

Goss ■ Samford PLLC



Attorneys at Law

October 23, 2015

HAND DELIVERED

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, KY 40602

RECEIVED

OCT 23 2015

PUBLIC SERVICE
COMMISSION

Re: PSC Case No. 2015-00284

Dear Mr. Derouen:

Please find enclosed for filing with the Commission in the above-referenced case an original and ten copies of the responses of East Kentucky Power Cooperative, Inc. ("EKPC"), to the information requests contained in the Initial Request for Information of the Commission Staff dated October 7, 2015.

Very truly yours,

David S. Samford (By Roy L. Conrad)

David S. Samford

Enclosures

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF EAST KENTUCKY POWER)
COOPERATIVE, INC. FOR AN ORDER)
DECLARING THE EXPANSION OF THE) CASE NO.
BAVARIAN LANDFILL GAS TO ENERGY) 2015-00284
PROJECT TO BE AN ORDINARY EXTENSION)
OF EXISTING SYSTEMS IN THE USUAL)
COURSE OF BUSINESS)

RESPONSES TO STAFF'S INITIAL REQUEST FOR INFORMATION TO EAST
KENTUCKY POWER COOPERATIVE, INC.
DATED OCTOBER 7, 2015

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF EAST KENTUCKY POWER)
 COOPERATIVE, INC. FOR AN ORDER)
 DECLARING THE EXPANSION OF THE) CASE NO.
 BAVARIAN LANDFILL GAS TO ENERGY) 2015-00284
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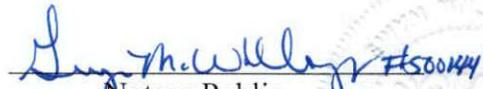
CERTIFICATE

STATE OF KENTUCKY)
)
 COUNTY OF CLARK)

David Crews, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Initial Information Request in the above-referenced case dated October 7, 2015 and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.



Subscribed and sworn before me on this 23rd day of October, 2015.



Notary Public



COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF EAST KENTUCKY POWER)
 COOPERATIVE, INC. FOR AN ORDER)
 DECLARING THE EXPANSION OF THE) CASE NO.
 BAVARIAN LANDFILL GAS TO ENERGY) 2015-00284
 PROJECT TO BE AN ORDINARY EXTENSION)
 OF EXISTING SYSTEMS IN THE USUAL)
 COURSE OF BUSINESS)

CERTIFICATE

STATE OF KENTUCKY)
)
 COUNTY OF CLARK)

Craig A. Johnson, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Initial Information Request in the above-referenced case dated October 7, 2015 and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.



Subscribed and sworn before me on this 23rd day of October, 2015.



Notary Public



COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

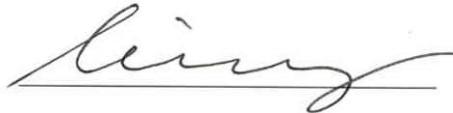
In the Matter of:

APPLICATION OF EAST KENTUCKY POWER)
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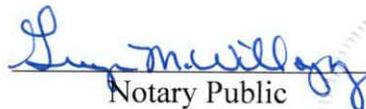
CERTIFICATE

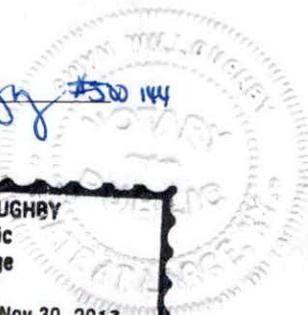
STATE OF KENTUCKY)
)
 COUNTY OF CLARK)

Mike McNalley, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Initial Information Request in the above-referenced case dated October 7, 2015 and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.



Subscribed and sworn before me on this 23rd day of October, 2015.

 #50144
 Notary Public



EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2015-00284

STAFF'S INITIAL REQUEST FOR INFORMATION DATED 10/07/15

East Kentucky Power Cooperative, Inc. ("EKPC") hereby submits responses to the Initial Request for Information of the Staff ("PSC") in this case dated October 7, 2015. Each response with its associated supportive reference materials is individually tabbed.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2015-00284
INITIAL REQUEST FOR INFORMATION RESPONSE

STAFF'S INITIAL REQUEST FOR INFORMATION DATED 10/07/15
REQUEST 1

RESPONSIBLE PERSON: David Crews

COMPANY: East Kentucky Power Cooperative, Inc.

Request 1. Refer to the Application, numbered paragraph 6, where EKPC requests that the Commission render a decision in this matter on or before November 1, 2015.

Request 1a. Explain in specific detail why EKPC has requested that the Commission render a decision on or before November 1, 2015.

Response 1a. EKPC has requested the Kentucky Public Service Commission ("Commission") to declare that the project does not require a Certificate of Public Convenience and Necessity ("CPCN") because the project is an extension of an existing utility system in the ordinary course of business. Alternatively, if a CPCN is required, EKPC has requested the Commission to issue the CPCN. In either event, EKPC needs an Order from the Commission by November 1, 2015 in order to complete certain construction activities that would be impacted negatively by the onset of winter weather and, thereby, significantly delay the project schedule.

Request 1b. How would the project be affected if the Commission were not to render a decision until 120 to 150 days after the date the application was filed?

Response 1b. Such a delay would move the start of the project into the heart of winter and likely cause the project start to be delayed until spring 2016.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2015-00284
INITIAL REQUEST FOR INFORMATION RESPONSE

STAFF'S INITIAL REQUEST FOR INFORMATION DATED 10/07/15
REQUEST 2

RESPONSIBLE PERSON: **Craig Johnson**

COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 2. Refer to the Application, Exhibit 1.

Request 2a. Explain how the Caterpillar 3516 and 3520 engine generators differ.

Response 2a. The 1600 kW Caterpillar G3520C engine generator set utilizes 6,357 Btu/bhp-hr to produce 2,233 bhp. This is 14.2 mmBtu/hr, which represents a heat rate of 8,872 Btu/kWhr. In contrast, the 800 kW Caterpillar G3516C engine generator set utilizes 7,082 Btu/bhp-hr to produce 1,100 bhp. This is 7.79 mmBtu/hr, which represents a heat rate of 9,738 Btu/kWhr.

The table below gives further technical specifications for the two models.

	Cat 3516	Cat 3520
Number of Cylinders	16	20
Engine Displacement	69Liters	86.3Liters
Electric Rating, Kw	800 Kw	1600 Kw
Fuel Consumption	300 scfm	500 scfm

Request 2b. Explain the performance issues that caused a 3520 engine to be replaced by a smaller engine, resulting in a spare 3520 engine.

Response 2b. The original projections for available landfill gas at the Mason County landfill were never realized. This was due to many factors, including saturated fill, poor gas collection system maintenance by the landfill owner, and various landfill operational issues encountered by the landfill owner. After struggling with gas delivery issues for approximately six months, EKPC shut the LFGTE facility down for six months. At that time a spare 800 kW G3516C became available and EKPC replaced the 1600 kW G3520C. This engine ran for approximately one year at reduced loads until gas supply dwindled to near zero. In 2012, electric production at the Mason County landfill was shut down and an engineering study was performed to see if there could be enough methane to support either a Cat 3516 or Cat 3520 generator. The study suggested several improvements that should be made to the methane collection system. Mason County chose not to go forward with the improvements due to their cost, and the Mason County Landfill Gas to Energy Station was officially shut down in January, 2015.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2015-00284
INITIAL REQUEST FOR INFORMATION RESPONSE

STAFF'S INITIAL REQUEST FOR INFORMATION DATED 10/07/15

REQUEST 3

RESPONSIBLE PERSON: Jeffery M. Brandt

COMPANY: East Kentucky Power Cooperative, Inc.

Request 3. Refer to the Application, the first page of Exhibit 2.

Request 3a. There are two items listed under the heading "From Mason County LFGTE." Explain the derivation of the costs indicated for each item.

Response 3a. The original Mason County LFGTE equipment cost for these sets of equipment were used, less depreciation. The depreciation was calculated using a thirty-year, straight-line schedule. These values represent the depreciated equipment costs as of November 2014. These costs have yet to be transferred to this project. It is expected the asset value will be adjusted when these assets are transferred.

Request 3b. Refer to the table of expected O&M costs.

(1) Explain the items listed as "Top End (year 1, 2, 4, 5)" and "In-frame (year 3)."

(2) For the line item "Top End (year 1, 2, 4, 5)", explain why there are costs indicated in years 3 and 6.

(3) Provide a detailed breakdown of the items that make up "Miscellaneous."

Response 3b(1-3). 1) The Top End includes head removal and replacement along with associated equipment. The In-frame includes removal and replacement of the heads, pistons and piston liners, and bearings. The major overhaul included all of the above, plus stripping and refurbishing the engine block and rewinding the generator. An overhaul includes removing the engine generator and shipping it to a Caterpillar dealership for these services.

2) In the O&M Costs, the Top End is actually performed in all years. For the 3rd and 6th years, the Top End cost is deducted from the In-frame cost and Major Over-haul cost respectively because this activity is included in these maintenance items.

3) The Miscellaneous items include all the activities in the Top End and In-frame categories. With 16 valves per engine and 3 to 4 engines per plant, there are several events each year where repair work is required.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2015-00284
INITIAL REQUEST FOR INFORMATION RESPONSE

STAFF'S INITIAL REQUEST FOR INFORMATION DATED 10/07/15

REQUEST 4

RESPONSIBLE PERSON: Jeffery M. Brandt

COMPANY: East Kentucky Power Cooperative, Inc.

Request 4. Refer to the Application, the second page of Exhibit 2.

Request 4a. Explain why Interest Expense is zero for years 2013 through 2015.

Response 4a. The actual interest expense for the existing Bavarian LFGTE was zero for 2013, 2014, and is expected to be zero for 2015. Interest Expense for the Bavarian Expansion will not start until commercial operation date in 2016.

Request 4b. Provide all assumptions and documentation that support the derivation of the amounts indicated.

Response 4b. A PDF of the LFGTech Bavarian Phase 1 Report is provided on the attached CD.

Request 4c. Provide the schedule on page 2 in Excel spreadsheet format with all cells and formulas intact and unprotected.

Response 4c. The Bavarian Expansion pro forma spreadsheet is provided on the attached CD.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2015-00284
INITIAL REQUEST FOR INFORMATION RESPONSE

STAFF'S INITIAL REQUEST FOR INFORMATION DATED 10/07/15

REQUEST 5

RESPONSIBLE PERSON: Mike McNalley

COMPANY: East Kentucky Power Cooperative, Inc.

Request 5. Refer to the Application, the first page of Exhibit 3, which states that EKPC will "roll the Bavarian Expansion Project into a future RUS loan application."

What is the expected application date and amount for the future RUS loan application?

Response 5. This has not yet been determined as it will depend on having one or more other generation projects to put into a single loan application. In the meantime, this project is small enough to be carried, at low cost, in our unsecured credit facility.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2015-00284
INITIAL REQUEST FOR INFORMATION RESPONSE

STAFF'S INITIAL REQUEST FOR INFORMATION DATED 10/07/15
REQUEST 6

RESPONSIBLE PERSON: Jeffery M. Brandt

COMPANY: East Kentucky Power Cooperative, Inc.

Request 6. Refer to the Application, Exhibit 5. Provide the \$/mmBtu that EKPC has paid Bavarian Landfill for the calendar year 2015.

Response 6. Total amount paid by EKPC to Bavarian Landfill through August 2015 was \$143,384. The total Btu purchased by EKPC from Bavarian Landfill for this period is 184,061 mmBtu. This represents a fuel cost of \$0.779/mmBtu.



May 29, 2015

To: Mark Brewer

Subject: Bavarian Phase 1 Budget Summary

Mark:

Please find the deliverables outlined in our proposal for the Bavarian expansion. The more descriptive document is the budget document itself. Knowing the overall budget goal is \$2 million; we concentrated on the fixed cost part of the project to include the following:

New Equipment

ITEM	VENDOR	COST
New Standalone 4160V, 1200A Switchgear (2 Cubicles)	WHAYNE SUPPLY / CAT-ISO	\$197,600.00
Upgrade Existing Plant Switchgear Controls	WHAYNE SUPPLY / CAT-ISO	\$46,900.00
New Switchgear and Controls Upgrade Start-up (2 Vert Sections)	WHAYNE SUPPLY / CAT-ISO	Included
480V, 600A Motor Control Center Extension	Rockwell / Allen-Bradley	\$30,000.00
12470-4160V, 2500kVA Generator Set-up Transformer	To be Bid	\$55,000.00
TOTAL PRICE =	\$0.00	\$329,500.00

Used Equipment from Maysville

1. Cat 3520C generator \$693,780.00
2. Fuel Skid \$166,415.00

Engineering Cost \$182,040.00

Total Fixed Cost \$1,371,735.00

Budget Difference = Total Fixed Cost- \$2 million leaves \$628,265.00 for construction.

Estimated construction cost \$890,211.00

6830 E Michigan
Kalamazoo, MI 49048
269-762-8481



Total project cost is Total Fixed cost, plus Estimated construction cost = \$2,261,946.00

Please remember the new equipment cost and the construction cost will be bid out in the Phase 2 budget or Project Maximum Cost. We believe the budget is conservatively estimated and the Project Maximum Cost can be brought down to the \$2 million budget number.

Please review information and we would be happy to meet with you to go over the budget in detail.

Regards,

Barry Rogers

Attachments:

6830 E Michigan
Kalamazoo, MI 49048
269-762-8481

Bavarian Expansion -2015

	(BID)				ABEL	Alliance	Curington	Hall
	Phase 1	Phase 2	Maysville					
A. Land Improvements	Budget	Budget	Equipment					
1 Roadways & Parking Area	0		0					
2 Walkways	0	0	0	included in base bid				
3 Gravel	2,500	0	0	included in base bid				
4 Fencing	0	0	0	included in base bid				
5 Plant Lighting	2,500	0	0	included in base bid				
6 Landscaping	0	0	0	included in base bid				
	5,000	0	0					
B. Site Development								
7 Soil Borings	0	0	0		0	0	0	0
8 Excavation/Recompaction	15,000	0	0	included in base bid				
9 Grading/Fill	25,250	0	0	included in base bid				
10 Sewer/Water	5,000	0	0	included in base bid				
11 Utility Hookups	0	0	0	included in base bid				
12 Engineering	0	0	0		0	0	0	0
13 Permitting	0	0	0		0	0	0	0
	45,250	0	0					
C. Building & Interconnect								
14 Engine Bldg Foundation	22,250	0	0	included in base bid				
15 Engine Building	99,350	0	0	included in base bid				
16 Compressor Enclosure	24,000	0	0	included in base bid				
17 General Con. Expen.	58,200	0	0	included in base bid				
18 Fire Protection	0	0	0	included in base bid				
19 Methane Detection Systems	8,500	0	0	included in base bid				
20 Utility Interconnect	0	0	0	included in base bid				
21 Switchyard Electrical	85,000	0	0	Maysville Equipment	0	0	0	0
	297,300	0						
D. Equipment								
22 Engine Foundations	3,600	0		included in base bid				
23 Compressor Foundations	8,700	0		included in base bid				
24 Air Cooler Found.	4,800	0		included in base bid				
25 Control Room Foundation	0	0		included in base bid				
26 Optional Equipment Foundations	10,000	0		included in base bid				
27 Engines	693,780	0	693,780	Depreciated Gen from Maysville	0	0	0	0
28 FGC Compressor	166,415	0	166,415	LFG Tech Fuel Gas Booster	0	0	0	0
29 Control Room Switchgear/MCC	85,000	0	0	Maysville Equipment- add for FGB VFD	0	0	0	0
30 Instrument Air Compressor	0	0		included in base bid				
31 G.C. & Flow Meter	0	0		Maysville Equipment	0	0	0	0
32 Optional Equipment	13,250	0		Maysville - Fault Interrupter	0	0	0	0
33 Freight	30,000	0			0	0	0	0
34 Equipment Installation	199,500	0		included in base bid				
35 Electrical Hookup	245,300	0		included in base bid				
36 Mechanical Engineering	0	0		included in base bid				
37 Electrical Engineering	0	0		included in base bid				
38 Furniture & Fixtures	0	0		included in base bid				
39 Equipment HVAC	8,236	0		included in base bid				
40 Insulation & Heat Tracing	0	0		included in base bid				
	1,468,581	0						
E. Collection System								
41 Design	0	0		included in base bid				
42 Installation	20,000	0	0	included in base bid				
43 Inlet Knock Out Pot and Pump	30,000	0			0	0	0	0
	50,000	0						
F. Start-Up								
44 Labor	0	0			0	0	0	0
45 Spare Parts/Initial Stocks	0	0		included in base bid				
46 Utilities	0	0		included in base bid				
47 Other Start-Up	0	0		included in base bid				
	0	0						
G. Construction Management								
48 LFG Technologies Engineering Cost	182,040	0			0	0	0	0
49 Performance/Payment Bond	0	0		included in base bid				
50 Construction Site Supervision	60,000	0		included in base bid				
51 Construction GC Overhead and Profit	126,075	0		included in base bid				
52 LFG Tech Insurance	15,200	0		included in base bid				
53 Construction GC Insurance	12,500	0		included in base bid				
54 Outside Legal	0	0		included in base bid				
55 Construction Period Interest	0	0		included in base bid				
56 Deferred Site Gas testing Costs	0	0		included in base bid				
57 Deferred Project Development Costs	0	0		included in base bid				
58 Contingency/Other	0	0		included in base bid				
	395,815	0						
Total Project	2,261,946	0			0	0	0	0



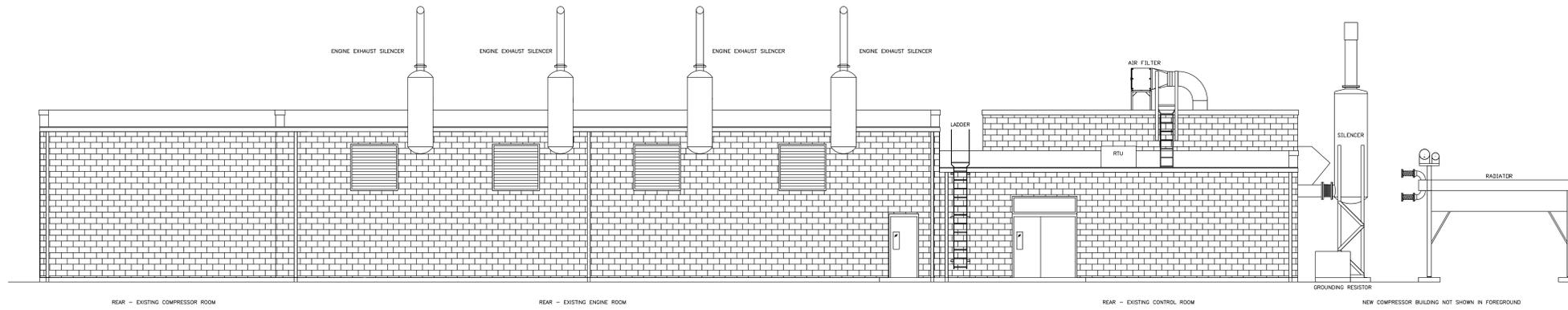
Rev. No.	Description	Date	Drawn	Checked	Appr.	Disc.	Disc.	Disc.	Disc.	Disc.
1	ISSUED FOR CLIENT REVIEW	5/13/15	MM	CSA	MM	BR				

PREPARED UNDER MY HAND AND SEAL

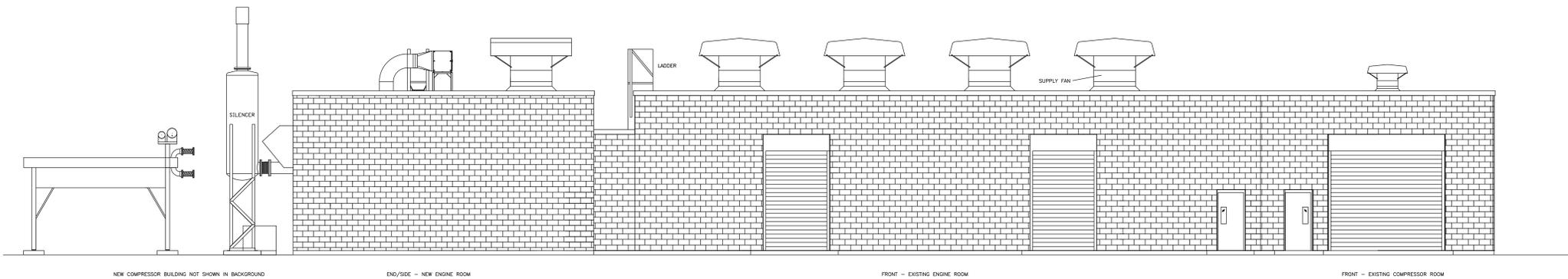
Project Manager	C. Anderson
Project	IEC/Process
Disc.	Mechanical
Disc.	Structural
Project Engineer	M. Markham


East Kentucky Power Cooperative, Inc.
 Bavarian 2 Expansion Landfill Gas-To-Energy Project

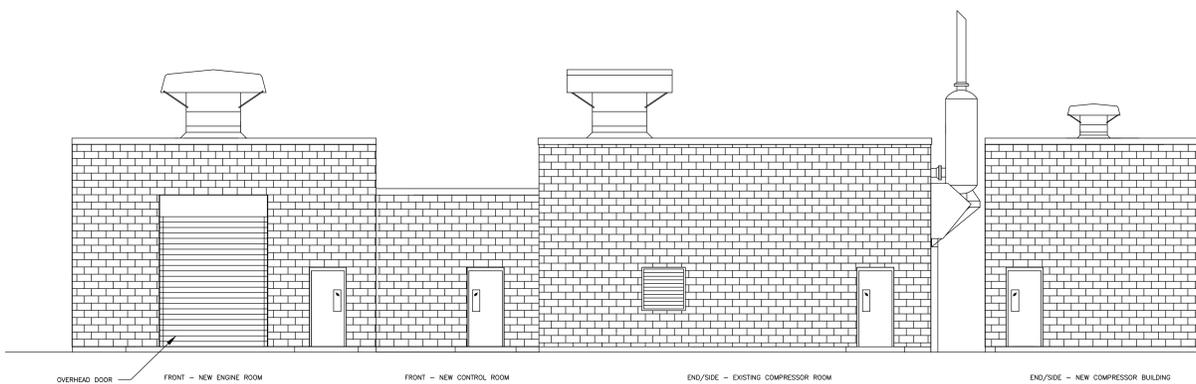
PROPOSED FACILITY PLAN VIEW			
Date	03/30/15	Project No.	EXPC-08
Scale		File Name	RE1-A1
Sheet No.		Drawing No.	RE1-A1
			E



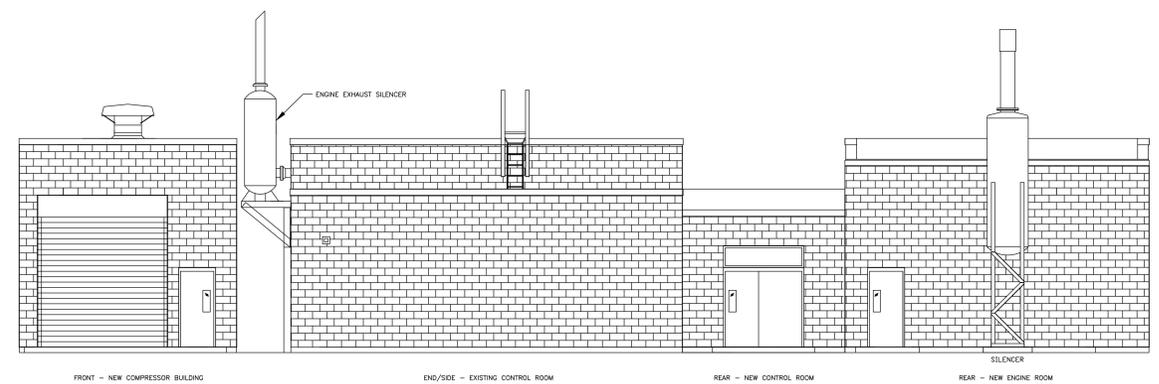
REAR PLANT VIEW
SCALE: 1/8" = 1'-0"



FRONT PLANT VIEW
SCALE: 1/8" = 1'-0"



SIDE PLANT VIEW (COMPRESSOR ROOM)
SCALE: 1/8" = 1'-0"



SIDE PLANT VIEW (CONTROL ROOM)
SCALE: 1/8" = 1'-0"



Issue No.	Description	Date	Drawn	Checked	Responsible	Project Mgr.	Issue No.	Description	Date	Drawn	Checked	Responsible	Project Mgr.
0	ISSUED FOR CLIENT REVIEW	5/12/15	MAM	CEA	MAM	BR							

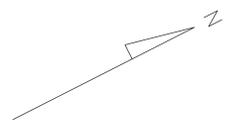
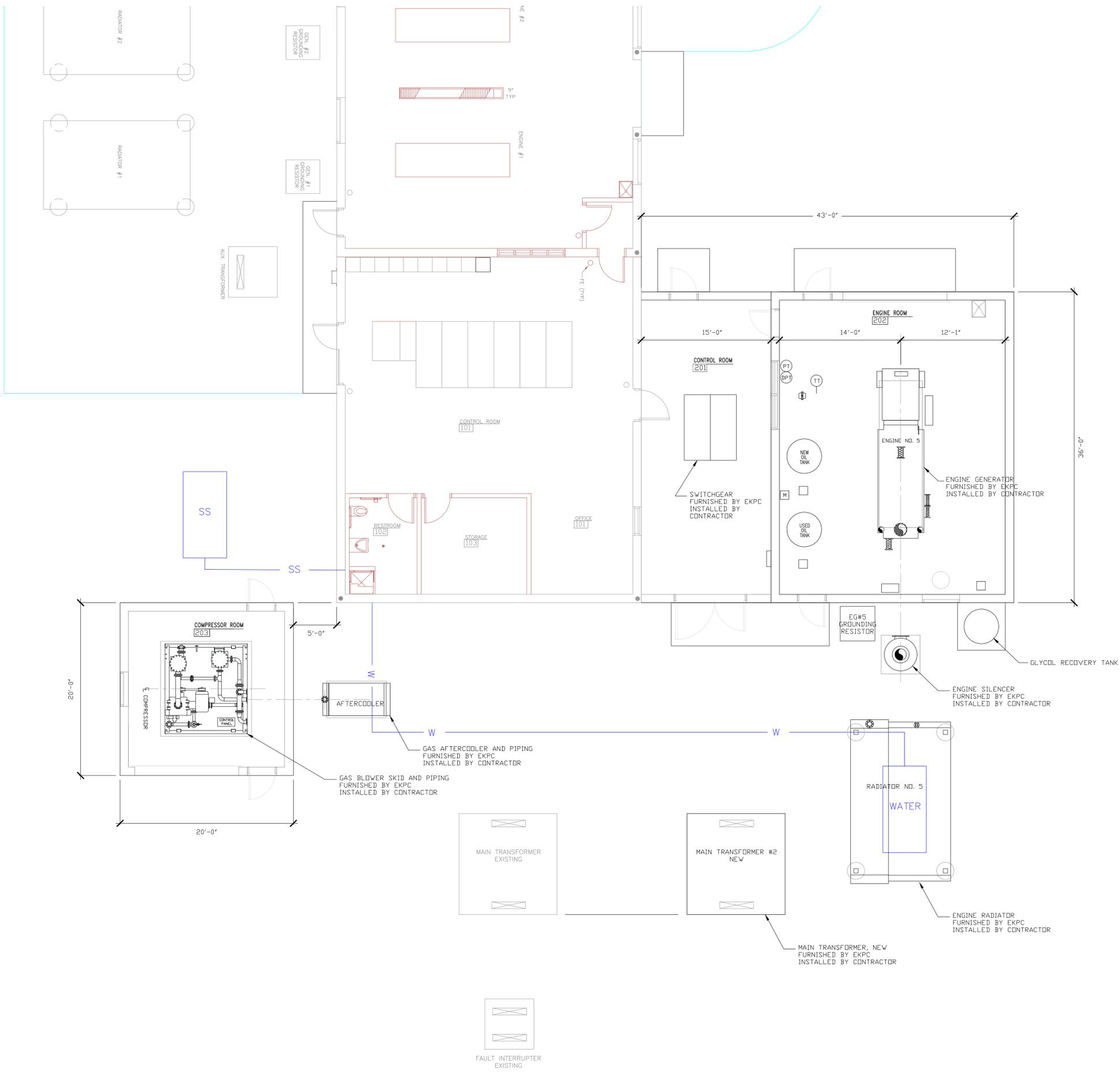
PREPARED UNDER MY HAND AND SEAL

Project Manager	C. Anderson
Architect	
QC/Process	
Cost	
Mechanical	
Electrical	
Structural	
Project Engineer	M. Markham
Drawn By	

East Kentucky Power Cooperative, Inc.
Bavarian 2 Expansion Landfill Gas-To-Energy Project

PROPOSED FACILITY
BUILDING ELEVATIONS

Date	05/12/15	Project No.	EXPC-08	Drawing No.		Issue	
Scale		File Name		RE1-AS2		A	



Issue No.	Description	Date	Drawn	Checked	Prep. (Cmp.)	Proj. Mgr.	Issue No.	Description	Date	Drawn	Checked	Prep. (Cmp.)	Proj. Mgr.
A	ISSUED FOR CLIENT REVIEW	5/13/15	MAM	CEA	MAM	BR							

PREPARED UNDER MY HAND AND SEAL

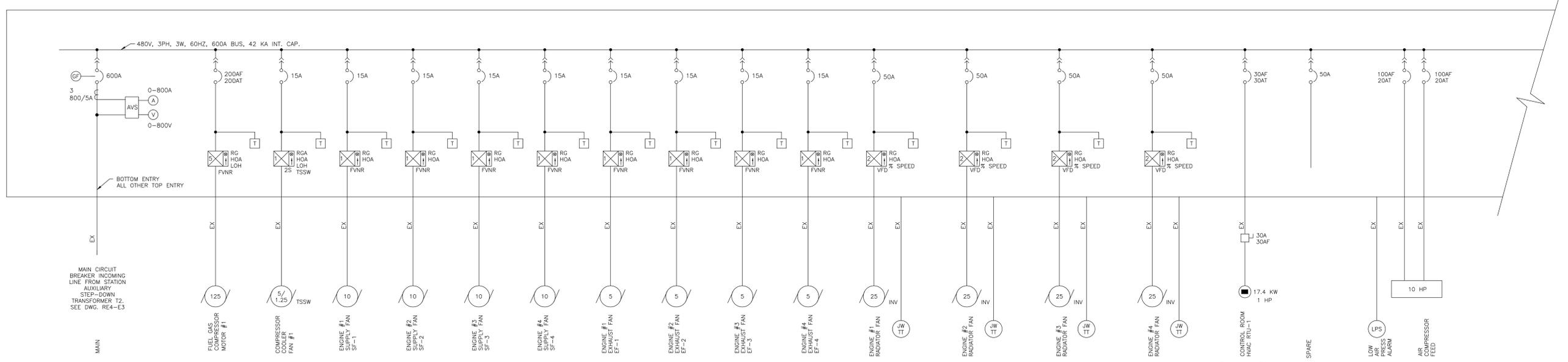
Project Manager	C. Anderson
Architect	
Client	
Electrical	
Project Engineer	M. Markham



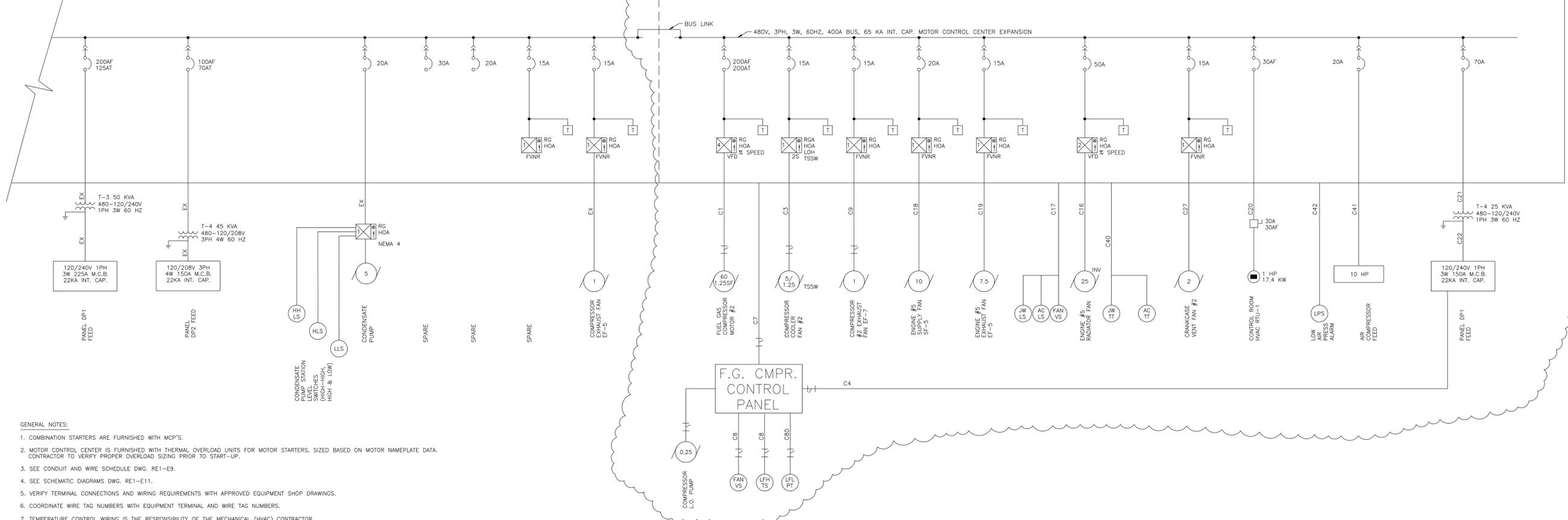
East Kentucky Power Cooperative, Inc.
Bavarian 2 Expansion Landfill Gas-To-Energy Project

PROCESS EQUIPMENT PLAN			
Date	03/30/15	Project No.	EKPC-08
Scale		File Name	RE1-M4
Drawn No.		Issue	A

EXISTING PLANT 1 MOTOR CONTROL CENTER*



MOTOR CONTROL CENTER ADDITION*



- GENERAL NOTES:
1. COMBINATION STARTERS ARE FURNISHED WITH MCP'S.
 2. MOTOR CONTROL CENTER IS FURNISHED WITH THERMAL OVERLOAD UNITS FOR MOTOR STARTERS, SIZED BASED ON MOTOR NAMEPLATE DATA. CONTRACTOR TO VERIFY PROPER OVERLOAD SIZING PRIOR TO START-UP.
 3. SEE CONDUIT AND WIRE SCHEDULE DWG. RE1-E9.
 4. SEE SCHEMATIC DIAGRAMS DWG. RE1-E11.
 5. VERIFY TERMINAL CONNECTIONS AND WIRING REQUIREMENTS WITH APPROVED EQUIPMENT SHOP DRAWINGS.
 6. COORDINATE WIRE TAG NUMBERS WITH EQUIPMENT TERMINAL AND WIRE TAG NUMBERS.
 7. TEMPERATURE CONTROL WIRING IS THE RESPONSIBILITY OF THE MECHANICAL (HVAC) CONTRACTOR.



Issue No.	Description	Date	Drawn	Checked	App. Eng.	Proj. Mgr.	Issue No.	Description	Date	Drawn	Checked	App. Eng.	Proj. Mgr.
0	ISSUED FOR CLIENT REVIEW & EQUIPMENT BIDS	4/27/15	CEA	CEA	MAM	MAM							

PREPARED UNDER MY HAND AND SEAL



Project Manager
B. Rogers
Architect
M. Morkham
MEC/Process
Client
M. Morkham
Structural
Electrician
C. Anderson
Project Engineer
M. Morkham
Drawn By
C. Anderson



480V MCC SINGLE LINE DIAGRAM		Project No.	EKPC-08	Drawing No.	RE1-E4	Issue	0
Date	04/27/15	File Name					
Scale	NONE						

Bavarian Expansion	Actual Costs						add 3520	Projected Costs					
Fuel Price (\$/mmBtu)	0.332	0.457	0.722	0.729	0.751		0.78						
EKPC Finance Rate							0.045						
TIER							1.500						
Year	2010	2011	2012	2013	2014	2015		2016	2017	2018	2019	2020	2021
Generator Output	3200	3200	3200	3200	3200	3200	1600	4800	4800	4800	4800	4800	4800
Heat Rate (Btu/kWh) (HHV)	12,223	11,874	12,781	12,260	12,366	12,469	10,750	11,896					
Capacity factor	0.93	0.94	0.88	0.81	0.81	0.83	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Gross generation (kWh)	26,922,000	27,207,000	25,296,000	23,265,000	23,440,000	24,000,333	11,913,600	35,740,800	35,740,800	35,740,800	35,740,800	35,740,800	35,740,800
Station Service	927,000	717,000	687,000	619,000	679,000	661,667	328,815	1,000,742	1,000,742	1,000,742	1,000,742	1,000,742	1,000,742
Net generation (kWh)	25,995,000	26,490,000	24,609,000	22,646,000	22,761,000	23,338,667	11,317,920	34,740,058	34,740,058	34,740,058	34,740,058	34,740,058	34,740,058
EKPC LFGTE Capital Investment (\$)							2,261,946	2,261,946	2,160,849	2,059,752	1,958,654	1,857,557	1,756,460
Depreciation Expense	96,302	96,305	96,306	119,424	97,149	101,097	30	176,495	101,097	101,097	101,097	101,097	101,097
Interest Expense	194,526	98,596	111,746	0	0	0	years	101,041	99,365	97,611	95,777	93,859	91,853
Fuel Cost (\$)	104,498	143,683	227,024	202,421	211,277	213,574	99,767	331,214	331,214	331,214	331,214	331,214	331,214
O&M (\$)	287,709	451,782	581,064	911,721	653,999	715,595		832,455	853,266	1,090,819	896,463	918,874	1,921,438
COE (\$/MWh)	26.28	29.84	41.29	54.47	42.28	44.14	8.82	41.49	39.87	46.65	41.01	41.60	70.40
Levelized O&M (\$)	600,312	691,103	758,017	842,976	840,433	817,235		1,085,552	1,107,709	1,130,419	1,159,452	1,183,311	1,207,768
Levelized COE (\$/MWh)	39.72	42.25	43.92	44.82	42.57	42.87		46.83	46.93	47.41	48.06	48.56	49.08

EKPC Bavarian Site

ITEM	VENDOR	COST
Engineering Proposal	LFGTech	
Phase 1 Conceptual Design Development		14,240
Phase 2 (75% Design Phase)		52,180
Phase 3 (90% Design Phase)		14,000
Construction Overview		41,520
Project Start Up & Testing		60,100
	Total LFGTech	<u>182,040</u>
From Mason County LFGTE		
CAT 3520 Engine plus Radiator and other Appurtences		693,780
Crankcase Ventilation System		
FBC Skid		166,415
		<u>860,195</u>
		10,918
New Standalone 4160V, 1200A Switchgear (2 Cubicles)	WHAYNE SUPPLY / CAT-ISO	197,600
Upgrade Existing Plant Switchgear Controls	WHAYNE SUPPLY / CAT-ISO	46,900
New Switchgear and Controls Upgrade Start-up (2 Vert Sections)	WHAYNE SUPPLY / CAT-ISO	Included
480V, 600A Motor Control Center Extension	Rockwell / Allen-Bradley	30,000
12470-4160V, 2500kVA Generator Setp-up Transformer	To be Bid	55,000
Site Work		0
General Construction Contract		890,211
		<u>\$2,261,946</u>
		1,401,751

Year	Initial Cost	1	2	3	4	5	6
Labor, Supervision	85,000	85,000	87,125	89,303	91,536	93,824	96,170
Oil	15,000	15,000	15,375	15,759	16,153	16,557	16,971
Spark Plugs	3,000	3,000	3,075	3,152	3,231	3,311	3,394
Air Filters	1,000	1,000	1,025	1,051	1,077	1,104	1,131
Turbo-Charger	4,000	4,000	4,100	4,203	4,308	4,415	4,526
Water Pump	1,000	1,000	1,025	1,051	1,077	1,104	1,131
Top End (year 1,2,4,5)	17,000	17,000	17,425	17,861	18,307	18,765	19,234
In-frame (year 3)	48,000	0	0	32,569	0	0	0
Major Over-haul (year 6)	150,000	0	0	0	0	0	96,170
Electrical Maintenance	10,000	10,000	10,250	10,506	10,769	11,038	11,314
Miscellaneous	15,000	15,000	15,375	15,759	16,153	16,557	16,971
Yearly Total		151,000	154,775	191,214	162,610	166,676	267,012
escalation	2.50%						
O&M Costs (\$/kWh)		0.025	0.026	0.032	0.027	0.028	0.045
Capacity (kW)	800						
Capacity factor	0.85						

3516 65,000 top end

Cycle Year	2013	2014	2015	2016	2017	2018
Maintenance Items	17,000	17,425	50,430	18,307	18,765	115,404

Year	Initial Cost	7	8	9	10	11	12
Labor, Supervision	85,000	98,574	101,038	103,564	106,153	108,807	111,527
Oil	15,000	17,395	17,830	18,276	18,733	19,201	19,681
Spark Plugs	3,000	3,479	3,566	3,655	3,747	3,840	3,936
Air Filters	1,000	1,160	1,189	1,218	1,249	1,280	1,312
Turbo-Charger	4,000	4,639	4,755	4,874	4,995	5,120	5,248
Water Pump	1,000	1,160	1,189	1,218	1,249	1,280	1,312
Top End (year 1,2,4,5)	17,000	19,715	20,208	20,713	21,231	21,761	22,305
In-frame (year 3)	48,000	0	0	37,770	0	0	0
Major Over-haul (year 6)	150,000	0	0	0	0	0	196,813
Electrical Maintenance	10,000	11,597	11,887	12,184	12,489	12,801	13,121
Miscellaneous	15,000	17,395	17,830	18,276	18,733	19,201	19,681
Yearly Total		175,114	179,492	221,749	188,578	193,293	394,938
escalation	2.50%						
O&M Costs (\$/kWh)		0.029	0.030	0.037	0.032	0.032	0.066
Capacity (kW)	800						
Capacity factor	0.85						

3516 65,000 top end

Cycle Year	2013	2014	2015	2016	2017	2018
Maintenance Items	19,715	20,208	58,483	21,231	21,761	219,118

Year	Initial Cost	1	2	3	4	5	6
Labor, Supervision	0	0	0	0	0	0	0
Oil	30,000	30,000	30,750	31,519	32,307	33,114	33,942
Spark Plugs	6,000	6,000	6,150	6,304	6,461	6,623	6,788
Air Filters	2,000	2,000	2,050	2,101	2,154	2,208	2,263
Turbo-Charger	8,000	8,000	8,200	8,405	8,615	8,831	9,051
Water Pump	2,000	2,000	2,050	2,101	2,154	2,208	2,263
Top End (year 1,2,4,5)	34,000	34,000	34,850	35,721	36,614	37,530	38,468
In-frame (year 3)	96,000	0	0	65,139	0	0	0
Major Over-haul (year 6)	300,000	0	0	0	0	0	192,339
Electrical Maintenance	20,000	20,000	20,500	21,013	21,538	22,076	22,628
Miscellaneous	30,000	30,000	30,750	31,519	32,307	33,114	33,942
Yearly Total		132,000	135,300	203,821	142,150	145,703	341,685
escalation							
O&M Costs (\$/kWh)		0.011	0.011	0.017	0.012	0.012	0.029
Capacity (kW)	1,600						
Capacity factor	0.85						

3520 65,000 top end

Cycle Year	2013	2014	2015	2016	2017	2018
Maintenance Items						

Year	Initial Cost	7	8	9	10	11	12
Labor, Supervision	0	0	0	0	0	0	0
Oil	30,000	34,791	35,661	36,552	37,466	38,403	39,363
Spark Plugs	6,000	6,958	7,132	7,310	7,493	7,681	7,873
Air Filters	2,000	2,319	2,377	2,437	2,498	2,560	2,624
Turbo-Charger	8,000	9,278	9,509	9,747	9,991	10,241	10,497
Water Pump	2,000	2,319	2,377	2,437	2,498	2,560	2,624
Top End (year 1,2,4,5)	34,000	39,430	40,415	41,426	42,461	43,523	44,611
In-frame (year 3)	96,000	0	0	116,967	0	0	0
Major Over-haul (year 6)	300,000	0	0	0	0	0	393,626
Electrical Maintenance	20,000	23,194	23,774	24,368	24,977	25,602	26,242
Miscellaneous	30,000	34,791	35,661	36,552	37,466	38,403	39,363
Yearly Total		153,080	156,907	277,796	164,850	168,971	566,821
escalation							
O&M Costs (\$/kWh)		0.013	0.013	0.023	0.014	0.014	0.048
Capacity (kW)	1,600						
Capacity factor	0.85						

3520 65,000 top end

Cycle Year	2013	2014	2015	2016	2017	2018
Maintenance Items						

Capital Cost (\$)	2,261,946											
Interest Rate	0.045											
Loan Period (Years)	30											
Year												1
Month	1	2	3	4	5	6	7	8	9	10	11	12
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	2,979	2,990	3,001	3,012	3,024	3,035	3,046	3,058	3,069	3,081	3,092	3,104
Monthly Interest	8,482	8,471	8,460	8,449	8,437	8,426	8,415	8,403	8,392	8,380	8,369	8,357
Yearly Payment												137,531
Yearly Principal												36,490
Yearly Interest												101,041
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												2
Month	13	14	15	16	17	18	19	20	21	22	23	24
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	3,115	3,127	3,139	3,151	3,162	3,174	3,186	3,198	3,210	3,222	3,234	3,246
Monthly Interest	8,345	8,334	8,322	8,310	8,298	8,287	8,275	8,263	8,251	8,239	8,227	8,215
Yearly Payment												137,531
Yearly Principal												38,167
Yearly Interest												99,365
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												3
Month	25	26	27	28	29	30	31	32	33	34	35	36
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	3,259	3,271	3,283	3,295	3,308	3,320	3,333	3,345	3,358	3,370	3,383	3,396
Monthly Interest	8,202	8,190	8,178	8,166	8,153	8,141	8,128	8,116	8,103	8,091	8,078	8,065
Yearly Payment												137,531
Yearly Principal												39,920
Yearly Interest												97,611
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												4
Month	37	38	39	40	41	42	43	44	45	46	47	48
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	3,408	3,421	3,434	3,447	3,460	3,473	3,486	3,499	3,512	3,525	3,538	3,552
Monthly Interest	8,053	8,040	8,027	8,014	8,001	7,988	7,975	7,962	7,949	7,936	7,923	7,909
Yearly Payment												137,531
Yearly Principal												41,754
Yearly Interest												95,777
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												5
Month	49	50	51	52	53	54	55	56	57	58	59	60
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	3,565	3,578	3,592	3,605	3,619	3,632	3,646	3,660	3,673	3,687	3,701	3,715
Monthly Interest	7,896	7,883	7,869	7,856	7,842	7,829	7,815	7,801	7,788	7,774	7,760	7,746
Yearly Payment												137,531
Yearly Principal												43,672
Yearly Interest												93,859
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												6
Month	61	62	63	64	65	66	67	68	69	70	71	72
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	3,729	3,743	3,757	3,771	3,785	3,799	3,813	3,828	3,842	3,856	3,871	3,885
Monthly Interest	7,732	7,718	7,704	7,690	7,676	7,662	7,648	7,633	7,619	7,605	7,590	7,576
Yearly Payment												137,531
Yearly Principal												45,678
Yearly Interest												91,853
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												7
Month	73	74	75	76	77	78	79	80	81	82	83	84
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	3,900	3,915	3,929	3,944	3,959	3,974	3,989	4,003	4,019	4,034	4,049	4,064
Monthly Interest	7,561	7,546	7,532	7,517	7,502	7,487	7,472	7,457	7,442	7,427	7,412	7,397
Yearly Payment												137,531
Yearly Principal												47,777
Yearly Interest												89,754
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												8
Month	85	86	87	88	89	90	91	92	93	94	95	96
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	4,079	4,094	4,110	4,125	4,141	4,156	4,172	4,187	4,203	4,219	4,235	4,251
Monthly Interest	7,382	7,367	7,351	7,336	7,320	7,305	7,289	7,274	7,258	7,242	7,226	7,210
Yearly Payment												137,531
Yearly Principal												49,972
Yearly Interest												87,560
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												9
Month	97	98	99	100	101	102	103	104	105	106	107	108
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	4,267	4,283	4,299	4,315	4,331	4,347	4,363	4,380	4,396	4,413	4,429	4,446
Monthly Interest	7,194	7,178	7,162	7,146	7,130	7,114	7,098	7,081	7,065	7,048	7,032	7,015
Yearly Payment												137,531
Yearly Principal												52,267
Yearly Interest												85,264
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												10
Month	109	110	111	112	113	114	115	116	117	118	119	120
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	4,463	4,479	4,496	4,513	4,530	4,547	4,564	4,581	4,598	4,615	4,633	4,650
Monthly Interest	6,998	6,982	6,965	6,948	6,931	6,914	6,897	6,880	6,863	6,846	6,828	6,811
Yearly Payment												137,531
Yearly Principal												54,669
Yearly Interest												82,863
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												11
Month	121	122	123	124	125	126	127	128	129	130	131	132
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	4,668	4,685	4,703	4,720	4,738	4,756	4,774	4,791	4,809	4,827	4,846	4,864
Monthly Interest	6,793	6,776	6,758	6,741	6,723	6,705	6,687	6,670	6,652	6,634	6,615	6,597
Yearly Payment												137,531
Yearly Principal												57,180
Yearly Interest												80,351
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												12
Month	133	134	135	136	137	138	139	140	141	142	143	144
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	4,882	4,900	4,919	4,937	4,956	4,974	4,993	5,012	5,030	5,049	5,068	5,087
Monthly Interest	6,579	6,561	6,542	6,524	6,505	6,487	6,468	6,449	6,431	6,412	6,393	6,374
Yearly Payment												137,531
Yearly Principal												59,807
Yearly Interest												77,724
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												13
Month	145	146	147	148	149	150	151	152	153	154	155	156
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	5,106	5,125	5,145	5,164	5,183	5,203	5,222	5,242	5,261	5,281	5,301	5,321
Monthly Interest	6,355	6,336	6,316	6,297	6,278	6,258	6,239	6,219	6,200	6,180	6,160	6,140
Yearly Payment												137,531
Yearly Principal												62,554
Yearly Interest												74,977
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												14
Month	157	158	159	160	161	162	163	164	165	166	167	168
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	5,341	5,361	5,381	5,401	5,421	5,442	5,462	5,483	5,503	5,524	5,544	5,565
Monthly Interest	6,120	6,100	6,080	6,060	6,040	6,019	5,999	5,978	5,958	5,937	5,916	5,896
Yearly Payment												137,531
Yearly Principal												65,428
Yearly Interest												72,103
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												15
Month	169	170	171	172	173	174	175	176	177	178	179	180
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	5,586	5,607	5,628	5,649	5,670	5,692	5,713	5,734	5,756	5,778	5,799	5,821
Monthly Interest	5,875	5,854	5,833	5,812	5,791	5,769	5,748	5,726	5,705	5,683	5,662	5,640
Yearly Payment												137,531
Yearly Principal												68,434
Yearly Interest												69,097
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												16
Month	181	182	183	184	185	186	187	188	189	190	191	192
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	5,843	5,865	5,887	5,909	5,931	5,953	5,975	5,998	6,020	6,043	6,066	6,088
Monthly Interest	5,618	5,596	5,574	5,552	5,530	5,508	5,485	5,463	5,441	5,418	5,395	5,373
Yearly Payment												137,531
Yearly Principal												71,578
Yearly Interest												65,954
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												17
Month	193	194	195	196	197	198	199	200	201	202	203	204
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	6,111	6,134	6,157	6,180	6,203	6,227	6,250	6,273	6,297	6,321	6,344	6,368
Monthly Interest	5,350	5,327	5,304	5,281	5,258	5,234	5,211	5,188	5,164	5,140	5,117	5,093
Yearly Payment												137,531
Yearly Principal												74,866
Yearly Interest												62,665
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												18
Month	205	206	207	208	209	210	211	212	213	214	215	216
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	6,392	6,416	6,440	6,464	6,488	6,513	6,537	6,562	6,586	6,611	6,636	6,661
Monthly Interest	5,069	5,045	5,021	4,997	4,973	4,948	4,924	4,899	4,875	4,850	4,825	4,800
Yearly Payment												137,531
Yearly Principal												78,305
Yearly Interest												59,226
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												19
Month	217	218	219	220	221	222	223	224	225	226	227	228
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	6,686	6,711	6,736	6,761	6,786	6,812	6,837	6,863	6,889	6,915	6,941	6,967
Monthly Interest	4,775	4,750	4,725	4,700	4,675	4,649	4,624	4,598	4,572	4,546	4,520	4,494
Yearly Payment												137,531
Yearly Principal												81,903
Yearly Interest												55,629
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												20
Month	229	230	231	232	233	234	235	236	237	238	239	240
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	6,993	7,019	7,045	7,072	7,098	7,125	7,152	7,178	7,205	7,232	7,259	7,287
Monthly Interest	4,468	4,442	4,416	4,389	4,363	4,336	4,309	4,283	4,256	4,229	4,202	4,174
Yearly Payment												137,531
Yearly Principal												85,665
Yearly Interest												51,866
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												21
Month	241	242	243	244	245	246	247	248	249	250	251	252
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	7,314	7,341	7,369	7,397	7,424	7,452	7,480	7,508	7,536	7,565	7,593	7,621
Monthly Interest	4,147	4,120	4,092	4,064	4,037	4,009	3,981	3,953	3,925	3,896	3,868	3,840
Yearly Payment												137,531
Yearly Principal												89,601
Yearly Interest												47,931
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												22
Month	253	254	255	256	257	258	259	260	261	262	263	264
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	7,650	7,679	7,707	7,736	7,765	7,794	7,824	7,853	7,883	7,912	7,942	7,972
Monthly Interest	3,811	3,782	3,753	3,725	3,696	3,666	3,637	3,608	3,578	3,549	3,519	3,489
Yearly Payment												137,531
Yearly Principal												93,717
Yearly Interest												43,814
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												23
Month	265	266	267	268	269	270	271	272	273	274	275	276
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	8,001	8,031	8,062	8,092	8,122	8,153	8,183	8,214	8,245	8,276	8,307	8,338
Monthly Interest	3,460	3,430	3,399	3,369	3,339	3,308	3,278	3,247	3,216	3,185	3,154	3,123
Yearly Payment												137,531
Yearly Principal												98,022
Yearly Interest												39,509
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												24
Month	277	278	279	280	281	282	283	284	285	286	287	288
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	8,369	8,400	8,432	8,464	8,495	8,527	8,559	8,591	8,623	8,656	8,688	8,721
Monthly Interest	3,092	3,061	3,029	2,997	2,966	2,934	2,902	2,870	2,838	2,805	2,773	2,740
Yearly Payment												137,531
Yearly Principal												102,525
Yearly Interest												35,006
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												25
Month	289	290	291	292	293	294	295	296	297	298	299	300
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	8,753	8,786	8,819	8,852	8,886	8,919	8,952	8,986	9,020	9,053	9,087	9,121
Monthly Interest	2,707	2,675	2,642	2,609	2,575	2,542	2,509	2,475	2,441	2,408	2,374	2,340
Yearly Payment												137,531
Yearly Principal												107,235
Yearly Interest												30,296
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												26
Month	301	302	303	304	305	306	307	308	309	310	311	312
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	9,156	9,190	9,224	9,259	9,294	9,329	9,364	9,399	9,434	9,469	9,505	9,540
Monthly Interest	2,305	2,271	2,237	2,202	2,167	2,132	2,097	2,062	2,027	1,992	1,956	1,921
Yearly Payment												137,531
Yearly Principal												112,162
Yearly Interest												25,370
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												27
Month	313	314	315	316	317	318	319	320	321	322	323	324
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	9,576	9,612	9,648	9,684	9,721	9,757	9,794	9,830	9,867	9,904	9,941	9,979
Monthly Interest	1,885	1,849	1,813	1,777	1,740	1,704	1,667	1,631	1,594	1,557	1,520	1,482
Yearly Payment												137,531
Yearly Principal												117,315
Yearly Interest												20,217
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												28
Month	325	326	327	328	329	330	331	332	333	334	335	336
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	10,016	10,054	10,091	10,129	10,167	10,205	10,244	10,282	10,321	10,359	10,398	10,437
Monthly Interest	1,445	1,407	1,370	1,332	1,294	1,256	1,217	1,179	1,140	1,102	1,063	1,024
Yearly Payment												137,531
Yearly Principal												122,704
Yearly Interest												14,827
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)												
Interest Rate												
Loan Period (Years)												
Year												29
Month	337	338	339	340	341	342	343	344	345	346	347	348
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461
Monthly Principal	10,476	10,516	10,555	10,595	10,634	10,674	10,714	10,754	10,795	10,835	10,876	10,917
Monthly Interest	985	945	906	866	827	787	747	707	666	626	585	544
Yearly Payment												137,531
Yearly Principal												128,341
Yearly Interest												9,190
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283
Yearly Depreciation												75,398

Capital Cost (\$)														
Interest Rate														
Loan Period (Years)														
Year														30
Month	349	350	351	352	353	354	355	356	357	358	359	360		
Monthly Payment	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	11,461	4,125,941
Monthly Principal	10,958	10,999	11,040	11,081	11,123	11,165	11,206	11,248	11,291	11,333	11,375	11,418	11,418	2,261,946
Monthly Interest	503	462	421	380	338	296	255	212	170	128	85	43	43	1,863,995
Yearly Payment													137,531	4,125,941
Yearly Principal													134,237	2,261,946
Yearly Interest													3,294	1,863,995
Depreciation	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	6,283	2,261,946
Yearly Depreciation													75,398	2,261,946