

Capital Replacement and Additions:

- Boiler
- Air Quality Control System
- Steam Turbine Generator
- ASU
- CPU
- Balance of Plant

Other Product Revenues:

- Capacity Attributes
- Ancillary Service Attributes
- Environmental Attributes

### **Exhibit 1.1-C Project Description**

FutureGen 2.0 is a series of projects whereby the FutureGen Alliance and its partners will repower, test, and commercially operate an existing coal facility with the goal of capturing and storing more than 90 percent of the plant's carbon dioxide (CO<sub>2</sub>) emissions, while reducing other emissions to near-zero levels. The two principal components of FutureGen 2.0 are first, the repowered coal facility in Meredosia, Morgan County, Illinois, and second, the CO<sub>2</sub> pipeline from the power plant to a CO<sub>2</sub> storage site in Morgan County, Illinois and the associated final storage site facilities. For purposes of this agreement, the term "Project" does not encompass the transportation of the captured CO<sub>2</sub> by pipeline or the permanent storage of the CO<sub>2</sub>.

**"Project":**

For purposes of this agreement, the "Project" is the contemplated large-scale test power plant, which will consist of repowering an existing steam turbine generator at Ameren's Meredosia Energy Center, to convert it to a clean coal oxy-combustion electric generator with a nominal 200 megawatt gross output. In addition, the Project includes an associated air separation unit (ASU) and a compression and purification unit (CPU) for the concentration and pressurization of CO<sub>2</sub>. The oxy-combustion boiler has been designed to burn a blend of bituminous and sub-bituminous coals. The power generated at the Project will be delivered for commercial sale into the MISO market.

The Project is designed to deliberately control and process the flue gas associated with combustion. Flue gas leaving the boiler is treated with hydrated lime in a Circulating Dry Scrubber to precipitate the majority of SO<sub>2</sub> and SO<sub>3</sub> from the flue gas, which are then removed as particulate matter in a baghouse. After leaving the baghouse, flue gas enters a secondary scrubber/dehumidification system where most of the water and remaining SO<sub>2</sub> and SO<sub>3</sub> is removed, prior to the delivery of the flue gas to the CPU.

In the CPU, the flue gas undergoes further treatment by first passing through a very high efficiency filtration system to reduce particulate matter to a very low level. Mercury and other contaminants are subsequently removed from the flue gas as it is further processed through the CPU, resulting in a high-purity CO<sub>2</sub> product stream delivered to the pipeline.

Coal will be delivered to the Plant by truck and by barge as they have been historically through the life of the Meredosia Energy Center. Coal will continue to be stored at the existing coal pile with loading of the pile and working of the pile to continue as has been normal practice at the plant. Using the existing conveying system at the plant, coal will be transferred from the coal pile reclaim hopper to the breaker building for processing and sizing.

**“Transportation and Storage Project”**:

For purposes of this agreement, the Transportation and Storage Project is one whereby a partner of the Alliance will transport and store the liquefied CO<sub>2</sub> captured at the Meredosia clean coal power plant. The Transportation and Storage Project will be fully integrated with the Meredosia power plant with respect to project management, capacity, cost, and schedule, and will be designed to be capable of accepting, transporting and storing all of the CO<sub>2</sub> captured by the Project.

The Transportation and Storage Project will consist of a CO<sub>2</sub> pipeline; one or more pumping stations; one more more dense phase storage tanks; an injection pumping station, and two injection wells. The transportation component of the Transportation and Storage Project will use standard industrial practices to transport the CO<sub>2</sub> via the pipeline.

The CO<sub>2</sub> that the pipeline delivers to the storage site will be injected and permanently stored in an underground reservoir at the CO<sub>2</sub> storage site, a deep saline geologic formation at Mount Simon in Morgan County, Illinois. The storage site will be capable of injecting and storing at least 1.3 million metric tons of CO<sub>2</sub> annually, for a period of at least 30 years.

**Exhibit 1.1-D  
Alliance Members**

As of the Effective Date of this agreement, the “Alliance Members” are the following entities:

Alpha Natural Resources, Inc.

Anglo American, PLC

CONSOL Energy, Inc.

Joy Global, Inc.

Peabody Energy Corporation

Xstrata Coal Pty Limited

**Exhibit 3.1(a)(i)**

**Governmental Authorizations**

For purposes of this agreement, the “Governmental Authorizations” are:

1. Air Pollution Control Permits (construction and operating), to be issued by the Illinois Environmental Protection Agency.
2. NPDES Construction Permit, to be issued by the Illinois Environmental Protection Agency.
3. Construction Permit under Rivers and Harbors Act § 10, and Clean Water Act § 404, to be issued by the U.S. Army Corps of Engineers.
4. NPDES Operation Permit, to be issued by the Illinois Environmental Protection Agency.

**Exhibit 5.2(a)****Formula Rate**

The Formula Rate for the Monthly Contract Price consists of the following components and will be determined on a Monthly basis for each Buyer as follows:

$$\begin{aligned}
 \text{Monthly Contract Price (\$/mo)} &= \text{FPP (\$/mo)} \\
 &+ \text{FOM (\$/mo)} \\
 &+ \text{VOM (\$/kWh) * Net Energy (kWh/mo)} \\
 &+ \text{FC (\$/mo)} \\
 &+ \text{CRA (\$/mo)} \\
 &- \text{NESC (\$/mo)} \\
 &- \text{OPC (\$/mo)} \\
 &+ \text{CPA}
 \end{aligned}$$

where :

FPP =	Fixed Project Payment, expressed in dollars per month, for the Project Cost categories listed in Exhibit 5.2(d), Part A
FOM =	Fixed Operations & Maintenance Payment, expressed in dollars per month for the Project Cost categories listed in Exhibit 5.2(d), Part B
VOM =	Variable Operations & Maintenance Payment, expressed in dollars per kilowatt hour, for the Project Cost categories listed in Exhibit 5.2(d), Part C
FC =	Fuel Cost Payment, expressed in dollars per month, for the Project Cost categories listed in Exhibit 5.2(d) Part D
CRA =	Capital Replacement and Additions, expressed in dollars per month, for the Project Cost categories listed in Exhibit 5.2(d), Part E
NESC =	Net Energy Sales Credit, expressed in dollars per month
OPC =	Other Products Credit, expressed in dollars per month, for the Project Cost categories listed in Exhibit 5.2(d), Part F

CPA = Contract Price Adjustment, expressed in dollars per month, as defined in section 5.2(d)(viii).

## Exhibit 5.2(c)

## Sources and Uses of Funds

Sources of Funds	Amount, \$ (As Spent)
Federal Grants	
Non-Federal Grants	
FutureGen Alliance Contributions	
Equity	
Debt	
<i>Total Capital Requirement</i>	

Uses of Funds	Amount, \$ (As Spent)
Development Expenses	
Permitting Expenses	
Legal Expenses	
Front-End Engineering & Design Expenses	
Utility Interconnection Expenses	
Site Option & Purchase Expenses	
Site Preparation	
Engineering, Construction & Procurement	
Commissioning & Start Up Expenses	
Owner's Project Management	
Security	
Spare Parts	
Initial Fuel Stockpile	
Initial Working Capital (non-Fuel)	
Insurance	
Financing Fees & Closing Costs	
Interest During Construction	
Debt Service Reserve Fund	
Operation & Maintenance Reserve Fund	
Management Reserve	
State Sales Tax	
<i>Total Project Capital Costs</i>	

**Exhibit 5.2(d)****Contract Price Components****PART A – Fixed Project Payment of the Monthly Contract Price**

The Fixed Project Payment of the Monthly Contract Price consists of the following components and is determined on a Monthly basis as follows:

$$\text{FPP (\$/mo)} = (\text{LFCR} * \text{PPCC}) / 12 + \text{LFAC}$$

(the “Fixed Project Costs”)

where:

FPP =	Total Fixed Project Payment expressed in dollars per month
LFCR =	Levelized Fixed Carrying Charge Rate applied to the Pre-approved Total Project Capital Costs of the Project, expressed as a percent per year for the term of the agreement, is to be calculated based on the methodology in Attachment A to this Exhibit 5.2(d).
PPCC =	Pre-approved Total Project Capital Costs Requirement from Exhibit 5.2(c) as amended from time to time and approved by the Commission, less federal grants, non-federal grants and other non-investment contributions
LFAC =	Ongoing Lender Fees and Administrative Costs expressed in dollars per month

**PART B – Fixed Operations & Maintenance Payment of the Monthly Contract Price**

The Fixed Operations & Maintenance Payment of the Contract Price consists of the following components and is determined on a Monthly basis as follows:

$$\text{FOM (\$/mo)} = \text{LAB} + \text{MCL} + \text{CC} + \text{WAT} + \text{LIM} + \text{WST} + \text{CTS} + \text{ASUF} + \text{CPUF} + \text{ASUFF} + \text{PP} + \text{LEPE} + \text{INS} + \text{G\&A} + \text{SEC} + \text{OF} + \text{IT} + \text{SC} + \text{MMSF} + \text{DSF} + \text{LPT} + \text{OTF} + \text{CTS}$$

(collectively, the “Fixed O&M Costs”)

where:

FOM =	Total Fixed Operation & Maintenance Payment expressed in dollars per month
LAB =	Labor costs for the power block, ASU and CPU expressed in dollars per month
MCL =	Maintenance Materials and Contract Labor costs expressed in dollars per month

CC =	Consumables and Chemicals costs, expressed in dollars per month (fixed portion only)
WAT =	Water and Water Treatment costs, expressed in dollars per month (fixed portion only)
LIM =	Lime and/or Limestone costs, expressed in dollars per month (fixed portion only)
WST =	Waste Disposal costs, expressed in dollars per month (fixed portion only)
ASUF =	ASU Fixed Operations and Maintenance costs, expressed in dollars per month
CPUF =	CPU Fixed Operations and Maintenance costs, expressed in dollars per month
ASUFF =	ASU Fixed Fee for capital recovery, only applies for over-the-fence purchase of O <sub>2</sub> , expressed in dollars per month
PP =	Purchased Power for auxiliary loads, expressed in dollars per month
LEPE =	Ongoing Legal, Environmental and Permitting, and Engineering costs, expressed in dollars per month
INS =	Insurance costs, expressed in dollars per month
G&A =	General and Administrative costs, express in dollars per month
SEC =	Security costs, expressed in dollars per month
OF =	Operator Fee, expressed in dollars per month
IT =	Interconnection costs, expressed in dollars per month
SC =	Scheduling Coordinator costs, expressed in dollars per month
MMSF =	Major Maintenance Sinking Fund contribution, expressed in dollars per month
DSF =	Decommissioning Sinking Fund contribution, expressed in dollars per month
LPT =	Local Property Taxes, expressed in dollars per month
OFT =	Other Fees and Taxes, expressed in dollars per month

CTS = CO<sub>2</sub> Transportation and Storage costs, expressed in dollars per month (fixed portion only)

### **PART C – Variable Operations & Maintenance Payment of the Monthly Contract Price**

The Variable Operations & Maintenance Payment of the Contract Price consists of the following components and is determined on a Monthly basis as follows:

VOM (\$/kWh) = CC + WAT+LIM + EA + WST + CTS + ASUV + CPUV + CTS  
(collectively, the “Variable Costs”)

where:

VOM = Total Variable Operations & Maintenance cost, expressed in dollars per kilowatt hour

CC = Consumables and Chemicals costs, expressed in dollars per kilowatt hour

WAT = Water and Water Treatment costs, expressed in dollars per kilowatt hour

LIM = Lime and/or Limestone costs, expressed in dollars per kilowatt hour

EA= Emission Allowance costs, expressed in dollars per kilowatt hour

WST= Waste Disposal costs, expressed in dollars per kilowatt hour

ASUV = ASU Variable Operations and Maintenance costs, expressed in dollars per kilowatt hour

CPUF = CPU Variable Operations and Maintenance costs, expressed in dollars per kilowatt hour

CTS = CO<sub>2</sub> Transportation and Storage costs, expressed in dollars per kilowatt hour

### **PART D – Fuel Cost Payment of the Monthly Contract Price**

The Fuel Cost Payment of the Contract Price consists of the following components and is determined on a Monthly basis as follows:

FC (\$/mo) = (AF \* DCF) – HRVA + STF  
(the “Fuel Costs”)

where:

FC = Actual Fuel Cost for the project expressed in dollars per month

AF = The actual amount of fuel required to produce the Net Energy of the Project for the Contract Month, expressed in millions of Btu

DCF = The actual delivered cost of fuel required to produce the Net Energy of the Project in the Contract Month, expressed in dollars per million Btu.

HRVA = Heat Rate Variance Adjustment, expressed in dollars per month, as determined below

STF = Startup fuel including the auxiliary steam boiler, expressed in dollars per month

The Fuel Cost Payment will be adjusted for variances from the Target Heat Rate as set forth below:

If  $AHR > THR$  then

$$HRVA (\$/mo) = (AHR - THR) * DCF * Net Energy (for the Contract Month)$$

If  $AHR < THR$  then

$$HRVA (\$/mo) = \$0$$

where:

AHR = AF / Net Energy (for the Contract Month), expressed in million Btu per kilowatt hour

TFR = Target Heat Rate, expressed in million Btu per kilowatt hour

The Target Heat Rate for each Contract Year is as follows:

<b>Contract Year</b>	<b>Heat Rate, Btu/kWh</b>
1	___ Btu/kWh
2	___ Btu/kWh
3	___ Btu/kWh
4	___ Btu/kWh
5	___ Btu/kWh
6	___ Btu/kWh
7	___ Btu/kWh
8	___ Btu/kWh
9	___ Btu/kWh
10	___ Btu/kWh
11	___ Btu/kWh
12	___ Btu/kWh
13	___ Btu/kWh
14	___ Btu/kWh
15	___ Btu/kWh
16	___ Btu/kWh
17	___ Btu/kWh
18	___ Btu/kWh
19	___ Btu/kWh
20	___ Btu/kWh
21	___ Btu/kWh
22	___ Btu/kWh
23	___ Btu/kWh
24	___ Btu/kWh
25	___ Btu/kWh
26	___ Btu/kWh
27	___ Btu/kWh
28	___ Btu/kWh
29	___ Btu/kWh
30	___ Btu/kWh

**PART E – Capital Replacement and Additions**

The Capital Replacement and Additions Payment of the Contract Price consists of the following components and is determined on a Monthly basis as follows:

$$\text{CRA (\$/mo)} = \text{BLR} + \text{AQCS} + \text{STG} + \text{ASU} + \text{CPU} + \text{BOP}$$

(collectively, the “Capital Replacement and Additions”)

where:

CRA =	Capital Replacement and Additions, expressed in dollars per month
BLR =	Boiler capital replacement or additions, expressed in dollars per month
AQCS =	Air quality control system replacement capital or additions, expressed in dollars per month
STG =	Steam turbine generator replacement capital or additions, expressed in dollars per month
ASU =	Air separation unit replacement capital or additions, expressed in dollars per month
CPU =	Compression and purification unit replacement capital or additions, expressed in dollars per month
BOP =	Balance-of-Plant unit replacement capital or additions, expressed in dollars per month

**PART F – Other Products Credit of the Monthly Contract Price**

The Monthly Contract Price for each Contract Month will be credited by the actual revenue received for Other Products sold during the Contract Month as follows:

$$\text{OP (\$/mo)} = \text{CAP} + \text{ANS} + \text{ENVA}$$

(collectively, the “Other Product Credits”)

where:

CAP =	Revenue received for Capacity Attributes sold in the Contract Month, expressed in dollars per month
ANS =	Revenue received for Ancillary Service Attributes sold in the Contract Month, expressed dollars per month

ENVA = Revenue received for Environmental Attributes sold in the Contract Month,  
expressed in dollars per month

## Attachment A to Exhibit 5.2(d)

## Levelized Fix Carrying Charge Rate Calculation

**Capital Structure**

% Debt	55.00%
% Preferred	0.00%
% Equity	45.00%
Cost of Debt	6.82%
Cost of Preferred	0.00%
Cost of Equity	10.00%
Weighted Pre-Tax Cost of Capital	8.25%
Weighted After-Tax Cost of Capital	6.71%

**Tax Rates**

Federal Income Tax Rate	35.00%	
State Income Tax Rate	7.00%	
Replacement Tax Rate	2.50%	
Effective Fed/State Income Tax Rate	41.18%	
Capital Stock Tax Rate	0%	
Gross Receipts Tax Rate	0%	
Real Estate Tax Rate	0%	
Investment Tax Credit	0%	
Book Depreciation Life (Yrs)	30	Straight Line Depreciation MACRS
Tax Depreciation Life (Yrs)	20	
Levelized Pre-Tax Carrying Charge Rate	11.17%	
Levelized After-Tax Carrying Charge Rate	10.86%	

## Note:

\* Cost of debt to be adjusted on or near the time of Commercial Operation Date for changes in applicable Treasury rates and credit spread, which adjustments will apply to the debt portion of the total capital.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
Yr	Book Depr	Return	Interest Exp	State Tax Depr	Fed Tax Depr	ITC	Amort ITC	State Def Tax	Fed Def Tax	Taxes State Cur	Taxes Fed Cur	Realty	Stock	Gross Recpt	Total Charge	Defered Value	Net Charge	
1	0.0333	0.0825	0.0375	0.0375	0.0375	0	0.0000		0.0015	0.0068	0.0228	0.00000	0.00000	0.0000	0.1469	0	0.1469	
2	0.0333	0.0798	0.0363	0.0722	0.0722		0.0000		0.0136	0.0029	0.0098	0.00000	0.00000	0.0000	0.1395	0	0.1395	
3	0.0333	0.0770	0.0350	0.0668	0.0668		0.0000		0.0117	0.0033	0.0109	0.00000	0.00000	0.0000	0.1362	0	0.1362	
4	0.0333	0.0743	0.0338	0.0618	0.0618		0.0000		0.0100	0.0036	0.0119	0.00000	0.00000	0.0000	0.1330	0	0.1330	
5	0.0333	0.0715	0.0325	0.0571	0.0571		0.0000		0.0083	0.0038	0.0127	0.00000	0.00000	0.0000	0.1296	0	0.1296	
6	0.0333	0.0688	0.0313	0.0529	0.0529		0.0000		0.0068	0.0040	0.0134	0.00000	0.00000	0.0000	0.1263	0	0.1263	
7	0.0333	0.0660	0.0300	0.0489	0.0489		0.0000		0.0054	0.0042	0.0139	0.00000	0.00000	0.0000	0.1229	0	0.1229	
8	0.0333	0.0633	0.0288	0.0452	0.0452		0.0000		0.0042	0.0043	0.0144	0.00000	0.00000	0.0000	0.1195	0	0.1195	
9	0.0333	0.0605	0.0275	0.0446	0.0446		0.0000		0.0040	0.0041	0.0138	0.00000	0.00000	0.0000	0.1158	0	0.1158	
10	0.0333	0.0578	0.0263	0.0446	0.0446		0.0000		0.0039	0.0039	0.0130	0.00000	0.00000	0.0000	0.1120	0	0.1120	
11	0.0333	0.0550	0.0250	0.0446	0.0446		0.0000		0.0040	0.0037	0.0122	0.00000	0.00000	0.0000	0.1082	0	0.1082	
12	0.0333	0.0523	0.0238	0.0446	0.0446		0.0000		0.0039	0.0034	0.0114	0.00000	0.00000	0.0000	0.1044	0	0.1044	
13	0.0333	0.0495	0.0225	0.0446	0.0446		0.0000		0.0040	0.0032	0.0106	0.00000	0.00000	0.0000	0.1006	0	0.1006	
14	0.0333	0.0468	0.0213	0.0446	0.0446		0.0000		0.0039	0.0029	0.0098	0.00000	0.00000	0.0000	0.0968	0	0.0968	
15	0.0333	0.0440	0.0200	0.0446	0.0446		0.0000		0.0040	0.0027	0.0090	0.00000	0.00000	0.0000	0.0930	0	0.0930	
16	0.0333	0.0413	0.0188	0.0446	0.0446		0.0000		0.0039	0.0024	0.0082	0.00000	0.00000	0.0000	0.0892	0	0.0892	
17	0.0333	0.0385	0.0175	0.0446	0.0446		0.0000		0.0040	0.0022	0.0074	0.00000	0.00000	0.0000	0.0854	0	0.0854	
18	0.0333	0.0358	0.0163	0.0446	0.0446		0.0000		0.0039	0.0020	0.0066	0.00000	0.00000	0.0000	0.0816	0	0.0816	
19	0.0333	0.0330	0.0150	0.0446	0.0446		0.0000		0.0040	0.0017	0.0057	0.00000	0.00000	0.0000	0.0778	0	0.0778	
20	0.0333	0.0303	0.0138	0.0446	0.0446		0.0000		0.0039	0.0015	0.0049	0.00000	0.00000	0.0000	0.0740	0	0.0740	
21	0.0333	0.0275	0.0125	0.0223	0.0223		0.0000		-0.0039	0.0036	0.0119	0.00000	0.00000	0.0000	0.0725	0	0.0725	
22	0.0333	0.0248	0.0113	0.0000	0.0000		0.0000		-0.0117	0.0057	0.0189	0.00000	0.00000	0.0000	0.0710	0	0.0710	
23	0.0333	0.0220	0.0100	0.0000	0.0000		0.0000		-0.0117	0.0054	0.0181	0.00000	0.00000	0.0000	0.0672	0	0.0672	
24	0.0333	0.0193	0.0088	0.0000	0.0000		0.0000		-0.0117	0.0052	0.0173	0.00000	0.00000	0.0000	0.0634	0	0.0634	
25	0.0333	0.0165	0.0075	0.0000	0.0000		0.0000		-0.0117	0.0050	0.0165	0.00000	0.00000	0.0000	0.0596	0	0.0596	
26	0.0333	0.0138	0.0063	0.0000	0.0000		0.0000		-0.0117	0.0047	0.0157	0.00000	0.00000	0.0000	0.0558	0	0.0558	
27	0.0333	0.0110	0.0050	0.0000	0.0000		0.0000		-0.0117	0.0045	0.0149	0.00000	0.00000	0.0000	0.0520	0	0.0520	
28	0.0333	0.0083	0.0038	0.0000	0.0000		0.0000		-0.0117	0.0042	0.0141	0.00000	0.00000	0.0000	0.0482	0	0.0482	
29	0.0333	0.0055	0.0025	0.0000	0.0000		0.0000		-0.0117	0.0040	0.0133	0.00000	0.00000	0.0000	0.0444	0	0.0444	
30	0.0333	0.0028	0.0013	0.0000	0.0000		0.0000		-0.0117	0.0037	0.0125	0.00000	0.00000	0.0000	0.0406	0	0.0406	



**Exhibit 6.3(b)****Rate Cap Limit**

The Rate Cap Limit for Buyer's Eligible Retail Customers or Buyer's Non-Eligible Retail Customers will be determined as follows:

**Rate cap limits for each utility:**

<b>ComEd Rate Cap Limit Calculations (Incremental rate limit increase)</b>	
(A) Reference Year	2008 – 2009
(B) Reference Year Delivered Volume, MWh	37,740,282 MWh
(C) Reference Year Total Bundled Rate Delivered Cost, \$	\$4,462,038,949
(D) Reference Year Unit Cost, \$/MWh (C/D)	\$118.23/MWh
(E) Clean Coal Portfolio Standard Incremental Rate Limit, %	2.015%
(F) Clean Coal Portfolio Standard Rate Limit Unit Cost, \$/MWh (E* D)	\$2.382/MWh

<b>Ameren Illinois Utilities Rate Cap Limit Calculations (Incremental rate limit increase)</b>	
(G) Reference Year	2008 – 2009
(H) Reference Year Delivered Volume, MWh	17,217,197 MWh
(I) Reference Year Total Bundled Rate Delivered Cost, \$	\$1,853,574,838
(J) Reference Year Unit Cost, \$/MWh (C/D)	\$107.66/MWh
(K) Clean Coal Portfolio Standard Incremental Rate Limit, %	2.015%
(L) Clean Coal Portfolio Standard Rate Limit Unit Cost, \$/MWh (E* D)	\$2.169MWh

## Exhibit 6.4(c)

## Minimum Annual Energy and Shortfall Damages

Minimum Annual Energy:

Contract Year	Minimum Energy, MWh/year
1	_____ MWh
2	_____ MWh
3	_____ MWh
4	_____ MWh
5	_____ MWh
6	_____ MWh
7	_____ MWh
8	_____ MWh
9	_____ MWh
10	_____ MWh
11	_____ MWh
12	_____ MWh
13	_____ MWh
14	_____ MWh
15	_____ MWh
16	_____ MWh
17	_____ MWh
18	_____ MWh
19	_____ MWh
20	_____ MWh
21	_____ MWh
22	_____ MWh
23	_____ MWh
24	_____ MWh
25	_____ MWh
26	_____ MWh
27	_____ MWh
28	_____ MWh
29	_____ MWh
30	_____ MWh

**Shortfall Damages:** If Shortfall Damages are indicated under the agreement, the Shortfall Damages applicable to Buyer for any Contract Month during the two-year duration of Shortfall Damages will be calculated as follows:

$$\text{Shortfall Damages Payment} = (((\text{AES}_1 + \text{AES}_2) - (\text{AEE}_1 + \text{AEE}_2)) * \text{ESP} * \text{BLRS}) / 24$$

Where:

$\text{AES}_1$  = The Minimum Annual Energy less the amount of Net Energy actually delivered, in the first of the two Contract Years in which Seller did not reach Minimum Annual Energy.

$\text{AES}_2$  = The Minimum Annual Energy less the amount of Net Energy actually delivered, in the second of the two Contract Years in which Seller did not reach Minimum Annual Energy.

$\text{AEE}_1$  = The amount by which Seller exceeded the Minimum Annual Energy in the first year after the two years in which there was an Annual Energy Shortfall.

$\text{AEE}_2$  = The amount by which Seller exceeded the Minimum Annual Energy in the second year after the two years in which there was an Annual Energy Shortfall.

$\text{ESP}$  = Energy Shortfall Price = the mathematical average of the 24 individual Monthly location marginal prices of electricity, as measured at the Project's busbar, for the applicable 2 consecutive years in which there was a Minimum Energy Shortfall

$\text{BLRS}$  = Buyers Load Ratio Share = a fraction the numerator of which is the total of the Monthly Final Buyer Retail Sales and the denominator of which is the total of the Final Total Retail Load during the applicable 2 Contract Years.

**Annual Shortfall Damages Cap:**

The Annual Energy Damages Cap for any Contract Year is [\_\_\_\_\_].

**Total Damages Cap:**

The cumulative Annual Energy Damages Cap for the Term is [\_\_\_\_\_].

**Exhibit 14****Credit Annex****SECTION 1. DEFINITIONS.**

Capitalized terms used in this Annex and not defined herein have the meaning assigned in the Unit Contingent Power Purchase Agreement between [FutureGen Industrial Alliance, Inc.] and [Buyer] ("Power Purchase Agreement")

**"Backup Guarantor"** means (a) [\_\_\_\_\_]; or (b) an entity, approved in advance by Seller in Seller's reasonable discretion, in each case that provides a replacement guaranty and support agreement or similar agreement obligating it to honor the payment obligations of Buyer's Guarantor; except that such Backup Guarantor will be deemed to be automatically approved if it satisfies the Ratings Limit.

**"Buyer Guarantee"** means a guarantee from Buyer's Guarantor, in the form attached to as Exhibit 1 to this Annex.

**"Buyer's Guarantor"** means [\_\_\_\_\_], or any Qualified Guarantor providing a Buyer's Guarantee on behalf of Buyer, or any successor guarantor of any of them, or successor-in-interest designated by Buyer that meets or exceeds the Ratings Limit, and otherwise satisfies the criteria for assignment under Section 7 of the Form of Guarantee of Buyer's Guarantor.

**"Cash Escrow Agreement"** means a cash collateral escrow agreement providing for the holding, investment and disbursement of such cash.

**"Credit Requirements"** means, with respect to any Person, either (a) meeting or exceeding the Ratings Limit, or (b) issuing or posting, or having caused to be issued or posted, the applicable Credit Support.

**"Credit Support"** means:

- (1) a Letter of Credit, in an amount of the Exposure Limit, as security for Buyer's payment obligations hereunder; or
- (2) cash (in immediately available funds) in the amount of the Exposure Limit, which cash will be delivered to a Custodian to be held by the Custodian pursuant to a Cash Escrow Agreement as security for Buyer's payment obligations under this Agreement; or
- (3) a Buyer's Guarantee from a Qualified Guarantor in an amount capped at the Exposure Limit, which guarantees Buyer's payment obligations under this Agreement; or
- (4) a combination of any of the above that provides total security in the amount the Exposure Limit.

**“Custodian”** means a U.S. commercial bank or a foreign bank with a U.S. branch mutually acceptable to the Parties, with such bank having a credit rating on its senior unsecured debt of: (a)(1) “A3” or higher from Moody’s, or (2) “A-” or higher from S&P; or (b) if rated by both Moody’s and S&P, both (a)(1) and (a)(2).

**“Exposure Limit”** means an amount equal to the Termination Payment applicable to Buyer, which amount will be estimated by Seller annually and at the same time as Seller submits data to the Commission under section 5.2(d) of the Agreement.

**“GAAP”** means generally accepted accounting principles in the United States of America, or the corresponding accounting rules applicable to municipal and governmental entities in the United States of America.

**“Guaranteed Party”** means the Party in whose favor Credit Support is made or issued.

**“International Financial Reporting Standards”** means the accounting standards and interpretations adopted by the International Accounting Standards Board.

**“Letter of Credit”** means an irrevocable, transferable standby Letter of Credit, in the form attached as Exhibit 2 to this Annex, naming the Guaranteed Party (and its permitted transferees) as the Person entitled to demand payment and present draw requests thereunder.

**“Material Credit Event”** means, with respect to Buyer, (a) any event that results in Buyer’s failure to meet the Credit Requirements applicable to Buyer, (b) Buyer’s long term credit rating comes under review by a rating agency for possible downgrade, or (c) if the Alliance has reasonable grounds to believe that Buyer’s creditworthiness would no longer warrant investment grade status (e.g., because Buyer defaults on material payment obligations to third parties).

**“Moody’s”** means Moody’s Investor Services, Inc. and any successor thereto.

**“Outstanding Credit Support”** has the meaning provided in Section 5 of this Annex.

**“Qualified Guarantor”** means a Person who meets or exceeds the Ratings Limit and otherwise satisfies the criteria for assignment under Section 7 of the Form of Guarantee of Buyer’s Guarantor.

**“Ratings Limit”** means, with respect to any Person, such Person has a long-term credit rating (corporate, long-term senior unsecured debt, or underlying) of (a)(1) “Baa3” or higher by Moody’s or (2) “BBB-” or higher by S&P, or (b) if rated by both Moody’s and S&P, both (a)(1) and (a)(2).

**“S&P”** means Standard & Poor’s Rating Group (a division of McGraw-Hill, Inc.) and any successor thereto.

**SECTION 2. BUYER'S CREDIT SUPPORT.**

(a) Buyer's Credit Support. The Parties acknowledge and agree that as of the Effective Date, Buyer satisfies the Ratings Limit. If at any time after the Effective Date, if Buyer fails to meet the Ratings Limit, Buyer shall post or issue, or cause to be posted or issued, Credit Support in support of its obligations.

(b) Notice of Material Credit Event. Buyer shall Notify Seller of the occurrence of any event which, with notice or the passage of time or both, would constitute a Material Credit Event with respect to Buyer, which Notice shall be given by Buyer within 5 Business Days of the occurrence of such event. If at any time there occurs a Material Credit Event with respect to Buyer, then an Event of Default will be deemed to have occurred pursuant to Section 16 of the Power Purchase Agreement.

(c) No Obligation to Replenish. Neither Buyer nor Buyer's Guarantor will have any obligation to replenish Credit Support that may be provided by Buyer hereunder.

**SECTION 3. LETTER OF CREDIT AS CREDIT SUPPORT.** If Credit Support consists of a Letter of Credit, such Letter of Credit will:

(a) be issued by a U.S. commercial bank or a foreign bank with a U.S. branch, with such bank having a credit rating on its senior unsecured debt of: (1)(A) "A3" or higher from Moody's, or (2) "A-" or higher from S&P; or (ii) if rated by both Moody's and S&P, both (1)(A) and (1)(B);

(b) permit the Guaranteed Party to draw up to the "Available Amount" as defined in the Letter of Credit, for the purpose of paying any and all amounts owing to the Guaranteed Party under this Agreement; provided, however, that the Letter of Credit will not be required to allow reinstatement to the extent drawn, nor will the Party posting the Letter of Credit be required to provide an additional or supplemental Letter of Credit to maintain the initial available draw amount in the event the initial letter of credit is drawn down in whole or in part;

(c) if the Letter of Credit is issued by a foreign bank with a U.S. branch, permit the Guaranteed Party to draw upon the U.S. branch;

(d) permit the Guaranteed Party to draw the entire "Available Amount" thereunder to hold as cash collateral for any and all amounts owing to the Guaranteed Party under this Agreement if (i) the Letter of Credit will expire in fewer than 30 Days; and (ii) the Party providing Credit Support has not provided alternative Credit Support.

(e) remain by its terms, in place for at least 90 Days after any expiration or termination of this Agreement.

**SECTION 4. CASH AS CREDIT SUPPORT.**

If Credit Support consists of cash, Buyer, Seller and the Custodian shall enter into a Cash Escrow Agreement. Buyer shall select the Custodian, subject to the approval of the other Party (which approval shall not be unreasonably withheld, conditioned or delayed).

**SECTION 5. SUBSTITUTION OF CREDIT SUPPORT.**

Buyer may, at any time and from time to time, replace any or all of the Credit Support provided by it (the "Outstanding Credit Support") with one or more alternative forms of Credit Support, whereupon the Guaranteed Party shall cooperate in obtaining the concurrent release and termination of the Outstanding Credit Support.

**SECTION 6. BUYER'S FINANCIAL STATEMENTS.**

(a) If requested by Seller, promptly following such demand, Buyer shall provide Seller with copies of its most recent financial statements (i) within one 120 Days of its fiscal year end for each year during the Term, and (ii) within 60 Days after the end of each of Buyer's first three fiscal quarters of each fiscal year. Buyer may deliver un-audited financials in satisfaction of this requirement, as long as audited financials are produced in the ordinary course and promptly delivered as soon as they are available. In addition, Buyer shall promptly provide to Seller, financial statements and other financial information reasonably requested by Seller for purposes of this Agreement and this Credit Annex.

(b) If Buyer does not make available such information as required to be made available under this Section 6(a) within 10 Days after a request by Seller, Seller may send Notice demanding that such information be made available in accordance with this Section 6(a). If the requested information is not provided in accordance with this Agreement within 30 Days after receipt of such Notice, or if Buyer is not otherwise able to show that a Material Credit Event with respect to Buyer has not occurred, Seller will be entitled to assume that a Material Credit Event with respect to Buyer has occurred.

(c) All such financial information made available under this Section, if not publicly available, will be treated as Confidential Information

**SECTION 7. CREDIT SUPPORT NOT A LIMIT.**

Notwithstanding any other provision of this Credit Annex, Credit Support contemplated by this Credit Annex: (i) constitutes security for, but is not a limitation of, either Party's obligations under this Credit Annex and this Agreement, and (ii) will not be the non-defaulting Party's exclusive remedy against the defaulting party for the defaulting Party's failure to perform in accordance with this Credit Annex and the Power Purchase Agreement.

**Exhibit 1 To Credit Annex**

## FORM OF GUARANTEE OF BUYER'S GUARANTOR

THIS PURCHASER GUARANTY, dated as of [\_\_\_\_\_], is issued by [\_\_\_\_\_] ("Guarantor"), in favor of [Seller] ("Guaranteed Party").

RECITALS

A. Obligor and Guaranteed Party have entered into a Power Purchase Agreement dated as of [\_\_\_\_], 20[\_\_\_] (the "Power Purchase Agreement").

B. This Guaranty is delivered to Guaranteed Party by Guarantor pursuant to the Power Purchase Agreement.

AGREEMENT1. Guaranty.

A. Guaranty of Obligations Under the Power Purchase Agreement. For value received, Guarantor hereby absolutely, unconditionally and irrevocably, subject to the express terms hereof, guarantees the payment when due of all payment obligations, whether now in existence or hereafter arising, by Obligor to Guaranteed Party pursuant to the Power Purchase Agreement (the "Obligations"). This Guaranty is one of payment and not of collection and will apply regardless of whether recovery of all such Obligations may be or become discharged or uncollectible in any bankruptcy, insolvency or other similar proceeding, or otherwise unenforceable.

B. Maximum Guaranteed Amount. Notwithstanding anything to the contrary herein, Guarantor's aggregate obligation to Guaranteed Party hereunder is limited to [\_\_\_\_\_] U.S. Dollars (\$\_\_\_\_\_) (the "Maximum Guaranteed Amount") (it being understood for purposes of calculating the Maximum Guaranteed Amount of Guarantor hereunder that any payment by Guarantor either directly or indirectly to the Guaranteed Party, pursuant to a demand made upon Guarantor by Guaranteed Party or otherwise made by Guarantor pursuant to its obligations under this Guaranty including any indemnification obligations, will reduce Guarantor's maximum aggregate liability hereunder on a dollar-for-dollar basis), including costs and expenses incurred by Guaranteed Party in enforcing this Guaranty, and will not either individually or in the aggregate be greater or different in character or extent than the obligations of Obligor to Guaranteed Party under the terms of the Power Purchase Agreement. IN NO EVENT WILL GUARANTOR BE SUBJECT TO ANY CONSEQUENTIAL, EXEMPLARY, EQUITABLE, LOSS OF PROFITS, PUNITIVE, TORT OR OTHER SIMILAR DAMAGES.

2. Payment; Currency. All sums payable by Guarantor hereunder shall be made in freely transferable and immediately available funds and shall be made in the currency in which the Obligations were due. If Obligor fails to pay any Obligation when due, the Guarantor shall pay that Obligation directly to Guaranteed Party within 20 Days after written notice to Guarantor by Guaranteed Party. The written notice shall provide a reasonable description of the amount of the Obligation and explanation of why such amount is due.

3. Waiver of Defenses. Except as set forth above, Guarantor hereby waives notice of acceptance of this Guaranty and of the Obligations and any action taken with regard thereto, and waives presentment, demand for payment, protest, notice of dishonor or non-payment of the Obligations, suit, or the taking of and failing to take other action by Guaranteed Party against Obligor, Guarantor or others and waives any defense of a surety. Without limitation, Guaranteed Party may at any time and from time to time without notice to or consent of Guarantor and without impairing or releasing the obligations of Guarantor hereunder: (a) together with the Obligor, make any change to the terms of the Obligations; (b) take or fail to take any action of any kind in respect of any security for the Obligations; (c) exercise or refrain from exercising any rights against Obligor or others in respect of the Obligations or (d) compromise or subordinate the Obligations, including any security therefor. Notwithstanding the foregoing, Guarantor will be entitled to assert rights, setoffs, counterclaims and other defenses which Obligor may have to performance of any of the Obligations and also will be entitled to assert rights, setoffs, counterclaims and other defenses that the Guarantor may have against the Guaranteed Party, other than defenses based upon lack of authority of Obligor to enter into and/or perform its obligations under the Power Purchase Agreement or any insolvency, bankruptcy, reorganization, arrangement, composition, liquidation, dissolution or similar proceeding with respect to Obligor.

4. Term. This Guaranty will continue in full force and effect until the earlier to occur of (a) the substitution of an alternate form of Credit Support by Seller pursuant to the Credit Annex of the Power Purchase Agreement, or (b) termination of the Guarantee by the Guarantor; *provided* that Guarantor must provide no less than 30 Days' prior written notice to the Guaranteed Party, (c) the satisfaction of all Obligations of Obligor under the Power Purchase Agreement, or (d) the payment of Guarantor, without reservation of rights, of an aggregate amount equal to the Maximum Guaranteed Amount together with any other amounts required to be paid by Guarantor pursuant to Section 6 hereof. Guarantor further agrees that this Guaranty will continue to be effective or be reinstated, as the case may be, if at any time payment, or any part thereof, of any Obligation is rescinded or must otherwise be restored or returned due to bankruptcy or insolvency laws or otherwise. Guaranteed Party shall return this original executed document to Guarantor within 20 Days of termination of this Guaranty.

5. Subrogation. Until all Obligations are indefeasibly performed in full, but subject to Section 6 hereof, Guarantor hereby waives all rights of subrogation, reimbursement, contribution and indemnity from Obligor with respect to this Guaranty and any collateral held therefor, and Guarantor hereby subordinates all rights under any debts owing from Obligor to Guarantor, whether now existing or hereafter arising, to the prior payment of the Obligations.

6. Expenses. Whether or not legal action is instituted, Guarantor agrees to reimburse Guaranteed Party on written demand for all reasonable attorneys' fees and all other reasonable costs and expenses incurred by Guaranteed Party in enforcing its rights under this Guaranty. Notwithstanding the foregoing, the Guarantor will have no obligation to pay any such costs or expenses if, in any action or proceeding brought by Guaranteed Party giving rise to a demand for payment of such costs or expenses, it is finally adjudicated that the Guarantor is not liable to make payment under Section 2 hereof.
7. Assignment. Guarantor may not assign its rights or delegate its obligations under this Guaranty in whole or part without written consent of Guaranteed Party; except that Guarantor may assign its rights and delegate its obligations under this Guaranty without the consent of Guaranteed Party if such assignment and delegation is pursuant to the assignment and delegation of all of Guarantor's rights and obligations hereunder, in whatever form Guarantor determines may be appropriate, to a partnership, limited liability company, corporation, trust or other organization in whatever form that succeeds to all or substantially all of Guarantor's assets and business and that assumes such obligations by contract, operation of law or otherwise, *provided*, such entity has an Investment Grade Rating by either Moody's Investors Service, Inc. ("Moody's") or Standard & Poor's Ratings Group, a division of McGraw-Hill, Inc. ("S&P"). For purposes of this Section 7, "Investment Grade Rating" means a minimum credit rating for senior unsecured debt or corporate credit rating of BBB- by S&P or Baa3 by Moody's. Upon any such delegation and assumption of obligations and, if required, the written consent of Guaranteed Party (which consent shall not be unreasonably withheld, conditioned or delayed), Guarantor will be relieved of and fully discharged from all obligations hereunder, whether such obligations arose before or after such delegation and assumption. Guaranteed Party shall not assign its rights hereunder except in connection with a permitted assignment of its rights and obligations under the Power Purchase Agreement.
8. Non-Waiver. The failure of Guaranteed Party to enforce any provisions of this Guaranty at any time or for any period of time will not be construed to be a waiver of any such provision or the right thereafter to enforce same. All remedies of Guaranteed Party under this Guaranty will be cumulative and will be in addition to any other remedy now or hereafter existing at law or in equity. The terms and provisions hereof may not be waived, altered, modified or amended except in a writing executed by Guarantor and Guaranteed Party.
9. Entire Agreement. This Guaranty and the Power Purchase Agreement are the entire and only agreements between Guarantor and Guaranteed Party with respect to the guaranty of the Obligations of Obligor by Guarantor. All agreements or undertakings heretofore or contemporaneously made, which are not set forth herein, are superseded hereby.
10. Notice. Any demand for payment, notice, request, instruction, correspondence or other document to be given hereunder by Guarantor or by Guaranteed Party shall be in writing and will be deemed received (a) if given personally, when received; (b) if mailed by certified mail (postage prepaid and return receipt requested), 5 Days after deposit in the U.S. mails; (c) if given by facsimile, when transmitted with confirmed transmission; or (d) if given via overnight express courier service, when received or personally delivered, in each case with charges prepaid and addressed as follows (or such other address as either Guarantor or Guaranteed Party specifies in a notice delivered to the other in accordance with this Section):

If to Guarantor:

If to Guaranteed Party:

11. Counterparts. This Guaranty may be executed in counterparts, each of which when executed and delivered will constitute one and the same instrument.
12. Governing Law; Jurisdiction. This Guaranty will be governed by and construed in accordance with the laws of the state of New York without giving effect to principles of conflicts of law. Guarantor and Guaranteed Party agree to the non-exclusive jurisdiction of any federal district court located in Illinois over any disputes arising or relating to this Guaranty.
13. Further Assurances. Guarantor shall cause to be promptly and duly taken, executed and acknowledged and delivered, such further documents and instruments as Guaranteed Party may from time to time reasonably request in order to carry out the intent and purposes of this Guaranty.
14. Limitation on Liability. Except as specifically provided in this Guaranty, Guaranteed Party will have no claim, remedy or right to proceed against Guarantor or against any past, present or future stockholder, partner, member, director or officer thereof for the payment of any of the Obligations, as the case may be, or any claim arising out of any agreement, certificate, representation, covenant or warranty made by Obligor in the Power Purchase Agreement.

IN WITNESS WHEREOF, the Guarantor has executed and delivered this Guaranty as of the date first set forth above.

By:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Acknowledged and agreed:

By: \_\_\_\_\_

Name:

Title:

**Exhibit 2 To Credit Annex**  
**FORM OF BUYER'S LETTER OF CREDIT**

IRREVOCABLE NON-TRANSFERABLE STANDBY LETTER OF CREDIT

Reference Number: \_\_\_\_\_

Transaction Date:

BENEFICIARY

[Counterparty receiving collateral support]

[Address of Counterparty]

Ladies and Gentlemen:

[\_\_\_\_\_] (the "Bank") hereby establishes this Irrevocable Non-Transferable Standby Letter of Credit ("Letter of Credit") in favor of [Beneficiary], a [State] corporation (the "Beneficiary"), for the account of [\_\_\_\_\_] [\_\_\_\_\_] (the "Applicant"), for the amount of [\_\_\_\_\_] AND [\_\_\_]/100 Dollars (\$\_\_\_\_\_) (the "Available Amount"), effective immediately and expiring at 5:00 p.m., Eastern Prevailing Time, on the Expiration Date (as hereinafter defined).

This Letter of Credit expires and will be of no further force or effect upon the close of business on or, if such Day is not a Business Day (as hereinafter defined), on the next preceding Business Day (the "Expiration Date"); except that this Letter of Credit will automatically be extended for additional one-year terms unless we provide written notice to you, by certified mail return receipt requested or overnight delivery, at least 60 Days prior to the then current Expiration Date.

For the purposes hereof, "Business Day" means any Day on which commercial banks are not authorized or required to close in New York, NY.

Subject to the terms and conditions herein, funds under this Letter of Credit are available to Beneficiary by presentation, on or prior to 5:00 p.m. Eastern Prevailing Time, on or prior to the Expiration Date, of the following:

1. The original of this Letter of Credit and all amendments (or photocopy of the original for partial drawings); and
2. The Drawing Certificate issued in the form of Attachment A attached hereto and which forms an integral part hereof, duly completed and purportedly bearing the signature of an authorized representative of the Beneficiary.

Notwithstanding the foregoing, any drawing hereunder may be requested by transmitting the requisite documents as described above to the Bank by facsimile at such a telephone number as may be specified from time-to-time by the Bank.

The facsimile transmittal will be deemed delivered when received. Drawings made by facsimile transmittal are deemed to be the operative instrument without the need of originally signed documents.

Partial drawing of funds will be permitted under this Letter of Credit, and this Letter of Credit will remain in full force and effect with respect to any continuing balance; except that the Available Amount will be reduced by the amount of each such drawing.

This Letter of Credit is not transferable or assignable. Any purported transfer or assignment will be void and of no force or effect.

Banking charges will be the sole responsibility of the Applicant.

This Letter of Credit sets forth in full our obligations and such obligations will not in any way be modified, amended, amplified or limited by reference to any documents, instruments or agreements referred to herein, except only the attachment referred to herein; and any such reference will not be deemed to incorporate by reference any document, instrument or agreement except for such attachment.

The Bank engages with the Beneficiary that Beneficiary's drafts drawn under and in compliance with the terms of this Letter of Credit will be duly honored if presented to the Bank on or before the Expiration Date.

Except so far as otherwise stated, this Letter of Credit is subject to the International Standby Practices ISP98 (also known as ICC Publication No. 590), or revision currently in effect (the "ISP"). As to matters not covered by the ISP, the laws of the State of [New York], without regard to the principles of conflicts of laws thereunder, will govern all matters with respect to this Letter of Credit.

AUTHORIZED SIGNATURE for Bank

\_\_\_\_\_  
Name:

\_\_\_\_\_  
Title:

## ATTACHMENT A TO LETTER OF CREDIT

## DRAWING CERTIFICATE

TO [ISSUING BANK NAME]

IRREVOCABLE NON-TRANSFERABLE STANDBY LETTER OF CREDIT

No. \_\_\_\_\_

DRAWING

CERTIFICATE Bank

Bank Address

Subject: Irrevocable Non-Transferable Standby Letter of Credit

Reference Number: \_\_\_\_\_

The undersigned \_\_\_\_\_, an authorized representative of [PPA offtaker, or counterparty as beneficiary of letter of credit] (the "Beneficiary"), hereby certifies to [Issuing Bank Name] (the "Bank"), and (the "Applicant"), with reference to Irrevocable Nontransferable Standby Letter of Credit No. {\_\_\_\_}, dated \_\_, (the "Letter of Credit"), issued by the Bank in favor of the Beneficiary, as follows as of the date hereof:

1. The Beneficiary is entitled to draw under the Letter of Credit an amount equal to \$\_\_\_\_\_, for the following reason(s) [check applicable provision]:

A. An Event of Default, as defined in that certain Power Purchase Agreement between Applicant and Beneficiary, dated as of [Date of Execution] (the "Power Purchase Agreement"), with respect to the Applicant has occurred and is continuing.

B. A termination date has occurred or been designated under section 16.4 of the Power Purchase Agreement as a result of an Event of Default (as defined in the Power Purchase Agreement) with respect to the Applicant for which there exist any unsatisfied payment obligations.

C. The Letter of Credit will expire in fewer than 20 Business Days (as defined in the Power Purchase Agreement) from the date hereof, and Applicant has not provided Beneficiary alternative Credit Support (as defined in the Power Purchase Agreement).

D. The Bank has heretofore provided written notice to the Beneficiary of the Bank's intent not to renew the Letter of Credit following the present Expiration Date thereof ("Notice of Non-renewal"), and Applicant has failed to provide the Beneficiary with

replacement Credit Support or a collateral support letter of credit satisfactory to Beneficiary in its sole discretion within 30 Days following the date of the Notice of Non-renewal.

[ ]E. Any other payment obligations under the Power Purchase Agreement.

2. Based upon the foregoing, the Beneficiary hereby makes demand under the Letter of Credit for payment of \_\_\_\_\_ U.S. DOLLARS AND \_\_\_\_\_/100ths (U.S. \$\_\_\_), which amount does not exceed (i) the amount set forth in paragraph 1 above, and (ii) the Available Amount under the Letter of Credit as of the date hereof.

3. Funds paid pursuant to the provisions of the Letter of Credit will be wire transferred to the Beneficiary in accordance with the following instructions:

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Unless otherwise provided herein, capitalized terms which are used and not defined herein have the meaning given each such term in the Letter of Credit.

IN WITNESS WHEREOF, this Certificate has been duly executed and delivered on this \_\_\_\_\_ Day of \_\_\_\_\_ 20\_\_:

Beneficiary: [\_\_\_\_]

By:

Name:

Title:

**Exhibit 16.2(b)****Lender Consent Provisions**

In the event Seller collaterally assigns its rights under the Unit Contingent Power Purchase Agreement between [FutureGen Industrial Alliance, Inc.] and [Buyer] ("Power Purchase Agreement"), to the Lender as security, any related Lender Consent will contain provisions substantially as follows:

1. Buyer will neither modify nor terminate the Power Purchase Agreement other than as provided therein, without the prior written consent of the Lender.
2. The Lender shall have the right, but not the obligation, to do any act required to be performed by Seller under the Power Purchase Agreement, and any such act performed by the Lender shall be as effective to prevent or cure an Event of Default as if done by Buyer itself.
3. If Buyer becomes entitled to terminate the Power Purchase Agreement due to an uncured Event of Default by Seller, Buyer shall not terminate the Power Purchase Agreement unless it has first given Notice of such uncured Event of Default to the Lender and has given the Lender the same cure period afforded to Seller under section 16 of the Power Purchase Agreement, plus an additional 90 Days beyond Seller's cure period to cure such Event of Default; except that if the Lender requires possession of the Project in order to cure the Event of Default, and if the Lender diligently seeks possession, the Lender's additional 90-Day cure period shall not begin until foreclosure is completed, a receiver is appointed or possession is otherwise obtained by or on behalf of the Lender.
4. Neither the Lender nor any other participant in the Project Debt shall be obligated to perform or be liable for any obligation of Buyer under the Power Purchase Agreement until and unless any of them assumes possession of the Project through the exercise of the Lender's rights and remedies.
5. Any party taking possession of the Project through the exercise of the Lender's rights and remedies shall remain subject to the terms of the Power Purchase Agreement and shall assume all of Buyer's obligations under the Power Purchase Agreement, both prospective and accrued, including the obligation to cure any then-existing defaults capable of cure by performance or the payment of money damages. In the event that the Lender or its successor assumes the Power Purchase Agreement in accordance with this paragraph 5, Buyer shall continue the Power Purchase Agreement with the Lender or its successor, as the case may be, substituted wholly in the place of Seller.
6. Within 90 Days of any termination of the Power Purchase Agreement in connection with any bankruptcy or insolvency Event of Default of Seller, the Lender (or its successor) and Buyer may enter into a new power purchase agreement on the same terms and conditions as the Power Purchase Agreement and for the period that would have been remaining under the Power Purchase Agreement but for such termination.

**Exhibit 22.2**

**Addresses for Notices**

**Notices to Seller:**

FutureGen Alliance Industrial, Inc.  
1101 Pennsylvania Avenue, N.W.  
Washington, DC 20004  
Attention: Kenneth K. Humphreys  
Fax: (202) 280-6114

With copies to:

Van Ness Feldman, PC  
1050 Thomas Jefferson St., N.W.  
Seventh Floor  
Washington, DC 20007-3877  
Attention: John J. Buchovecky  
Fax: (202) 338-2416

**Notices to Buyer:**

Name	_____
Address	_____
Address	_____
Address	_____
Fax:	_____



*Clean Energy for a Secure Future*

## **FutureGen 2.0: Oxy-combustion Power Plant Project**



**Project Cost and Ratepayer Impacts  
Reference Case Cost of Electricity**

**September 28, 2012**

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## Introduction

The Illinois Power Agency Act (IPA Act) created a state agency responsible for procuring electricity for Illinois retail ratepayers. Under the IPA Act, the Illinois Power Agency (IPA) serves as a procurement agent that acquires power for two of Illinois' regulated electric utilities – Commonwealth Edison Company (ComEd) and Ameren Illinois (Ameren)<sup>1</sup>. The IPA primarily fulfills this procurement function via an annual Power Procurement Plan, which is implemented through an annual power procurement auction. The IPA also helps administer compliance with the IPA Act's Renewable Portfolio Standard and Clean Coal Portfolio Standard for both the regulated electric utilities and Alternative Retail Electric Suppliers (ARES). The IPA Act also expressly directs the IPA, as part of the procurement planning process, to consider sourcing agreements from qualifying clean coal facilities for utilities and ARES required to comply with Section 75(d) of the IPA Act and item 5 of subsection d of Section 16-115 of the Public Utilities Act.

This Project Cost and Ratepayer Impact Analysis is being provided to the IPA in support of the FutureGen Industrial Alliance, Inc's submission of a sourcing agreement, or more commonly referred to as a Power Purchase Agreement (PPA), initially provided to the IPA on February 13, 2012 and subsequently updated for the FutureGen 2.0 Oxy-combustion Power Plant Project.

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<sup>1</sup> Commonwealth Edison Company, a regulated electric delivery company, is a unit of Exelon Corporation headquartered in Chicago, Illinois. Ameren Illinois, a regulated electric and gas delivery company, is a unit of Ameren Corporation headquartered in St Louis, MO. Ameren Illinois is an affiliate company of Ameren Energy Generating Company which currently owns the Meredosia Energy Center.

## Ratepayer Impacts and Cost of Power

### 1.1. Project Overview

The FutureGen Industrial Alliance, Inc. (FGA or the Alliance) is a non-profit corporation that is partnered with the United States Department of Energy (DOE), and is engaged in the FutureGen 2.0 Program for the development and repowering of the Meredosia Energy Center (Meredosia) and the development of a CO<sub>2</sub> pipeline and storage facility in Morgan County, Illinois. FutureGen 2.0 was initiated in October 2010 by DOE, which has committed more than \$1 billion in American Recovery and Reinvestment Act (ARRA) funds and other appropriations for research, development and demonstration activities involving oxy-combustion and carbon dioxide (CO<sub>2</sub>) capture, transportation, and storage. The activities are divided into two distinct, but related projects:

- 1) The Oxy-combustion Power Plant Project (oxy-combustion project) comprises the retrofit and repowering of a fossil fueled power plant in Meredosia, Illinois with an advanced oxygen-combustion technology. This technology is designed for 98% CO<sub>2</sub> capture during steady-state operations, and will reduce SO<sub>x</sub>, NO<sub>x</sub>, mercury and particulate emissions to levels well below applicable emissions regulatory requirements.<sup>2</sup> DOE has committed \$590 million to this portion of the project.
- 2) The CO<sub>2</sub> Pipeline and Storage Project (CO<sub>2</sub> storage project) which must annually accept, transport, and store more than 1 million metric tons of CO<sub>2</sub> produced by the oxy-combustion project in the Mount Simon deep saline geologic formation. Also included in the CO<sub>2</sub> storage project will be research, training, and visitor center facilities. DOE has committed \$459 million to this portion of the project. These DOE funds, plus additional Alliance contributions, will provide 100% of the capital cost of these facilities

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<sup>2</sup> The IPA Act requires that clean coal facilities that are assumed to commence operation during 2017 capture at least 70% of the total CO<sub>2</sub> emissions that the facility would otherwise emit

The oxy-combustion project will retrofit and repower Meredosia with a near-zero emissions oxy-combustion process utilizing the unit #4 steam turbine generator, certain coal-based infrastructure associated with units #1, #2, and #3, and certain of the site's common facilities. The project will use a blend of high sulfur Illinois bituminous coal (60%) and low sulfur Powder River Basin (PRB) coal (40%) and have a gross output capacity of 168.4 MW. This configuration enables the project to exceed the DOE minimum capture target requirement of 1.0 million metric tons of CO<sub>2</sub> per year at an 85% availability/capacity factor.<sup>3</sup>

As shown in Figure 1, the CO<sub>2</sub> storage project will transport the captured CO<sub>2</sub> in a newly constructed pipeline from the Meredosia site to the proposed storage facility in Morgan County, a distance of approximately 30 miles. The storage facility is being designed and permitted to accept approximately 33 million metric tons of CO<sub>2</sub> over a 30-year period from the oxy-combustion project.

Both projects are currently in the planning, permitting and design phase; project construction is anticipated to begin in early 2014, with commercial operations commencing in mid-2017.

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<sup>3</sup> The actual capture volume is estimated to be 1.08 million metric tons per year.

Project Cost and Ratepayer Impacts

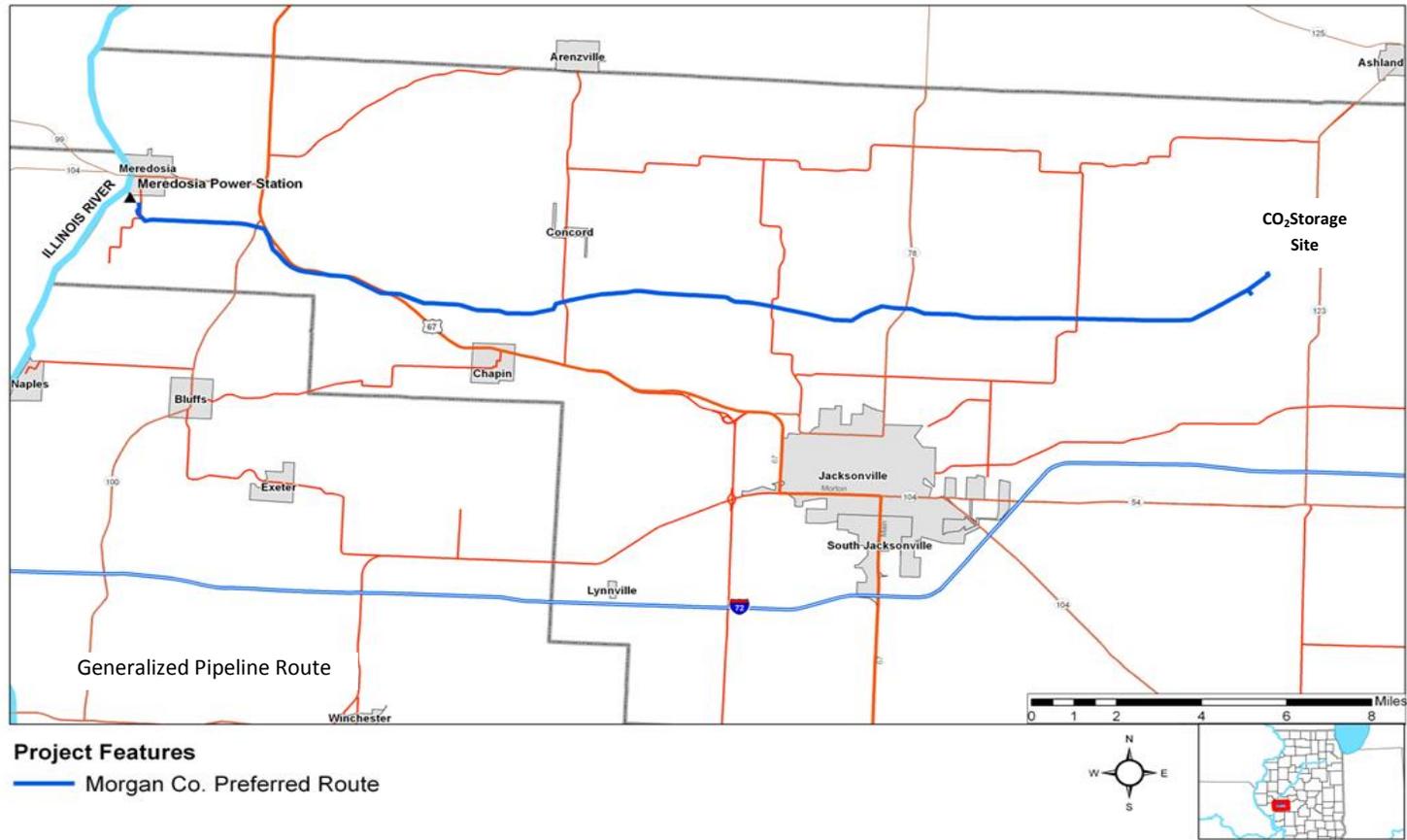


Figure 1. FutureGen 2.0 Project Map

## 1.2. Project Benefits

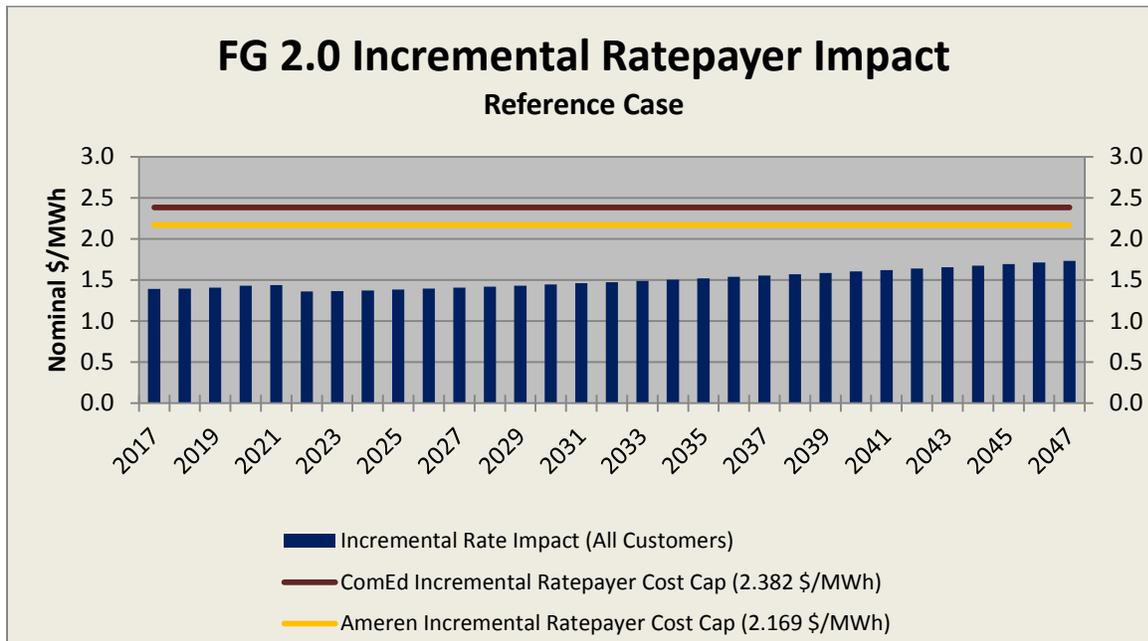
FutureGen 2.0 will provide the citizens of the State of Illinois substantial direct and indirect benefits as a result of the construction and operation of the oxy-combustion project and the accompanying CO<sub>2</sub> storage project. These benefits include:

- Most Cost-Effective Approach to Advance Clean Coal Technology (including carbon capture and storage) – The DOE has committed approximately \$590 million of ARRA funds to help offset approximately 50 percent of the expected capital cost of the oxy-combustion portion of FutureGen 2.0. Another \$459 million of DOE cost-share monies has been committed to the associated CO<sub>2</sub> storage project that, along with Alliance cash contributions, covers 100% of the capital cost for that portion of FutureGen 2.0. The DOE cost-share monies also subsidize a portion of the projected CO<sub>2</sub> storage operating costs during the first four years of operation. These two subsidies make FutureGen 2.0 the most cost-effective approach to achieve progress toward Illinois' clean coal policy goals and the advancement of statutory requirements for the purchase of clean coal power.
- Low Ratepayer Impact – The proposed impact on electric customer rates is well below the statutory rate caps enacted by the Illinois General Assembly and significantly less than other clean coal projects that have been proposed in the Illinois. FutureGen 2.0 has also proposed making the rate impact “competitively neutral.”
- Construction Job Creation – At the peak of construction, which is scheduled to begin during the first quarter of 2014, FutureGen 2.0 (the oxy-combustion project and associated CO<sub>2</sub> storage project) is estimated to require between 700 and 1,000 direct employees, plus drive the creation of an additional 700 to 1,000 indirect jobs.
- Permanent Job Creation – During routine operations, FutureGen 2.0 (the oxy-combustion project and associated CO<sub>2</sub> storage project) is expected to create approximately 100 to 125 full-time on-site jobs. In addition to the permanent jobs created, the project

- will generate additional employment related to the mining and transportation of the fuel to the Meredosia site and the disposal of the fly and bottom ash to an off-site facility.
- Property Tax Revenue Growth – The capital investment in Morgan County is expected to result in a three-fold increase to the existing property tax revenues generated by the Meredosia Energy Center.
- Utilization of High Sulfur Illinois Coal – The oxy-combustion project is expected to use between 300,000 and 400,000 tons per year of high sulfur Illinois bituminous coal.

### 1.3. Ratepayer Impact

The annual incremental rate impact of the Reference Case project economics on all retail customers in the ComEd and Ameren service areas is forecasted to be below the IPA Act statutory rate caps for each year during the 30-year term of the proposed PPA<sup>4</sup>. These annual impacts are presented in Figure 2. The average customer impact over the life of the project is estimated to be 1.505 \$/MWh (0.1505 cents/kWh) or only a 1.31% increase above the May 2009 bundled retail rates, which is well below the statutory rate cap of 2.015%. The draft power purchase agreement the Alliance has submitted to the IPA is proposing to apply the same statutory rate caps for retail customers served by ARES making the rate impact “competitively neutral”.



**Figure 2. Incremental Ratepayer Impact**

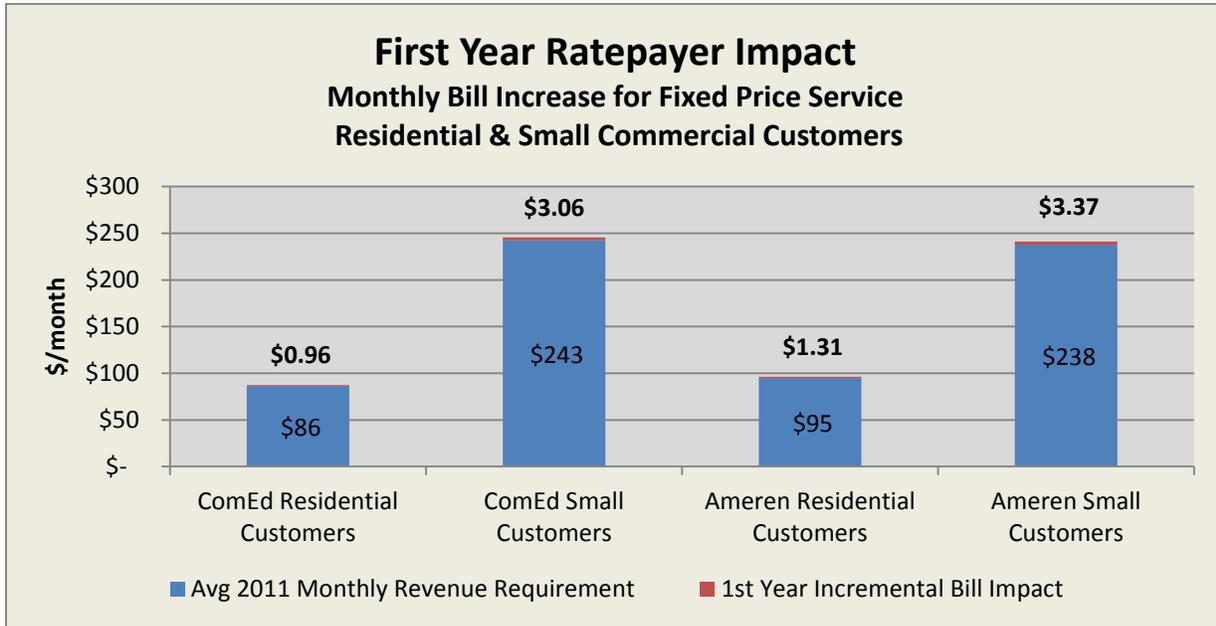
<sup>4</sup> The IPA Act statutory rate cap is determined as 2.015% of the amount paid per kilowatt hour by eligible ComEd or Ameren customers during the year ending May 31, 2009. As defined in the previous sentence the statutory rate cap for ComEd eligible retail customers is 2.382 \$/MWh and for Ameren eligible retail customers is 2.169 \$/MWh.

The incremental customer rate impact was determined by taking the difference between the annual cost-of-service or project revenue requirement and the revenues received from selling the generation output of the project into the Midwest Independent System Operator (MISO) wholesale energy market. This difference was then expressed in dollars per MWh by dividing the resulting cost differential by the forecasted retail load for the ComEd and Ameren service areas. The annual cost-of-service or project revenue requirement is a summation of the capital recovery component, fuel component, fixed and variable non-fuel operating expenses including the transportation and storage of the captured CO<sub>2</sub>, less any other expected product revenues (i.e., installed capacity sales, ancillary services, sale of excess CO<sub>2</sub>, etc.).

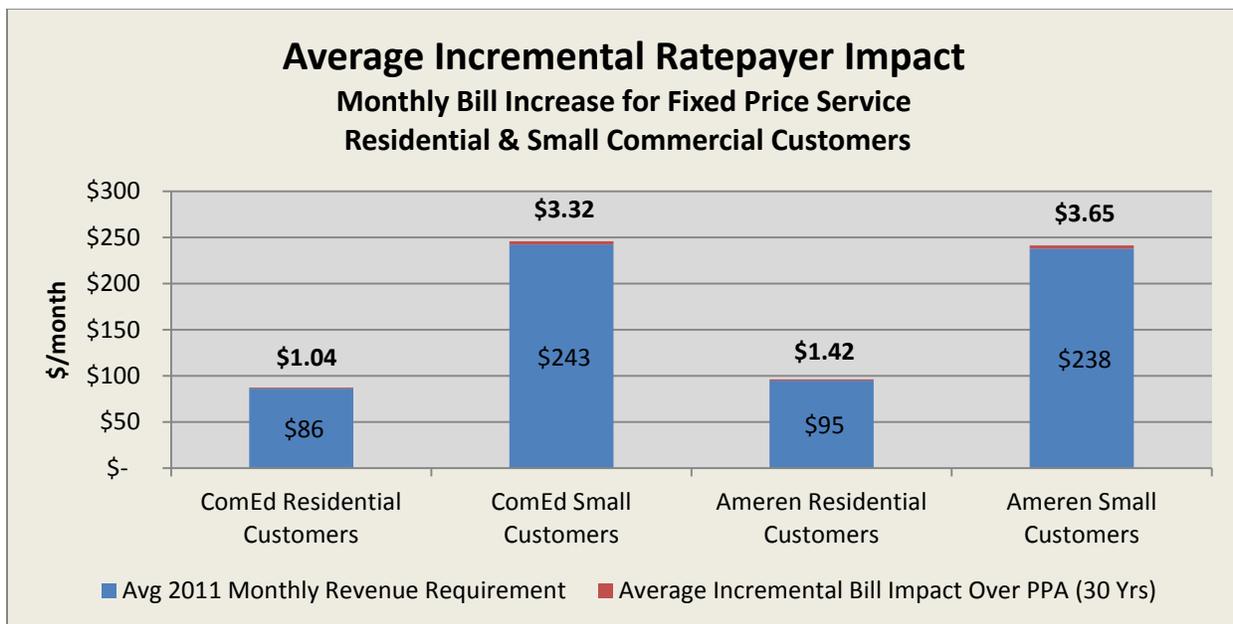
Using the Illinois Commerce Commission's (ICC) most recently published Comparison of Electric Sales Statistics,<sup>5</sup> the incremental rate impacts were translated into first year and average incremental monthly bill impacts for residential and small commercial customers served by ComEd and Ameren. These monthly bill impacts are shown in Figures 3 and 4 below. For residential customers purchasing fixed price electric service from ComEd in 2011 the monthly bill impact is less than \$1 per month in the first year of the project. Over the life of the project the forecasted average monthly bill impact is still only about \$1 per month. For residential customers purchasing fixed price electric service from Ameren in 2011, the monthly bill impact is estimated to be only about \$1.30 per month in the first year of the project. Over the life of the project, the forecasted average monthly bill impact is less than \$1.50 per month. The monthly bill impact for small commercial customers purchasing fixed price service from either ComEd or Ameren in 2011 for the first year of the project have been estimated to be less than \$3.50 per month and, over the life of the project, less than \$4 per month.

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<sup>5</sup> Illinois Commerce Commission; *Illinois Electric Utilities Comparison of Electric Sales Statistics For Calendar Years 2011 and 2010*; June 12, 2012



**Figure 3. First Year Monthly Bill Impact**



**Figure 4. Average Monthly Bill Impact**

### 1.4. Cost of Power

Based on the capital cost estimate discussed above and the operating cost assumptions provided in this section, the 30-year levelized cost of electricity (LCOE) expressed in 2012 dollars is forecasted to be 133 \$/MWh assuming a 10% discount rate and 148 \$/MWh assuming an 8% discount rate (see Figure 5). The LCOE includes the expected capital recovery and fuel charges, plus non-fuel fixed and variable operating expenses including all CO<sub>2</sub> capture and storage costs. FutureGen 2.0’s LCOE is approximately 15% to 30% lower than that reported for the Initial Clean Coal Facility,<sup>6</sup> even though FutureGen 2.0 has a capture rate that is approximately 30% greater.

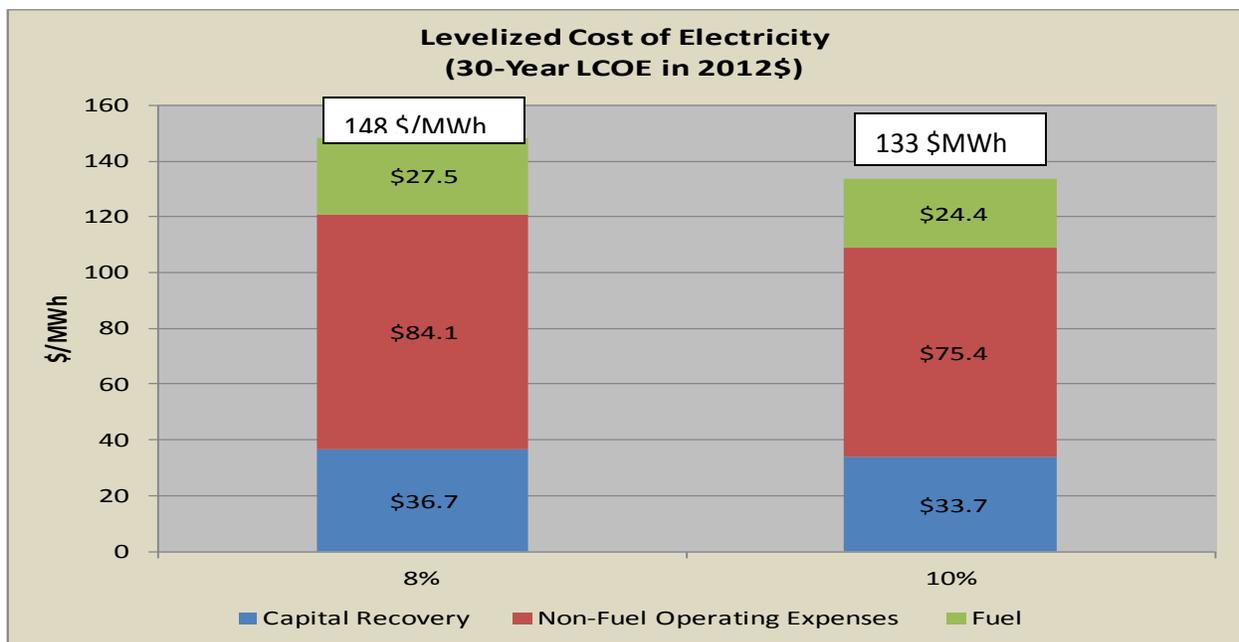


Figure 5. 30-Year LCOE

<sup>6</sup> Source: *Facility Cost Report*, February 26, 2012, p.12. FutureGen 2.0 LCOE in 2010\$ ranges from \$110 /MWh to \$128/MWh as compared to the Initial Clean Coal Facility’s cited LCOE in 2010\$ of \$150/MWh.