Citylights - Upstairs

4-74 48th Ave.

Long Island City, NY 11109

Site Contact

Brad Walker
Project Engineer
Aegis Energy Services Inc.
55 Jackson St Holyoke MA, 10603
413-536-1156

BWalker@aegisenergyservices.com

- CDH was on site December 7, 2015 to install a datalogger, terminate meter wiring, and setup communications. Unit not running.
- Aegis was on site April 18, 2016 to install parasitic power meters and generator power meters.

Outstanding Items

- CDH to install IVFD sensor in CCP panel.
- CDH to verify all installed metering when next on site.

Summary

CDH provided the data logger and enclosure. Aegis provided and installed the gas, power, and BTU meters. Aegis installed the CDH enclosure and performed all of the necessary wire pulls while CDH terminated wiring to the data logger and sensors.

IT Information

External IP:	71.183.52.243:4082
Internal IP:	10.0.5.142
Netmask:	255.255.255.0
Gateway:	10.0.5.1
DNS #1:	8.8.8.8
DNS #2:	8.8.4.4

Monitored Data Points

Logger					
Channel	Data Point	Description	Eng Units	Instrument / Transducer	Output
MB-002	WT	Gross Generator Power Output	kWh	Veris H-8035-300	Modbus RS-485
MB-008	WP	Parasitic Loads	kWh	Veris H-8035-100	Modbus RS-485
-	WG	Net Power Output	kWh	-	Calculated
IN 1	FGU	Gas to Upstairs Cogen	cf	Romet RM2000	Pulse
IN 2	THW1	Recovered Heat Loop - Temp. After Dump Radiator	°F	MAMAC 10k Type II Thermistor	Resistance
MB-005	THW2	Recovered Heat Loop - Supply Temp.	°F	Badger Series 380	Modbus RS-485
MB-005	THW3	Recovered Heat Loop - Temp. After HX1 (DHW)	°F	Badger Series 380	Modbus RS-485
MB-005	FHW	Recovered Heat loop Flow	gpm	Badger Series 380	Modbus RS-485
-	QR	Rejected Heat Recovery	Mbtu/h	-	Calculated
-	QU	Total Useful Heat Recovery	Mbtu/h	-	Calculated

Site Photos



Aegen TP75-LE cogen units located in roof mechanical room.



Roof mechanical room HX skids (2x).



Veris 10k Type 2 Thermistor (THW1).



Badger 380 BTU meter (FHW, THW2, THW3).



Romet RM2000 gas meter (FG).



CDH enclosure with Obvius A8812 datalogger.

PUMP SCHEDULE							
PUMP NO. SERVICE FLOW HEAD H.P PHASE MODEL						MODEL	
P-1	COGEN MODULE	25 GPM	70 FT	3/4	3	BELL & GOSSETT SERIES 1535 345T	
P-2	1-5 DHW LOOP	30 GPM	15 FT	1/6	1	BELL & GOSSETT PL-45B	
P-3	GLYCOL LOOP	30 GPM	33 FT	3/4	3	BELL & GOSSETT SERIES 60 613T	

CONTROL VALVE SCHEDULE							
VALVE NO.	SERVICE	FLOW TYPE	SIZE	VOLTAGE	VALVE MODEL	ACTUATOR	
V-1	COGEN DHW	MIXING	1 1/2"	24 V	TAC VS2313-526-9-54	MS40-7043M MODULATING	

COGENERATION MECHANICAL FLOW DIAGRAM ROOF SYSTEM

M.102 SCALE: NTS

HEAT EXCHANGERS HX-1						
DESIGN MANUFACTUR	RER	API HEAT TRANSFER			DESIGN MA	
MODEL		SBM7M-40			SERVICE	
TYPE		BRAZED PLATE			FLOW RATE	
MATERIAL	MATERIAL		COPPER		GROSS HE	
SERVICE		DHW			INLET WATE	
SIDE	нот		COLD		OUTLET WA	
FLUID TYPE	WATER		WATER		BLOWER FA	
FLUID FLOW	22 GPM		30 GPM		NUMBER O	
TEMPERATURE IN	225 DEG F		172 DEG F		MODEL	
TEMPERATURE OUT	176 DEG F		207 DEG F		FAN SPEE	
PRESSURE DROP	0.91 PSI		1.55 PSI		METIUM	
INLET SIZE	2" NPT		2" NPT			

HEAT EXCHANGER HX-2

DESIGN MANUFACTURER

MODEL

MATERIAL

SERVICE

DUMP RADIATOR HX-3			TEMPERATURE SENSOR SCHEDUI		
DESIGN MANUFACTURER	IEA OR EQUAL	TS NO.	SERVICE	MODEL	
SERVICE	HEAT DISSIPATION	TS-1	COGEN SUPPLY	MAMAC TE-703-C-5A	
FLOW RATE	30 GPM	TS-2	DHW TO GLYCOL	MAMAC TE-703-C-5A	
GROSS HEAT LOAD	500 MBH	TS-3	COGEN RETURN	MAMAC TE-703-C-5A	
INLET WATER TEMP	196 DEG F	TS-11	DHW TO HX	MAMAC TE-703-C-5A	
OUTLET WATER TEMP	160 DEG F	TS-12	HX TO DHW	MAMAC TE-703-C-5A	
BLOWER FAN	2 HP	TS-21	GLYCOL LOOP FROM RADIATOR	MAMAC TE-703-C-5A	
	2 NP	TS-22	GLYCOL LOOP TO HX	MAMAC TE-703-C-5A	
NUMBER OF FANS	1	TS-B1	COGEN SUPPLY BTU	BADGER 380	
MODEL	HCR-M-14-02-08-502	TS-B2	COGEN USEFUL RETURN	BADGER 380	
FAN SPEED	1160 RPM	TS-B3	COGEN REJECTED BTU	VERIS TIDB1D0	
METIUM	40% P.G.		TOOSEN NESESTED BYO	1.2.110	

COGENERATION	SCHEDULE
DESIGN MANUFACTURER	AEGENCO
FUEL	NATURAL GAS
FUEL INPUT	865 SCFH
THERMAL OUTPUT	484 MBTU/H
ELECTRICAL OUTPUT	75 KW
GENERATION TYPE	INVERTER
ACOUSTIC LEVEL	70 dBa @ 20 FT
VIBRATION ISOLATION	YES
CONTROLS	MICROPROCESSOR BASED
UNIT WEIGHT	3050
MODEL	POWERVERTER
AVG INLET TEMP	170 DEG F
AVG OUTLET TEMP	220 DEG F
MA GAS BOARD APPROVAL #	G1-04-06-12
DIMENSIONS	51"W X 101"L X 51"H

SBM7M-40 BRAZED PLATE COPPER GLYCOL DUMP LOOP SIDE COLD FLUID TYPE WATER 40% P.G. FLUID FLOW 22 GPM 30 GPM 160 DEG F TEMPERATURE IN 225 DEG F TEMPERATURE OUT 176 DEG F 194 DEG F

API HEAT TRANSFER

1. ALL PIPE TO BE COPPER "L" UNLESS OTHERWISE NOTED 2. COGEN HEAT DISSIPATION LOOP TO BE 40% PROP. GLYCOL. ALL FILLING OF GLYCOL LOOP BY AEGIS. 3. CONTRACTOR SHALL PROTECT FROM HARM AND MAINTAIN

WELL TYPE

AT-225

AT-225

AT-225

AT-225

AT-225

AT-225

AT-225

AT-225

AT-225

PROJECT LOCATION MAP PROJECT NORTH

REVISION DESCRIPTION

NO. DATE

AEGIS ENERGY SERVICES, INC 55 JACKSON STREET

HOLYOKE, MA 01040 TEL.: 413-536-1156 FAX: 413-536-1104 ATTN: BRAD WALKER

ALL DRAWINGS ARE TO BE READ NOT SCALED.

STATEMENT:

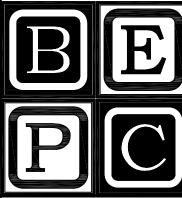
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777 SUNRISE HIGHWAY, SUITE 300 LYNBROOK, NY 11563 PHONE: (516) 561-5922 FAX: (516) 823-0219 EMAIL: SUPPORT@BEPC.US WEB: WWW.BEPC.US



CITYLIGHTS AT QUEENS LANDING COGENERATION PROJECT 4-74 48TH AVENUE LONG ISLAND CITY, NY 11109

HVAC SCHEDULES / FLOW DIAGRAM -ROOF SYSTEM

DESIGN	BY:	BW	DATE:	11/4/13
DRN BY	' :	BW	DATE:	11/4/13
CKD BY	′ :	AD	DATE:	5/27/14
FINAL C	KD BY:	JDJ	DATE:	5/27/14
SCALE:	AS NOT	ΓED	DATE:	
DWG No).	Р	AGE 4 OF	13

M-102.00

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B-SCAN:

