a generating facility's site, and/or to facilitate the re-starting of the generator following an outage. Standby rates will also apply to Wholesale Generators that take station service through the same bus bar as they supply the wholesale grid. This rate is for facilities located in the Central Region.

Service Charge	$ 1,073.83 for Distribution Delivery and Competitive Transition Charges
Contract Demand Charge[2]	$ 4.42 / kW for Distribution Delivery and Competitive Transition Charges
Reactive Demand Charge	$ 1.02 / RkVA in excess of 1/3 peak demand in kW
Demand Charges	$ 0.3732 per daily peak kW for Distribution Delivery and Competitive Transition Charges
Energy Charges	$ per total kWh
System Benefits and Renewable Portfolio Charges	$ 0.002250 / kWh

Transmission Revenue Adjustment — $ per total kWh

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
$0.00194	$0.00203	$0.00214	$0.00269	$0.00253	($0.00020)	$0.00140	$0.00074	$0.00006	($0.00002)	$0.00081	($0.00050)

Hourly Electric Charges[1] — Figure B-1

[1] – Variable Energy Charges are the hourly charges from December 2006 – November 2007 as available at the Niagara Mohawk website.

[2] - Standby Contract Demand shall be the maximum anticipated demand of the customer.

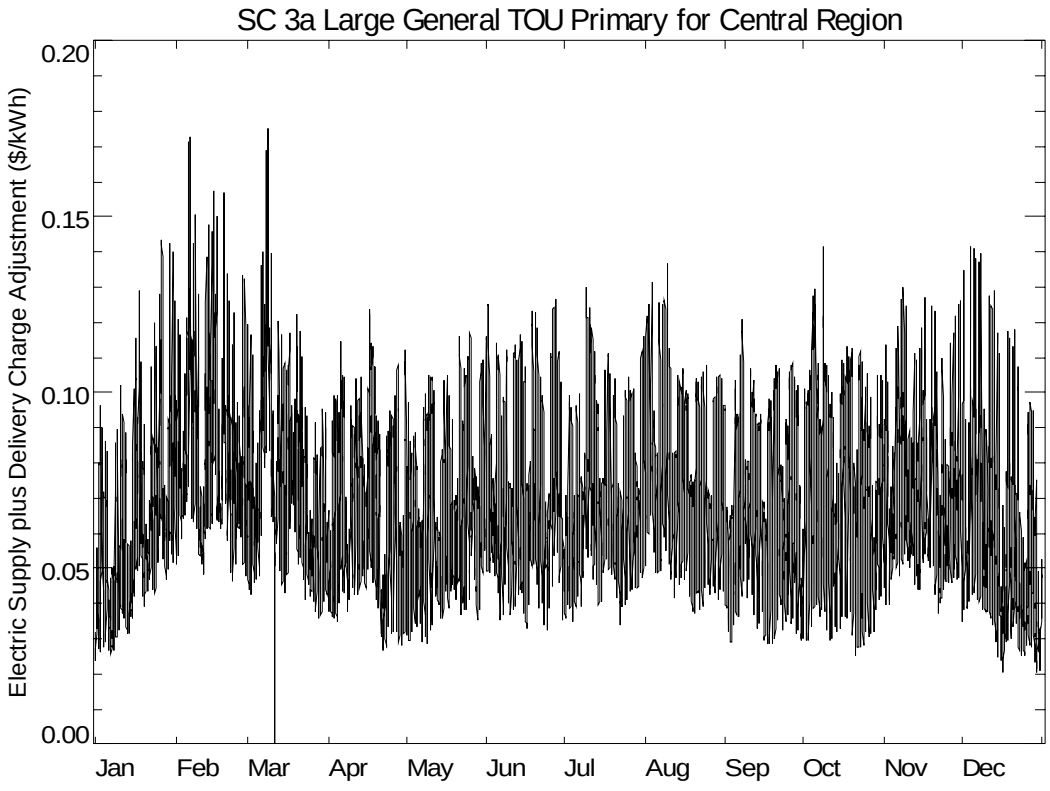


Figure B-1. Daily Electric Charges for SC3a from October 2005 through September 2006 for Central Region

Appendix C

Detailed Simulation Runs from Economic Analysis

Bangor, ME: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	103,708	$ 275,136	0	$ -	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	93,831	$ 248,934	0	$ -	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	99,256	$ 263,326	0	$ -	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	86,364	$ 229,124	0	$ -	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	82,634	$ 219,227	0	$ -	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	70,446	$ 186,892	0	$ -	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	67,006	$ 177,766	0	$ -	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	68,638	$ 182,096	0	$ -	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	73,955	$ 196,203	0	$ -	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	87,007	$ 230,831	0	$ -	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	91,473	$ 242,677	0	$ -	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	102,562	$ 272,098	0	$ -	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*1,026,879*	*$ 2,724,309*	*0*	*$ -*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 2.65 per gal					$ 0.2061 per kWh		$ 1.31 per therm	

Providence, RI: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,902.3	2,105,595	$ 233,987	101,888	$ 270,512	0	$ -	30.0	22,320	$ 2,258	274,267	$ 466,253
February	3,541.6	1,908,249	$ 213,679	91,244	$ 242,254	0	$ -	30.0	20,160	$ 2,050	247,879	$ 421,395
March	3,789.8	2,177,426	$ 240,491	96,187	$ 255,377	0	$ -	30.0	22,320	$ 2,258	277,001	$ 470,901
April	4,099.0	2,236,917	$ 247,342	85,198	$ 226,202	0	$ -	30.0	21,600	$ 2,188	274,638	$ 466,884
May	4,459.6	2,576,417	$ 281,332	77,678	$ 206,236	0	$ -	42.9	22,333	$ 2,306	298,637	$ 507,682
June	4,722.6	2,692,664	$ 293,478	67,343	$ 178,795	0	$ -	480.3	28,142	$ 4,457	299,773	$ 509,614
July	4,863.8	2,939,063	$ 317,708	63,611	$ 168,888	0	$ -	723.7	49,629	$ 7,411	317,355	$ 539,503
August	4,722.6	2,892,141	$ 312,678	65,628	$ 174,242	0	$ -	480.3	36,143	$ 5,227	315,545	$ 536,427
September	4,637.9	2,645,364	$ 288,617	68,976	$ 183,131	0	$ -	334.4	26,188	$ 3,738	297,204	$ 505,246
October	4,361.3	2,443,628	$ 268,193	82,878	$ 220,041	0	$ -	30.0	22,320	$ 2,258	291,199	$ 495,038
November	4,131.8	2,198,288	$ 243,744	87,717	$ 232,888	0	$ -	30.0	21,600	$ 2,188	272,720	$ 463,625
December	3,803.9	2,138,926	$ 236,837	99,211	$ 263,406	0	$ -	30.0	22,320	$ 2,258	275,690	$ 468,673
Totals	*4,863.8*	*28,954,676*	*$ 3,178,084*	*987,560*	*$ 2,621,971*	*0*	*$ -*	*723.7*	*315,075*	*$ 38,595*	*3,441,907*	*$ 5,851,241*
Average Rate		$ 0.1098 per kWh		$ 2.65 per gal					$ 0.1225 per kWh		$ 1.70 per therm	

Bangor, ME: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	103,708	$ 275,136	(273,651)	$ (358,483)	$ 200,961
February	3,249.4	1,856,141	$ 257,944	93,831	$ 248,934	(247,024)	$ (323,601)	$ 183,277
March	3,511.6	2,103,852	$ 291,742	99,256	$ 263,326	(274,718)	$ (359,880)	$ 195,188
April	4,080.4	2,207,892	$ 293,603	86,364	$ 229,124	(274,433)	$ (359,507)	$ 163,221
May	4,416.7	2,425,352	$ 336,448	82,634	$ 219,227	(291,405)	$ (381,740)	$ 173,935
June	4,201.5	2,585,803	$ 350,513	70,446	$ 186,892	(295,354)	$ (386,913)	$ 150,492
July	4,160.5	2,810,888	$ 394,523	67,006	$ 177,766	(312,949)	$ (409,963)	$ 162,325
August	4,283.2	2,782,447	$ 380,109	68,638	$ 182,096	(311,433)	$ (407,977)	$ 154,228
September	4,416.7	2,494,108	$ 330,810	73,955	$ 196,203	(290,177)	$ (380,132)	$ 146,881
October	4,396.8	2,333,196	$ 311,946	87,007	$ 230,831	(286,428)	$ (375,220)	$ 167,557
November	4,232.9	2,122,592	$ 300,964	91,473	$ 242,677	(270,149)	$ (353,895)	$ 189,746
December	3,413.3	2,058,985	$ 283,736	102,562	$ 272,098	(273,352)	$ (358,092)	$ 197,742
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*1,026,879*	*$ 2,724,309*	*(3,401,071)*	*$ (4,455,403)*	*$ 2,085,555*
Average Rate		$ 0.1371 per kWh		$ 2.65 per gal		$ 1.31 per therm		

Providence, RI: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,872.3	2,083,275	$ 231,729	101,888	$ 270,512	(274,267)	$ (466,253)	$ 35,988
February	3,511.6	1,888,089	$ 211,630	91,244	$ 242,254	(247,879)	$ (421,395)	$ 32,488
March	3,759.8	2,155,106	$ 238,233	96,187	$ 255,377	(277,001)	$ (470,901)	$ 22,709
April	4,069.0	2,215,317	$ 245,154	85,198	$ 226,202	(274,638)	$ (466,884)	$ 4,471
May	4,416.7	2,554,084	$ 279,026	77,678	$ 206,236	(298,637)	$ (507,682)	$ (22,421)
June	4,242.3	2,664,522	$ 289,021	67,343	$ 178,795	(299,773)	$ (509,614)	$ (41,798)
July	4,140.0	2,889,434	$ 310,296	63,611	$ 168,888	(317,355)	$ (539,503)	$ (60,319)
August	4,242.3	2,855,998	$ 307,451	65,628	$ 174,242	(315,545)	$ (536,427)	$ (54,734)
September	4,303.6	2,619,176	$ 284,879	68,976	$ 183,131	(297,204)	$ (505,246)	$ (37,235)
October	4,331.3	2,421,308	$ 265,935	82,878	$ 220,041	(291,199)	$ (495,038)	$ (9,061)
November	4,101.8	2,176,688	$ 241,555	87,717	$ 232,888	(272,720)	$ (463,625)	$ 10,819
December	3,773.9	2,116,606	$ 234,579	99,211	$ 263,406	(275,690)	$ (468,673)	$ 29,312
Totals	*4,140.0*	*28,639,600*	*$ 3,139,489*	*987,560*	*$ 2,621,971*	*(3,441,907)*	*$ (5,851,241)*	*$ (89,780)*
Average Rate		$ 0.1096 per kWh		$ 2.65 per gal		$ 1.70 per therm		

Bangor, ME: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Heating (Mlbs)	HRSG Steam to Cooling (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Providence, RI: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,714	2,077,932	274,267	28.7	5,343	12,065	103	10,993.5	392.2	74.8%	76.7%
February	3,403	1,879,205	247,879	28.7	8,884	10,805	0	10,109.9	-	74.1%	-
March	3,601	2,119,715	277,001	29.0	35,391	11,390	217	10,065.0	795.6	72.2%	77.6%
April	3,883	2,151,795	274,638	29.7	63,522	10,089	764	7,385.4	2,769.6	68.8%	77.1%
May	4,181	2,450,393	298,637	31.1	103,691	9,198	3,684	615.6	11,438.0	67.1%	76.5%
June	4,181	2,535,952	299,773	32.1	128,571	7,974	4,827	-	11,977.8	-	76.5%
July	4,181	2,736,478	317,355	32.7	152,956	7,532	5,894	-	12,562.9	-	76.7%
August	4,181	2,708,818	315,545	32.6	147,180	7,771	5,588	-	12,500.2	-	76.6%
September	4,181	2,496,680	297,204	31.9	122,496	8,168	4,600	-	11,947.2	-	76.5%
October	4,109	2,336,716	291,199	30.4	84,592	9,814	2,315	3,479.5	7,869.9	68.2%	76.7%
November	3,911	2,122,489	272,720	29.5	54,199	10,387	750	7,670.9	2,750.0	70.4%	76.8%
December	3,629	2,099,684	275,690	28.9	16,922	11,748	101	10,693.2	393.5	73.4%	77.5%
Totals	*4,181*	*27,715,855*	*3,441,907*	*30.5*	*923,745*	*116,941*	*28,843*	*61,013.0*	*75,397.0*	*71.1%*	*76.8%*
										Combined CHP Eff:	*74.6%*

Boston, MA: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,640.0	2,106,969	$ 401,322	102,585	$ 272,978	0	$ -	30.0	22,320	$ 4,238	274,242	$ 326,347
February	3,377.7	1,905,687	$ 319,970	91,130	$ 242,496	0	$ -	30.0	20,160	$ 3,397	247,525	$ 294,555
March	3,967.8	2,162,800	$ 335,145	96,982	$ 258,070	0	$ -	30.0	22,320	$ 3,428	276,308	$ 328,806
April	4,553.3	2,211,880	$ 334,928	86,249	$ 229,508	0	$ -	188.5	21,956	$ 4,693	273,229	$ 325,143
May	4,666.2	2,601,135	$ 361,532	76,723	$ 204,161	0	$ -	383.0	23,786	$ 6,460	299,934	$ 356,921
June	4,779.1	2,698,631	$ 387,337	67,096	$ 178,543	0	$ -	577.6	31,327	$ 9,297	299,923	$ 356,908
July	4,835.5	2,932,318	$ 433,967	63,884	$ 169,996	0	$ -	675.0	49,488	$ 12,770	316,960	$ 377,182
August	4,694.4	2,887,360	$ 442,732	65,804	$ 175,104	0	$ -	431.7	37,729	$ 9,210	315,176	$ 375,060
September	4,722.6	2,643,004	$ 385,576	69,081	$ 183,826	0	$ -	480.3	25,005	$ 7,665	297,122	$ 353,576
October	4,230.1	2,487,091	$ 369,253	81,063	$ 215,707	0	$ -	30.0	22,320	$ 3,312	293,606	$ 349,391
November	4,197.3	2,175,094	$ 290,105	88,902	$ 236,569	0	$ -	30.0	21,600	$ 2,845	271,519	$ 323,107
December	3,836.7	2,155,901	$ 336,334	97,866	$ 260,421	0	$ -	30.0	22,320	$ 3,464	276,350	$ 328,857
Totals	*4,835.5*	*28,967,869*	*$ 4,398,201*	*987,365*	*$ 2,627,378*	*0*	*$ -*	*675.0*	*320,331*	*$ 70,778*	*3,441,893*	*$ 4,095,853*
Average Rate		$ 0.1518 per kWh		$ 2.66 per gal					$ 0.2210 per kWh		$ 1.19 per therm	

Los Angeles, CA: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	4,553.3	2,533,678	$ 226,724	79,285	$ 209,234	0	$ -	188.5	22,773	$ 10,148	296,198	$ 275,464
February	4,637.9	2,281,562	$ 209,310	71,745	$ 189,335	0	$ -	334.4	21,112	$ 10,059	267,080	$ 248,384
March	4,426.8	2,581,772	$ 229,672	77,289	$ 203,965	0	$ -	30.0	22,320	$ 10,093	298,894	$ 277,972
April	4,637.9	2,539,475	$ 226,508	73,189	$ 193,145	0	$ -	334.4	22,283	$ 10,128	291,505	$ 271,100
May	4,581.5	2,692,923	$ 237,569	73,231	$ 193,257	0	$ -	237.1	22,919	$ 10,158	305,154	$ 283,793
June	4,394.1	2,627,801	$ 334,251	69,829	$ 184,279	0	$ -	30.0	21,600	$ 10,743	296,520	$ 275,763
July	4,492.4	2,810,020	$ 347,720	68,608	$ 181,056	0	$ -	91.4	22,456	$ 11,828	311,733	$ 289,912
August	4,609.7	2,829,008	$ 356,513	68,055	$ 179,596	0	$ -	285.7	23,336	$ 14,774	312,786	$ 290,891
September	4,920.2	2,720,272	$ 343,836	66,124	$ 174,501	0	$ -	821.3	27,470	$ 23,326	301,330	$ 280,237
October	4,694.4	2,742,912	$ 242,799	71,327	$ 188,233	0	$ -	431.7	23,090	$ 10,211	307,957	$ 286,400
November	4,553.3	2,561,559	$ 228,263	72,518	$ 191,375	0	$ -	188.5	22,004	$ 10,090	292,806	$ 272,309
December	4,581.5	2,572,077	$ 226,143	77,495	$ 204,508	0	$ -	237.1	23,067	$ 10,146	298,261	$ 277,383
Totals	*4,920.2*	*31,493,057*	*$ 3,209,308*	*868,695*	*$ 2,292,486*	*0*	*$ -*	*821.3*	*274,428*	*$ 141,705*	*3,580,225*	*$ 3,329,609*
Average Rate		$ 0.1019 per kWh		$ 2.64 per gal					$ 0.5164 per kWh		$ 0.93 per therm	

Boston, MA: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,610.0	2,084,649	$ 397,084	102,585	$ 272,978	(274,242)	$ (326,347)	$ 343,714
February	3,347.7	1,885,527	$ 316,573	91,130	$ 242,496	(247,525)	$ (294,555)	$ 264,514
March	3,937.8	2,140,480	$ 331,717	96,982	$ 258,070	(276,308)	$ (328,806)	$ 260,980
April	4,364.7	2,189,924	$ 330,235	86,249	$ 229,508	(273,229)	$ (325,143)	$ 234,600
May	4,283.2	2,577,349	$ 355,072	76,723	$ 204,161	(299,934)	$ (356,921)	$ 202,312
June	4,201.5	2,667,304	$ 378,040	67,096	$ 178,543	(299,923)	$ (356,908)	$ 199,674
July	4,160.5	2,882,829	$ 421,197	63,884	$ 169,996	(316,960)	$ (377,182)	$ 214,011
August	4,262.7	2,849,631	$ 433,522	65,804	$ 175,104	(315,176)	$ (375,060)	$ 233,567
September	4,242.3	2,617,998	$ 377,911	69,081	$ 183,826	(297,122)	$ (353,576)	$ 208,162
October	4,200.1	2,464,771	$ 365,942	81,063	$ 215,707	(293,606)	$ (349,391)	$ 232,258
November	4,167.3	2,153,494	$ 287,260	88,902	$ 236,569	(271,519)	$ (323,107)	$ 200,722
December	3,806.7	2,133,581	$ 332,870	97,866	$ 260,421	(276,350)	$ (328,857)	$ 264,434
Totals	*4,160.5*	*28,647,537*	*$ 4,327,423*	*987,365*	*$ 2,627,378*	*(3,441,893)*	*$ (4,095,853)*	*$ 2,858,948*
Average Rate		$ 0.1511 per kWh		$ 2.66 per gal		$ 1.19 per therm		

Los Angeles, CA: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	4,364.7	2,510,905	$ 216,577	79,285	$ 209,234	(296,198)	$ (275,464)	$ 150,346
February	4,303.6	2,260,450	$ 199,251	71,745	$ 189,335	(267,080)	$ (248,384)	$ 140,202
March	4,396.8	2,559,452	$ 219,579	77,289	$ 203,965	(298,894)	$ (277,972)	$ 145,572
April	4,303.6	2,517,192	$ 216,381	73,189	$ 193,145	(291,505)	$ (271,100)	$ 138,426
May	4,344.4	2,670,004	$ 227,411	73,231	$ 193,257	(305,154)	$ (283,793)	$ 136,875
June	4,364.1	2,606,201	$ 323,507	69,829	$ 184,279	(296,520)	$ (275,763)	$ 232,023
July	4,401.0	2,787,564	$ 335,891	68,608	$ 181,056	(311,733)	$ (289,912)	$ 227,035
August	4,324.0	2,805,673	$ 341,739	68,055	$ 179,596	(312,786)	$ (290,891)	$ 230,444
September	4,098.9	2,692,802	$ 320,509	66,124	$ 174,501	(301,330)	$ (280,237)	$ 214,773
October	4,262.7	2,719,821	$ 232,588	71,327	$ 188,233	(307,957)	$ (286,400)	$ 134,421
November	4,364.7	2,539,555	$ 218,173	72,518	$ 191,375	(292,806)	$ (272,309)	$ 137,239
December	4,344.4	2,549,009	$ 215,997	77,495	$ 204,508	(298,261)	$ (277,383)	$ 143,122
Totals	*4,098.9*	*31,218,629*	*$ 3,067,603*	*868,695*	*$ 2,292,486*	*(3,580,225)*	*$ (3,329,609)*	*$ 2,030,479*
Average Rate		$ 0.0983 per kWh		$ 2.64 per gal		$ 0.93 per therm		

Boston, MA: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,488	2,077,548	274,242	28.7	7,101	12,147	0	11,366.4	-	74.8%	-
February	3,262	1,873,787	247,525	28.7	11,740	10,791	0	10,097.2	-	74.0%	-
March	3,770	2,109,129	276,308	28.9	31,351	11,484	104	10,443.9	399.5	72.4%	77.7%
April	4,181	2,130,265	273,229	29.6	59,660	10,213	480	8,425.1	1,580.3	69.2%	77.0%
May	4,181	2,470,216	299,934	31.2	107,133	9,085	3,627	1,239.7	10,655.4	67.3%	76.4%
June	4,181	2,538,239	299,923	32.1	129,065	7,945	4,864	-	11,985.2	-	76.5%
July	4,181	2,730,441	316,960	32.7	152,389	7,565	5,852	-	12,554.4	-	76.7%
August	4,181	2,703,179	315,176	32.5	146,453	7,792	5,561	-	12,494.6	-	76.6%
September	4,181	2,495,439	297,122	31.8	122,560	8,180	4,569	-	11,929.4	-	76.5%
October	3,996	2,373,511	293,606	30.7	91,260	9,599	2,711	2,483.7	9,034.5	67.4%	76.6%
November	3,968	2,104,119	271,519	29.4	49,375	10,527	440	8,687.8	1,574.1	70.5%	76.7%
December	3,657	2,109,777	276,350	29.0	23,804	11,589	214	10,260.6	783.1	73.1%	76.8%
Totals	*4,181*	*27,715,648*	*3,441,893*	*30.5*	*931,890*	*116,918*	*28,422*	*63,004.3*	*72,990.6*	*71.1%*	*76.7%*
										Combined CHP Eff:	*74.4%*

Los Angeles, CA: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	4,181	2,413,128	296,198	30.9	97,778	9,389	3,582	-	12,136.7	-	76.4%
February	4,181	2,172,659	267,080	30.8	87,791	8,496	3,211	-	10,953.8	-	76.4%
March	4,165	2,454,331	298,894	31.1	105,120	9,152	3,837	-	12,154.3	-	76.3%
April	4,181	2,409,593	291,505	31.3	107,599	8,667	3,941	-	11,797.3	-	76.3%
May	4,181	2,549,999	305,154	31.7	120,005	8,672	4,434	-	12,263.3	-	76.3%
June	4,137	2,486,231	296,520	31.8	119,970	8,269	4,449	-	11,900.1	-	76.4%
July	4,181	2,650,560	311,733	32.2	137,005	8,124	5,136	-	12,407.3	-	76.5%
August	4,181	2,666,656	312,786	32.3	139,017	8,059	5,220	-	12,424.5	-	76.5%
September	4,181	2,559,755	301,330	32.2	133,047	7,830	5,011	-	12,015.5	-	76.5%
October	4,181	2,592,838	307,957	31.9	126,983	8,446	4,723	-	12,322.6	-	76.4%
November	4,181	2,429,465	292,806	31.5	110,090	8,587	4,047	-	11,821.9	-	76.3%
December	4,181	2,444,659	298,261	31.1	104,350	9,176	3,654	610.1	11,395.8	66.6%	76.4%
Totals	*4,181*	*29,829,873*	*3,580,225*	*31.6*	*1,388,756*	*102,866*	*51,247*	*610.1*	*143,592.9*	*66.6%*	*76.4%*
										Combined CHP Eff:	*76.3%*

Chicago, IL: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,607.2	2,085,674	$ 115,324	103,431	$ 273,471	0	$ -	30.0	22,320	$ 4,331	274,096	$ 293,283
February	3,607.2	1,900,055	$ 109,387	92,345	$ 244,160	0	$ -	30.0	20,160	$ 4,263	247,764	$ 265,108
March	3,869.5	2,156,780	$ 121,112	98,293	$ 259,887	0	$ -	30.0	22,320	$ 4,331	276,262	$ 295,600
April	4,164.6	2,256,312	$ 128,361	84,710	$ 223,972	0	$ -	30.0	21,600	$ 4,305	275,789	$ 295,095
May	4,666.2	2,619,036	$ 147,324	76,060	$ 201,102	0	$ -	383.0	27,213	$ 9,292	300,738	$ 321,790
June	4,835.5	2,771,897	$ 154,321	64,275	$ 169,942	0	$ -	675.0	48,736	$ 14,290	302,978	$ 324,187
July	4,948.5	2,968,367	$ 178,254	62,433	$ 165,073	0	$ -	870.2	58,415	$ 18,806	318,525	$ 340,822
August	4,750.9	2,899,906	$ 175,702	65,318	$ 172,700	0	$ -	529.0	37,776	$ 12,725	315,894	$ 338,007
September	4,750.9	2,643,624	$ 162,842	69,053	$ 182,576	0	$ -	529.0	29,026	$ 12,272	296,907	$ 317,690
October	4,426.8	2,475,784	$ 140,945	81,979	$ 216,752	0	$ -	30.0	22,320	$ 4,343	293,087	$ 313,603
November	4,361.3	2,146,290	$ 126,756	91,322	$ 241,457	0	$ -	30.0	21,600	$ 4,305	270,190	$ 289,103
December	3,607.2	2,093,016	$ 113,384	102,275	$ 270,415	0	$ -	30.0	22,320	$ 4,309	273,743	$ 292,905
Totals	*4,948.5*	*29,016,738*	*$ 1,673,713*	*991,493*	*$ 2,621,508*	*0*	*$ -*	*870.2*	*353,806*	*$ 97,571*	*3,445,973*	*$ 3,687,191*
Average Rate		$ 0.0577 per kWh		$ 2.64 per gal					$ 0.2758 per kWh		$ 1.07 per therm	

Harrisburg, PA: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,902.3	2,120,966	$ 144,573	101,013	$ 254,249	0	$ -	30.0	22,320	$ 1,429	274,945	$ 335,432
February	3,967.8	1,922,865	$ 134,792	90,929	$ 228,868	0	$ -	30.0	20,160	$ 1,317	248,463	$ 303,125
March	4,295.7	2,241,854	$ 154,293	92,412	$ 232,602	0	$ -	30.0	22,320	$ 1,429	280,306	$ 341,973
April	4,637.9	2,311,748	$ 160,906	82,601	$ 207,908	0	$ -	334.4	22,636	$ 4,080	278,845	$ 340,191
May	4,553.3	2,668,334	$ 178,801	74,165	$ 186,673	0	$ -	188.5	23,132	$ 2,844	303,758	$ 370,584
June	4,807.3	2,770,868	$ 186,357	64,334	$ 161,929	0	$ -	626.3	39,381	$ 7,481	303,496	$ 370,265
July	4,835.5	3,006,070	$ 198,888	61,012	$ 153,567	0	$ -	675.0	57,288	$ 8,838	320,696	$ 391,249
August	4,948.5	2,975,064	$ 198,245	62,356	$ 156,951	0	$ -	870.2	61,532	$ 10,749	318,720	$ 388,839
September	4,863.8	2,719,204	$ 184,146	66,140	$ 166,474	0	$ -	723.7	33,341	$ 8,009	300,924	$ 367,128
October	4,609.7	2,508,876	$ 170,960	80,472	$ 202,549	0	$ -	285.7	24,248	$ 3,743	294,767	$ 359,616
November	3,902.3	2,194,808	$ 148,431	88,467	$ 222,670	0	$ -	30.0	21,600	$ 1,392	272,675	$ 332,663
December	3,508.9	2,106,823	$ 140,430	100,865	$ 253,876	0	$ -	30.0	22,320	$ 1,429	273,892	$ 334,148
Totals	*4,948.5*	*29,547,478*	*$ 2,000,823*	*964,766*	*$ 2,428,317*	*0*	*$ -*	*870.2*	*370,277*	*$ 52,741*	*3,471,487*	*$ 4,235,214*
Average Rate		$ 0.0677 per kWh		$ 2.52 per gal					$ 0.1424 per kWh		$ 1.22 per therm	

Chicago, IL: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,577.2	2,063,354	$ 110,992	103,431	$ 273,471	(274,096)	$ (293,283)	$ 91,180
February	3,577.2	1,879,895	$ 105,125	92,345	$ 244,160	(247,764)	$ (265,108)	$ 84,177
March	3,839.5	2,134,460	$ 116,781	98,293	$ 259,887	(276,262)	$ (295,600)	$ 81,068
April	4,134.6	2,234,712	$ 124,057	84,710	$ 223,972	(275,789)	$ (295,095)	$ 52,934
May	4,283.2	2,591,823	$ 138,032	76,060	$ 201,102	(300,738)	$ (321,790)	$ 17,344
June	4,160.5	2,723,160	$ 140,031	64,275	$ 169,942	(302,978)	$ (324,187)	$ (14,213)
July	4,078.3	2,909,952	$ 159,448	62,433	$ 165,073	(318,525)	$ (340,822)	$ (16,300)
August	4,221.9	2,862,129	$ 162,976	65,318	$ 172,700	(315,894)	$ (338,007)	$ (2,331)
September	4,221.9	2,614,598	$ 150,570	69,053	$ 182,576	(296,907)	$ (317,690)	$ 15,457
October	4,396.8	2,453,464	$ 136,603	81,979	$ 216,752	(293,087)	$ (313,603)	$ 39,752
November	4,331.3	2,124,690	$ 122,452	91,322	$ 241,457	(270,190)	$ (289,103)	$ 74,805
December	3,577.2	2,070,696	$ 109,075	102,275	$ 270,415	(273,743)	$ (292,905)	$ 86,585
Totals	*4,078.3*	*28,662,932*	*$ 1,576,142*	*991,493*	*$ 2,621,508*	*(3,445,973)*	*$ (3,687,191)*	*$ 510,459*
Average Rate		$ 0.0550 per kWh		$ 2.64 per gal		$ 1.07 per therm		

Harrisburg, PA: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,872.3	2,098,646	$ 143,144	101,013	$ 254,249	(274,945)	$ (335,432)	$ 61,961
February	3,937.8	1,902,705	$ 133,475	90,929	$ 228,868	(248,463)	$ (303,125)	$ 59,218
March	4,265.7	2,219,534	$ 152,864	92,412	$ 232,602	(280,306)	$ (341,973)	$ 43,492
April	4,303.6	2,289,112	$ 156,826	82,601	$ 207,908	(278,845)	$ (340,191)	$ 24,543
May	4,364.7	2,645,203	$ 175,958	74,165	$ 186,673	(303,758)	$ (370,584)	$ (7,954)
June	4,181.0	2,731,487	$ 178,875	64,334	$ 161,929	(303,496)	$ (370,265)	$ (29,460)
July	4,160.5	2,948,782	$ 190,050	61,012	$ 153,567	(320,696)	$ (391,249)	$ (47,632)
August	4,078.3	2,913,531	$ 187,496	62,356	$ 156,951	(318,720)	$ (388,839)	$ (44,391)
September	4,140.0	2,685,863	$ 176,137	66,140	$ 166,474	(300,924)	$ (367,128)	$ (24,516)
October	4,324.0	2,484,628	$ 167,217	80,472	$ 202,549	(294,767)	$ (359,616)	$ 10,149
November	3,872.3	2,173,208	$ 147,039	88,467	$ 222,670	(272,675)	$ (332,663)	$ 37,046
December	3,478.9	2,084,503	$ 139,000	100,865	$ 253,876	(273,892)	$ (334,148)	$ 58,729
Totals	*4,078.3*	*29,177,201*	*$ 1,948,082*	*964,766*	*$ 2,428,317*	*(3,471,487)*	*$ (4,235,214)*	*$ 141,185*
Average Rate		$ 0.0668 per kWh		$ 2.52 per gal		$ 1.22 per therm		

Chicago, IL: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,460	2,075,329	274,096	28.7	-11,975	12,248	0	11,460.1	-	75.2%	-
February	3,460	1,877,443	247,764	28.7	2,453	10,935	0	10,231.8	-	74.6%	-
March	3,685	2,108,420	276,262	28.9	26,040	11,639	247	10,332.7	789.6	73.4%	76.8%
April	3,939	2,169,395	275,789	29.8	65,317	10,031	1,110	6,455.1	3,969.4	69.0%	77.4%
May	4,181	2,482,514	300,738	31.3	109,310	9,007	3,964	624.1	11,512.5	67.5%	76.7%
June	4,181	2,584,936	302,978	32.4	138,224	7,611	5,298	-	12,079.1	-	76.7%
July	4,181	2,754,359	318,525	32.8	155,592	7,393	6,072	-	12,599.6	-	76.7%
August	4,181	2,714,155	315,894	32.6	147,974	7,735	5,635	-	12,509.8	-	76.6%
September	4,181	2,492,141	296,907	31.8	122,457	8,177	4,589	-	11,945.2	-	76.5%
October	4,165	2,365,570	293,087	30.6	87,894	9,707	2,654	3,251.4	8,315.6	69.3%	76.8%
November	4,109	2,083,814	270,190	29.2	40,876	10,814	367	9,281.3	1,181.0	71.8%	76.4%
December	3,460	2,069,931	273,743	28.7	765	12,111	91	11,029.2	388.2	75.0%	76.4%
Totals	*4,181*	*27,778,004*	*3,445,973*	*30.6*	*884,928*	*117,407*	*30,029*	*62,665.8*	*75,289.9*	*72.0%*	*76.7%*
										Combined CHP Eff:	*75.1%*

Harrisburg, PA: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,714	2,088,292	274,945	28.8	10,353	11,961	0	11,192.2	-	74.0%	-
February	3,770	1,888,131	248,463	28.8	14,573	10,767	109	9,777.6	399.2	74.2%	77.5%
March	4,052	2,170,233	280,306	29.4	49,302	10,943	399	9,413.0	1,199.6	70.8%	77.0%
April	4,140	2,216,098	278,845	30.1	73,014	9,781	1,774	4,889.5	5,922.9	69.4%	76.8%
May	4,181	2,528,662	303,758	31.6	116,541	8,782	4,272	311.4	11,903.4	67.4%	76.5%
June	4,181	2,592,850	303,496	32.4	138,636	7,618	5,294	-	12,082.2	-	76.6%
July	4,181	2,787,544	320,696	33.0	161,238	7,225	6,288	-	12,643.9	-	76.8%
August	4,181	2,757,346	318,720	32.8	156,185	7,384	6,084	-	12,602.0	-	76.7%
September	4,181	2,553,549	300,924	32.2	132,314	7,832	5,012	-	12,018.1	-	76.6%
October	4,181	2,391,256	294,767	30.8	93,372	9,529	2,630	3,457.7	7,919.4	67.8%	76.7%
November	3,714	2,121,788	272,675	29.5	51,420	10,476	660	8,075.4	2,344.4	70.8%	76.6%
December	3,375	2,072,200	273,892	28.7	12,303	11,944	0	11,175.8	-	74.0%	-
Totals	*4,181*	*28,167,949*	*3,471,487*	*30.8*	*1,009,252*	*114,242*	*32,523*	*58,292.5*	*79,035.1*	*71.1%*	*76.8%*
										Combined CHP Eff:	*74.7%*

Syracuse, NY: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,312.2	2,082,177	$ 186,251	104,179	$ 275,345	0	$ -	30.0	22,320	$ 5,950	273,591	$ 284,535
February	3,279.4	1,877,072	$ 213,763	93,588	$ 247,352	0	$ -	30.0	20,160	$ 6,225	247,094	$ 256,978
March	3,967.8	2,151,245	$ 225,551	98,457	$ 260,222	0	$ -	30.0	22,320	$ 6,211	276,213	$ 287,262
April	4,197.3	2,188,991	$ 215,859	88,293	$ 233,359	0	$ -	30.0	21,600	$ 5,874	272,247	$ 283,137
May	4,637.9	2,538,742	$ 252,835	79,098	$ 209,056	0	$ -	334.4	23,537	$ 6,339	296,452	$ 308,310
June	4,779.1	2,689,157	$ 269,245	67,471	$ 178,325	0	$ -	577.6	32,386	$ 8,112	299,309	$ 311,282
July	4,779.1	2,883,754	$ 285,895	65,736	$ 173,739	0	$ -	577.6	36,016	$ 8,645	315,099	$ 327,703
August	4,807.3	2,830,567	$ 293,712	67,954	$ 179,603	0	$ -	626.3	34,061	$ 8,492	312,232	$ 324,722
September	4,666.2	2,574,625	$ 241,916	71,778	$ 189,708	0	$ -	383.0	25,049	$ 6,674	293,311	$ 305,044
October	4,459.6	2,400,972	$ 240,363	85,109	$ 224,942	0	$ -	42.9	22,333	$ 6,139	288,944	$ 300,502
November	4,033.4	2,166,030	$ 222,907	90,409	$ 238,950	0	$ -	30.0	21,600	$ 6,137	271,256	$ 282,107
December	3,269.4	2,087,460	$ 169,938	102,434	$ 270,733	0	$ -	30.0	22,320	$ 5,822	273,307	$ 284,239
Totals	*4,807.3*	*28,470,791*	*$ 2,818,236*	*1,014,504*	*$ 2,681,335*	*0*	*$ -*	*626.3*	*303,701*	*$ 80,620*	*3,419,056*	*$ 3,555,819*
Average Rate		$ 0.0990 per kWh		$ 2.64 per gal					$ 0.2655 per kWh		$ 1.04 per therm	

New York, NY: 100% Heating Oil

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,607.2	2,106,471	$ 302,383	102,100	$ 269,851	0	$ -	30.0	22,320	$ 10,608	274,292	$ 285,264
February	3,705.6	1,927,699	$ 249,816	89,568	$ 236,728	0	$ -	30.0	20,160	$ 10,162	248,483	$ 258,423
March	4,131.8	2,221,849	$ 291,274	92,882	$ 245,488	0	$ -	30.0	22,320	$ 10,302	279,092	$ 290,256
April	4,361.3	2,301,504	$ 306,318	82,393	$ 217,765	0	$ -	30.0	21,600	$ 10,416	278,190	$ 289,317
May	4,807.3	2,685,826	$ 378,968	73,480	$ 194,208	0	$ -	626.3	29,019	$ 21,245	304,378	$ 316,554
June	4,807.3	2,803,325	$ 447,735	63,103	$ 166,781	0	$ -	626.3	33,331	$ 22,258	305,705	$ 317,934
July	4,892.0	3,021,583	$ 522,404	60,427	$ 159,708	0	$ -	772.5	55,189	$ 28,361	321,696	$ 334,564
August	4,694.4	2,950,875	$ 488,972	63,393	$ 167,548	0	$ -	431.7	35,495	$ 19,534	318,886	$ 331,642
September	4,609.7	2,732,208	$ 417,151	65,685	$ 173,605	0	$ -	285.7	26,006	$ 14,352	302,076	$ 314,159
October	4,394.1	2,541,774	$ 360,695	78,994	$ 208,781	0	$ -	30.0	22,320	$ 9,193	296,687	$ 308,554
November	3,869.5	2,237,067	$ 291,036	85,647	$ 226,366	0	$ -	30.0	21,600	$ 10,384	274,756	$ 285,746
December	3,803.9	2,176,337	$ 284,300	96,774	$ 255,772	0	$ -	30.0	22,320	$ 9,846	277,109	$ 288,193
Totals	*4,892.0*	*29,706,517*	*$ 4,341,052*	*954,446*	*$ 2,522,600*	*0*	*$ -*	*772.5*	*331,681*	*$ 176,660*	*3,481,352*	*$ 3,620,606*
Average Rate		$ 0.1461 per kWh		$ 2.64 per gal					$ 0.5326 per kWh		$ 1.04 per therm	

Syracuse, NY: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,282.2	2,059,857	$ 180,302	104,179	$ 275,345	(273,591)	$ (284,535)	$ 171,112
February	3,249.4	1,856,912	$ 207,537	93,588	$ 247,352	(247,094)	$ (256,978)	$ 197,912
March	3,937.8	2,128,925	$ 219,340	98,457	$ 260,222	(276,213)	$ (287,262)	$ 192,301
April	4,167.3	2,167,391	$ 209,985	88,293	$ 233,359	(272,247)	$ (283,137)	$ 160,207
May	4,303.6	2,515,205	$ 246,495	79,098	$ 209,056	(296,452)	$ (308,310)	$ 147,241
June	4,201.5	2,656,772	$ 261,134	67,471	$ 178,325	(299,309)	$ (311,282)	$ 128,176
July	4,201.5	2,847,738	$ 277,250	65,736	$ 173,739	(315,099)	$ (327,703)	$ 123,286
August	4,181.0	2,796,506	$ 285,220	67,954	$ 179,603	(312,232)	$ (324,722)	$ 140,102
September	4,283.2	2,549,576	$ 235,243	71,778	$ 189,708	(293,311)	$ (305,044)	$ 119,907
October	4,416.7	2,378,639	$ 234,224	85,109	$ 224,942	(288,944)	$ (300,502)	$ 158,665
November	4,003.4	2,144,430	$ 216,770	90,409	$ 238,950	(271,256)	$ (282,107)	$ 173,613
December	3,239.4	2,065,140	$ 164,116	102,434	$ 270,733	(273,307)	$ (284,239)	$ 150,610
Totals	*4,181.0*	*28,167,090*	*$ 2,737,616*	*1,014,504*	*$ 2,681,335*	*(3,419,056)*	*$ (3,555,819)*	*$ 1,863,132*
Average Rate		$ 0.0972 per kWh		$ 2.64 per gal		$ 1.04 per therm		

New York, NY: 100% Heating Oil

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,577.2	2,084,151	$ 291,775	102,100	$ 269,851	(274,292)	$ (285,264)	$ 276,362
February	3,675.6	1,907,539	$ 239,654	89,568	$ 236,728	(248,483)	$ (258,423)	$ 217,959
March	4,101.8	2,199,529	$ 280,972	92,882	$ 245,488	(279,092)	$ (290,256)	$ 236,204
April	4,331.3	2,279,904	$ 295,902	82,393	$ 217,765	(278,190)	$ (289,317)	$ 224,350
May	4,181.0	2,656,807	$ 357,722	73,480	$ 194,208	(304,378)	$ (316,554)	$ 235,377
June	4,181.0	2,769,994	$ 425,477	63,103	$ 166,781	(305,705)	$ (317,934)	$ 274,324
July	4,119.5	2,966,393	$ 494,043	60,427	$ 159,708	(321,696)	$ (334,564)	$ 319,187
August	4,262.7	2,915,380	$ 469,438	63,393	$ 167,548	(318,886)	$ (331,642)	$ 305,344
September	4,324.0	2,706,202	$ 402,800	65,685	$ 173,605	(302,076)	$ (314,159)	$ 262,245
October	4,364.1	2,519,454	$ 351,502	78,994	$ 208,781	(296,687)	$ (308,554)	$ 251,729
November	3,839.5	2,215,467	$ 280,652	85,647	$ 226,366	(274,756)	$ (285,746)	$ 221,272
December	3,773.9	2,154,017	$ 274,454	96,774	$ 255,772	(277,109)	$ (288,193)	$ 242,033
Totals	*4,119.5*	*29,374,836*	*$ 4,164,391*	*954,446*	*$ 2,522,600*	*(3,481,352)*	*$ (3,620,606)*	*$ 3,066,386*
Average Rate		$ 0.1418 per kWh		$ 2.64 per gal		$ 1.04 per therm		

Syracuse, NY: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,206	2,067,604	273,591	28.7	-7,748	12,336	0	11,543.0	-	75.5%	-
February	3,177	1,867,199	247,094	28.7	-10,287	11,082	0	10,369.5	-	75.3%	-
March	3,770	2,107,681	276,213	28.9	21,244	11,659	114	10,620.4	395.6	73.1%	77.5%
April	3,968	2,115,251	272,247	29.5	52,140	10,455	545	8,301.2	1,991.7	70.2%	77.4%
May	4,181	2,417,010	296,452	30.9	98,195	9,366	3,033	2,479.4	9,122.6	67.2%	76.8%
June	4,181	2,528,866	299,309	32.0	127,906	7,989	4,816	-	11,982.2	-	76.5%
July	4,181	2,702,003	315,099	32.5	145,735	7,784	5,578	-	12,502.7	-	76.6%
August	4,181	2,658,186	312,232	32.3	138,320	8,047	5,240	-	12,432.4	-	76.5%
September	4,181	2,437,191	293,311	31.5	112,385	8,499	4,110	646.1	11,152.7	69.0%	76.7%
October	4,181	2,302,259	288,944	30.2	76,380	10,078	1,822	5,210.3	5,924.2	69.4%	76.7%
November	3,827	2,100,111	271,256	29.4	44,319	10,706	485	8,894.6	1,576.1	71.5%	76.6%
December	3,108	2,063,259	273,307	28.6	1,881	12,130	0	11,349.7	-	74.8%	-
Totals	*4,181*	*27,366,619*	*3,419,056*	*30.4*	*800,471*	*120,132*	*25,742*	*69,414.2*	*67,080.1*	*71.8%*	*76.8%*
									Combined CHP Eff:		*74.7%*

New York, NY: 100% Heating Oil

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,460	2,078,325	274,292	28.7	5,826	12,090	0	11,312.7	-	74.6%	-
February	3,544	1,888,434	248,483	28.8	19,105	10,606	0	9,924.1	-	73.2%	-
March	3,911	2,151,681	279,092	29.2	47,849	10,999	672	8,551.3	2,368.4	71.6%	77.0%
April	4,109	2,206,079	278,190	30.1	73,825	9,757	1,449	5,385.8	5,099.0	68.2%	76.7%
May	4,181	2,538,151	304,378	31.6	118,656	8,701	4,330	307.4	11,885.5	67.2%	76.4%
June	4,181	2,626,621	305,705	32.6	143,373	7,472	5,469	-	12,109.6	-	76.6%
July	4,181	2,802,828	321,696	33.0	163,565	7,155	6,377	-	12,662.1	-	76.8%
August	4,181	2,759,886	318,886	32.8	155,494	7,507	5,927	-	12,569.7	-	76.6%
September	4,181	2,571,155	302,076	32.3	135,047	7,778	5,081	-	12,032.4	-	76.5%
October	4,137	2,420,597	296,687	30.9	98,858	9,354	3,480	641.8	11,366.7	68.7%	76.4%
November	3,685	2,153,594	274,756	29.7	61,873	10,142	1,081	6,600.6	3,900.7	69.9%	76.5%
December	3,629	2,121,372	277,109	29.0	32,645	11,459	434	9,565.1	1,563.8	73.2%	76.6%
Totals	*4,181*	*28,318,721*	*3,481,352*	*30.8*	*1,056,116*	*113,020*	*34,300*	*52,288.9*	*85,557.8*	*70.8%*	*76.6%*
									Combined CHP Eff:		*74.8%*

Bangor, ME: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	0	$ -	144,357	$ 189,107	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	0	$ -	130,609	$ 171,098	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	0	$ -	138,160	$ 180,990	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	0	$ -	120,215	$ 157,482	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	0	$ -	115,023	$ 150,680	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	0	$ -	98,057	$ 128,455	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	0	$ -	93,269	$ 122,182	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	0	$ -	95,541	$ 125,158	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	0	$ -	102,943	$ 134,855	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	0	$ -	121,111	$ 158,655	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	0	$ -	127,327	$ 166,798	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	0	$ -	142,763	$ 187,019	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*0*	*$ -*	*1,429,374*	*$ 1,872,480*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh				$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Providence, RI: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,902.3	2,105,595	$ 233,987	0	$ -	141,824	$ 241,100	30.0	22,320	$ 2,258	274,267	$ 466,253
February	3,541.6	1,908,249	$ 213,679	0	$ -	127,008	$ 215,914	30.0	20,160	$ 2,050	247,879	$ 421,395
March	3,789.8	2,177,426	$ 240,491	0	$ -	133,889	$ 227,611	30.0	22,320	$ 2,258	277,001	$ 470,901
April	4,099.0	2,236,917	$ 247,342	0	$ -	118,593	$ 201,607	30.0	21,600	$ 2,188	274,638	$ 466,884
May	4,459.6	2,576,417	$ 281,332	0	$ -	108,125	$ 183,812	42.9	22,333	$ 2,306	298,637	$ 507,682
June	4,722.6	2,692,664	$ 293,478	0	$ -	93,738	$ 159,355	480.3	28,142	$ 4,457	299,773	$ 509,614
July	4,863.8	2,939,063	$ 317,708	0	$ -	88,544	$ 150,525	723.7	49,629	$ 7,411	317,355	$ 539,503
August	4,722.6	2,892,141	$ 312,678	0	$ -	91,351	$ 155,297	480.3	36,143	$ 5,227	315,545	$ 536,427
September	4,637.9	2,645,364	$ 288,617	0	$ -	96,012	$ 163,220	334.4	26,188	$ 3,738	297,204	$ 505,246
October	4,361.3	2,443,628	$ 268,193	0	$ -	115,363	$ 196,117	30.0	22,320	$ 2,258	291,199	$ 495,038
November	4,131.8	2,198,288	$ 243,744	0	$ -	122,098	$ 207,567	30.0	21,600	$ 2,188	272,720	$ 463,625
December	3,803.9	2,138,926	$ 236,837	0	$ -	138,098	$ 234,767	30.0	22,320	$ 2,258	275,690	$ 468,673
Totals	*4,863.8*	*28,954,676*	*$ 3,178,084*	*0*	*$ -*	*1,374,644*	*$ 2,336,894*	*723.7*	*315,075*	*$ 38,595*	*3,441,907*	*$ 5,851,241*
Average Rate		$ 0.1098 per kWh				$ 1.70 per therm			$ 0.1225 per kWh		$ 1.70 per therm	

Bangor, ME: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	0	$ -	(129,295)	$ (169,376)	$ 114,933
February	3,249.4	1,856,141	$ 257,944	0	$ -	(116,415)	$ (152,503)	$ 105,441
March	3,511.6	2,103,852	$ 291,742	0	$ -	(136,557)	$ (178,890)	$ 112,852
April	4,080.4	2,207,892	$ 293,603	0	$ -	(154,217)	$ (202,025)	$ 91,579
May	4,416.7	2,425,352	$ 336,448	0	$ -	(176,382)	$ (231,060)	$ 105,388
June	4,201.5	2,585,803	$ 350,513	0	$ -	(197,296)	$ (258,458)	$ 92,055
July	4,160.5	2,810,888	$ 394,523	0	$ -	(219,680)	$ (287,781)	$ 106,742
August	4,283.2	2,782,447	$ 380,109	0	$ -	(215,892)	$ (282,818)	$ 97,291
September	4,416.7	2,494,108	$ 330,810	0	$ -	(187,234)	$ (245,277)	$ 85,533
October	4,396.8	2,333,196	$ 311,946	0	$ -	(165,317)	$ (216,565)	$ 95,381
November	4,232.9	2,122,592	$ 300,964	0	$ -	(142,822)	$ (187,097)	$ 113,867
December	3,413.3	2,058,985	$ 283,736	0	$ -	(130,590)	$ (171,073)	$ 112,664
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*0*	*$ -*	*(1,971,697)*	*$ (2,582,923)*	*$ 1,233,725*
Average Rate		$ 0.1371 per kWh				$ 1.31 per therm		

Providence, RI: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,872.3	2,083,275	$ 231,729	0	$ -	(132,443)	$ (225,153)	$ 6,576
February	3,511.6	1,888,089	$ 211,630	0	$ -	(120,871)	$ (205,481)	$ 6,149
March	3,759.8	2,155,106	$ 238,233	0	$ -	(143,112)	$ (243,290)	$ (5,057)
April	4,069.0	2,215,317	$ 245,154	0	$ -	(156,045)	$ (265,277)	$ (20,123)
May	4,416.7	2,554,084	$ 279,026	0	$ -	(190,512)	$ (323,870)	$ (44,844)
June	4,242.3	2,664,522	$ 289,021	0	$ -	(206,035)	$ (350,259)	$ (61,238)
July	4,140.0	2,889,434	$ 310,296	0	$ -	(228,810)	$ (388,978)	$ (78,681)
August	4,242.3	2,855,998	$ 307,451	0	$ -	(224,194)	$ (381,130)	$ (73,679)
September	4,303.6	2,619,176	$ 284,879	0	$ -	(201,192)	$ (342,026)	$ (57,146)
October	4,331.3	2,421,308	$ 265,935	0	$ -	(175,836)	$ (298,921)	$ (32,985)
November	4,101.8	2,176,688	$ 241,555	0	$ -	(150,622)	$ (256,058)	$ (14,502)
December	3,773.9	2,116,606	$ 234,579	0	$ -	(137,592)	$ (233,906)	$ 673
Totals	*4,140.0*	*28,639,600*	*$ 3,139,489*	*0*	*$ -*	*(2,067,263)*	*$ (3,514,347)*	*$ (374,858)*
Average Rate		$ 0.1096 per kWh				$ 1.70 per therm		

Bangor, ME: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Providence, RI: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,714	2,077,932	274,267	28.7	5,343	12,065	103	10,993.5	392.2	74.8%	76.7%
February	3,403	1,879,205	247,879	28.7	8,884	10,805	0	10,109.9	-	74.1%	-
March	3,601	2,119,715	277,001	29.0	35,391	11,390	217	10,065.0	795.6	72.2%	77.6%
April	3,883	2,151,795	274,638	29.7	63,522	10,089	764	7,385.4	2,769.6	68.8%	77.1%
May	4,181	2,450,393	298,637	31.1	103,691	9,198	3,684	615.6	11,438.0	67.1%	76.5%
June	4,181	2,535,952	299,773	32.1	128,571	7,974	4,827	-	11,977.8	-	76.5%
July	4,181	2,736,478	317,355	32.7	152,956	7,532	5,894	-	12,562.9	-	76.7%
August	4,181	2,708,818	315,545	32.6	147,180	7,771	5,588	-	12,500.2	-	76.6%
September	4,181	2,496,680	297,204	31.9	122,496	8,168	4,600	-	11,947.2	-	76.5%
October	4,109	2,336,716	291,199	30.4	84,592	9,814	2,315	3,479.5	7,869.9	68.2%	76.7%
November	3,911	2,122,489	272,720	29.5	54,199	10,387	750	7,670.9	2,750.0	70.4%	76.8%
December	3,629	2,099,684	275,690	28.9	16,922	11,748	101	10,693.2	393.5	73.4%	77.5%
Totals	*4,181*	*27,715,855*	*3,441,907*	*30.5*	*923,745*	*116,941*	*28,843*	*61,013.0*	*75,397.0*	*71.1%*	*76.8%*
										Combined CHP Eff:	*74.6%*

Boston, MA: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,640.0	2,106,969	$ 401,322	0	$ -	142,794	$ 169,925	30.0	22,320	$ 4,238	274,242	$ 326,347
February	3,377.7	1,905,687	$ 319,970	0	$ -	126,849	$ 150,950	30.0	20,160	$ 3,397	247,525	$ 294,555
March	3,967.8	2,162,800	$ 335,145	0	$ -	134,995	$ 160,644	30.0	22,320	$ 3,428	276,308	$ 328,806
April	4,553.3	2,211,880	$ 334,928	0	$ -	120,055	$ 142,865	188.5	21,956	$ 4,693	273,229	$ 325,143
May	4,666.2	2,601,135	$ 361,532	0	$ -	106,796	$ 127,087	383.0	23,786	$ 6,460	299,934	$ 356,921
June	4,779.1	2,698,631	$ 387,337	0	$ -	93,395	$ 111,140	577.6	31,327	$ 9,297	299,923	$ 356,908
July	4,835.5	2,932,318	$ 433,967	0	$ -	88,924	$ 105,820	675.0	49,488	$ 12,770	316,960	$ 377,182
August	4,694.4	2,887,360	$ 442,732	0	$ -	91,596	$ 109,000	431.7	37,729	$ 9,210	315,176	$ 375,060
September	4,722.6	2,643,004	$ 385,576	0	$ -	96,159	$ 114,429	480.3	25,005	$ 7,665	297,122	$ 353,576
October	4,230.1	2,487,091	$ 369,253	0	$ -	112,836	$ 134,275	30.0	22,320	$ 3,312	293,606	$ 349,391
November	4,197.3	2,175,094	$ 290,105	0	$ -	123,749	$ 147,261	30.0	21,600	$ 2,845	271,519	$ 323,107
December	3,836.7	2,155,901	$ 336,334	0	$ -	136,225	$ 162,108	30.0	22,320	$ 3,464	276,350	$ 328,857
Totals	*4,835.5*	*28,967,869*	*$ 4,398,201*	*0*	*$ -*	*1,374,372*	*$ 1,635,503*	*675.0*	*320,331*	*$ 70,778*	*3,441,893*	*$ 4,095,853*
Average Rate		$ 0.1518 per kWh				$ 1.19 per therm			$ 0.2210 per kWh		$ 1.19 per therm	

Los Angeles, CA: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	4,553.3	2,533,678	$ 226,724	0	$ -	110,362	$ 102,637	188.5	22,773	$ 10,148	296,198	$ 275,464
February	4,637.9	2,281,562	$ 209,310	0	$ -	99,866	$ 92,876	334.4	21,112	$ 10,059	267,080	$ 248,384
March	4,426.8	2,581,772	$ 229,672	0	$ -	107,583	$ 100,052	30.0	22,320	$ 10,093	298,894	$ 277,972
April	4,637.9	2,539,475	$ 226,508	0	$ -	101,876	$ 94,745	334.4	22,283	$ 10,128	291,505	$ 271,100
May	4,581.5	2,692,923	$ 237,569	0	$ -	101,935	$ 94,799	237.1	22,919	$ 10,158	305,154	$ 283,793
June	4,394.1	2,627,801	$ 334,251	0	$ -	97,200	$ 90,396	30.0	21,600	$ 10,743	296,520	$ 275,763
July	4,492.4	2,810,020	$ 347,720	0	$ -	95,499	$ 88,814	91.4	22,456	$ 11,828	311,733	$ 289,912
August	4,609.7	2,829,008	$ 356,513	0	$ -	94,729	$ 88,098	285.7	23,336	$ 14,774	312,786	$ 290,891
September	4,920.2	2,720,272	$ 343,836	0	$ -	92,042	$ 85,599	821.3	27,470	$ 23,326	301,330	$ 280,237
October	4,694.4	2,742,912	$ 242,799	0	$ -	99,285	$ 92,335	431.7	23,090	$ 10,211	307,957	$ 286,400
November	4,553.3	2,561,559	$ 228,263	0	$ -	100,942	$ 93,876	188.5	22,004	$ 10,090	292,806	$ 272,309
December	4,581.5	2,572,077	$ 226,143	0	$ -	107,869	$ 100,319	237.1	23,067	$ 10,146	298,261	$ 277,383
Totals	*4,920.2*	*31,493,057*	*$ 3,209,308*	*0*	*$ -*	*1,209,188*	*$ 1,124,545*	*821.3*	*274,428*	*$ 141,705*	*3,580,225*	*$ 3,329,609*
Average Rate		$ 0.1019 per kWh				$ 0.9300 per therm			$ 0.5164 per kWh		$ 0.93 per therm	

Boston, MA: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,610.0	2,084,649	$ 397,084	0	$ -	(131,448)	$ (156,423)	$ 240,661
February	3,347.7	1,885,527	$ 316,573	0	$ -	(120,676)	$ (143,605)	$ 172,968
March	3,937.8	2,140,480	$ 331,717	0	$ -	(141,313)	$ (168,162)	$ 163,555
April	4,364.7	2,189,924	$ 330,235	0	$ -	(153,174)	$ (182,278)	$ 147,957
May	4,283.2	2,577,349	$ 355,072	0	$ -	(193,138)	$ (229,834)	$ 125,238
June	4,201.5	2,667,304	$ 378,040	0	$ -	(206,528)	$ (245,768)	$ 132,272
July	4,160.5	2,882,829	$ 421,197	0	$ -	(228,036)	$ (271,363)	$ 149,835
August	4,262.7	2,849,631	$ 433,522	0	$ -	(223,580)	$ (266,060)	$ 167,462
September	4,242.3	2,617,998	$ 377,911	0	$ -	(200,964)	$ (239,147)	$ 138,764
October	4,200.1	2,464,771	$ 365,942	0	$ -	(180,770)	$ (215,117)	$ 150,825
November	4,167.3	2,153,494	$ 287,260	0	$ -	(147,770)	$ (175,846)	$ 111,414
December	3,806.7	2,133,581	$ 332,870	0	$ -	(140,125)	$ (166,749)	$ 166,121
Totals	*4,160.5*	*28,647,537*	*$ 4,327,423*	*0*	*$ -*	*(2,067,521)*	*$ (2,460,350)*	*$ 1,867,073*
Average Rate		$ 0.1511 per kWh				$ 1.19 per therm		

Los Angeles, CA: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	4,364.7	2,510,905	$ 216,577	0	$ -	(185,836)	$ (172,828)	$ 43,749
February	4,303.6	2,260,450	$ 199,251	0	$ -	(167,214)	$ (155,509)	$ 43,742
March	4,396.8	2,559,452	$ 219,579	0	$ -	(191,311)	$ (177,920)	$ 41,659
April	4,303.6	2,517,192	$ 216,381	0	$ -	(189,630)	$ (176,355)	$ 40,025
May	4,344.4	2,670,004	$ 227,411	0	$ -	(203,219)	$ (188,994)	$ 38,418
June	4,364.1	2,606,201	$ 323,507	0	$ -	(199,320)	$ (185,368)	$ 138,139
July	4,401.0	2,787,564	$ 335,891	0	$ -	(216,234)	$ (201,098)	$ 134,794
August	4,324.0	2,805,673	$ 341,739	0	$ -	(218,057)	$ (202,793)	$ 138,946
September	4,098.9	2,692,802	$ 320,509	0	$ -	(209,289)	$ (194,639)	$ 125,871
October	4,262.7	2,719,821	$ 232,588	0	$ -	(208,672)	$ (194,065)	$ 38,523
November	4,364.7	2,539,555	$ 218,173	0	$ -	(191,864)	$ (178,433)	$ 39,740
December	4,344.4	2,549,009	$ 215,997	0	$ -	(190,392)	$ (177,065)	$ 38,933
Totals	*4,098.9*	*31,218,629*	*$ 3,067,603*	*0*	*$ -*	*(2,371,037)*	*$ (2,205,064)*	*$ 862,538*
Average Rate		$ 0.0983 per kWh				$ 0.93 per therm		

Boston, MA: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,488	2,077,548	274,242	28.7	7,101	12,147	0	11,366.4	-	74.8%	-
February	3,262	1,873,787	247,525	28.7	11,740	10,791	0	10,097.2	-	74.0%	-
March	3,770	2,109,129	276,308	28.9	31,351	11,484	104	10,443.9	399.5	72.4%	77.7%
April	4,181	2,130,265	273,229	29.6	59,660	10,213	480	8,425.1	1,580.3	69.2%	77.0%
May	4,181	2,470,216	299,934	31.2	107,133	9,085	3,627	1,239.7	10,655.4	67.3%	76.4%
June	4,181	2,538,239	299,923	32.1	129,065	7,945	4,864	-	11,985.2	-	76.5%
July	4,181	2,730,441	316,960	32.7	152,389	7,565	5,852	-	12,554.4	-	76.7%
August	4,181	2,703,179	315,176	32.5	146,453	7,792	5,561	-	12,494.6	-	76.6%
September	4,181	2,495,439	297,122	31.8	122,560	8,180	4,569	-	11,929.4	-	76.5%
October	3,996	2,373,511	293,606	30.7	91,260	9,599	2,711	2,483.7	9,034.5	67.4%	76.6%
November	3,968	2,104,119	271,519	29.4	49,375	10,527	440	8,687.8	1,574.1	70.5%	76.7%
December	3,657	2,109,777	276,350	29.0	23,804	11,589	214	10,260.6	783.1	73.1%	76.8%
Totals	*4,181*	*27,715,648*	*3,441,893*	*30.5*	*931,890*	*116,918*	*28,422*	*63,004.3*	*72,990.6*	*71.1%*	*76.7%*
										Combined CHP Eff:	*74.4%*

Los Angeles, CA: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	4,181	2,413,128	296,198	30.9	97,778	9,389	3,582	-	12,136.7	-	76.4%
February	4,181	2,172,659	267,080	30.8	87,791	8,496	3,211	-	10,953.8	-	76.4%
March	4,165	2,454,331	298,894	31.1	105,120	9,152	3,837	-	12,154.3	-	76.3%
April	4,181	2,409,593	291,505	31.3	107,599	8,667	3,941	-	11,797.3	-	76.3%
May	4,181	2,549,999	305,154	31.7	120,005	8,672	4,434	-	12,263.3	-	76.3%
June	4,137	2,486,231	296,520	31.8	119,970	8,269	4,449	-	11,900.1	-	76.4%
July	4,181	2,650,560	311,733	32.2	137,005	8,124	5,136	-	12,407.3	-	76.5%
August	4,181	2,666,656	312,786	32.3	139,017	8,059	5,220	-	12,424.5	-	76.5%
September	4,181	2,559,755	301,330	32.2	133,047	7,830	5,011	-	12,015.5	-	76.5%
October	4,181	2,592,838	307,957	31.9	126,983	8,446	4,723	-	12,322.6	-	76.4%
November	4,181	2,429,465	292,806	31.5	110,090	8,587	4,047	-	11,821.9	-	76.3%
December	4,181	2,444,659	298,261	31.1	104,350	9,176	3,654	610.1	11,395.8	66.6%	76.4%
Totals	*4,181*	*29,829,873*	*3,580,225*	*31.6*	*1,388,756*	*102,866*	*51,247*	*610.1*	*143,592.9*	*66.6%*	*76.4%*
										Combined CHP Eff:	*76.3%*

Chicago, IL: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,607.2	2,085,674	$ 115,324	0	$ -	143,972	$ 154,050	30.0	22,320	$ 4,331	274,096	$ 293,283
February	3,607.2	1,900,055	$ 109,387	0	$ -	128,540	$ 137,538	30.0	20,160	$ 4,263	247,764	$ 265,108
March	3,869.5	2,156,780	$ 121,112	0	$ -	136,820	$ 146,397	30.0	22,320	$ 4,331	276,262	$ 295,600
April	4,164.6	2,256,312	$ 128,361	0	$ -	117,912	$ 126,166	30.0	21,600	$ 4,305	275,789	$ 295,095
May	4,666.2	2,619,036	$ 147,324	0	$ -	105,872	$ 113,283	383.0	27,213	$ 9,292	300,738	$ 321,790
June	4,835.5	2,771,897	$ 154,321	0	$ -	89,468	$ 95,731	675.0	48,736	$ 14,290	302,978	$ 324,187
July	4,948.5	2,968,367	$ 178,254	0	$ -	86,904	$ 92,988	870.2	58,415	$ 18,806	318,525	$ 340,822
August	4,750.9	2,899,906	$ 175,702	0	$ -	90,920	$ 97,284	529.0	37,776	$ 12,725	315,894	$ 338,007
September	4,750.9	2,643,624	$ 162,842	0	$ -	96,119	$ 102,847	529.0	29,026	$ 12,272	296,907	$ 317,690
October	4,426.8	2,475,784	$ 140,945	0	$ -	114,111	$ 122,099	30.0	22,320	$ 4,343	293,087	$ 313,603
November	4,361.3	2,146,290	$ 126,756	0	$ -	127,117	$ 136,015	30.0	21,600	$ 4,305	270,190	$ 289,103
December	3,607.2	2,093,016	$ 113,384	0	$ -	142,363	$ 152,328	30.0	22,320	$ 4,309	273,743	$ 292,905
Totals	*4,948.5*	*29,016,738*	*$ 1,673,713*	*0*	*$ -*	*1,380,119*	*$ 1,476,727*	*870.2*	*353,806*	*$ 97,571*	*3,445,973*	*$ 3,687,191*
Average Rate		$ 0.0577 per kWh				$ 1.0700 per therm			$ 0.2758 per kWh		$ 1.07 per therm	

Harrisburg, PA: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,902.3	2,120,966	$ 144,573	0	$ -	140,606	$ 171,539	30.0	22,320	$ 1,429	274,945	$ 335,432
February	3,967.8	1,922,865	$ 134,792	0	$ -	126,570	$ 154,415	30.0	20,160	$ 1,317	248,463	$ 303,125
March	4,295.7	2,241,854	$ 154,293	0	$ -	128,634	$ 156,934	30.0	22,320	$ 1,429	280,306	$ 341,973
April	4,637.9	2,311,748	$ 160,906	0	$ -	114,978	$ 140,273	334.4	22,636	$ 4,080	278,845	$ 340,191
May	4,553.3	2,668,334	$ 178,801	0	$ -	103,235	$ 125,946	188.5	23,132	$ 2,844	303,758	$ 370,584
June	4,807.3	2,770,868	$ 186,357	0	$ -	89,551	$ 109,252	626.3	39,381	$ 7,481	303,496	$ 370,265
July	4,835.5	3,006,070	$ 198,888	0	$ -	84,926	$ 103,610	675.0	57,288	$ 8,838	320,696	$ 391,249
August	4,948.5	2,975,064	$ 198,245	0	$ -	86,797	$ 105,893	870.2	61,532	$ 10,749	318,720	$ 388,839
September	4,863.8	2,719,204	$ 184,146	0	$ -	92,064	$ 112,318	723.7	33,341	$ 8,009	300,924	$ 367,128
October	4,609.7	2,508,876	$ 170,960	0	$ -	112,014	$ 136,657	285.7	24,248	$ 3,743	294,767	$ 359,616
November	3,902.3	2,194,808	$ 148,431	0	$ -	123,142	$ 150,233	30.0	21,600	$ 1,392	272,675	$ 332,663
December	3,508.9	2,106,823	$ 140,430	0	$ -	140,400	$ 171,288	30.0	22,320	$ 1,429	273,892	$ 334,148
Totals	*4,948.5*	*29,547,478*	*$ 2,000,823*	*0*	*$ -*	*1,342,916*	*$ 1,638,358*	*870.2*	*370,277*	*$ 52,741*	*3,471,487*	*$ 4,235,214*
Average Rate		$ 0.0677 per kWh				$ 1.22 per therm			$ 0.1424 per kWh		$ 1.22 per therm	

Chicago, IL: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,577.2	2,063,354	$ 110,992	0	$ -	(130,125)	$ (139,234)	$ (28,241)
February	3,577.2	1,879,895	$ 105,125	0	$ -	(119,224)	$ (127,569)	$ (22,445)
March	3,839.5	2,134,460	$ 116,781	0	$ -	(139,442)	$ (149,202)	$ (32,421)
April	4,134.6	2,234,712	$ 124,057	0	$ -	(157,877)	$ (168,928)	$ (44,872)
May	4,283.2	2,591,823	$ 138,032	0	$ -	(194,866)	$ (208,507)	$ (70,475)
June	4,160.5	2,723,160	$ 140,031	0	$ -	(213,510)	$ (228,456)	$ (88,425)
July	4,078.3	2,909,952	$ 159,448	0	$ -	(231,620)	$ (247,834)	$ (88,386)
August	4,221.9	2,862,129	$ 162,976	0	$ -	(224,975)	$ (240,723)	$ (77,747)
September	4,221.9	2,614,598	$ 150,570	0	$ -	(200,788)	$ (214,843)	$ (64,272)
October	4,396.8	2,453,464	$ 136,603	0	$ -	(178,975)	$ (191,503)	$ (54,901)
November	4,331.3	2,124,690	$ 122,452	0	$ -	(143,073)	$ (153,088)	$ (30,636)
December	3,577.2	2,070,696	$ 109,075	0	$ -	(131,380)	$ (140,577)	$ (31,502)
Totals	*4,078.3*	*28,662,932*	*$ 1,576,142*	*0*	*$ -*	*(2,065,854)*	*$ (2,210,464)*	*$ (634,322)*
Average Rate		$ 0.0550 per kWh				$ 1.07 per therm		

Harrisburg, PA: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,872.3	2,098,646	$ 143,144	0	$ -	(134,339)	$ (163,893)	$ (20,749)
February	3,937.8	1,902,705	$ 133,475	0	$ -	(121,894)	$ (148,710)	$ (15,235)
March	4,265.7	2,219,534	$ 152,864	0	$ -	(151,672)	$ (185,040)	$ (32,176)
April	4,303.6	2,289,112	$ 156,826	0	$ -	(163,867)	$ (199,918)	$ (43,092)
May	4,364.7	2,645,203	$ 175,958	0	$ -	(200,523)	$ (244,638)	$ (68,680)
June	4,181.0	2,731,487	$ 178,875	0	$ -	(213,945)	$ (261,013)	$ (82,138)
July	4,160.5	2,948,782	$ 190,050	0	$ -	(235,770)	$ (287,639)	$ (97,590)
August	4,078.3	2,913,531	$ 187,496	0	$ -	(231,923)	$ (282,946)	$ (95,449)
September	4,140.0	2,685,863	$ 176,137	0	$ -	(208,860)	$ (254,810)	$ (78,672)
October	4,324.0	2,484,628	$ 167,217	0	$ -	(182,753)	$ (222,959)	$ (55,742)
November	3,872.3	2,173,208	$ 147,039	0	$ -	(149,533)	$ (182,430)	$ (35,391)
December	3,478.9	2,084,503	$ 139,000	0	$ -	(133,492)	$ (162,860)	$ (23,860)
Totals	*4,078.3*	*29,177,201*	*$ 1,948,082*	*0*	*$ -*	*(2,128,571)*	*$ (2,596,856)*	*$ (648,774)*
Average Rate		$ 0.0668 per kWh				$ 1.22 per therm		

Chicago, IL: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,460	2,075,329	274,096	28.7	-11,975	12,248	0	11,460.1	-	75.2%	-
February	3,460	1,877,443	247,764	28.7	2,453	10,935	0	10,231.8	-	74.6%	-
March	3,685	2,108,420	276,262	28.9	26,040	11,639	247	10,332.7	789.6	73.4%	76.8%
April	3,939	2,169,395	275,789	29.8	65,317	10,031	1,110	6,455.1	3,969.4	69.0%	77.4%
May	4,181	2,482,514	300,738	31.3	109,310	9,007	3,964	624.1	11,512.5	67.5%	76.7%
June	4,181	2,584,936	302,978	32.4	138,224	7,611	5,298	-	12,079.1	-	76.7%
July	4,181	2,754,359	318,525	32.8	155,592	7,393	6,072	-	12,599.6	-	76.7%
August	4,181	2,714,155	315,894	32.6	147,974	7,735	5,635	-	12,509.8	-	76.6%
September	4,181	2,492,141	296,907	31.8	122,457	8,177	4,589	-	11,945.2	-	76.5%
October	4,165	2,365,570	293,087	30.6	87,894	9,707	2,654	3,251.4	8,315.6	69.3%	76.8%
November	4,109	2,083,814	270,190	29.2	40,876	10,814	367	9,281.3	1,181.0	71.8%	76.4%
December	3,460	2,069,931	273,743	28.7	765	12,111	91	11,029.2	388.2	75.0%	76.4%
Totals	*4,181*	*27,778,004*	*3,445,973*	*30.6*	*884,928*	*117,407*	*30,029*	*62,665.8*	*75,289.9*	*72.0%*	*76.7%*
										Combined CHP Eff:	*75.1%*

Harrisburg, PA: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,714	2,088,292	274,945	28.8	10,353	11,961	0	11,192.2	-	74.0%	-
February	3,770	1,888,131	248,463	28.8	14,573	10,767	109	9,777.6	399.2	74.2%	77.5%
March	4,052	2,170,233	280,306	29.4	49,302	10,943	399	9,413.0	1,199.6	70.8%	77.0%
April	4,140	2,216,098	278,845	30.1	73,014	9,781	1,774	4,889.5	5,922.9	69.4%	76.8%
May	4,181	2,528,662	303,758	31.6	116,541	8,782	4,272	311.4	11,903.4	67.4%	76.5%
June	4,181	2,592,850	303,496	32.4	138,636	7,618	5,294	-	12,082.2	-	76.6%
July	4,181	2,787,544	320,696	33.0	161,238	7,225	6,288	-	12,643.9	-	76.8%
August	4,181	2,757,346	318,720	32.8	156,185	7,384	6,084	-	12,602.0	-	76.7%
September	4,181	2,553,549	300,924	32.2	132,314	7,832	5,012	-	12,018.1	-	76.6%
October	4,181	2,391,256	294,767	30.8	93,372	9,529	2,630	3,457.7	7,919.4	67.8%	76.7%
November	3,714	2,121,788	272,675	29.5	51,420	10,476	660	8,075.4	2,344.4	70.8%	76.6%
December	3,375	2,072,200	273,892	28.7	12,303	11,944	0	11,175.8	-	74.0%	-
Totals	*4,181*	*28,167,949*	*3,471,487*	*30.8*	*1,009,252*	*114,242*	*32,523*	*58,292.5*	*79,035.1*	*71.1%*	*76.8%*
										Combined CHP Eff:	*74.7%*

Syracuse, NY: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,312.2	2,082,177	$ 186,251	0	$ -	145,013	$ 150,813	30.0	22,320	$ 5,950	273,591	$ 284,535
February	3,279.4	1,877,072	$ 213,763	0	$ -	130,270	$ 135,481	30.0	20,160	$ 6,225	247,094	$ 256,978
March	3,967.8	2,151,245	$ 225,551	0	$ -	137,048	$ 142,530	30.0	22,320	$ 6,211	276,213	$ 287,262
April	4,197.3	2,188,991	$ 215,859	0	$ -	122,901	$ 127,817	30.0	21,600	$ 5,874	272,247	$ 283,137
May	4,637.9	2,538,742	$ 252,835	0	$ -	110,101	$ 114,505	334.4	23,537	$ 6,339	296,452	$ 308,310
June	4,779.1	2,689,157	$ 269,245	0	$ -	93,916	$ 97,673	577.6	32,386	$ 8,112	299,309	$ 311,282
July	4,779.1	2,883,754	$ 285,895	0	$ -	91,501	$ 95,161	577.6	36,016	$ 8,645	315,099	$ 327,703
August	4,807.3	2,830,567	$ 293,712	0	$ -	94,590	$ 98,373	626.3	34,061	$ 8,492	312,232	$ 324,722
September	4,666.2	2,574,625	$ 241,916	0	$ -	99,911	$ 103,908	383.0	25,049	$ 6,674	293,311	$ 305,044
October	4,459.6	2,400,972	$ 240,363	0	$ -	118,468	$ 123,207	42.9	22,333	$ 6,139	288,944	$ 300,502
November	4,033.4	2,166,030	$ 222,907	0	$ -	125,845	$ 130,879	30.0	21,600	$ 6,137	271,256	$ 282,107
December	3,269.4	2,087,460	$ 169,938	0	$ -	142,584	$ 148,287	30.0	22,320	$ 5,822	273,307	$ 284,239
Totals	*4,807.3*	*28,470,791*	*$ 2,818,236*	*0*	*$ -*	*1,412,149*	*$ 1,468,635*	*626.3*	*303,701*	*$ 80,620*	*3,419,056*	*$ 3,555,819*
Average Rate		$ 0.0990 per kWh				$ 1.04 per therm			$ 0.2655 per kWh		$ 1.04 per therm	

New York, NY: 100% Natural Gas

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,607.2	2,106,471	$ 302,383	0	$ -	142,119	$ 147,804	30.0	22,320	$ 10,608	274,292	$ 285,264
February	3,705.6	1,927,699	$ 249,816	0	$ -	124,675	$ 129,662	30.0	20,160	$ 10,162	248,483	$ 258,423
March	4,131.8	2,221,849	$ 291,274	0	$ -	129,288	$ 134,460	30.0	22,320	$ 10,302	279,092	$ 290,256
April	4,361.3	2,301,504	$ 306,318	0	$ -	114,688	$ 119,275	30.0	21,600	$ 10,416	278,190	$ 289,317
May	4,807.3	2,685,826	$ 378,968	0	$ -	102,282	$ 106,373	626.3	29,019	$ 21,245	304,378	$ 316,554
June	4,807.3	2,803,325	$ 447,735	0	$ -	87,837	$ 91,350	626.3	33,331	$ 22,258	305,705	$ 317,934
July	4,892.0	3,021,583	$ 522,404	0	$ -	84,111	$ 87,476	772.5	55,189	$ 28,361	321,696	$ 334,564
August	4,694.4	2,950,875	$ 488,972	0	$ -	88,241	$ 91,770	431.7	35,495	$ 19,534	318,886	$ 331,642
September	4,609.7	2,732,208	$ 417,151	0	$ -	91,431	$ 95,088	285.7	26,006	$ 14,352	302,076	$ 314,159
October	4,394.1	2,541,774	$ 360,695	0	$ -	109,956	$ 114,355	30.0	22,320	$ 9,193	296,687	$ 308,554
November	3,869.5	2,237,067	$ 291,036	0	$ -	119,218	$ 123,986	30.0	21,600	$ 10,384	274,756	$ 285,746
December	3,803.9	2,176,337	$ 284,300	0	$ -	134,705	$ 140,093	30.0	22,320	$ 9,846	277,109	$ 288,193
Totals	*4,892.0*	*29,706,517*	*$ 4,341,052*	*0*	*$ -*	*1,328,550*	*$ 1,381,692*	*772.5*	*331,681*	*$ 176,660*	*3,481,352*	*$ 3,620,606*
Average Rate		$ 0.1461 per kWh				$ 1.04 per therm			$ 0.5326 per kWh		$ 1.04 per therm	

Syracuse, NY: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,282.2	2,059,857	$ 180,302	0	$ -	(128,578)	$ (133,721)	$ 46,580
February	3,249.4	1,856,912	$ 207,537	0	$ -	(116,824)	$ (121,497)	$ 86,041
March	3,937.8	2,128,925	$ 219,340	0	$ -	(139,165)	$ (144,731)	$ 74,609
April	4,167.3	2,167,391	$ 209,985	0	$ -	(149,346)	$ (155,320)	$ 54,665
May	4,303.6	2,515,205	$ 246,495	0	$ -	(186,351)	$ (193,805)	$ 52,690
June	4,201.5	2,656,772	$ 261,134	0	$ -	(205,393)	$ (213,609)	$ 47,525
July	4,201.5	2,847,738	$ 277,250	0	$ -	(223,598)	$ (232,542)	$ 44,708
August	4,181.0	2,796,506	$ 285,220	0	$ -	(217,643)	$ (226,348)	$ 58,872
September	4,283.2	2,549,576	$ 235,243	0	$ -	(193,400)	$ (201,136)	$ 34,107
October	4,416.7	2,378,639	$ 234,224	0	$ -	(170,476)	$ (177,295)	$ 56,929
November	4,003.4	2,144,430	$ 216,770	0	$ -	(145,411)	$ (151,228)	$ 65,542
December	3,239.4	2,065,140	$ 164,116	0	$ -	(130,723)	$ (135,952)	$ 28,164
Totals	*4,181.0*	*28,167,090*	*$ 2,737,616*	*0*	*$ -*	*(2,006,907)*	*$ (2,087,184)*	*$ 650,432*
Average Rate		$ 0.0972 per kWh				$ 1.04 per therm		

New York, NY: 100% Natural Gas

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,577.2	2,084,151	$ 291,775	0	$ -	(132,173)	$ (137,460)	$ 154,315
February	3,675.6	1,907,539	$ 239,654	0	$ -	(123,808)	$ (128,761)	$ 110,893
March	4,101.8	2,199,529	$ 280,972	0	$ -	(149,804)	$ (155,796)	$ 125,177
April	4,331.3	2,279,904	$ 295,902	0	$ -	(163,502)	$ (170,042)	$ 125,861
May	4,181.0	2,656,807	$ 357,722	0	$ -	(202,097)	$ (210,181)	$ 147,542
June	4,181.0	2,769,994	$ 425,477	0	$ -	(217,869)	$ (226,584)	$ 198,894
July	4,119.5	2,966,393	$ 494,043	0	$ -	(237,585)	$ (247,088)	$ 246,955
August	4,262.7	2,915,380	$ 469,438	0	$ -	(230,646)	$ (239,872)	$ 229,566
September	4,324.0	2,706,202	$ 402,800	0	$ -	(210,646)	$ (219,072)	$ 183,728
October	4,364.1	2,519,454	$ 351,502	0	$ -	(186,731)	$ (194,200)	$ 157,302
November	3,839.5	2,215,467	$ 280,652	0	$ -	(155,538)	$ (161,760)	$ 118,892
December	3,773.9	2,154,017	$ 274,454	0	$ -	(142,404)	$ (148,100)	$ 126,353
Totals	*4,119.5*	*29,374,836*	*$ 4,164,391*	*0*	*$ -*	*(2,152,802)*	*$ (2,238,914)*	*$ 1,925,478*
Average Rate		$ 0.1418 per kWh				$ 1.04 per therm		

Syracuse, NY: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,206	2,067,604	273,591	28.7	-7,748	12,336	0	11,543.0	-	75.5%	-
February	3,177	1,867,199	247,094	28.7	-10,287	11,082	0	10,369.5	-	75.3%	-
March	3,770	2,107,681	276,213	28.9	21,244	11,659	114	10,620.4	395.6	73.1%	77.5%
April	3,968	2,115,251	272,247	29.5	52,140	10,455	545	8,301.2	1,991.7	70.2%	77.4%
May	4,181	2,417,010	296,452	30.9	98,195	9,366	3,033	2,479.4	9,122.6	67.2%	76.8%
June	4,181	2,528,866	299,309	32.0	127,906	7,989	4,816	-	11,982.2	-	76.5%
July	4,181	2,702,003	315,099	32.5	145,735	7,784	5,578	-	12,502.7	-	76.6%
August	4,181	2,658,186	312,232	32.3	138,320	8,047	5,240	-	12,432.4	-	76.5%
September	4,181	2,437,191	293,311	31.5	112,385	8,499	4,110	646.1	11,152.7	69.0%	76.7%
October	4,181	2,302,259	288,944	30.2	76,380	10,078	1,822	5,210.3	5,924.2	69.4%	76.7%
November	3,827	2,100,111	271,256	29.4	44,319	10,706	485	8,894.6	1,576.1	71.5%	76.6%
December	3,108	2,063,259	273,307	28.6	1,881	12,130	0	11,349.7	-	74.8%	-
Totals	*4,181*	*27,366,619*	*3,419,056*	*30.4*	*800,471*	*120,132*	*25,742*	*69,414.2*	*67,080.1*	*71.8%*	*76.8%*
									Combined CHP Eff:		*74.7%*

New York, NY: 100% Natural Gas

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,460	2,078,325	274,292	28.7	5,826	12,090	0	11,312.7	-	74.6%	-
February	3,544	1,888,434	248,483	28.8	19,105	10,606	0	9,924.1	-	73.2%	-
March	3,911	2,151,681	279,092	29.2	47,849	10,999	672	8,551.3	2,368.4	71.6%	77.0%
April	4,109	2,206,079	278,190	30.1	73,825	9,757	1,449	5,385.8	5,099.0	68.2%	76.7%
May	4,181	2,538,151	304,378	31.6	118,656	8,701	4,330	307.4	11,885.5	67.2%	76.4%
June	4,181	2,626,621	305,705	32.6	143,373	7,472	5,469	-	12,109.6	-	76.6%
July	4,181	2,802,828	321,696	33.0	163,565	7,155	6,377	-	12,662.1	-	76.8%
August	4,181	2,759,886	318,886	32.8	155,494	7,507	5,927	-	12,569.7	-	76.6%
September	4,181	2,571,155	302,076	32.3	135,047	7,778	5,081	-	12,032.4	-	76.5%
October	4,137	2,420,597	296,687	30.9	98,858	9,354	3,480	641.8	11,366.7	68.7%	76.4%
November	3,685	2,153,594	274,756	29.7	61,873	10,142	1,081	6,600.6	3,900.7	69.9%	76.5%
December	3,629	2,121,372	277,109	29.0	32,645	11,459	434	9,565.1	1,563.8	73.2%	76.6%
Totals	*4,181*	*28,318,721*	*3,481,352*	*30.8*	*1,056,116*	*113,020*	*34,300*	*52,288.9*	*85,557.8*	*70.8%*	*76.6%*
									Combined CHP Eff:		*74.8%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 137,568	72,178	$ 94,554	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	46,915	$ 124,467	65,304	$ 85,549	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	49,628	$ 131,663	69,080	$ 90,495	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	43,182	$ 114,562	60,108	$ 78,741	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	41,317	$ 109,614	57,511	$ 75,340	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	35,223	$ 93,446	49,029	$ 64,228	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	33,503	$ 88,883	46,635	$ 61,091	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	34,319	$ 91,048	47,770	$ 62,579	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	36,978	$ 98,102	51,471	$ 67,427	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	43,504	$ 115,415	60,555	$ 79,328	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	45,736	$ 121,339	63,663	$ 83,399	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	51,281	$ 136,049	71,381	$ 93,509	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,362,155*	*714,687*	*$ 936,240*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 2.65 per gal		$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Providence, RI: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,902.3	2,105,595	$ 233,987	50,944	$ 135,256	70,912	$ 120,550	30.0	22,320	$ 2,258	274,267	$ 466,253
February	3,541.6	1,908,249	$ 213,679	45,622	$ 121,127	63,504	$ 107,957	30.0	20,160	$ 2,050	247,879	$ 421,395
March	3,789.8	2,177,426	$ 240,491	48,094	$ 127,688	66,944	$ 113,805	30.0	22,320	$ 2,258	277,001	$ 470,901
April	4,099.0	2,236,917	$ 247,342	42,599	$ 113,101	59,296	$ 100,804	30.0	21,600	$ 2,188	274,638	$ 466,884
May	4,459.6	2,576,417	$ 281,332	38,839	$ 103,118	54,062	$ 91,906	42.9	22,333	$ 2,306	298,637	$ 507,682
June	4,722.6	2,692,664	$ 293,478	33,671	$ 89,398	46,869	$ 79,678	480.3	28,142	$ 4,457	299,773	$ 509,614
July	4,863.8	2,939,063	$ 317,708	31,806	$ 84,444	44,272	$ 75,263	723.7	49,629	$ 7,411	317,355	$ 539,503
August	4,722.6	2,892,141	$ 312,678	32,814	$ 87,121	45,676	$ 77,649	480.3	36,143	$ 5,227	315,545	$ 536,427
September	4,637.9	2,645,364	$ 288,617	34,488	$ 91,566	48,006	$ 81,610	334.4	26,188	$ 3,738	297,204	$ 505,246
October	4,361.3	2,443,628	$ 268,193	41,439	$ 110,021	57,681	$ 98,059	30.0	22,320	$ 2,258	291,199	$ 495,038
November	4,131.8	2,198,288	$ 243,744	43,858	$ 116,444	61,049	$ 103,784	30.0	21,600	$ 2,188	272,720	$ 463,625
December	3,803.9	2,138,926	$ 236,837	49,606	$ 131,703	69,049	$ 117,383	30.0	22,320	$ 2,258	275,690	$ 468,673
Totals	*4,863.8*	*28,954,676*	*$ 3,178,084*	*493,780*	*$ 1,310,986*	*687,322*	*$ 1,168,447*	*723.7*	*315,075*	*$ 38,595*	*3,441,907*	*$ 5,851,241*
Average Rate		$ 0.1098 per kWh		$ 2.65 per gal		$ 1.70 per therm			$ 0.1225 per kWh		$ 1.70 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 137,568	(201,473)	$ (263,930)	$ 157,947
February	3,249.4	1,856,141	$ 257,944	46,915	$ 124,467	(181,719)	$ (238,052)	$ 144,359
March	3,511.6	2,103,852	$ 291,742	49,628	$ 131,663	(205,637)	$ (269,385)	$ 154,020
April	4,080.4	2,207,892	$ 293,603	43,182	$ 114,562	(214,325)	$ (280,766)	$ 127,400
May	4,416.7	2,425,352	$ 336,448	41,317	$ 109,614	(233,893)	$ (306,400)	$ 139,662
June	4,201.5	2,585,803	$ 350,513	35,223	$ 93,446	(246,325)	$ (322,686)	$ 121,274
July	4,160.5	2,810,888	$ 394,523	33,503	$ 88,883	(266,314)	$ (348,872)	$ 134,534
August	4,283.2	2,782,447	$ 380,109	34,319	$ 91,048	(263,662)	$ (345,397)	$ 125,760
September	4,416.7	2,494,108	$ 330,810	36,978	$ 98,102	(238,706)	$ (312,705)	$ 116,207
October	4,396.8	2,333,196	$ 311,946	43,504	$ 115,415	(225,872)	$ (295,892)	$ 131,469
November	4,232.9	2,122,592	$ 300,964	45,736	$ 121,339	(206,486)	$ (270,496)	$ 151,806
December	3,413.3	2,058,985	$ 283,736	51,281	$ 136,049	(201,971)	$ (264,582)	$ 155,203
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,362,155*	*(2,686,384)*	*$ (3,519,163)*	*$ 1,659,640*
Average Rate		$ 0.1371 per kWh		$ 2.65 per gal		$ 1.31 per therm		

Providence, RI: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,872.3	2,083,275	$ 231,729	50,944	$ 135,256	(203,355)	$ (345,703)	$ 21,282
February	3,511.6	1,888,089	$ 211,630	45,622	$ 121,127	(184,375)	$ (313,438)	$ 19,319
March	3,759.8	2,155,106	$ 238,233	48,094	$ 127,688	(210,056)	$ (357,096)	$ 8,826
April	4,069.0	2,215,317	$ 245,154	42,599	$ 113,101	(215,342)	$ (366,081)	$ (7,826)
May	4,416.7	2,554,084	$ 279,026	38,839	$ 103,118	(244,574)	$ (415,776)	$ (33,632)
June	4,242.3	2,664,522	$ 289,021	33,671	$ 89,398	(252,904)	$ (429,936)	$ (51,518)
July	4,140.0	2,889,434	$ 310,296	31,806	$ 84,444	(273,083)	$ (464,241)	$ (69,500)
August	4,242.3	2,855,998	$ 307,451	32,814	$ 87,121	(269,869)	$ (458,778)	$ (64,207)
September	4,303.6	2,619,176	$ 284,879	34,488	$ 91,566	(249,198)	$ (423,636)	$ (47,191)
October	4,331.3	2,421,308	$ 265,935	41,439	$ 110,021	(233,517)	$ (396,979)	$ (21,023)
November	4,101.8	2,176,688	$ 241,555	43,858	$ 116,444	(211,671)	$ (359,841)	$ (1,842)
December	3,773.9	2,116,606	$ 234,579	49,606	$ 131,703	(206,641)	$ (351,289)	$ 14,993
Totals	*4,140.0*	*28,639,600*	*$ 3,139,489*	*493,780*	*$ 1,310,986*	*(2,754,585)*	*$ (4,682,794)*	*$ (232,319)*
Average Rate		$ 0.1096 per kWh		$ 2.65 per gal		$ 1.70 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Providence, RI: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,714	2,077,932	274,267	28.7	5,343	12,065	103	10,993.5	392.2	74.8%	76.7%
February	3,403	1,879,205	247,879	28.7	8,884	10,805	0	10,109.9	-	74.1%	-
March	3,601	2,119,715	277,001	29.0	35,391	11,390	217	10,065.0	795.6	72.2%	77.6%
April	3,883	2,151,795	274,638	29.7	63,522	10,089	764	7,385.4	2,769.6	68.8%	77.1%
May	4,181	2,450,393	298,637	31.1	103,691	9,198	3,684	615.6	11,438.0	67.1%	76.5%
June	4,181	2,535,952	299,773	32.1	128,571	7,974	4,827	-	11,977.8	-	76.5%
July	4,181	2,736,478	317,355	32.7	152,956	7,532	5,894	-	12,562.9	-	76.7%
August	4,181	2,708,818	315,545	32.6	147,180	7,771	5,588	-	12,500.2	-	76.6%
September	4,181	2,496,680	297,204	31.9	122,496	8,168	4,600	-	11,947.2	-	76.5%
October	4,109	2,336,716	291,199	30.4	84,592	9,814	2,315	3,479.5	7,869.9	68.2%	76.7%
November	3,911	2,122,489	272,720	29.5	54,199	10,387	750	7,670.9	2,750.0	70.4%	76.8%
December	3,629	2,099,684	275,690	28.9	16,922	11,748	101	10,693.2	393.5	73.4%	77.5%
Totals	*4,181*	*27,715,855*	*3,441,907*	*30.5*	*923,745*	*116,941*	*28,843*	*61,013.0*	*75,397.0*	*71.1%*	*76.8%*
										Combined CHP Eff:	*74.6%*

Boston, MA: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,640.0	2,106,969	$ 401,322	51,292	$ 136,489	71,397	$ 84,962	30.0	22,320	$ 4,238	274,242	$ 326,347
February	3,377.7	1,905,687	$ 319,970	45,565	$ 121,248	63,424	$ 75,475	30.0	20,160	$ 3,397	247,525	$ 294,555
March	3,967.8	2,162,800	$ 335,145	48,491	$ 129,035	67,498	$ 80,322	30.0	22,320	$ 3,428	276,308	$ 328,806
April	4,553.3	2,211,880	$ 334,928	43,124	$ 114,754	60,027	$ 71,433	188.5	21,956	$ 4,693	273,229	$ 325,143
May	4,666.2	2,601,135	$ 361,532	38,362	$ 102,080	53,398	$ 63,543	383.0	23,786	$ 6,460	299,934	$ 356,921
June	4,779.1	2,698,631	$ 387,337	33,548	$ 89,271	46,697	$ 55,570	577.6	31,327	$ 9,297	299,923	$ 356,908
July	4,835.5	2,932,318	$ 433,967	31,942	$ 84,998	44,462	$ 52,910	675.0	49,488	$ 12,770	316,960	$ 377,182
August	4,694.4	2,887,360	$ 442,732	32,902	$ 87,552	45,798	$ 54,500	431.7	37,729	$ 9,210	315,176	$ 375,060
September	4,722.6	2,643,004	$ 385,576	34,541	$ 91,913	48,079	$ 57,214	480.3	25,005	$ 7,665	297,122	$ 353,576
October	4,230.1	2,487,091	$ 369,253	40,531	$ 107,854	56,418	$ 67,137	30.0	22,320	$ 3,312	293,606	$ 349,391
November	4,197.3	2,175,094	$ 290,105	44,451	$ 118,285	61,874	$ 73,630	30.0	21,600	$ 2,845	271,519	$ 323,107
December	3,836.7	2,155,901	$ 336,334	48,933	$ 130,211	68,113	$ 81,054	30.0	22,320	$ 3,464	276,350	$ 328,857
Totals	*4,835.5*	*28,967,869*	*$ 4,398,201*	*493,682*	*$ 1,313,689*	*687,186*	*$ 817,752*	*675.0*	*320,331*	*$ 70,778*	*3,441,893*	*$ 4,095,853*
Average Rate		$ 0.1518 per kWh		$ 2.66 per gal		$ 1.19 per therm			$ 0.2210 per kWh		$ 1.19 per therm	

Los Angeles, CA: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	4,553.3	2,533,678	$ 226,724	39,643	$ 104,617	55,181	$ 51,318	188.5	22,773	$ 10,148	296,198	$ 275,464
February	4,637.9	2,281,562	$ 209,310	35,873	$ 94,668	49,933	$ 46,438	334.4	21,112	$ 10,059	267,080	$ 248,384
March	4,426.8	2,581,772	$ 229,672	38,644	$ 101,983	53,791	$ 50,026	30.0	22,320	$ 10,093	298,894	$ 277,972
April	4,637.9	2,539,475	$ 226,508	36,594	$ 96,573	50,938	$ 47,372	334.4	22,283	$ 10,128	291,505	$ 271,100
May	4,581.5	2,692,923	$ 237,569	36,616	$ 96,628	50,967	$ 47,400	237.1	22,919	$ 10,158	305,154	$ 283,793
June	4,394.1	2,627,801	$ 334,251	34,915	$ 92,140	48,600	$ 45,198	30.0	21,600	$ 10,743	296,520	$ 275,763
July	4,492.4	2,810,020	$ 347,720	34,304	$ 90,528	47,750	$ 44,407	91.4	22,456	$ 11,828	311,733	$ 289,912
August	4,609.7	2,829,008	$ 356,513	34,027	$ 89,798	47,365	$ 44,049	285.7	23,336	$ 14,774	312,786	$ 290,891
September	4,920.2	2,720,272	$ 343,836	33,062	$ 87,250	46,021	$ 42,799	821.3	27,470	$ 23,326	301,330	$ 280,237
October	4,694.4	2,742,912	$ 242,799	35,664	$ 94,117	49,642	$ 46,167	431.7	23,090	$ 10,211	307,957	$ 286,400
November	4,553.3	2,561,559	$ 228,263	36,259	$ 95,687	50,471	$ 46,938	188.5	22,004	$ 10,090	292,806	$ 272,309
December	4,581.5	2,572,077	$ 226,143	38,747	$ 102,254	53,935	$ 50,159	237.1	23,067	$ 10,146	298,261	$ 277,383
Totals	*4,920.2*	*31,493,057*	*$ 3,209,308*	*434,347*	*$ 1,146,243*	*604,594*	*$ 562,273*	*821.3*	*274,428*	*$ 141,705*	*3,580,225*	*$ 3,329,609*
Average Rate		$ 0.1019 per kWh		$ 2.64 per gal		$ 0.93 per therm			$ 0.5164 per kWh		$ 0.93 per therm	

Boston, MA: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,610.0	2,084,649	$ 397,084	51,292	$ 136,489	(202,845)	$ (241,385)	$ 292,187
February	3,347.7	1,885,527	$ 316,573	45,565	$ 121,248	(184,100)	$ (219,080)	$ 218,741
March	3,937.8	2,140,480	$ 331,717	48,491	$ 129,035	(208,810)	$ (248,484)	$ 212,268
April	4,364.7	2,189,924	$ 330,235	43,124	$ 114,754	(213,202)	$ (253,710)	$ 191,279
May	4,283.2	2,577,349	$ 355,072	38,362	$ 102,080	(246,536)	$ (293,378)	$ 163,775
June	4,201.5	2,667,304	$ 378,040	33,548	$ 89,271	(253,225)	$ (301,338)	$ 165,973
July	4,160.5	2,882,829	$ 421,197	31,942	$ 84,998	(272,498)	$ (324,272)	$ 181,923
August	4,262.7	2,849,631	$ 433,522	32,902	$ 87,552	(269,378)	$ (320,560)	$ 200,515
September	4,242.3	2,617,998	$ 377,911	34,541	$ 91,913	(249,043)	$ (296,361)	$ 173,463
October	4,200.1	2,464,771	$ 365,942	40,531	$ 107,854	(237,188)	$ (282,254)	$ 191,541
November	4,167.3	2,153,494	$ 287,260	44,451	$ 118,285	(209,644)	$ (249,477)	$ 156,068
December	3,806.7	2,133,581	$ 332,870	48,933	$ 130,211	(208,238)	$ (247,803)	$ 215,278
Totals	*4,160.5*	*28,647,537*	*$ 4,327,423*	*493,682*	*$ 1,313,689*	*(2,754,707)*	*$ (3,278,101)*	*$ 2,363,010*
Average Rate		$ 0.1511 per kWh		$ 2.66 per gal		$ 1.19 per therm		

Los Angeles, CA: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	4,364.7	2,510,905	$ 216,577	39,643	$ 104,617	(241,017)	$ (224,146)	$ 97,048
February	4,303.6	2,260,450	$ 199,251	35,873	$ 94,668	(217,147)	$ (201,946)	$ 91,972
March	4,396.8	2,559,452	$ 219,579	38,644	$ 101,983	(245,103)	$ (227,946)	$ 93,616
April	4,303.6	2,517,192	$ 216,381	36,594	$ 96,573	(240,567)	$ (223,728)	$ 89,225
May	4,344.4	2,670,004	$ 227,411	36,616	$ 96,628	(254,186)	$ (236,393)	$ 87,646
June	4,364.1	2,606,201	$ 323,507	34,915	$ 92,140	(247,920)	$ (230,566)	$ 185,081
July	4,401.0	2,787,564	$ 335,891	34,304	$ 90,528	(263,984)	$ (245,505)	$ 180,915
August	4,324.0	2,805,673	$ 341,739	34,027	$ 89,798	(265,422)	$ (246,842)	$ 184,695
September	4,098.9	2,692,802	$ 320,509	33,062	$ 87,250	(255,310)	$ (237,438)	$ 170,322
October	4,262.7	2,719,821	$ 232,588	35,664	$ 94,117	(258,314)	$ (240,232)	$ 86,472
November	4,364.7	2,539,555	$ 218,173	36,259	$ 95,687	(242,335)	$ (225,371)	$ 88,490
December	4,344.4	2,549,009	$ 215,997	38,747	$ 102,254	(244,327)	$ (227,224)	$ 91,027
Totals	*4,098.9*	*31,218,629*	*$ 3,067,603*	*434,347*	*$ 1,146,243*	*(2,975,631)*	*$ (2,767,337)*	*$ 1,446,509*
Average Rate		$ 0.0983 per kWh		$ 2.64 per gal		$ 0.93 per therm		

Boston, MA: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,488	2,077,548	274,242	28.7	7,101	12,147	0	11,366.4	-	74.8%	-
February	3,262	1,873,787	247,525	28.7	11,740	10,791	0	10,097.2	-	74.0%	-
March	3,770	2,109,129	276,308	28.9	31,351	11,484	104	10,443.9	399.5	72.4%	77.7%
April	4,181	2,130,265	273,229	29.6	59,660	10,213	480	8,425.1	1,580.3	69.2%	77.0%
May	4,181	2,470,216	299,934	31.2	107,133	9,085	3,627	1,239.7	10,655.4	67.3%	76.4%
June	4,181	2,538,239	299,923	32.1	129,065	7,945	4,864	-	11,985.2	-	76.5%
July	4,181	2,730,441	316,960	32.7	152,389	7,565	5,852	-	12,554.4	-	76.7%
August	4,181	2,703,179	315,176	32.5	146,453	7,792	5,561	-	12,494.6	-	76.6%
September	4,181	2,495,439	297,122	31.8	122,560	8,180	4,569	-	11,929.4	-	76.5%
October	3,996	2,373,511	293,606	30.7	91,260	9,599	2,711	2,483.7	9,034.5	67.4%	76.6%
November	3,968	2,104,119	271,519	29.4	49,375	10,527	440	8,687.8	1,574.1	70.5%	76.7%
December	3,657	2,109,777	276,350	29.0	23,804	11,589	214	10,260.6	783.1	73.1%	76.8%
Totals	*4,181*	*27,715,648*	*3,441,893*	*30.5*	*931,890*	*116,918*	*28,422*	*63,004.3*	*72,990.6*	*71.1%*	*76.7%*
										Combined CHP Eff:	*74.4%*

Los Angeles, CA: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	4,181	2,413,128	296,198	30.9	97,778	9,389	3,582	-	12,136.7	-	76.4%
February	4,181	2,172,659	267,080	30.8	87,791	8,496	3,211	-	10,953.8	-	76.4%
March	4,165	2,454,331	298,894	31.1	105,120	9,152	3,837	-	12,154.3	-	76.3%
April	4,181	2,409,593	291,505	31.3	107,599	8,667	3,941	-	11,797.3	-	76.3%
May	4,181	2,549,999	305,154	31.7	120,005	8,672	4,434	-	12,263.3	-	76.3%
June	4,137	2,486,231	296,520	31.8	119,970	8,269	4,449	-	11,900.1	-	76.4%
July	4,181	2,650,560	311,733	32.2	137,005	8,124	5,136	-	12,407.3	-	76.5%
August	4,181	2,666,656	312,786	32.3	139,017	8,059	5,220	-	12,424.5	-	76.5%
September	4,181	2,559,755	301,330	32.2	133,047	7,830	5,011	-	12,015.5	-	76.5%
October	4,181	2,592,838	307,957	31.9	126,983	8,446	4,723	-	12,322.6	-	76.4%
November	4,181	2,429,465	292,806	31.5	110,090	8,587	4,047	-	11,821.9	-	76.3%
December	4,181	2,444,659	298,261	31.1	104,350	9,176	3,654	610.1	11,395.8	66.6%	76.4%
Totals	*4,181*	*29,829,873*	*3,580,225*	*31.6*	*1,388,756*	*102,866*	*51,247*	*610.1*	*143,592.9*	*66.6%*	*76.4%*
										Combined CHP Eff:	*76.3%*

Chicago, IL: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,607.2	2,085,674	$ 115,324	51,715	$ 136,736	71,986	$ 77,025	30.0	22,320	$ 4,331	274,096	$ 293,283
February	3,607.2	1,900,055	$ 109,387	46,172	$ 122,080	64,270	$ 68,769	30.0	20,160	$ 4,263	247,764	$ 265,108
March	3,869.5	2,156,780	$ 121,112	49,147	$ 129,943	68,410	$ 73,199	30.0	22,320	$ 4,331	276,262	$ 295,600
April	4,164.6	2,256,312	$ 128,361	42,355	$ 111,986	58,956	$ 63,083	30.0	21,600	$ 4,305	275,789	$ 295,095
May	4,666.2	2,619,036	$ 147,324	38,030	$ 100,551	52,936	$ 56,642	383.0	27,213	$ 9,292	300,738	$ 321,790
June	4,835.5	2,771,897	$ 154,321	32,137	$ 84,971	44,734	$ 47,865	675.0	48,736	$ 14,290	302,978	$ 324,187
July	4,948.5	2,968,367	$ 178,254	31,217	$ 82,537	43,452	$ 46,494	870.2	58,415	$ 18,806	318,525	$ 340,822
August	4,750.9	2,899,906	$ 175,702	32,659	$ 86,350	45,460	$ 48,642	529.0	37,776	$ 12,725	315,894	$ 338,007
September	4,750.9	2,643,624	$ 162,842	34,526	$ 91,288	48,059	$ 51,424	529.0	29,026	$ 12,272	296,907	$ 317,690
October	4,426.8	2,475,784	$ 140,945	40,989	$ 108,376	57,056	$ 61,050	30.0	22,320	$ 4,343	293,087	$ 313,603
November	4,361.3	2,146,290	$ 126,756	45,661	$ 120,728	63,559	$ 68,008	30.0	21,600	$ 4,305	270,190	$ 289,103
December	3,607.2	2,093,016	$ 113,384	51,138	$ 135,208	71,181	$ 76,164	30.0	22,320	$ 4,309	273,743	$ 292,905
Totals	*4,948.5*	*29,016,738*	*$ 1,673,713*	*495,747*	*$ 1,310,754*	*690,059*	*$ 738,364*	*870.2*	*353,806*	*$ 97,571*	*3,445,973*	*$ 3,687,191*
Average Rate		$ 0.0577 per kWh		$ 2.64 per gal		$ 1.07 per therm			$ 0.2758 per kWh		$ 1.07 per therm	

Harrisburg, PA: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,902.3	2,120,966	$ 144,573	50,506	$ 127,125	70,303	$ 85,770	30.0	22,320	$ 1,429	274,945	$ 335,432
February	3,967.8	1,922,865	$ 134,792	45,465	$ 114,434	63,285	$ 77,207	30.0	20,160	$ 1,317	248,463	$ 303,125
March	4,295.7	2,241,854	$ 154,293	46,206	$ 116,301	64,317	$ 78,467	30.0	22,320	$ 1,429	280,306	$ 341,973
April	4,637.9	2,311,748	$ 160,906	41,301	$ 103,954	57,489	$ 70,137	334.4	22,636	$ 4,080	278,845	$ 340,191
May	4,553.3	2,668,334	$ 178,801	37,082	$ 93,336	51,617	$ 62,973	188.5	23,132	$ 2,844	303,758	$ 370,584
June	4,807.3	2,770,868	$ 186,357	32,167	$ 80,965	44,775	$ 54,626	626.3	39,381	$ 7,481	303,496	$ 370,265
July	4,835.5	3,006,070	$ 198,888	30,506	$ 76,784	42,463	$ 51,805	675.0	57,288	$ 8,838	320,696	$ 391,249
August	4,948.5	2,975,064	$ 198,245	31,178	$ 78,475	43,399	$ 52,946	870.2	61,532	$ 10,749	318,720	$ 388,839
September	4,863.8	2,719,204	$ 184,146	33,070	$ 83,237	46,032	$ 56,159	723.7	33,341	$ 8,009	300,924	$ 367,128
October	4,609.7	2,508,876	$ 170,960	40,236	$ 101,274	56,007	$ 68,329	285.7	24,248	$ 3,743	294,767	$ 359,616
November	3,902.3	2,194,808	$ 148,431	44,233	$ 111,335	61,571	$ 75,117	30.0	21,600	$ 1,392	272,675	$ 332,663
December	3,508.9	2,106,823	$ 140,430	50,432	$ 126,938	70,200	$ 85,644	30.0	22,320	$ 1,429	273,892	$ 334,148
Totals	*4,948.5*	*29,547,478*	*$ 2,000,823*	*482,383*	*$ 1,214,158*	*671,458*	*$ 819,179*	*870.2*	*370,277*	*$ 52,741*	*3,471,487*	*$ 4,235,214*
Average Rate		$ 0.0677 per kWh		$ 2.52 per gal		$ 1.22 per therm			$ 0.1424 per kWh		$ 1.22 per therm	

Chicago, IL: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,577.2	2,063,354	$ 110,992	51,715	$ 136,736	(202,111)	$ (216,258)	$ 31,470
February	3,577.2	1,879,895	$ 105,125	46,172	$ 122,080	(183,494)	$ (196,338)	$ 30,866
March	3,839.5	2,134,460	$ 116,781	49,147	$ 129,943	(207,852)	$ (222,401)	$ 24,323
April	4,134.6	2,234,712	$ 124,057	42,355	$ 111,986	(216,833)	$ (232,012)	$ 4,031
May	4,283.2	2,591,823	$ 138,032	38,030	$ 100,551	(247,802)	$ (265,148)	$ (26,565)
June	4,160.5	2,723,160	$ 140,031	32,137	$ 84,971	(258,244)	$ (276,321)	$ (51,319)
July	4,078.3	2,909,952	$ 159,448	31,217	$ 82,537	(275,073)	$ (294,328)	$ (52,343)
August	4,221.9	2,862,129	$ 162,976	32,659	$ 86,350	(270,434)	$ (289,365)	$ (40,039)
September	4,221.9	2,614,598	$ 150,570	34,526	$ 91,288	(248,847)	$ (266,266)	$ (24,408)
October	4,396.8	2,453,464	$ 136,603	40,989	$ 108,376	(236,031)	$ (252,553)	$ (7,574)
November	4,331.3	2,124,690	$ 122,452	45,661	$ 120,728	(206,631)	$ (221,096)	$ 22,084
December	3,577.2	2,070,696	$ 109,075	51,138	$ 135,208	(202,562)	$ (216,741)	$ 27,542
Totals	*4,078.3*	*28,662,932*	*$ 1,576,142*	*495,747*	*$ 1,310,754*	*(2,755,914)*	*$ (2,948,828)*	*$ (61,931)*
Average Rate		$ 0.0550 per kWh		$ 2.64 per gal		$ 1.07 per therm		

Harrisburg, PA: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,872.3	2,098,646	$ 143,144	50,506	$ 127,125	(204,642)	$ (249,663)	$ 20,606
February	3,937.8	1,902,705	$ 133,475	45,465	$ 114,434	(185,179)	$ (225,918)	$ 21,992
March	4,265.7	2,219,534	$ 152,864	46,206	$ 116,301	(215,989)	$ (263,506)	$ 5,658
April	4,303.6	2,289,112	$ 156,826	41,301	$ 103,954	(221,356)	$ (270,055)	$ (9,274)
May	4,364.7	2,645,203	$ 175,958	37,082	$ 93,336	(252,140)	$ (307,611)	$ (38,317)
June	4,181.0	2,731,487	$ 178,875	32,167	$ 80,965	(258,721)	$ (315,639)	$ (55,799)
July	4,160.5	2,948,782	$ 190,050	30,506	$ 76,784	(278,233)	$ (339,444)	$ (72,611)
August	4,078.3	2,913,531	$ 187,496	31,178	$ 78,475	(275,322)	$ (335,892)	$ (69,920)
September	4,140.0	2,685,863	$ 176,137	33,070	$ 83,237	(254,892)	$ (310,969)	$ (51,594)
October	4,324.0	2,484,628	$ 167,217	40,236	$ 101,274	(238,760)	$ (291,287)	$ (22,797)
November	3,872.3	2,173,208	$ 147,039	44,233	$ 111,335	(211,104)	$ (257,546)	$ 828
December	3,478.9	2,084,503	$ 139,000	50,432	$ 126,938	(203,692)	$ (248,504)	$ 17,435
Totals	*4,078.3*	*29,177,201*	*$ 1,948,082*	*482,383*	*$ 1,214,158*	*(2,800,029)*	*$ (3,416,035)*	*$ (253,794)*
Average Rate		$ 0.0668 per kWh		$ 2.52 per gal		$ 1.22 per therm		

Chicago, IL: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,460	2,075,329	274,096	28.7	-11,975	12,248	0	11,460.1	-	75.2%	-
February	3,460	1,877,443	247,764	28.7	2,453	10,935	0	10,231.8	-	74.6%	-
March	3,685	2,108,420	276,262	28.9	26,040	11,639	247	10,332.7	789.6	73.4%	76.8%
April	3,939	2,169,395	275,789	29.8	65,317	10,031	1,110	6,455.1	3,969.4	69.0%	77.4%
May	4,181	2,482,514	300,738	31.3	109,310	9,007	3,964	624.1	11,512.5	67.5%	76.7%
June	4,181	2,584,936	302,978	32.4	138,224	7,611	5,298	-	12,079.1	-	76.7%
July	4,181	2,754,359	318,525	32.8	155,592	7,393	6,072	-	12,599.6	-	76.7%
August	4,181	2,714,155	315,894	32.6	147,974	7,735	5,635	-	12,509.8	-	76.6%
September	4,181	2,492,141	296,907	31.8	122,457	8,177	4,589	-	11,945.2	-	76.5%
October	4,165	2,365,570	293,087	30.6	87,894	9,707	2,654	3,251.4	8,315.6	69.3%	76.8%
November	4,109	2,083,814	270,190	29.2	40,876	10,814	367	9,281.3	1,181.0	71.8%	76.4%
December	3,460	2,069,931	273,743	28.7	765	12,111	91	11,029.2	388.2	75.0%	76.4%
Totals	*4,181*	*27,778,004*	*3,445,973*	*30.6*	*884,928*	*117,407*	*30,029*	*62,665.8*	*75,289.9*	*72.0%*	*76.7%*
									Combined CHP Eff:		*75.1%*

Harrisburg, PA: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,714	2,088,292	274,945	28.8	10,353	11,961	0	11,192.2	-	74.0%	-
February	3,770	1,888,131	248,463	28.8	14,573	10,767	109	9,777.6	399.2	74.2%	77.5%
March	4,052	2,170,233	280,306	29.4	49,302	10,943	399	9,413.0	1,199.6	70.8%	77.0%
April	4,140	2,216,098	278,845	30.1	73,014	9,781	1,774	4,889.5	5,922.9	69.4%	76.8%
May	4,181	2,528,662	303,758	31.6	116,541	8,782	4,272	311.4	11,903.4	67.4%	76.5%
June	4,181	2,592,850	303,496	32.4	138,636	7,618	5,294	-	12,082.2	-	76.6%
July	4,181	2,787,544	320,696	33.0	161,238	7,225	6,288	-	12,643.9	-	76.8%
August	4,181	2,757,346	318,720	32.8	156,185	7,384	6,084	-	12,602.0	-	76.7%
September	4,181	2,553,549	300,924	32.2	132,314	7,832	5,012	-	12,018.1	-	76.6%
October	4,181	2,391,256	294,767	30.8	93,372	9,529	2,630	3,457.7	7,919.4	67.8%	76.7%
November	3,714	2,121,788	272,675	29.5	51,420	10,476	660	8,075.4	2,344.4	70.8%	76.6%
December	3,375	2,072,200	273,892	28.7	12,303	11,944	0	11,175.8	-	74.0%	-
Totals	*4,181*	*28,167,949*	*3,471,487*	*30.8*	*1,009,252*	*114,242*	*32,523*	*58,292.5*	*79,035.1*	*71.1%*	*76.8%*
									Combined CHP Eff:		*74.7%*

Syracuse, NY: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,312.2	2,082,177	$ 186,251	52,089	$ 137,672	72,506	$ 75,407	30.0	22,320	$ 5,950	273,591	$ 284,535
February	3,279.4	1,877,072	$ 213,763	46,794	$ 123,676	65,135	$ 67,740	30.0	20,160	$ 6,225	247,094	$ 256,978
March	3,967.8	2,151,245	$ 225,551	49,229	$ 130,111	68,524	$ 71,265	30.0	22,320	$ 6,211	276,213	$ 287,262
April	4,197.3	2,188,991	$ 215,859	44,147	$ 116,679	61,450	$ 63,908	30.0	21,600	$ 5,874	272,247	$ 283,137
May	4,637.9	2,538,742	$ 252,835	39,549	$ 104,528	55,051	$ 57,253	334.4	23,537	$ 6,339	296,452	$ 308,310
June	4,779.1	2,689,157	$ 269,245	33,735	$ 89,162	46,958	$ 48,836	577.6	32,386	$ 8,112	299,309	$ 311,282
July	4,779.1	2,883,754	$ 285,895	32,868	$ 86,870	45,751	$ 47,581	577.6	36,016	$ 8,645	315,099	$ 327,703
August	4,807.3	2,830,567	$ 293,712	33,977	$ 89,802	47,295	$ 49,187	626.3	34,061	$ 8,492	312,232	$ 324,722
September	4,666.2	2,574,625	$ 241,916	35,889	$ 94,854	49,956	$ 51,954	383.0	25,049	$ 6,674	293,311	$ 305,044
October	4,459.6	2,400,972	$ 240,363	42,554	$ 112,471	59,234	$ 61,603	42.9	22,333	$ 6,139	288,944	$ 300,502
November	4,033.4	2,166,030	$ 222,907	45,204	$ 119,475	62,923	$ 65,440	30.0	21,600	$ 6,137	271,256	$ 282,107
December	3,269.4	2,087,460	$ 169,938	51,217	$ 135,366	71,292	$ 74,144	30.0	22,320	$ 5,822	273,307	$ 284,239
Totals	*4,807.3*	*28,470,791*	*$ 2,818,236*	*507,252*	*$ 1,340,667*	*706,075*	*$ 734,318*	*626.3*	*303,701*	*$ 80,620*	*3,419,056*	*$ 3,555,819*
Average Rate		$ 0.0990 per kWh		$ 2.64 per gal		$ 1.04 per therm			$ 0.2655 per kWh		$ 1.04 per therm	

New York, NY: 50% Heating Oil, 50% Natural Gas Heating

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,607.2	2,106,471	$ 302,383	51,050	$ 134,925	71,060	$ 73,902	30.0	22,320	$ 10,608	274,292	$ 285,264
February	3,705.6	1,927,699	$ 249,816	44,784	$ 118,364	62,337	$ 64,831	30.0	20,160	$ 10,162	248,483	$ 258,423
March	4,131.8	2,221,849	$ 291,274	46,441	$ 122,744	64,644	$ 67,230	30.0	22,320	$ 10,302	279,092	$ 290,256
April	4,361.3	2,301,504	$ 306,318	41,197	$ 108,882	57,344	$ 59,638	30.0	21,600	$ 10,416	278,190	$ 289,317
May	4,807.3	2,685,826	$ 378,968	36,740	$ 97,104	51,141	$ 53,186	626.3	29,019	$ 21,245	304,378	$ 316,554
June	4,807.3	2,803,325	$ 447,735	31,551	$ 83,390	43,918	$ 45,675	626.3	33,331	$ 22,258	305,705	$ 317,934
July	4,892.0	3,021,583	$ 522,404	30,213	$ 79,854	42,056	$ 43,738	772.5	55,189	$ 28,361	321,696	$ 334,564
August	4,694.4	2,950,875	$ 488,972	31,697	$ 83,774	44,120	$ 45,885	431.7	35,495	$ 19,534	318,886	$ 331,642
September	4,609.7	2,732,208	$ 417,151	32,842	$ 86,802	45,715	$ 47,544	285.7	26,006	$ 14,352	302,076	$ 314,159
October	4,394.1	2,541,774	$ 360,695	39,497	$ 104,391	54,978	$ 57,177	30.0	22,320	$ 9,193	296,687	$ 308,554
November	3,869.5	2,237,067	$ 291,036	42,824	$ 113,183	59,609	$ 61,993	30.0	21,600	$ 10,384	274,756	$ 285,746
December	3,803.9	2,176,337	$ 284,300	48,387	$ 127,886	67,352	$ 70,047	30.0	22,320	$ 9,846	277,109	$ 288,193
Totals	*4,892.0*	*29,706,517*	*$ 4,341,052*	*477,223*	*$ 1,261,300*	*664,275*	*$ 690,846*	*772.5*	*331,681*	*$ 176,660*	*3,481,352*	*$ 3,620,606*
Average Rate		$ 0.1461 per kWh		$ 2.64 per gal		$ 1.04 per therm			$ 0.5326 per kWh		$ 1.04 per therm	

Syracuse, NY: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,282.2	2,059,857	$ 180,302	52,089	$ 137,672	(201,085)	$ (209,128)	$ 108,846
February	3,249.4	1,856,912	$ 207,537	46,794	$ 123,676	(181,959)	$ (189,237)	$ 141,976
March	3,937.8	2,128,925	$ 219,340	49,229	$ 130,111	(207,689)	$ (215,996)	$ 133,455
April	4,167.3	2,167,391	$ 209,985	44,147	$ 116,679	(210,797)	$ (219,228)	$ 107,436
May	4,303.6	2,515,205	$ 246,495	39,549	$ 104,528	(241,402)	$ (251,058)	$ 99,966
June	4,201.5	2,656,772	$ 261,134	33,735	$ 89,162	(252,351)	$ (262,445)	$ 87,851
July	4,201.5	2,847,738	$ 277,250	32,868	$ 86,870	(269,349)	$ (280,122)	$ 83,997
August	4,181.0	2,796,506	$ 285,220	33,977	$ 89,802	(264,938)	$ (275,535)	$ 99,487
September	4,283.2	2,549,576	$ 235,243	35,889	$ 94,854	(243,355)	$ (253,090)	$ 77,007
October	4,416.7	2,378,639	$ 234,224	42,554	$ 112,471	(229,710)	$ (238,899)	$ 107,797
November	4,003.4	2,144,430	$ 216,770	45,204	$ 119,475	(208,334)	$ (216,667)	$ 119,578
December	3,239.4	2,065,140	$ 164,116	51,217	$ 135,366	(202,015)	$ (210,095)	$ 89,387
Totals	*4,181.0*	*28,167,090*	*$ 2,737,616*	*507,252*	*$ 1,340,667*	*(2,712,982)*	*$ (2,821,501)*	*$ 1,256,782*
Average Rate		$ 0.0972 per kWh		$ 2.64 per gal		$ 1.04 per therm		

New York, NY: 50% Heating Oil, 50% Natural Gas Heating

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,577.2	2,084,151	$ 291,775	51,050	$ 134,925	(203,233)	$ (211,362)	$ 215,339
February	3,675.6	1,907,539	$ 239,654	44,784	$ 118,364	(186,146)	$ (193,592)	$ 164,426
March	4,101.8	2,199,529	$ 280,972	46,441	$ 122,744	(214,448)	$ (223,026)	$ 180,690
April	4,331.3	2,279,904	$ 295,902	41,197	$ 108,882	(220,846)	$ (229,680)	$ 175,105
May	4,181.0	2,656,807	$ 357,722	36,740	$ 97,104	(253,238)	$ (263,367)	$ 191,459
June	4,181.0	2,769,994	$ 425,477	31,551	$ 83,390	(261,787)	$ (272,259)	$ 236,609
July	4,119.5	2,966,393	$ 494,043	30,213	$ 79,854	(279,640)	$ (290,826)	$ 283,071
August	4,262.7	2,915,380	$ 469,438	31,697	$ 83,774	(274,766)	$ (285,757)	$ 267,455
September	4,324.0	2,706,202	$ 402,800	32,842	$ 86,802	(256,361)	$ (266,615)	$ 222,987
October	4,364.1	2,519,454	$ 351,502	39,497	$ 104,391	(241,709)	$ (251,377)	$ 204,515
November	3,839.5	2,215,467	$ 280,652	42,824	$ 113,183	(215,147)	$ (223,753)	$ 170,082
December	3,773.9	2,154,017	$ 274,454	48,387	$ 127,886	(209,757)	$ (218,147)	$ 184,193
Totals	*4,119.5*	*29,374,836*	*$ 4,164,391*	*477,223*	*$ 1,261,300*	*(2,817,077)*	*$ (2,929,760)*	*$ 2,495,932*
Average Rate		$ 0.1418 per kWh		$ 2.64 per gal		$ 1.04 per therm		

Syracuse, NY: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,206	2,067,604	273,591	28.7	-7,748	12,336	0	11,543.0	-	75.5%	-
February	3,177	1,867,199	247,094	28.7	-10,287	11,082	0	10,369.5	-	75.3%	-
March	3,770	2,107,681	276,213	28.9	21,244	11,659	114	10,620.4	395.6	73.1%	77.5%
April	3,968	2,115,251	272,247	29.5	52,140	10,455	545	8,301.2	1,991.7	70.2%	77.4%
May	4,181	2,417,010	296,452	30.9	98,195	9,366	3,033	2,479.4	9,122.6	67.2%	76.8%
June	4,181	2,528,866	299,309	32.0	127,906	7,989	4,816	-	11,982.2	-	76.5%
July	4,181	2,702,003	315,099	32.5	145,735	7,784	5,578	-	12,502.7	-	76.6%
August	4,181	2,658,186	312,232	32.3	138,320	8,047	5,240	-	12,432.4	-	76.5%
September	4,181	2,437,191	293,311	31.5	112,385	8,499	4,110	646.1	11,152.7	69.0%	76.7%
October	4,181	2,302,259	288,944	30.2	76,380	10,078	1,822	5,210.3	5,924.2	69.4%	76.7%
November	3,827	2,100,111	271,256	29.4	44,319	10,706	485	8,894.6	1,576.1	71.5%	76.6%
December	3,108	2,063,259	273,307	28.6	1,881	12,130	0	11,349.7	-	74.8%	-
Totals	*4,181*	*27,366,619*	*3,419,056*	*30.4*	*800,471*	*120,132*	*25,742*	*69,414.2*	*67,080.1*	*71.8%*	*76.8%*
									Combined CHP Eff:		*74.7%*

New York, NY: 50% Heating Oil, 50% Natural Gas Heating

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	Total CHP Efficiency w/ Cooling (% LHV)
January	3,460	2,078,325	274,292	28.7	5,826	12,090	0	11,312.7	-	74.6%	-
February	3,544	1,888,434	248,483	28.8	19,105	10,606	0	9,924.1	-	73.2%	-
March	3,911	2,151,681	279,092	29.2	47,849	10,999	672	8,551.3	2,368.4	71.6%	77.0%
April	4,109	2,206,079	278,190	30.1	73,825	9,757	1,449	5,385.8	5,099.0	68.2%	76.7%
May	4,181	2,538,151	304,378	31.6	118,656	8,701	4,330	307.4	11,885.5	67.2%	76.4%
June	4,181	2,626,621	305,705	32.6	143,373	7,472	5,469	-	12,109.6	-	76.6%
July	4,181	2,802,828	321,696	33.0	163,565	7,155	6,377	-	12,662.1	-	76.8%
August	4,181	2,759,886	318,886	32.8	155,494	7,507	5,927	-	12,569.7	-	76.6%
September	4,181	2,571,155	302,076	32.3	135,047	7,778	5,081	-	12,032.4	-	76.5%
October	4,137	2,420,597	296,687	30.9	98,858	9,354	3,480	641.8	11,366.7	68.7%	76.4%
November	3,685	2,153,594	274,756	29.7	61,873	10,142	1,081	6,600.6	3,900.7	69.9%	76.5%
December	3,629	2,121,372	277,109	29.0	32,645	11,459	434	9,565.1	1,563.8	73.2%	76.6%
Totals	*4,181*	*28,318,721*	*3,481,352*	*30.8*	*1,056,116*	*113,020*	*34,300*	*52,288.9*	*85,557.8*	*70.8%*	*76.6%*
									Combined CHP Eff:		*74.8%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.25/gal

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 116,671	72,178	$ 94,554	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	46,915	$ 105,560	65,304	$ 85,549	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	49,628	$ 111,663	69,080	$ 90,495	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	43,182	$ 97,160	60,108	$ 78,741	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	41,317	$ 92,963	57,511	$ 75,340	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	35,223	$ 79,251	49,029	$ 64,228	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	33,503	$ 75,381	46,635	$ 61,091	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	34,319	$ 77,217	47,770	$ 62,579	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	36,978	$ 83,200	51,471	$ 67,427	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	43,504	$ 97,883	60,555	$ 79,328	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	45,736	$ 102,907	63,663	$ 83,399	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	51,281	$ 115,383	71,381	$ 93,509	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,155,238*	*714,687*	*$ 936,240*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 2.25 per gal		$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.50/gal

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 129,634	72,178	$ 94,554	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	46,915	$ 117,289	65,304	$ 85,549	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	49,628	$ 124,070	69,080	$ 90,495	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	43,182	$ 107,955	60,108	$ 78,741	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	41,317	$ 103,292	57,511	$ 75,340	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	35,223	$ 88,057	49,029	$ 64,228	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	33,503	$ 83,757	46,635	$ 61,091	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	34,319	$ 85,797	47,770	$ 62,579	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	36,978	$ 92,444	51,471	$ 67,427	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	43,504	$ 108,759	60,555	$ 79,328	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	45,736	$ 114,341	63,663	$ 83,399	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	51,281	$ 128,203	71,381	$ 93,509	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,283,598*	*714,687*	*$ 936,240*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 2.50 per gal		$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.25/gal

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 116,671	(201,473)	$ (263,930)	$ 137,050
February	3,249.4	1,856,141	$ 257,944	46,915	$ 105,560	(181,719)	$ (238,052)	$ 125,452
March	3,511.6	2,103,852	$ 291,742	49,628	$ 111,663	(205,637)	$ (269,385)	$ 134,020
April	4,080.4	2,207,892	$ 293,603	43,182	$ 97,160	(214,325)	$ (280,766)	$ 109,997
May	4,416.7	2,425,352	$ 336,448	41,317	$ 92,963	(233,893)	$ (306,400)	$ 123,011
June	4,201.5	2,585,803	$ 350,513	35,223	$ 79,251	(246,325)	$ (322,686)	$ 107,079
July	4,160.5	2,810,888	$ 394,523	33,503	$ 75,381	(266,314)	$ (348,872)	$ 121,032
August	4,283.2	2,782,447	$ 380,109	34,319	$ 77,217	(263,662)	$ (345,397)	$ 111,929
September	4,416.7	2,494,108	$ 330,810	36,978	$ 83,200	(238,706)	$ (312,705)	$ 101,305
October	4,396.8	2,333,196	$ 311,946	43,504	$ 97,883	(225,872)	$ (295,892)	$ 113,937
November	4,232.9	2,122,592	$ 300,964	45,736	$ 102,907	(206,486)	$ (270,496)	$ 133,375
December	3,413.3	2,058,985	$ 283,736	51,281	$ 115,383	(201,971)	$ (264,582)	$ 134,537
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,155,238*	*(2,686,384)*	*$ (3,519,163)*	*$ 1,452,724*
Average Rate		$ 0.1371 per kWh		$ 2.25 per gal		$ 1.31 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.50/gal

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 129,634	(201,473)	$ (263,930)	$ 150,013
February	3,249.4	1,856,141	$ 257,944	46,915	$ 117,289	(181,719)	$ (238,052)	$ 137,181
March	3,511.6	2,103,852	$ 291,742	49,628	$ 124,070	(205,637)	$ (269,385)	$ 146,427
April	4,080.4	2,207,892	$ 293,603	43,182	$ 107,955	(214,325)	$ (280,766)	$ 120,793
May	4,416.7	2,425,352	$ 336,448	41,317	$ 103,292	(233,893)	$ (306,400)	$ 133,340
June	4,201.5	2,585,803	$ 350,513	35,223	$ 88,057	(246,325)	$ (322,686)	$ 115,885
July	4,160.5	2,810,888	$ 394,523	33,503	$ 83,757	(266,314)	$ (348,872)	$ 129,408
August	4,283.2	2,782,447	$ 380,109	34,319	$ 85,797	(263,662)	$ (345,397)	$ 120,509
September	4,416.7	2,494,108	$ 330,810	36,978	$ 92,444	(238,706)	$ (312,705)	$ 110,550
October	4,396.8	2,333,196	$ 311,946	43,504	$ 108,759	(225,872)	$ (295,892)	$ 124,813
November	4,232.9	2,122,592	$ 300,964	45,736	$ 114,341	(206,486)	$ (270,496)	$ 144,809
December	3,413.3	2,058,985	$ 283,736	51,281	$ 128,203	(201,971)	$ (264,582)	$ 147,357
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,283,598*	*(2,686,384)*	*$ (3,519,163)*	*$ 1,581,084*
Average Rate		$ 0.1371 per kWh		$ 2.50 per gal		$ 1.31 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.25/gal

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.50/gal

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.75/gal

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 142,598	72,178	$ 94,554	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	46,915	$ 129,018	65,304	$ 85,549	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	49,628	$ 136,477	69,080	$ 90,495	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	43,182	$ 118,751	60,108	$ 78,741	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	41,317	$ 113,621	57,511	$ 75,340	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	35,223	$ 96,863	49,029	$ 64,228	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	33,503	$ 92,133	46,635	$ 61,091	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	34,319	$ 94,377	47,770	$ 62,579	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	36,978	$ 101,688	51,471	$ 67,427	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	43,504	$ 119,635	60,555	$ 79,328	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	45,736	$ 125,775	63,663	$ 83,399	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	51,281	$ 141,023	71,381	$ 93,509	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,411,958*	*714,687*	*$ 936,240*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 2.75 per gal		$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.00/gal

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 155,561	72,178	$ 94,554	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	46,915	$ 140,746	65,304	$ 85,549	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	49,628	$ 148,884	69,080	$ 90,495	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	43,182	$ 129,546	60,108	$ 78,741	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	41,317	$ 123,951	57,511	$ 75,340	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	35,223	$ 105,668	49,029	$ 64,228	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	33,503	$ 100,508	46,635	$ 61,091	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	34,319	$ 102,956	47,770	$ 62,579	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	36,978	$ 110,933	51,471	$ 67,427	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	43,504	$ 130,511	60,555	$ 79,328	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	45,736	$ 137,209	63,663	$ 83,399	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	51,281	$ 153,843	71,381	$ 93,509	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,540,318*	*714,687*	*$ 936,240*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 3.00 per gal		$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.75/gal

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 142,598	(201,473)	$ (263,930)	$ 162,977
February	3,249.4	1,856,141	$ 257,944	46,915	$ 129,018	(181,719)	$ (238,052)	$ 148,910
March	3,511.6	2,103,852	$ 291,742	49,628	$ 136,477	(205,637)	$ (269,385)	$ 158,834
April	4,080.4	2,207,892	$ 293,603	43,182	$ 118,751	(214,325)	$ (280,766)	$ 131,588
May	4,416.7	2,425,352	$ 336,448	41,317	$ 113,621	(233,893)	$ (306,400)	$ 143,669
June	4,201.5	2,585,803	$ 350,513	35,223	$ 96,863	(246,325)	$ (322,686)	$ 124,691
July	4,160.5	2,810,888	$ 394,523	33,503	$ 92,133	(266,314)	$ (348,872)	$ 137,783
August	4,283.2	2,782,447	$ 380,109	34,319	$ 94,377	(263,662)	$ (345,397)	$ 129,088
September	4,416.7	2,494,108	$ 330,810	36,978	$ 101,688	(238,706)	$ (312,705)	$ 119,794
October	4,396.8	2,333,196	$ 311,946	43,504	$ 119,635	(225,872)	$ (295,892)	$ 135,689
November	4,232.9	2,122,592	$ 300,964	45,736	$ 125,775	(206,486)	$ (270,496)	$ 156,243
December	3,413.3	2,058,985	$ 283,736	51,281	$ 141,023	(201,971)	$ (264,582)	$ 160,177
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,411,958*	*(2,686,384)*	*$ (3,519,163)*	*$ 1,709,443*
Average Rate		$ 0.1371 per kWh		$ 2.75 per gal		$ 1.31 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.00/gal

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 155,561	(201,473)	$ (263,930)	$ 175,940
February	3,249.4	1,856,141	$ 257,944	46,915	$ 140,746	(181,719)	$ (238,052)	$ 160,638
March	3,511.6	2,103,852	$ 291,742	49,628	$ 148,884	(205,637)	$ (269,385)	$ 171,241
April	4,080.4	2,207,892	$ 293,603	43,182	$ 129,546	(214,325)	$ (280,766)	$ 142,384
May	4,416.7	2,425,352	$ 336,448	41,317	$ 123,951	(233,893)	$ (306,400)	$ 153,999
June	4,201.5	2,585,803	$ 350,513	35,223	$ 105,668	(246,325)	$ (322,686)	$ 133,496
July	4,160.5	2,810,888	$ 394,523	33,503	$ 100,508	(266,314)	$ (348,872)	$ 146,159
August	4,283.2	2,782,447	$ 380,109	34,319	$ 102,956	(263,662)	$ (345,397)	$ 137,668
September	4,416.7	2,494,108	$ 330,810	36,978	$ 110,933	(238,706)	$ (312,705)	$ 129,038
October	4,396.8	2,333,196	$ 311,946	43,504	$ 130,511	(225,872)	$ (295,892)	$ 146,565
November	4,232.9	2,122,592	$ 300,964	45,736	$ 137,209	(206,486)	$ (270,496)	$ 167,677
December	3,413.3	2,058,985	$ 283,736	51,281	$ 153,843	(201,971)	$ (264,582)	$ 172,998
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,540,318*	*(2,686,384)*	*$ (3,519,163)*	*$ 1,837,803*
Average Rate		$ 0.1371 per kWh		$ 3.00 per gal		$ 1.31 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $2.75/gal

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.00/gal

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.25/gal

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 168,525	72,178	$ 94,554	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	46,915	$ 152,475	65,304	$ 85,549	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	49,628	$ 161,291	69,080	$ 90,495	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	43,182	$ 140,342	60,108	$ 78,741	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	41,317	$ 134,280	57,511	$ 75,340	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	35,223	$ 114,474	49,029	$ 64,228	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	33,503	$ 108,884	46,635	$ 61,091	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	34,319	$ 111,536	47,770	$ 62,579	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	36,978	$ 120,177	51,471	$ 67,427	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	43,504	$ 141,387	60,555	$ 79,328	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	45,736	$ 148,643	63,663	$ 83,399	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	51,281	$ 166,664	71,381	$ 93,509	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,668,678*	*714,687*	*$ 936,240*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 3.25 per gal		$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.50/gal

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 181,488	72,178	$ 94,554	30.0	22,320	$ 3,817	273,651	$ 358,483
February	3,279.4	1,876,301	$ 261,508	46,915	$ 164,204	65,304	$ 85,549	30.0	20,160	$ 3,563	247,024	$ 323,601
March	3,541.6	2,126,172	$ 295,656	49,628	$ 173,698	69,080	$ 90,495	30.0	22,320	$ 3,914	274,718	$ 359,880
April	4,110.4	2,229,492	$ 297,270	43,182	$ 151,137	60,108	$ 78,741	30.0	21,600	$ 3,666	274,433	$ 359,507
May	4,459.6	2,447,685	$ 340,357	41,317	$ 144,609	57,511	$ 75,340	42.9	22,333	$ 3,909	291,405	$ 381,740
June	4,779.1	2,611,625	$ 358,741	35,223	$ 123,280	49,029	$ 64,228	577.6	25,822	$ 8,228	295,354	$ 386,913
July	4,835.5	2,851,210	$ 405,534	33,503	$ 117,260	46,635	$ 61,091	675.0	40,322	$ 11,012	312,949	$ 409,963
August	4,666.2	2,813,399	$ 387,516	34,319	$ 120,116	47,770	$ 62,579	383.0	30,952	$ 7,407	311,433	$ 407,977
September	4,459.6	2,515,721	$ 334,508	36,978	$ 129,422	51,471	$ 67,427	42.9	21,613	$ 3,697	290,177	$ 380,132
October	4,426.8	2,355,516	$ 315,707	43,504	$ 152,263	60,555	$ 79,328	30.0	22,320	$ 3,761	286,428	$ 375,220
November	4,262.9	2,144,192	$ 304,696	45,736	$ 160,077	63,663	$ 83,399	30.0	21,600	$ 3,732	270,149	$ 353,895
December	3,443.3	2,081,305	$ 287,553	51,281	$ 179,484	71,381	$ 93,509	30.0	22,320	$ 3,816	273,352	$ 358,092
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,797,038*	*714,687*	*$ 936,240*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,455,403*
Average Rate		$ 0.1378 per kWh		$ 3.50 per gal		$ 1.31 per therm			$ 0.2061 per kWh		$ 1.31 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.25/gal

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 168,525	(201,473)	$ (263,930)	$ 188,904
February	3,249.4	1,856,141	$ 257,944	46,915	$ 152,475	(181,719)	$ (238,052)	$ 172,367
March	3,511.6	2,103,852	$ 291,742	49,628	$ 161,291	(205,637)	$ (269,385)	$ 183,648
April	4,080.4	2,207,892	$ 293,603	43,182	$ 140,342	(214,325)	$ (280,766)	$ 153,179
May	4,416.7	2,425,352	$ 336,448	41,317	$ 134,280	(233,893)	$ (306,400)	$ 164,328
June	4,201.5	2,585,803	$ 350,513	35,223	$ 114,474	(246,325)	$ (322,686)	$ 142,302
July	4,160.5	2,810,888	$ 394,523	33,503	$ 108,884	(266,314)	$ (348,872)	$ 154,535
August	4,283.2	2,782,447	$ 380,109	34,319	$ 111,536	(263,662)	$ (345,397)	$ 146,248
September	4,416.7	2,494,108	$ 330,810	36,978	$ 120,177	(238,706)	$ (312,705)	$ 138,283
October	4,396.8	2,333,196	$ 311,946	43,504	$ 141,387	(225,872)	$ (295,892)	$ 157,441
November	4,232.9	2,122,592	$ 300,964	45,736	$ 148,643	(206,486)	$ (270,496)	$ 179,111
December	3,413.3	2,058,985	$ 283,736	51,281	$ 166,664	(201,971)	$ (264,582)	$ 185,818
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,668,678*	*(2,686,384)*	*$ (3,519,163)*	*$ 1,966,163*
Average Rate		$ 0.1371 per kWh		$ 3.25 per gal		$ 1.31 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.50/gal

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 181,488	(201,473)	$ (263,930)	$ 201,867
February	3,249.4	1,856,141	$ 257,944	46,915	$ 164,204	(181,719)	$ (238,052)	$ 184,096
March	3,511.6	2,103,852	$ 291,742	49,628	$ 173,698	(205,637)	$ (269,385)	$ 196,055
April	4,080.4	2,207,892	$ 293,603	43,182	$ 151,137	(214,325)	$ (280,766)	$ 163,975
May	4,416.7	2,425,352	$ 336,448	41,317	$ 144,609	(233,893)	$ (306,400)	$ 174,657
June	4,201.5	2,585,803	$ 350,513	35,223	$ 123,280	(246,325)	$ (322,686)	$ 151,108
July	4,160.5	2,810,888	$ 394,523	33,503	$ 117,260	(266,314)	$ (348,872)	$ 162,910
August	4,283.2	2,782,447	$ 380,109	34,319	$ 120,116	(263,662)	$ (345,397)	$ 154,828
September	4,416.7	2,494,108	$ 330,810	36,978	$ 129,422	(238,706)	$ (312,705)	$ 147,527
October	4,396.8	2,333,196	$ 311,946	43,504	$ 152,263	(225,872)	$ (295,892)	$ 168,317
November	4,232.9	2,122,592	$ 300,964	45,736	$ 160,077	(206,486)	$ (270,496)	$ 190,545
December	3,413.3	2,058,985	$ 283,736	51,281	$ 179,484	(201,971)	$ (264,582)	$ 198,638
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,797,038*	*(2,686,384)*	*$ (3,519,163)*	*$ 2,094,523*
Average Rate		$ 0.1371 per kWh		$ 3.50 per gal		$ 1.31 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.25/gal

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
										Combined CHP Eff:	*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Heating Oil Cost $3.50/gal

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
										Combined CHP Eff:	*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.00/therm

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 141,405	72,178	$ 72,178	30.0	22,320	$ 3,817	273,651	$ 273,651
February	3,279.4	1,876,301	$ 261,508	46,915	$ 127,939	65,304	$ 65,304	30.0	20,160	$ 3,563	247,024	$ 247,024
March	3,541.6	2,126,172	$ 295,656	49,628	$ 135,335	69,080	$ 69,080	30.0	22,320	$ 3,914	274,718	$ 274,718
April	4,110.4	2,229,492	$ 297,270	43,182	$ 117,757	60,108	$ 60,108	30.0	21,600	$ 3,666	274,433	$ 274,433
May	4,459.6	2,447,685	$ 340,357	41,317	$ 112,671	57,511	$ 57,511	42.9	22,333	$ 3,909	291,405	$ 291,405
June	4,779.1	2,611,625	$ 358,741	35,223	$ 96,053	49,029	$ 49,029	577.6	25,822	$ 8,228	295,354	$ 295,354
July	4,835.5	2,851,210	$ 405,534	33,503	$ 91,362	46,635	$ 46,635	675.0	40,322	$ 11,012	312,949	$ 312,949
August	4,666.2	2,813,399	$ 387,516	34,319	$ 93,587	47,770	$ 47,770	383.0	30,952	$ 7,407	311,433	$ 311,433
September	4,459.6	2,515,721	$ 334,508	36,978	$ 100,838	51,471	$ 51,471	42.9	21,613	$ 3,697	290,177	$ 290,177
October	4,426.8	2,355,516	$ 315,707	43,504	$ 118,635	60,555	$ 60,555	30.0	22,320	$ 3,761	286,428	$ 286,428
November	4,262.9	2,144,192	$ 304,696	45,736	$ 124,723	63,663	$ 63,663	30.0	21,600	$ 3,732	270,149	$ 270,149
December	3,443.3	2,081,305	$ 287,553	51,281	$ 139,844	71,381	$ 71,381	30.0	22,320	$ 3,816	273,352	$ 273,352
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,400,149*	*714,687*	*$ 714,687*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 3,401,071*
Average Rate		$ 0.1378 per kWh		$ 2.73 per gal		$ 1.00 per therm			$ 0.2061 per kWh		$ 1.00 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.20/therm

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 141,405	72,178	$ 86,614	30.0	22,320	$ 3,817	273,651	$ 328,382
February	3,279.4	1,876,301	$ 261,508	46,915	$ 127,939	65,304	$ 78,365	30.0	20,160	$ 3,563	247,024	$ 296,428
March	3,541.6	2,126,172	$ 295,656	49,628	$ 135,335	69,080	$ 82,896	30.0	22,320	$ 3,914	274,718	$ 329,661
April	4,110.4	2,229,492	$ 297,270	43,182	$ 117,757	60,108	$ 72,129	30.0	21,600	$ 3,666	274,433	$ 329,319
May	4,459.6	2,447,685	$ 340,357	41,317	$ 112,671	57,511	$ 69,014	42.9	22,333	$ 3,909	291,405	$ 349,686
June	4,779.1	2,611,625	$ 358,741	35,223	$ 96,053	49,029	$ 58,834	577.6	25,822	$ 8,228	295,354	$ 354,424
July	4,835.5	2,851,210	$ 405,534	33,503	$ 91,362	46,635	$ 55,961	675.0	40,322	$ 11,012	312,949	$ 375,539
August	4,666.2	2,813,399	$ 387,516	34,319	$ 93,587	47,770	$ 57,324	383.0	30,952	$ 7,407	311,433	$ 373,719
September	4,459.6	2,515,721	$ 334,508	36,978	$ 100,838	51,471	$ 61,766	42.9	21,613	$ 3,697	290,177	$ 348,213
October	4,426.8	2,355,516	$ 315,707	43,504	$ 118,635	60,555	$ 72,667	30.0	22,320	$ 3,761	286,428	$ 343,713
November	4,262.9	2,144,192	$ 304,696	45,736	$ 124,723	63,663	$ 76,396	30.0	21,600	$ 3,732	270,149	$ 324,179
December	3,443.3	2,081,305	$ 287,553	51,281	$ 139,844	71,381	$ 85,658	30.0	22,320	$ 3,816	273,352	$ 328,023
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,400,149*	*714,687*	*$ 857,624*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,081,285*
Average Rate		$ 0.1378 per kWh		$ 2.73 per gal		$ 1.20 per therm			$ 0.2061 per kWh		$ 1.20 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.00/therm

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 141,405	(201,473)	$ (201,473)	$ 224,241
February	3,249.4	1,856,141	$ 257,944	46,915	$ 127,939	(181,719)	$ (181,719)	$ 204,164
March	3,511.6	2,103,852	$ 291,742	49,628	$ 135,335	(205,637)	$ (205,637)	$ 221,440
April	4,080.4	2,207,892	$ 293,603	43,182	$ 117,757	(214,325)	$ (214,325)	$ 197,036
May	4,416.7	2,425,352	$ 336,448	41,317	$ 112,671	(233,893)	$ (233,893)	$ 215,226
June	4,201.5	2,585,803	$ 350,513	35,223	$ 96,053	(246,325)	$ (246,325)	$ 200,241
July	4,160.5	2,810,888	$ 394,523	33,503	$ 91,362	(266,314)	$ (266,314)	$ 219,570
August	4,283.2	2,782,447	$ 380,109	34,319	$ 93,587	(263,662)	$ (263,662)	$ 210,034
September	4,416.7	2,494,108	$ 330,810	36,978	$ 100,838	(238,706)	$ (238,706)	$ 192,942
October	4,396.8	2,333,196	$ 311,946	43,504	$ 118,635	(225,872)	$ (225,872)	$ 204,709
November	4,232.9	2,122,592	$ 300,964	45,736	$ 124,723	(206,486)	$ (206,486)	$ 219,202
December	3,413.3	2,058,985	$ 283,736	51,281	$ 139,844	(201,971)	$ (201,971)	$ 221,609
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,400,149*	*(2,686,384)*	*$ (2,686,384)*	*$ 2,530,413*
Average Rate		$ 0.1371 per kWh		$ 2.73 per gal		$ 1.00 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.20/therm

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 141,405	(201,473)	$ (241,768)	$ 183,946
February	3,249.4	1,856,141	$ 257,944	46,915	$ 127,939	(181,719)	$ (218,063)	$ 167,820
March	3,511.6	2,103,852	$ 291,742	49,628	$ 135,335	(205,637)	$ (246,765)	$ 180,312
April	4,080.4	2,207,892	$ 293,603	43,182	$ 117,757	(214,325)	$ (257,190)	$ 154,171
May	4,416.7	2,425,352	$ 336,448	41,317	$ 112,671	(233,893)	$ (280,672)	$ 168,447
June	4,201.5	2,585,803	$ 350,513	35,223	$ 96,053	(246,325)	$ (295,590)	$ 150,976
July	4,160.5	2,810,888	$ 394,523	33,503	$ 91,362	(266,314)	$ (319,577)	$ 166,307
August	4,283.2	2,782,447	$ 380,109	34,319	$ 93,587	(263,662)	$ (316,395)	$ 157,302
September	4,416.7	2,494,108	$ 330,810	36,978	$ 100,838	(238,706)	$ (286,447)	$ 145,201
October	4,396.8	2,333,196	$ 311,946	43,504	$ 118,635	(225,872)	$ (271,047)	$ 159,534
November	4,232.9	2,122,592	$ 300,964	45,736	$ 124,723	(206,486)	$ (247,783)	$ 177,904
December	3,413.3	2,058,985	$ 283,736	51,281	$ 139,844	(201,971)	$ (242,365)	$ 181,215
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,400,149*	*(2,686,384)*	*$ (3,223,661)*	*$ 1,993,136*
Average Rate		$ 0.1371 per kWh		$ 2.73 per gal		$ 1.20 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.00/therm

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.20/therm

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.40/therm

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 141,405	72,178	$ 101,050	30.0	22,320	$ 3,817	273,651	$ 383,112
February	3,279.4	1,876,301	$ 261,508	46,915	$ 127,939	65,304	$ 91,426	30.0	20,160	$ 3,563	247,024	$ 345,833
March	3,541.6	2,126,172	$ 295,656	49,628	$ 135,335	69,080	$ 96,712	30.0	22,320	$ 3,914	274,718	$ 384,605
April	4,110.4	2,229,492	$ 297,270	43,182	$ 117,757	60,108	$ 84,151	30.0	21,600	$ 3,666	274,433	$ 384,206
May	4,459.6	2,447,685	$ 340,357	41,317	$ 112,671	57,511	$ 80,516	42.9	22,333	$ 3,909	291,405	$ 407,966
June	4,779.1	2,611,625	$ 358,741	35,223	$ 96,053	49,029	$ 68,640	577.6	25,822	$ 8,228	295,354	$ 413,495
July	4,835.5	2,851,210	$ 405,534	33,503	$ 91,362	46,635	$ 65,288	675.0	40,322	$ 11,012	312,949	$ 438,129
August	4,666.2	2,813,399	$ 387,516	34,319	$ 93,587	47,770	$ 66,879	383.0	30,952	$ 7,407	311,433	$ 436,006
September	4,459.6	2,515,721	$ 334,508	36,978	$ 100,838	51,471	$ 72,060	42.9	21,613	$ 3,697	290,177	$ 406,248
October	4,426.8	2,355,516	$ 315,707	43,504	$ 118,635	60,555	$ 84,778	30.0	22,320	$ 3,761	286,428	$ 400,999
November	4,262.9	2,144,192	$ 304,696	45,736	$ 124,723	63,663	$ 89,129	30.0	21,600	$ 3,732	270,149	$ 378,209
December	3,443.3	2,081,305	$ 287,553	51,281	$ 139,844	71,381	$ 99,934	30.0	22,320	$ 3,816	273,352	$ 382,693
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,400,149*	*714,687*	*$ 1,000,562*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 4,761,499*
Average Rate		$ 0.1378 per kWh		$ 2.73 per gal		$ 1.40 per therm			$ 0.2061 per kWh		$ 1.40 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.60/therm

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 141,405	72,178	$ 115,485	30.0	22,320	$ 3,817	273,651	$ 437,842
February	3,279.4	1,876,301	$ 261,508	46,915	$ 127,939	65,304	$ 104,487	30.0	20,160	$ 3,563	247,024	$ 395,238
March	3,541.6	2,126,172	$ 295,656	49,628	$ 135,335	69,080	$ 110,528	30.0	22,320	$ 3,914	274,718	$ 439,548
April	4,110.4	2,229,492	$ 297,270	43,182	$ 117,757	60,108	$ 96,172	30.0	21,600	$ 3,666	274,433	$ 439,092
May	4,459.6	2,447,685	$ 340,357	41,317	$ 112,671	57,511	$ 92,018	42.9	22,333	$ 3,909	291,405	$ 466,247
June	4,779.1	2,611,625	$ 358,741	35,223	$ 96,053	49,029	$ 78,446	577.6	25,822	$ 8,228	295,354	$ 472,566
July	4,835.5	2,851,210	$ 405,534	33,503	$ 91,362	46,635	$ 74,615	675.0	40,322	$ 11,012	312,949	$ 500,718
August	4,666.2	2,813,399	$ 387,516	34,319	$ 93,587	47,770	$ 76,433	383.0	30,952	$ 7,407	311,433	$ 498,292
September	4,459.6	2,515,721	$ 334,508	36,978	$ 100,838	51,471	$ 82,354	42.9	21,613	$ 3,697	290,177	$ 464,284
October	4,426.8	2,355,516	$ 315,707	43,504	$ 118,635	60,555	$ 96,889	30.0	22,320	$ 3,761	286,428	$ 458,284
November	4,262.9	2,144,192	$ 304,696	45,736	$ 124,723	63,663	$ 101,861	30.0	21,600	$ 3,732	270,149	$ 432,238
December	3,443.3	2,081,305	$ 287,553	51,281	$ 139,844	71,381	$ 114,210	30.0	22,320	$ 3,816	273,352	$ 437,364
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,400,149*	*714,687*	*$ 1,143,499*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 5,441,714*
Average Rate		$ 0.1378 per kWh		$ 2.73 per gal		$ 1.60 per therm			$ 0.2061 per kWh		$ 1.60 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.40/therm

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 141,405	(201,473)	$ (282,062)	$ 143,652
February	3,249.4	1,856,141	$ 257,944	46,915	$ 127,939	(181,719)	$ (254,407)	$ 131,476
March	3,511.6	2,103,852	$ 291,742	49,628	$ 135,335	(205,637)	$ (287,892)	$ 139,185
April	4,080.4	2,207,892	$ 293,603	43,182	$ 117,757	(214,325)	$ (300,055)	$ 111,306
May	4,416.7	2,425,352	$ 336,448	41,317	$ 112,671	(233,893)	$ (327,450)	$ 121,669
June	4,201.5	2,585,803	$ 350,513	35,223	$ 96,053	(246,325)	$ (344,855)	$ 101,711
July	4,160.5	2,810,888	$ 394,523	33,503	$ 91,362	(266,314)	$ (372,840)	$ 113,044
August	4,283.2	2,782,447	$ 380,109	34,319	$ 93,587	(263,662)	$ (369,127)	$ 104,570
September	4,416.7	2,494,108	$ 330,810	36,978	$ 100,838	(238,706)	$ (334,188)	$ 97,460
October	4,396.8	2,333,196	$ 311,946	43,504	$ 118,635	(225,872)	$ (316,221)	$ 114,360
November	4,232.9	2,122,592	$ 300,964	45,736	$ 124,723	(206,486)	$ (289,080)	$ 136,607
December	3,413.3	2,058,985	$ 283,736	51,281	$ 139,844	(201,971)	$ (282,760)	$ 140,820
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,400,149*	*(2,686,384)*	*$ (3,760,938)*	*$ 1,455,860*
Average Rate		$ 0.1371 per kWh		$ 2.73 per gal		$ 1.40 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.60/therm

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 141,405	(201,473)	$ (322,357)	$ 103,357
February	3,249.4	1,856,141	$ 257,944	46,915	$ 127,939	(181,719)	$ (290,751)	$ 95,132
March	3,511.6	2,103,852	$ 291,742	49,628	$ 135,335	(205,637)	$ (329,020)	$ 98,057
April	4,080.4	2,207,892	$ 293,603	43,182	$ 117,757	(214,325)	$ (342,920)	$ 68,441
May	4,416.7	2,425,352	$ 336,448	41,317	$ 112,671	(233,893)	$ (374,229)	$ 74,890
June	4,201.5	2,585,803	$ 350,513	35,223	$ 96,053	(246,325)	$ (394,120)	$ 52,446
July	4,160.5	2,810,888	$ 394,523	33,503	$ 91,362	(266,314)	$ (426,103)	$ 59,782
August	4,283.2	2,782,447	$ 380,109	34,319	$ 93,587	(263,662)	$ (421,860)	$ 51,837
September	4,416.7	2,494,108	$ 330,810	36,978	$ 100,838	(238,706)	$ (381,929)	$ 49,719
October	4,396.8	2,333,196	$ 311,946	43,504	$ 118,635	(225,872)	$ (361,395)	$ 69,185
November	4,232.9	2,122,592	$ 300,964	45,736	$ 124,723	(206,486)	$ (330,377)	$ 95,310
December	3,413.3	2,058,985	$ 283,736	51,281	$ 139,844	(201,971)	$ (323,154)	$ 100,426
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,400,149*	*(2,686,384)*	*$ (4,298,215)*	*$ 918,583*
Average Rate		$ 0.1371 per kWh		$ 2.73 per gal		$ 1.60 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.40/therm

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.60/therm

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Chiller (Mlbs)	HRSG Steam to Boiler (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.80/therm

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 141,405	72,178	$ 129,921	30.0	22,320	$ 3,817	273,651	$ 492,572
February	3,279.4	1,876,301	$ 261,508	46,915	$ 127,939	65,304	$ 117,548	30.0	20,160	$ 3,563	247,024	$ 444,643
March	3,541.6	2,126,172	$ 295,656	49,628	$ 135,335	69,080	$ 124,344	30.0	22,320	$ 3,914	274,718	$ 494,492
April	4,110.4	2,229,492	$ 297,270	43,182	$ 117,757	60,108	$ 108,194	30.0	21,600	$ 3,666	274,433	$ 493,979
May	4,459.6	2,447,685	$ 340,357	41,317	$ 112,671	57,511	$ 103,521	42.9	22,333	$ 3,909	291,405	$ 524,528
June	4,779.1	2,611,625	$ 358,741	35,223	$ 96,053	49,029	$ 88,252	577.6	25,822	$ 8,228	295,354	$ 531,636
July	4,835.5	2,851,210	$ 405,534	33,503	$ 91,362	46,635	$ 83,942	675.0	40,322	$ 11,012	312,949	$ 563,308
August	4,666.2	2,813,399	$ 387,516	34,319	$ 93,587	47,770	$ 85,987	383.0	30,952	$ 7,407	311,433	$ 560,579
September	4,459.6	2,515,721	$ 334,508	36,978	$ 100,838	51,471	$ 92,648	42.9	21,613	$ 3,697	290,177	$ 522,319
October	4,426.8	2,355,516	$ 315,707	43,504	$ 118,635	60,555	$ 109,000	30.0	22,320	$ 3,761	286,428	$ 515,570
November	4,262.9	2,144,192	$ 304,696	45,736	$ 124,723	63,663	$ 114,594	30.0	21,600	$ 3,732	270,149	$ 486,268
December	3,443.3	2,081,305	$ 287,553	51,281	$ 139,844	71,381	$ 128,486	30.0	22,320	$ 3,816	273,352	$ 492,034
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,400,149*	*714,687*	*$ 1,286,436*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 6,121,927*
Average Rate		$ 0.1378 per kWh		$ 2.73 per gal		$ 1.80 per therm			$ 0.2061 per kWh		$ 1.80 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $2.00/therm

	Base Facility							CHP Facility				
Month	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Heating Oil Used (gals)	Heating Oil Costs	Heating Natural Gas Used (therms)	Heating Natural Gas Costs	Peak Demand (kW)	Electricity Used (kWh)	Electric Costs	Turbine Natural Gas Used (therms)	Turbine Natural Gas Costs
January	3,574.4	2,074,464	$ 288,126	51,854	$ 141,405	72,178	$ 144,357	30.0	22,320	$ 3,817	273,651	$ 547,303
February	3,279.4	1,876,301	$ 261,508	46,915	$ 127,939	65,304	$ 130,609	30.0	20,160	$ 3,563	247,024	$ 494,047
March	3,541.6	2,126,172	$ 295,656	49,628	$ 135,335	69,080	$ 138,160	30.0	22,320	$ 3,914	274,718	$ 549,435
April	4,110.4	2,229,492	$ 297,270	43,182	$ 117,757	60,108	$ 120,215	30.0	21,600	$ 3,666	274,433	$ 548,865
May	4,459.6	2,447,685	$ 340,357	41,317	$ 112,671	57,511	$ 115,023	42.9	22,333	$ 3,909	291,405	$ 582,809
June	4,779.1	2,611,625	$ 358,741	35,223	$ 96,053	49,029	$ 98,057	577.6	25,822	$ 8,228	295,354	$ 590,707
July	4,835.5	2,851,210	$ 405,534	33,503	$ 91,362	46,635	$ 93,269	675.0	40,322	$ 11,012	312,949	$ 625,898
August	4,666.2	2,813,399	$ 387,516	34,319	$ 93,587	47,770	$ 95,541	383.0	30,952	$ 7,407	311,433	$ 622,865
September	4,459.6	2,515,721	$ 334,508	36,978	$ 100,838	51,471	$ 102,943	42.9	21,613	$ 3,697	290,177	$ 580,354
October	4,426.8	2,355,516	$ 315,707	43,504	$ 118,635	60,555	$ 121,111	30.0	22,320	$ 3,761	286,428	$ 572,855
November	4,262.9	2,144,192	$ 304,696	45,736	$ 124,723	63,663	$ 127,327	30.0	21,600	$ 3,732	270,149	$ 540,298
December	3,443.3	2,081,305	$ 287,553	51,281	$ 139,844	71,381	$ 142,763	30.0	22,320	$ 3,816	273,352	$ 546,705
Totals	*4,835.5*	*28,127,081*	*$ 3,877,171*	*513,439*	*$ 1,400,149*	*714,687*	*$ 1,429,374*	*675.0*	*293,682*	*$ 60,523*	*3,401,071*	*$ 6,802,142*
Average Rate		$ 0.1378 per kWh		$ 2.73 per gal		$ 2.00 per therm			$ 0.2061 per kWh		$ 2.00 per therm	

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.80/therm

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 141,405	(201,473)	$ (362,651)	$ 63,062
February	3,249.4	1,856,141	$ 257,944	46,915	$ 127,939	(181,719)	$ (327,095)	$ 58,788
March	3,511.6	2,103,852	$ 291,742	49,628	$ 135,335	(205,637)	$ (370,147)	$ 56,930
April	4,080.4	2,207,892	$ 293,603	43,182	$ 117,757	(214,325)	$ (385,785)	$ 25,576
May	4,416.7	2,425,352	$ 336,448	41,317	$ 112,671	(233,893)	$ (421,008)	$ 28,111
June	4,201.5	2,585,803	$ 350,513	35,223	$ 96,053	(246,325)	$ (443,385)	$ 3,181
July	4,160.5	2,810,888	$ 394,523	33,503	$ 91,362	(266,314)	$ (479,366)	$ 6,519
August	4,283.2	2,782,447	$ 380,109	34,319	$ 93,587	(263,662)	$ (474,592)	$ (895)
September	4,416.7	2,494,108	$ 330,810	36,978	$ 100,838	(238,706)	$ (429,671)	$ 1,978
October	4,396.8	2,333,196	$ 311,946	43,504	$ 118,635	(225,872)	$ (406,570)	$ 24,011
November	4,232.9	2,122,592	$ 300,964	45,736	$ 124,723	(206,486)	$ (371,674)	$ 54,013
December	3,413.3	2,058,985	$ 283,736	51,281	$ 139,844	(201,971)	$ (363,548)	$ 60,032
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,400,149*	*(2,686,384)*	*$ (4,835,491)*	*$ 381,306*
Average Rate		$ 0.1371 per kWh		$ 2.73 per gal		$ 1.80 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $2.00/therm

Month	Peak Demand Reduction (kW)	Electricity Saved (kWh)	Electricity Cost Savings	Heating Oil Saved (gals)	Heating Oil Cost Savings	Natural Gas Saved (therms)	Natural Gas Cost Savings	Total Savings
January	3,544.4	2,052,144	$ 284,309	51,854	$ 141,405	(201,473)	$ (402,946)	$ 22,768
February	3,249.4	1,856,141	$ 257,944	46,915	$ 127,939	(181,719)	$ (363,438)	$ 22,444
March	3,511.6	2,103,852	$ 291,742	49,628	$ 135,335	(205,637)	$ (411,275)	$ 15,802
April	4,080.4	2,207,892	$ 293,603	43,182	$ 117,757	(214,325)	$ (428,650)	$ (17,289)
May	4,416.7	2,425,352	$ 336,448	41,317	$ 112,671	(233,893)	$ (467,786)	$ (18,667)
June	4,201.5	2,585,803	$ 350,513	35,223	$ 96,053	(246,325)	$ (492,650)	$ (46,084)
July	4,160.5	2,810,888	$ 394,523	33,503	$ 91,362	(266,314)	$ (532,629)	$ (46,744)
August	4,283.2	2,782,447	$ 380,109	34,319	$ 93,587	(263,662)	$ (527,324)	$ (53,628)
September	4,416.7	2,494,108	$ 330,810	36,978	$ 100,838	(238,706)	$ (477,412)	$ (45,764)
October	4,396.8	2,333,196	$ 311,946	43,504	$ 118,635	(225,872)	$ (451,744)	$ (21,163)
November	4,232.9	2,122,592	$ 300,964	45,736	$ 124,723	(206,486)	$ (412,971)	$ 12,716
December	3,413.3	2,058,985	$ 283,736	51,281	$ 139,844	(201,971)	$ (403,942)	$ 19,638
Totals	*4,160.5*	*27,833,399*	*$ 3,816,648*	*513,439*	*$ 1,400,149*	*(2,686,384)*	*$ (5,372,768)*	*$ (155,971)*
Average Rate		$ 0.1371 per kWh		$ 2.73 per gal		$ 2.00 per therm		

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $1.80/therm

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Bangor, ME: 50% Heating Oil, 50% Natural Gas Heating, Natural Gas Cost $2.00/therm

Month	Turbine Peak Output (kW)	Turbine Power Generated (kWh)	Turbine Gas Use (therms)	Electrical Efficiency (% LHV)	Chiller Electric Savings (kWh)	HRSG Steam to Boiler (Mlbs)	HRSG Steam to Chiller (Mlbs)	HRSG Heat Recovered w/o Cooling (MMBtu)	HRSG Heat Recovered w Cooling (MMBtu)	Total CHP Efficiency w/o Cooling (% LHV)	`
January	3,431	2,068,527	273,651	28.7	-16,384	12,280	0	11,490.8	-	75.3%	-
February	3,177	1,866,127	247,024	28.6	-9,986	11,111	0	10,396.5	-	75.4%	-
March	3,403	2,084,822	274,718	28.8	19,030	11,753	0	10,997.5	-	73.3%	-
April	3,883	2,148,656	274,433	29.7	59,236	10,227	1,004	7,323.2	3,185.6	70.3%	77.2%
May	4,181	2,339,862	291,405	30.5	85,490	9,785	2,243	3,762.4	7,492.4	67.8%	76.8%
June	4,181	2,468,406	295,354	31.7	117,397	8,342	4,396	-	11,918.9	-	76.5%
July	4,181	2,669,139	312,949	32.3	141,749	7,934	5,379	-	12,457.3	-	76.6%
August	4,181	2,645,964	311,433	32.2	136,483	8,128	5,135	-	12,409.7	-	76.5%
September	4,181	2,389,292	290,177	31.2	104,816	8,757	3,829	307.5	11,469.1	66.9%	76.6%
October	4,165	2,263,794	286,428	30.0	69,402	10,303	1,409	5,837.9	5,121.0	69.2%	76.9%
November	4,024	2,083,187	270,149	29.2	39,405	10,832	142	9,872.9	395.4	71.3%	76.2%
December	3,318	2,063,959	273,352	28.6	-4,974	12,145	0	11,363.9	-	74.8%	-
Totals	*4,181*	*27,091,735*	*3,401,071*	*30.2*	*741,664*	*121,597*	*23,537*	*71,352.5*	*64,449.6*	*71.6%*	*76.7%*
									Combined CHP Eff:		*74.6%*

Appendix D

Analysis of Utility Bills

Appendix D - Using the Bangor Hydro Utility Rate Calculations with Measured Data

The table below uses the Bangor Hydro utility rates (from Appendix B) with the actual utility data (measured data) collected with the Honeywell control system at the site. The month utility periods correspond to the beginning and end of the month. Using these rates the EMMC facility should have paid $404,423 for the 1,167,850 kWh imported from the utility during the 12 months ending in November 2007, using the standby rate. On the standard Large Primary rate the facility would pay $432,517, or nearly $30,000 more.

Table D-1. Comparing Energy Use and Costs: Utility Bills and Calculated Rates

Monthly Electric Costs for Bangor Hydro-Electric - Class SB-L5 Standby greater than 50% of Peak Demand - Primary Service

Month	Charge	Shoulder Demand	Shoulder Energy	Peak Demand	Peak Energy	Off-Peak Demand	Off-Peak Energy	
December 2006	900.00	7580.41	6713.78	20385.36	1295.69	354.59	8194.89	
January 2007	900.00	203.75	1217.33	2715.71	1205.98	11.22	1970.37	
February 2007	900.00	211.30	786.01	606.08	788.97	12.47	1302.80	
March 2007	900.00	4024.88	1657.51	440.32	775.75	14.55	1262.56	
April 2007	900.00	4182.21	6932.81	18581.35	1115.93	369.97	9871.28	
May 2007	900.00	5162.86	2991.07	4442.30	1312.83	387.22	1953.84	
June 2007	900.00	5162.86	3295.61	21193.90	3236.56	434.82	3539.16	
July 2007	900.00	7769.20	7335.85	28649.92	8857.29	511.93	4380.23	
August 2007	900.00	6403.10	3515.62	23865.15	4610.67	45.52	1294.69	
September 2007	900.00	6767.57	7750.20	22123.45	4047.61	426.50	4978.20	
October 2007	900.00	4774.80	2460.91	24921.91	2670.61	448.12	3367.98	
November 2007	900.00	6561.64	9326.31	23240.93	3104.83	437.31	11076.71	
Service								
Total	10800.00	58804.59	53983.00	191166.38	33022.72	3454.21	53192.70	**404423.59**
Total Monthly Demands or Total Energy (kW-mo or kWh)		33148.4	446389	30005.1	265341	26570.9	456119	
Average Rate (kW-mo or kWh)		1.7740	0.1209	6.3711	0.1245	0.1300	0.1166	

Demand Energy Demand Energy Demand Energy

45424
Total
8224.38
4607.64
9075.56
41953.54
17150.12
37762.91
58404.41
40634.74
46993.53
39544.33
54647.73

Monthly Electric Costs for Bangor Hydro-Electric - Class D-4 Large General - Primary Service

Month	Charge	Shoulder Demand	Shoulder Energy	Peak Demand	Peak Energy	Off-Peak Demand	Off-Peak Energy	
December 2006	39.50	10696.09	6713.78	25027.29	1295.69	709.17	8194.89	
January 2007	39.50	287.50	1217.33	3334.11	1205.98	22.45	1970.37	
February 2007	39.50	298.15	786.01	744.10	788.97	24.94	1302.80	
March 2007	39.50	4638.43	1657.51	475.57	775.75	29.10	1262.56	
April 2007	39.50	4819.74	6932.81	20069.07	1115.93	739.94	9871.28	
May 2007	39.50	5949.88	2991.07	4797.98	1312.83	774.44	1953.84	
June 2007	39.50	5949.88	3295.61	22890.79	3236.56	869.63	3539.16	
July 2007	39.50	8953.53	7335.85	30943.79	8857.29	1023.86	4380.23	
August 2007	39.50	7379.18	3515.62	25775.92	4610.67	91.04	1294.69	
September 2007	39.50	7799.21	7750.20	23894.77	4047.61	853.00	4978.20	
October 2007	39.50	5502.66	2460.91	26917.29	2670.61	896.24	3367.98	
November 2007	39.50	9258.58	9326.31	28533.11	3104.83	874.62	11076.71	
Service								
Total	474.00	71532.84	53983.00	213403.78	33022.72	6908.43	53192.70	**432517.47**
(kW-mo or kWh)		33148.4	446389	30005.1	265341	26570.9	456119	
Total Monthly Demands or Total Energy (kW-mo or kWh)		2.1580	0.1209	7.1122	0.1245	0.2600	0.1166	
Average Rate								

1167850
0.3463
45676.41
Total
8077.24
3984.47
8878.41
43588.26
17819.54
39821.14
61534.04
42706.62
49362.50
41855.20
62213.66

1167850
0.3704

A review of the utility bills revealed that the facility was not on the Standby Rate for the period but instead has remained on the standard Large Primary Rate (at least through November 2007).

The energy use and costs from the utility bills (see Table D-4) are compared to the energy values and calculated costs from the Honeywell control system. The utility bills had to be shifted 1 month ahead to match the measured data (which implies the meter read data was just after the first of the month: e.g., Dec-07 from the bills corresponds to the power data for Nov-07). The energy use data matches within less than 1% over the 12 months, however the calculated costs are 14% lower than the actual utility bill.

Table D-2. Comparing Energy Use and Costs: Utility Bills and Calculated Rates

	Utility Bills			Calculated Costs	
	kWh	Cost		kWh	Cost
Dec-06	126,000	$ 52,021		138,467	$ 52,676
Jan-07	18,000	$ 25,156		37,374	$ 8,077
Feb-07	10,800	$ 25,156		24,482	$ 3,984
Mar-07	10,800	$ 20,899		29,642	$ 8,878
Apr-07	136,800	$ 41,287		153,949	$ 43,588
May-07	32,400	$ 24,694		50,652	$ 17,820
Jun-07	244,800	$ 60,351		82,741	$ 39,821
Jul-07	140,400	$ 58,258		160,154	$ 61,534
Aug-07	57,600	$ 40,967		75,592	$ 42,707
Sep-07	126,000	$ 47,912		142,133	$ 49,363
Oct-07	50,400	$ 40,911		72,146	$ 41,855
Nov-07	208,800	$ 66,387		200,518	$ 62,214
Annual	1,162,800	$ 503,998		1,167,850	$ 432,517
				0.4%	-14.2%

At least some of the cost discrepancy is due to the differences between the power demand measured by the Honeywell control system and the demand readings that appear on the utility bills. Table D-3 compares the measured peak demands to the utility bill readings. The measured peak demands are shown based on the 10-minute readings as well as for the hourly averages (which are typically 10% lower). The energy and demand readings from the utility bill can be significantly different in some cases, which implies that utility does some degree of monthly estimation in preparing the bills. Overall, the sum of the kW-months in the 12 month period from the utility bills is 6% higher than the kW-months determined from the 10-minute measured data.

Table D-3. Measured Peak Demands (kW) Compared to Readings Taken from the Utility Bills

	Measured Peak Demand			Utility Bill Readings			Ratio of Utility to:	
	10-minute	Hourly Avg	Ratio	Peak	Shoulder	Transmission	10-minute	Hourly Avg
12/1/2006	3,212.0	2,475.0	77%	3,513.6	3,740.4	3,513.6	116%	151%
1/1/2007	372.5	111.4	30%	3,225.6	147.6	3,225.6	866%	2895%
2/1/2007	95.9	59.5	62%	2,757.6	2,937.6	2,757.6	3062%	4939%
3/1/2007	2,454.2	2,400.0	98%	2,430.0	39.6	2,430.0	99%	101%
4/1/2007	3,036.2	2,563.9	84%	2,430.0	39.6	2,430.0	80%	95%
5/1/2007	3,148.1	2,636.3	84%	2,430.0	2,451.6	2,430.0	78%	93%
6/1/2007	3,463.1	3,249.8	94%	3,034.8	2,649.6	3,034.8	88%	93%
7/1/2007	4,737.3	4,660.9	98%	2,430.0	3,135.6	2,430.0	66%	67%
8/1/2007	3,904.3	3,862.8	99%	3,571.2	3,621.6	3,571.2	93%	94%
9/1/2007	4,126.6	4,074.8	99%	4,561.2	4,752.0	4,561.2	115%	117%
10/1/2007	4,072.2	2,860.9	70%	3,898.8	3,931.2	3,898.8	97%	137%
11/1/2007	3,363.9	3,231.5	96%	3,866.4	4,129.2	3,866.4	123%	128%
Total kW-mo	35,986.4	32,186.7	89%	38,149	31,576	38,149	106%	119%

Table D-4. Summary of Utility Bills from the Facility

EMMC 2007 Purchased Utility Costs

	Electricity	Natural Gas	Oil	Total	ytd
Oct	$ 136,200	$ 127,940	$ 133,931	$ 398,071	$ 398,071
Nov	$ 93,507	$ 167,033	$ 132,742	$ 393,282	$ 791,353
Dec	$ 34,008	$ 290,357	$ -	$ 324,365	$ 1,115,718
Jan	$ 52,021	$ 333,744	$ -	$ 385,765	$ 1,501,483
Feb	$ 25,156	$ 333,609	$ -	$ 358,765	$ 1,860,248
Mar	$ 25,156	$ 354,033	$ -	$ 379,189	$ 2,239,436
Apr	$ 20,899	$ 340,769	$ -	$ 361,668	$ 2,601,104
May	$ 41,287	$ 331,288	$ -	$ 372,575	$ 2,973,679
Jun	$ 24,694	$ 325,699	$ -	$ 350,393	$ 3,324,072
Jul	$ 60,351	$ 304,082	$ -	$ 364,434	$ 3,688,506
Aug	$ 58,258	$ 296,405	$ -	$ 354,663	$ 4,043,169
Sep	$ 40,967	$ 332,045	$ 20,938	$ 393,950	$ 4,437,119
	$ 612,503	$ 3,537,005	$ 287,612		

EMMC 2008 Purchased Utility Costs

	Electricity	Natural Gas	Oil	Total	ytd
Oct	$ 47,912	$ 332,485	$ -	$ 380,396	$ 380,396
Nov	$ 40,911	$ 344,787	$ 41,297	$ 385,699	$ 766,095
Dec	$ 66,387	$ 297,968	$ -	$ 364,355	$ 1,130,450
Jan	$ -	$ -	$ -	$ -	$ 1,130,450
Feb				$ -	$ 1,130,450
Mar				$ -	$ 1,130,450
Apr				$ -	$ 1,130,450
May				$ -	$ 1,130,450
Jun				$ -	$ 1,130,450
Jul				$ -	$ 1,130,450
Aug				$ -	$ 1,130,450
Sep				$ -	$ 1,130,450
	$ 155,210	$ 975,240	$ 41,297		

2007 Purchased utilities

	Electricity-kWh	Natural Gas-Dth	Oil - gal	CoGen kWh	total kWh
Oct	874800	19894	67036	1038766	1913566
Nov	522000	19388	67045	1770287	2292287
Dec	21600	32085	0	2004840	2026440
Jan	126000	32627	0	1733671	1859671
Feb	18000	34111	0	1863325	1881325
Mar	10800	32346	0	2312232	2323032
Apr	10800	33517	0	1778060	1788860
May	136800	31539	0	2000088	2136888
Jun	32400	34839	0	2546649	2579049
Jul	244800	33552	0	2361145	2605945
Aug	140400	36674	0	2486391	2626791
Sep	57600	37051	8003	3483482	3541082
totals	2196000	377623	142084	25,378,936	27,574,936

2008 Purchased utilities

	Electricity-kWh	Natural Gas-Dth	Oil - gal	CoGen kWh	total kWh
Oct	126000	34252	0	1515600	1641600
Nov	50400	32799	15415	1752271	1802671
Dec	208800	30181	0	2361918	2570718
Jan	0	0	0	0	0
Feb					0
Mar					0
Apr					0
May					0
Jun					0
Jul					0
Aug					0
Sep					0
totals	385200	97232	15415	5,629,789	6,014,989

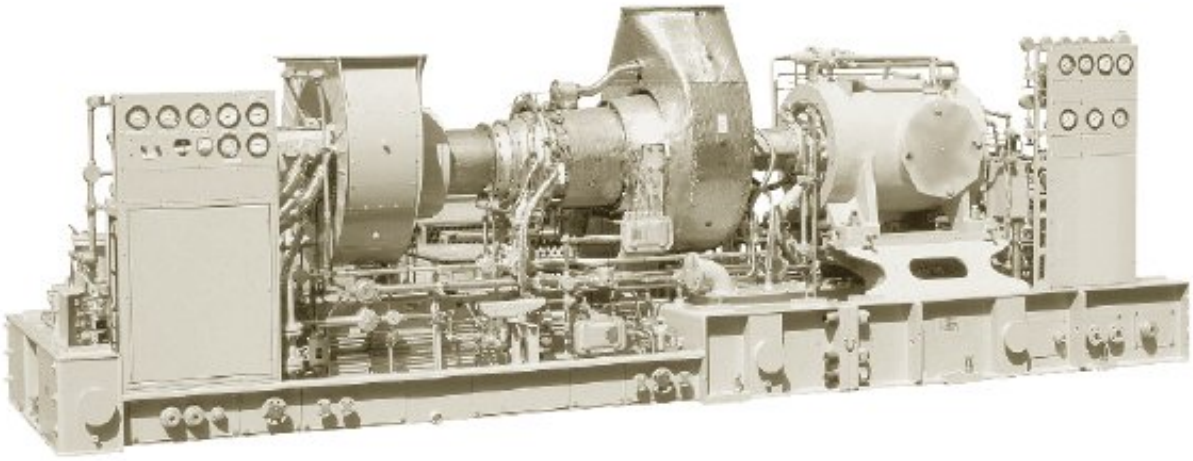
Appendix E

Centaur 50 Solar Turbine Specifications Sheet

Solar Turbines
A Caterpillar Company

CENTAUR 50
Gas Turbine Compressor Set

Oil & Gas Applications



General Specifications

Centaur® 50 Gas Turbine

- Industrial, Two-Shaft
- Axial Compressor
  - 11-Stage
  - Variable Inlet Guide Vanes
  - Compression Ratio: 10.5:1
  - Inlet Airflow: 18.5 kg/sec (40.9 lb/sec)
  - Max. Speed: 15,000 rpm
  - Vertically Split Case
- Combustion Chamber
  - Annular-Type
  - Conventional or Lean-Premixed, Dry, Low Emission (*SoLoNOx*™)
  - 12 Fuel Injectors
  - Torch Ignitor System
- Gas Producer Turbine
  - 2-Stage, Reaction
  - Max. Speed: 14,970 rpm
- Power Turbine
  - 1-Stage, Reaction
  - Max. Speed: 16,500 rpm
- Bearings
  - Journal: Tilting-Pad
  - Thrust, Active: Tilting-Pad
  - Thrust, Inactive: Fixed Tapered Land
- Coatings
  - Compressor: Inorganic Aluminum
  - Turbine and Nozzle Blades: Precious Metal Diffusion Aluminide
- Vibration Transducer Type
  - Velocity
  - Proximity Probes

Key Package Features

- Driver Skid with Drip Pans
- Driven Equipment Skid
  - Compressor
  - Compressor Auxiliary Systems
- 316L Stainless Steel Piping ≤4" dia
- Compression-Type Tube Fittings
- Electrical System Options
  - NEC, Class I, Group D, Div. 1
  - CENELEC, Zone 1
- *Turbotronic*™ Microprocessor Control System
  - Freestanding Control Console
  - Color Video Display
  - Vibration Monitoring
- Control Options
  - 120-VDC Control Battery/Charger System
  - Gas Turbine and Package Temperature Monitoring
  - Serial Link Supervisory Interface
  - Turbine Performance Map
  - Compressor Performance Map
  - Historical Displays
  - Printer/Logger
  - Predictive Emissions Monitoring
  - Process Controls
  - Compressor Anti-Surge Control
  - Field Programming
- Start Systems
  - Pneumatic
  - Direct Drive AC
- Fuel System
  - Natural Gas
  - Electric Fuel Control
- Integrated Lube Oil System
  - Turbine-Driven Accessories
- Oil System Options
  - Oil Cooler
  - Oil Heater
  - Tank Vent Separator
  - Flame Trap
- Axial Compressor Cleaning Systems
  - On-Crank
  - On-Crank/On-Line
  - Cleaning Tank
- Gearbox (if applicable)
  - Speed Increaser
  - Speed Decreaser
- Air Inlet and Exhaust System Options
- Enclosure and Associated Options
  - Fire Detection and Suppression
  - Gas Detection
  - Ventilation
  - Lighting
- Factory Testing of Turbine and Package
- Documentation
  - Drawings
  - Quality Control Data Book
  - Inspection and Test Plan
  - Test Reports
  - Operation and Maintenance Instruction Manuals

Solar Turbines
A Caterpillar Company

CENTAUR 50
Gas Turbine Compressor Set

Oil & Gas Applications

Performance

Output Power	4570 kW (6130 hp)
Heat Rate	12 030 kJ/kW-hr (8500 Btu/hp-hr)
Exhaust Flow	67 760 kg/hr (149,380 lb/hr)
Exhaust Temp.	515°C (960°F)

Nominal Rating – per ISO
At 15°C (59°F), at sea level

No inlet/exhaust losses

Relative humidity 60%

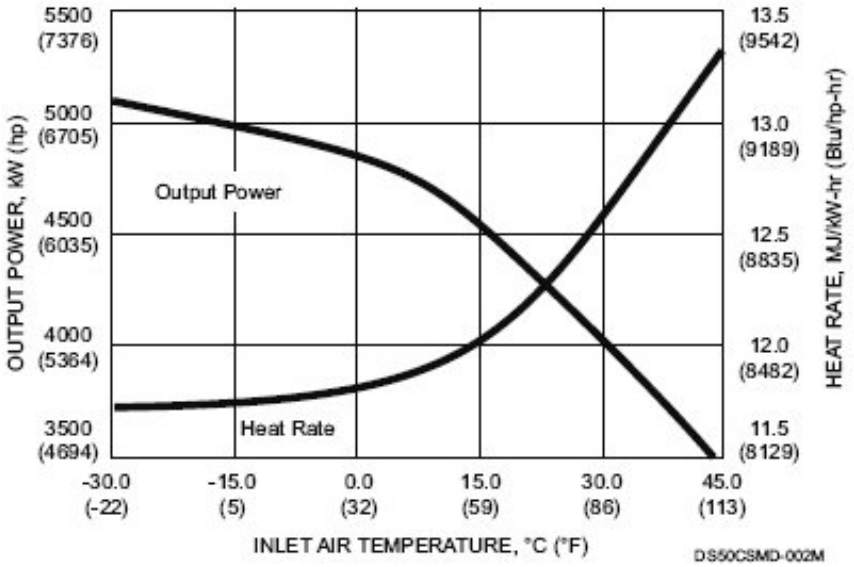
Natural gas fuel with
LHV = 35 MJ/nm³ (940 Btu/scf)

Optimum power turbine speed

AC-driven accessories

Engine efficiency: 29.9%

Available Power



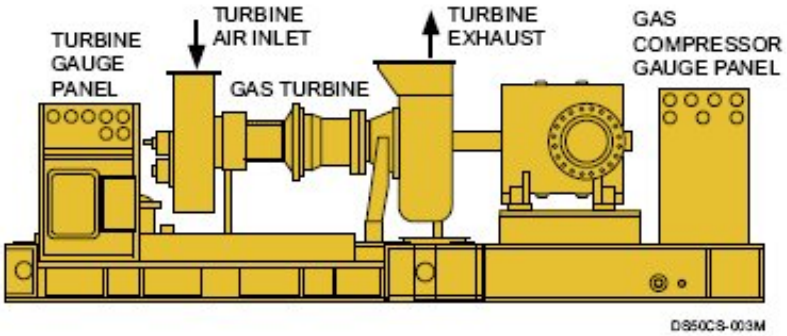
Package Dimensions

Length: 8.9 m (23' 3")

Width: 2.4 m (8' 0")

Height: 2.7 m (8' 11")

Typical
Weight: 27 220 kg (60,000 lb)



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San Diego, CA 92186-5376

DS50CS/807/EO

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Internet: www.solarturbines.com