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BEFORE THE OHIO POWER SITING BOARD

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In the Matter of The Ohio Power Siting Board's Determination of Jurisdiction Over a Proposed Central Utility Plant by the University of Cincinnati	:	Case No. 01-3285-EL-BJF

APPLICATION

The University of Cincinnati ("University" or "Applicant"), by its attorneys, respectfully applies for a determination by The Ohio Power Siting Board ("Board") that the Board does not have jurisdiction over the construction and siting of the Applicant's proposed Central Utility Plant. The University alleges the following:

1. The Applicant is a state university pursuant to Chapter 3351 of the Ohio Revised Code with its main campus located in Cincinnati, Ohio.

2. The University currently produces and distributes steam for heating purposes with a gas, oil and coal-fired steam distribution system.

3. The University proposes to build a Central Utility Plant, which would be located entirely on its main campus. The Central Utility Plant would be natural gas fired and would produce both steam and electricity. The University would consume all of the steam and electricity.

4. The Central Utility Plant, if constructed, would produce significant economic and environmental savings for the University.

5. Pursuant to Section 4906.01(B)(1), Revised Code, the Board has jurisdiction over major utility facilities which include electric generating plants and associated facilities designed for, or capable of, operating at a capacity of 50 MW or more. Rule 4906-1-01(K)(1) of the Ohio Administrative Code clarifies this to mean that net capacity is the estimated

net demonstrated capability of the generating plant and associated facilities. Generally, the generated output at the switchyard busbar after reductions for generated power used and needed for plant operation is equivalent to the net demonstrated capability.

6. The net capacity of the proposed Central Utility Plant is less than the Board's jurisdictional threshold of 50 MW.

7. The University engineering team, engineering consultant and regulatory counsel met with Board Staff to discuss the details of the proposed Central Utility Plant, a copy of the summary sheets and presentation are attached here to and incorporated as part of this application.

WHEREFORE, the Applicant requests that the Ohio Power Siting Board issue a finding that if the Central Utility Plant is constructed in accordance with the specification sheets presented to the Staff, the Central Utility Plant will not be a major utility facility.

Respectfully submitted,

M. Howard Petricoff
Special Assistant Attorney General

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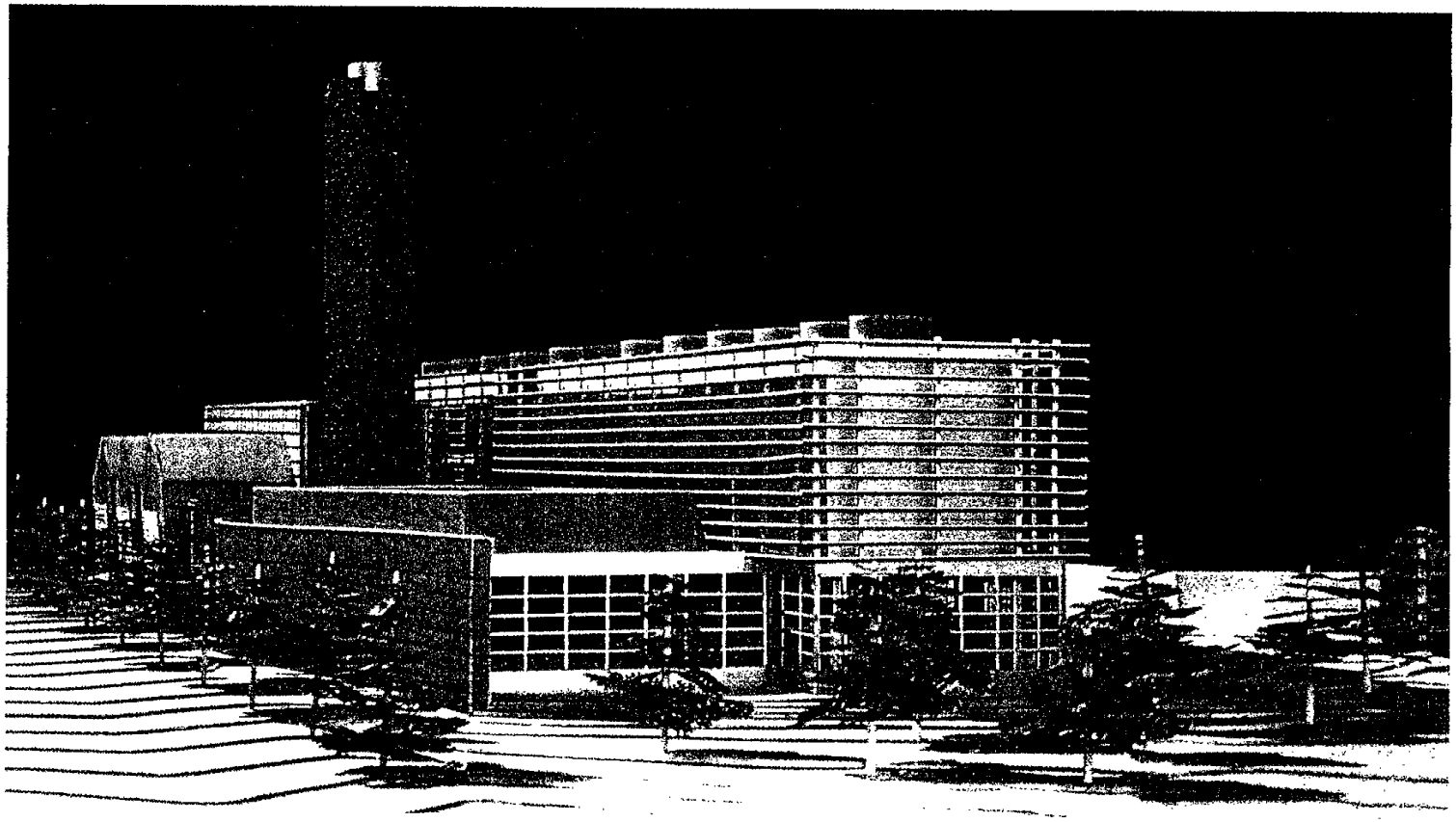
University of Cincinnati

Proposed
Central Utility Plant



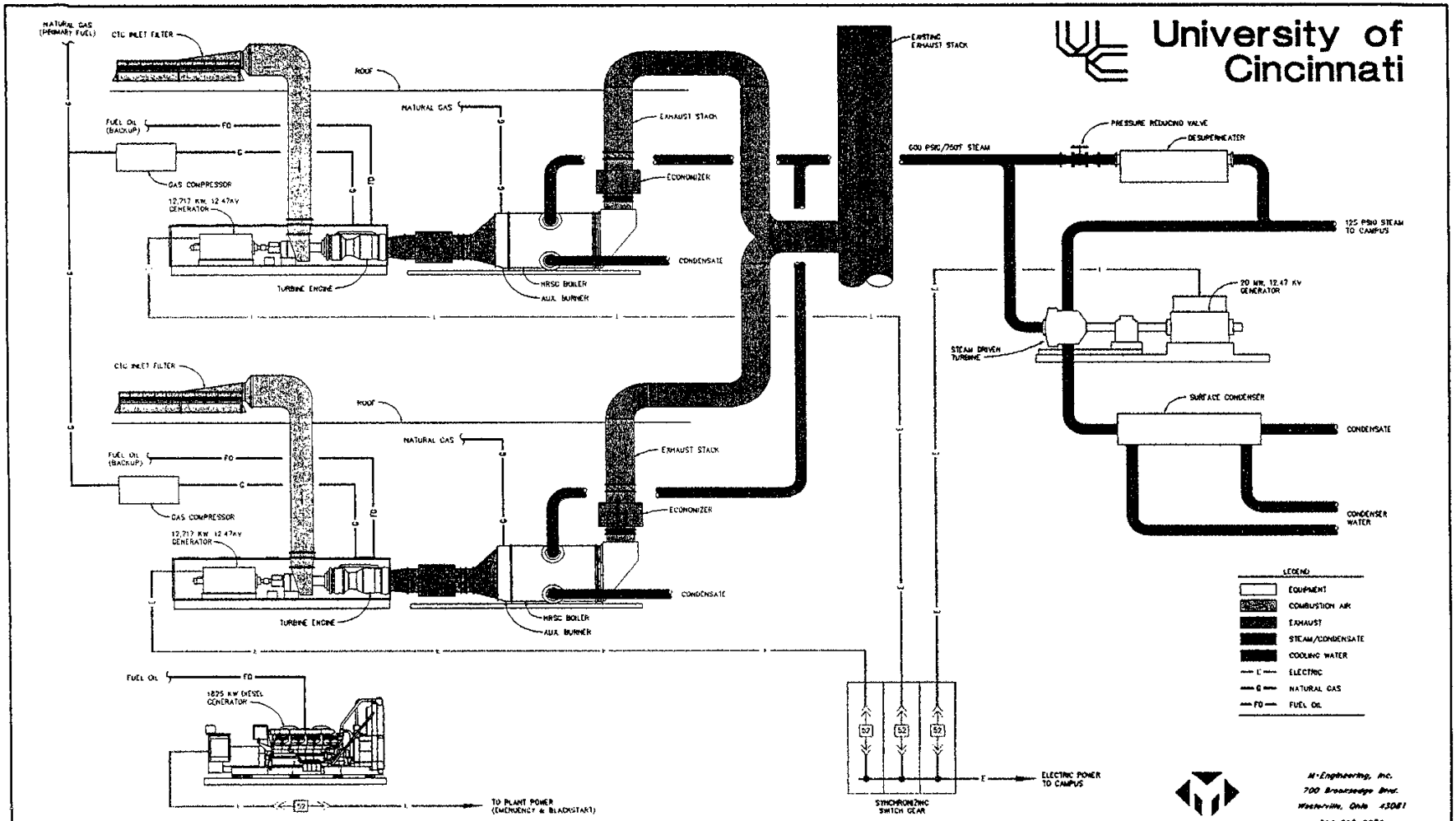
Cambridge Seven Associates, Inc.
M - Engineering, Inc.

View From North East at Street Level

Central Utility Plant
University of Cincinnati

Equipment

- Combustion Gas Turbine
- Steam Turbine Generator
- Black Start - Diesel Generator



CENTRAL UTILITY PLANT
COGENERATION

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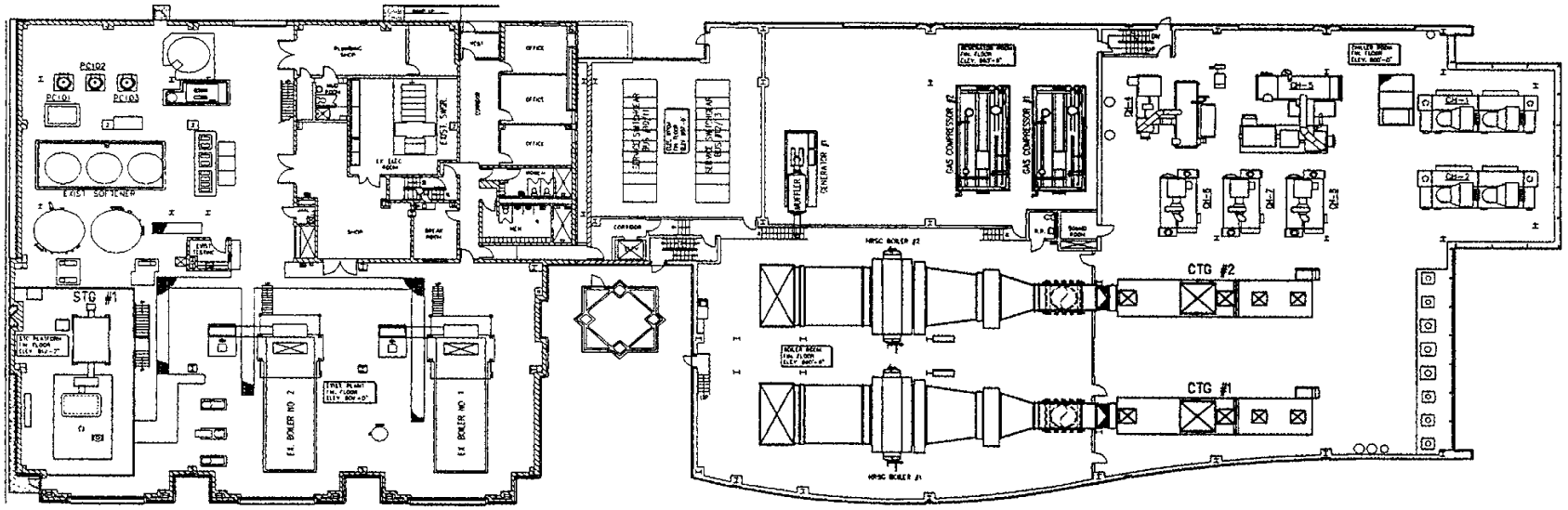
Mechanical, Electrical, Industrial and Structural Engineers

University of Cincinnati



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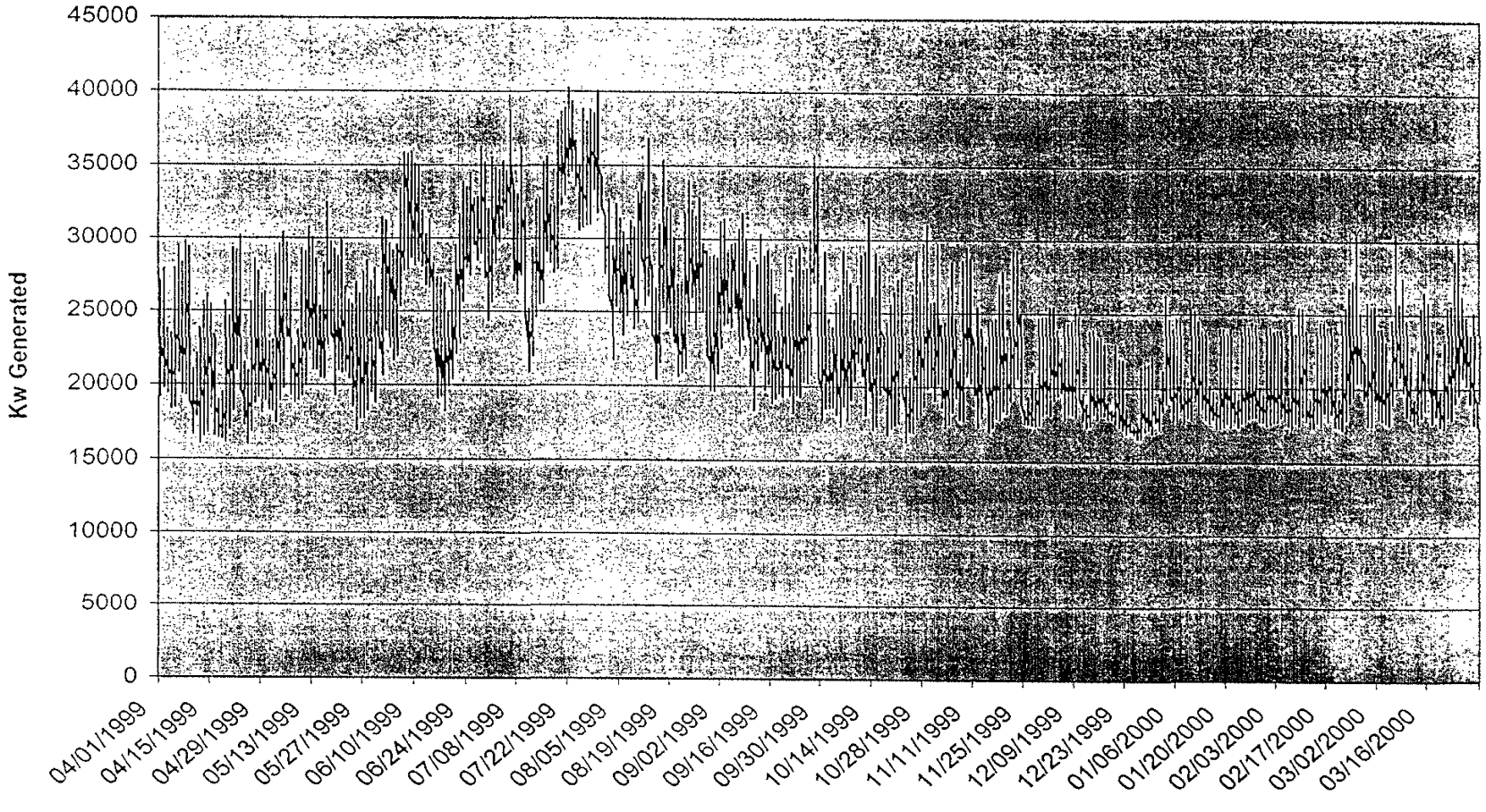
Mechanical, Electrical, Industrial and Structural Engineers

Total Plant Net Generation

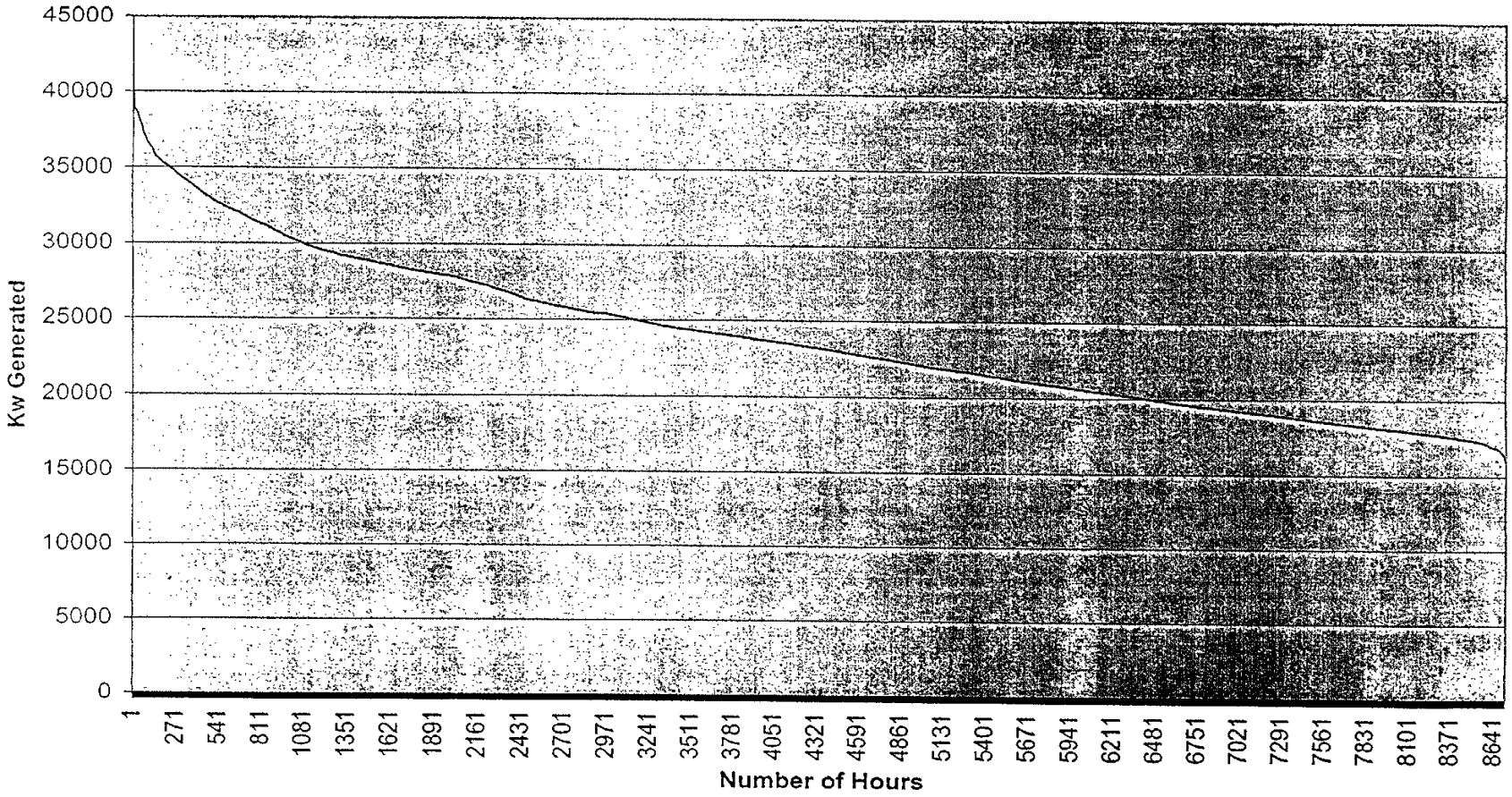
Proposed Operation



M-Engineering, Inc.

Total Plant Net Generation Load Duration Plot

Proposed Operation



M-Engineering, Inc
10/06/2001

UNIVERSITY OF CINCINNATI
CENTRAL PLANT - GENERATION CAPACITY
USING EQUIPMENT "RATED" OUTPUT

COMBUSTION GAS TURBINE GENERATORS

Solar Titan 130S IPG

Manufacturer Site rating: 12,717 Kw

Auxiliary Equipment Loads	Load (HP) (NG, Summer)	Load (HP) (NG, Winter)
Enclosure cooling fans (2 at 25 HP each)	50	50
Cooling water circulation pump	20	20
Cooling water - tower fan	100 BHP	0
Cooling water - spray water pump	25	0
Lube oil circulation pump	7.5	7.5
Fuel oil (on skid booster pump)	0	0
Fuel oil transfer pump	0	0
Natural gas compressor (800 HP motor)	726 BHP	726 BHP
Combustion Air Cooling (500 tons)	600	0
Totals	1528.5 HP	803.5 HP
	1213 Kw	638 Kw

Maximum net output while operating with natual gas with outside temp. at 90 dF:

12,717 Kw - 1213 Kw = 11,504 Kw net output

Maximum net output while operating with natual gas with outside temp. at 20 dF:

12,717 Kw - 638 Kw = 12,079 Kw net output

STEAM TURBINE GENERATOR

Dresser-Rand STG Site rating: 20,000 Kw

Auxiliary Equipment Loads	Load (HP) (Summer)	Load (HP) (Winter)
Cooling water circulation pump (3 at 250 HP each)	645.75 BHP	645.75 BHP
Cooling water - tower fans (4 at 125 HP each)	408 BHP	204 BHP
Air removal unit (40 HP motor)	29 BHP	29 BHP
Lube oil circulation pump	40	40
Totals	1122.75 HP	918.75 HP
	891 Kw	729 Kw

Maximum net output while operating in winter with 2 tower fans running.

20,000 Kw - 729 Kw = 19,271 Kw net output

Maximum net output while operating in summer with all tower fans running.

20,000 Kw - 891 Kw = 19,109 Kw net output

TOTAL PLANT GENERATION CAPACITY

Maximum Plant Output (winter)	
Combustion Turbine Generators (2)	24,159 Kw
Steam Turbine Generator (1)	19,271 Kw
TOTAL PLANT NET OUTPUT	43,430 Kw

Maximum Plant Output (summer)	
Combustion Turbine Generators (2)	23,008 Kw
Steam Turbine Generator (1)	19,109 Kw
TOTAL PLANT NET OUTPUT	42,117 Kw

Notes:

1. The above net generation summary does not include additional plant auxiliary loads such as plant lighting, ventilaiton, and etc.
2. Conversion from HP - to - Kw is based on high efficiency (94%) motors
3. Conversion from tons of cooling to HP is based on 1.2 HP / ton (.95 Kw per ton) and includes pumping and tower loads.

UNIVERSITY OF CINCINNATI
CENTRAL PLANT - GENERATION CAPACITY
USING MAXIMUM "PREDICTED" EQUIPMENT OUTPUT

COMBUSTION GAS TURBINE GENERATORS

Solar Titan 130S IPG

Output at 20 dF combustion air inlet (gas)	14,743	Kw
Output at 60 dF combustion air inlet (gas)	13,110	Kw
Output at 20 dF combustion air inlet (fuel oil)	13,590	Kw

Auxiliary Equipment Loads	Load (HP) (NG, Summer)	Load (HP) (FO, Winter)	Load (HP) (NG, Winter)
Enclosure cooling fans (2 at 25 HP each)	50	50	50
Cooling water circulation pump	20	20	20
Cooling water - tower fan	100 BHP	0	0
Cooling water - spray water pump	25	0	0
Lube oil circulation pump	7.5	7.5	7.5
Fuel oil (on skid booster pump)	0	25	0
Fuel oil transfer pump	0	2	0
Natural gas compressor (800 HP motor)	726 BHP	0	726 BHP
Combustion Air Cooling (500 tons)	600	0	0
Totals	1528.5 HP	104.5 HP	803.5 HP
	1213 Kw	83 Kw	638 Kw

Maximum net output while operating with fuel oil with outside temp. at 20 dF:

13,590 Kw - 83 Kw = 13,507 Kw net output

Maximum net output while operating with natual gas with outside temp. at 90 dF: (CW cooling to 60 dF combustion air)

13,110 Kw - 1213 Kw = 11,897 Kw net output

Maximum net output while operating with natual gas with outside temp. at 20 dF:

14,743 Kw - 638 Kw = 14,105 Kw net output

STEAM TURBINE GENERATOR

Dresser-Rand STG Site rating: 20,000 Kw

Auxiliary Equipment Loads	Load (HP) (Summer)	Load (HP) (Winter)
Cooling water circulation pump (3 at 250 HP each)	645.75 BHP	645.75 BHP
Cooling water - tower fans (4 at 125 HP each)	408 BHP	204 BHP
Air removal unit (40 HP motor)	29 BHP	29 BHP
Lube oil circulation pump	40	40
Totals	1122.75 HP	918.75 HP
	891 Kw	729 Kw

Maximum net output while operating in winter with 2 tower fans running.

20,000 Kw - 729 Kw = 19,271 Kw net output

Maximum net output while operating in summer with all tower fans running.

20,000 Kw - 891 Kw = 19,109 Kw net output

DIESEL GENERATOR

DG Site rating: 1,825 Kw

Auxiliary Equipment Loads	Load (HP)	Load (HP)
Cooling water radiator fan	75	75
Totals	75 HP	75 HP
	60 Kw	60 Kw

Maximum net output would be

1,825 Kw - 60 Kw = 1,765 Kw net output

TOTAL PLANT GENERATION CAPACITY

Maximum Plant Output (winter)	
Combustion Turbine Generators (2)	28,211 Kw
Steam Turbine Generator (1)	19,271 Kw
Diesel Generator (1)	1,765 Kw
TOTAL PLANT	49,247 Kw

Maximum Plant Output (summer)	
Combustion Turbine Generators (2)	23,794 Kw
Steam Turbine Generator (1)	19,109 Kw
Diesel Generator (1)	1,765 Kw
TOTAL PLANT	44,668 Kw

Notes:

1. The above net generation summary does not include additional plant auxiliary loads such as plant lighting, ventilaiton, and etc.
2. Conversion from HP - to - Kw is based on high efficiency (94%) motors
3. Conversion from tons of cooling to HP is based on 1.2 HP / ton (.95 Kw per ton) and includes pumping and tower loads.

M-Engineering, Inc
10/08/2001