



Kentucky Pioneer Energy, LLC

Application for a Construction Certificate To Construct a Merchant Electric Generating Facility

Case No. 2002-00312

**Located at the:
EKPC – JK Smith Generation Site**

**Prepared by: Kentucky Pioneer Energy, LLC
November 25, 2002**



Kentucky Pioneer Energy, LLC

November 26, 2002

Mr. Martin Huelsmann, Chairman
Kentucky State Board of Electric
Generation and Transmission Siting
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40612

Re: Case No. 2002-00312
Kentucky Pioneer Energy, LLC
Merchant Power Plant Application

Dear Mr. Huelsmann:

In accordance with statutory authority SB 257 and 807 KAR 5:110E, Kentucky Pioneer Energy, LLC is making application for a certificate to construct a 540 megawatt baseload combined cycle electric power generation facility in Trapp, Clark County and at the East Kentucky Power Cooperative owned JK Smith site. Enclosed herewith are ten (10) copies of the application.

This application utilizes the National Environmental Policy Act (NEPA) alternative provided for in SB 257, Section 4(2)(l). The NEPA-EIS is included as the Appendix, and is at Tab 13. US Department of Energy has provided a CD-ROM version of this large bound document in PDF format. Though the information on this CD-ROM has been placed in the case file, a copy of the CD-ROM disk is also included herein, for PSC use.

A check for the application fee, in the amount of \$200,000.00, payable to Kentucky State Treasurer, is enclosed herein.

If you have any questions, please contact me at 513-621-0077.

Sincerely,

Dwight N. Lockwood

Original Signed

Dwight N. Lockwood, PE, QEP
Vice President – Regulatory Affairs

Enclosure (10)

Table of Contents

Tab & Chapter Number

1. NAME AND CONTACT INFORMATION– SB 257, Section 4(2)(a) (Contact Dwight Lockwood) AND OVERVIEW OF PROJECT	
2. EVIDENCE OF PUBLIC NOTICE – SB 257, Section 4(2)(c) (Contact Dwight Lockwood)	
2.1 Notice of Intent to File for a Merchant Power Plant Construction Certificate 807 KAR 5:110E, Section 2	
2.2 Adjacent Landowners – SB 257, Section 4(2)(c)1	
2.3 News Media – SB 257, Section 4(2)(c)2	
3. PROOF OF SERVICE – SB 257, Section 4(2)(h) (Contact Dwight Lockwood)	
3.1 Clark County Judge Executive – SB 257, Section 3(3), Section 4(2)(h)	
3.2 Clark County Planning and Zoning Commission – SB 257, Section 4(2)(h)	
4. DESCRIPTION OF SITE – SB257, Section 4(2)(b) (Contact Dwight Lockwood)	
5. EXISTING GENERATION AND SETBACK REQUIREMENTS – SB 257, Section 3(2), Section 4(2)(g), Section 4(2)(e)	
6. PUBLIC INVOLVEMENT – SB 257, Section 4(2)(f) (Contact Dwight Lockwood)	
6.1 Project Announcement, with Governor Patton as keynote speaker, reported in Winchester-Sun on February 5, 1999.	
6.2 Editorial supporting the project in Winchester-Sun, on February 10, 1999.	
6.3 Presentation by Dwight N. Lockwood to Joint Committee on the Environment of Kentucky Legislature on February 10, 1999, by invitation.	
6.4 US DOE Federal Register Notice and Press Release of Public Scoping Meeting, placed in Winchester-Sun, Lexington Herald-Leader, and Louisville Courier-Journal.	
6.5 US DOE Public Scoping Meeting – to receive input on planned Environmental Impact Statement.	
6.6 KPE Notice of public meeting, as permit requirement, to receive comments on Siting of project in Trapp.	
6.7 Public Meeting to receive comments on Siting Analysis for locating project in Trapp.	
6.8 KY-DAQ Public Hearing to receive comments on Air Permit, held May 1, 2001.	
6.9 Winchester-Sun Editorial Board presentation and discussion on June 13, 2001.	
6.10 Clark County Judge Executive, Magistrate and State Representative briefings on June 13, 2001.	
6.11 Winchester Mayor Dixon Briefing on June 22, 2001, by request.	
6.12 Presentation to Winchester City Council, by request, on September 18, 2001.	
6.13 US DOE Notice of Public Hearing to receive comments on Draft EIS published in Winchester-Sun, Lexington-Herald-Leader, and Louisville Courier-Journal.	
6.14 US DOE Public Hearing on Draft EIS in Lexington on December 10 th and Trapp on December 11, 2001.	
6.15 Lexington-Herald-Leader Editorial Board briefing on December 10, 2001.	
6.16 Winchester-Sun Editorial Board briefing and article support on January 30, 2002.	
6.17 Presentation and Q & A to Bluegrass Development District, Natural Resources and Environmental Cabinet Advisory Committee, on March 13, 2002, by invitation.	

7. EFFECT ON TRANSMISSION SYSTEM – SB 257, Section 4(2)(i) (Contact Dwight Lockwood)	
8. ECONOMIC IMPACT ON REGION – SB 257, Section 4(2)(j) (Contact Dwight Lockwood)	
8.1	Economic Impact Summary
8.2	Employment
8.3	Housing
9. DISCLOSURE OF PAST ENVIRONMENTAL VIOLATIONS – SB 257, Section 4(2)(k) (Contact Dwight Lockwood)	
10. SITE ASSESSMENT REPORT – SB 257, Section 4(2)(l), Section 5(1) (Contact Dwight Lockwood)	
10.1	National Environmental Policy Act Alternative (NEPA) – SB 257, Section 4(2)(l)
10.2	Description of Facility – SB 257, Section 5(3)(a)
10.3	Property Description – SB 257, Section 5(3)(a)
10.3.1	Surrounding Land Use – SB 257, Section 5(3)(a)1
10.3.2	Legal Boundaries – SB 257, Section 5(3)(a)2
10.3.3	Access Control – SB 257, Section 5(3)(a)3
10.3.4	Location of Buildings – SB 257, Section 5(3)(a)4
10.3.5	Location of Access Ways and Internal Roads – SB 257, Section 5(3)(a)5
10.3.6	Utility Service to the Facility – SB 257, Section 5(3)(a)6
10.3.7	Compliance with Setback Requirements – SB 257, Section 5(3)(a)7
10.3.8	Evaluation of Noise Levels, SB 257, Section 5(3)(a)8
10.4	Scenic Evaluation – SB 257, Section 5(3)(b)
10.5	Property Value Evaluation – SB 257, Section 5(3)(c)
10.6	Peak & Average Noise Evaluation – SB 257, Section 5(3)(d)
10.7	Traffic Evaluation – SB 257, Section 5(3)(e)
10.8	Mitigation Measures – SB 257, Section 5(4)
11. PERMIT STATUS – SB 257, Section 3(1) (Contact Dwight Lockwood)	
11.1	Federal Permits – SB 257, Section 3(1)
11.2	State Permits – SB 257, Section 3(1)
11.3	Local Permits – SB 257, Section 3(1)
11.4	Cumulative Environmental Assessment Notification And NEPA Alternative – SB 257, Section 10(1)(a), Section 10(2), Section 10(3)
12. CERTIFICATION OF COMPLIANCE and SETBACK, Section 4(2)(d) (Contact Dwight Lockwood)	
13. APPENDIX – US DOE Environmental Impact Statement	

Tab 1

Name and Contact Information

And

Overview of Project

1. NAME AND CONTACT INFORMATION AND OVERVIEW OF PROJECT

1.1 Name and Contact Information – SB 257, Section 4(2)(a)

The application has been prepared and filed by the following:

Kentucky Pioneer Energy, LLC 312 Walnut Street, Suite 2000 Cincinnati, OH 45202	Telephone: 513-621-0077	Contact:: Dwight N. Lockwood, PE, QEP Vice President – Regulatory Affairs
---	--------------------------------	---

1.2 Overview of Project

Kentucky Pioneer Energy (KPE) is proposing to construct and operate a base-load 540 MW (net) electric Integrated Gasification Combined Cycle (IGCC) generating station comprised of two GE 7FA gas turbine driven generator sets, each with a heat recovery steam generator (HRSG). Steam from the two HRSG units will operate a steam turbine driven generator. Together the three generators will produce the electricity, and with other equipment, deliver it at 138 kilovolts to the wholesale customer at the Interconnect Point, located at the facility generator step-up transformers.

East Kentucky Power Cooperative (EKPC) is the wholesale customer for 100% of the power, for use by its own Cooperative Members for their own Kentucky customer needs. EKPC will receive the power at the interconnect point and be responsible for all transmission requirements to and within its system. KPE has leased a 300-Acre parcel wholly within the EKPC approximate 3200-Acre EKPC owned JK Smith site in Trapp, Clark County. EKPC has existing power generation at the JK Smith site.

Fuel for the gas turbines will be SG (synthesis gas or syngas) produced in the gasification process. Natural Gas (NG) will be used for start-up and as a back-up fuel. SG is produced in an IGCC by the chemical conversion of solid feedstock into a medium Btu gas, consisting primarily of hydrogen and carbon monoxide. Once purified, the syngas is then usable as a fuel, as in this project, or as a feedstock to other chemical processes.

In this case, the feedstock will consist of Kentucky Coal and Refuse Derived Fuel (RDF) Pellets. These feedstock materials will be received by rail, unloaded in an enclosed station and placed in covered storage. Covered conveyors will move the feedstock to the gasification process.

Summary of Permit Status

- The Division of Air Quality issued the permit to construct on June 7, 2001.
- The Public Service Commission issued a Declarative Order of Non-Jurisdiction to KPE as an independent power producer in the wholesale market.
- Federal Energy Regulatory Commission (FERC) has determined that KPE is an Exempt Wholesale Generator.
- US Department of Energy has completed and approved the Environmental Impact Statement (EIS), which is now in final review by US Environmental Protection Agency prior to USDOE issuing the Record Of Decision (ROD).
- Other permits will be required for the project, but can only be applied for after further design of the plant.

Tab 2

Evidence of Public Notice

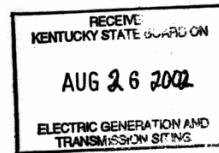
2. EVIDENCE OF PUBLIC NOTICE

2.1 Notice of Intent to File – 807 KAR 5:110E, Section 2

This is the notice stamped as “Filed” by the Public Service Commission on August 26, 2002.



Commonwealth of Kentucky
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601



August 23, 2002

Notice of Intent to File Application Kentucky Pioneer Energy, LLC.

Dear Sir or Madam:

Case No. 2002-00312

In accordance with 801 KAR 5:110E, under the authority of SB 257, Kentucky Pioneer Energy hereby submits a "Notice of Intent to File Application" to the Public Service Commission.

Name and Contact

The application will be prepared and filed by the following:

Kentucky Pioneer Energy, LLC 312 Walnut Street, Suite 2000 Cincinnati, OH 45202	Telephone: 513-621-0077	Contact: Dwight N. Lockwood Vice President – Regulatory Affairs
---	----------------------------	---

Brief Description of the Project

Kentucky Pioneer Energy proposes to construct and operate a based-load 540 MW electric Integrated Gasification Combined Cycle (IGCC) generating station comprised of two GE 7FA gas turbine driven generator sets, each with a heat recovery steam generator (HRSG). Steam from the two HRSG units will operate a steam turbine driven generator. Together the three generators will produce the electricity, and with other equipment, deliver it at 138 kilovolts to the wholesale customer. Fuel for the gas turbines will be synthesis gas (syngas) produced in the gasification process. Natural gas will be used for start-up and as a back-up fuel.

Location of the Construction

The project will be located on a 300-acre parcel of land leased from East Kentucky Power Cooperative (EKPC) at their 3200-acre JK Smith site in Trapp, Clark County, Kentucky.

Address: 12145 Irvine Road Trapp, Kentucky 40391	Latitude: 37 Degrees 53 Minutes 00 Seconds Longitude: 84 Degrees 05 Minutes 30 Seconds
---	---

The proposed site is in rural Clark County and not within the boundaries of a city, community or village.

Global Energy, Inc., Suite 2000, 312 Walnut Street, Cincinnati, Ohio 45202 U.S.A.
(513) 621-0077 • FAX (513) 621-5947

Adjacent Landowners – SB 257, Section 4(2)(c)1

The KPE project facility will be located on property leased from East Kentucky Power Cooperative (EKPC) and wholly within the EKPC JK Smith site property. EKPC is therefore the sole adjacent property owner.



November 14, 2002

Mr. Roy M. Palk, President
East Kentucky Power Cooperative
PO Box 707
Winchester, KY 40392-0707

**Kentucky Pioneer Energy LLC
Siting Application
PSC Case Number 2002-00312
Notice to Adjacent Landowners**

Dear Mr. Palk:

In accordance with 801 KAR 5:110E, notice is hereby given that Kentucky Pioneer Energy LLC (KPE) intends to file an application with the Kentucky State Board of Electric Generation and Transmission Siting, located at the Public Service Commission offices at 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602 and can be reached by telephone at 502-564-3940.

Kentucky Pioneer Energy proposes to construct a 540 MW base-load electric generating facility in Trapp, Clark County, Kentucky. The facility will be located on a 300-acre parcel near the center of the 3200-acre JK Smith site, under an existing long-term lease from East Kentucky Power Cooperative (EKPC). JK Smith is an existing and operational electric utility generating facility. EKPC has contracted to purchase the power under long-term agreement.

Electric power will be generated by two gas turbine driven generators operating in combined cycle.

The project will be based on Integrated Gasification Combined Cycle (IGCC) technology, where solid feed is converted to synthesis gas (syngas) in a gasification process. Once purified, the syngas will be used as a fuel for the gas turbines in the same manner that natural gas would be. Natural gas will serve as the start-up and back-up fuel for the turbines.

The proposed project and its construction, is subject to Board approval.

Respectfully,

A handwritten signature in cursive script, appearing to read "Dwight N. Lockwood".

Dwight N. Lockwood
Vice President Regulatory Affairs

Document was
received by EKPC
on November 15,
2002 @ 11:45 AM

U.S. Office: Global Energy, Inc., Suite 2000, 312 Walnut Street, Cincinnati, Ohio 45202 U.S.A.
Tel (513) 621-0077 • Fax (513) 621-5947
U.K. Office: Westfield Development Centre, Cardenden Fife, Scotland KY5 0HP
Tel 44 1592 860293 • Fax 44 1592 860193

News Media – SB 257, Section 4(2)(c)2

The KPE project is fully within Clark County. This legal notice was placed in the Winchester – Sun newspaper on November 19, 2002.



The Winchester Sun

Newspaper Publisher • Commercial Printer

20 Wall Street • P.O. Box 4300 • Winchester, Kentucky 40391 • 606-744-3123

AFFIDAVIT OF PUBLICATION

STATE OF Kentucky
COUNTY OF Clark

I, Sheila Johnson Adv. Bookkeeper
(name) (title)

of The Winchester Sun Newspaper in the aforesaid State and County, hereby certify that the attached advertisement appeared in The Winchester Sun on November 19, 2002.
(dates)

Public Notice

LEGAL PUBLIC NOTICE
KENTUCKY PIONEER ENERGY LLC
SITING APPLICATION
PSC CASE NUMBER 2002-00312
PUBLIC NOTICE

In accordance with 801 KAR 5:110E, notice is hereby given that Kentucky Pioneer Energy LLC (KPE) intends to file an application with the Kentucky State Board of Electric Generation and Transmission Siting, located at the Public Service Commission offices at 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602 and can be reached by telephone at 502-564-3940.

Kentucky Pioneer Energy proposes to construct a 540 MW base-load electric generating facility in Trapp, Clark County, Kentucky. The facility will be located on a 300-acre parcel near the center of the 3200-acre JK Smith site, under an existing long-term lease from East Kentucky Power Cooperative (EKPC). JK Smith is an existing and operational electric utility generating facility. EKPC has contracted to purchase the power under long-term agreement.

Electric power will be generated by two gas turbine driven generators operating in combined cycle.

The project will be based on Integrated Gasification Combined Cycle (IGCC) technology, where solid feed is converted to synthesis gas (syngas) in a gasification process. Once purified, the syngas will be used as a fuel for the gas turbines in the same manner that natural gas would be. Natural gas will serve as the start-up and back-up fuel for the turbines.

The proposed project and its construction, is subject to Board approval.

November 19, 2002

I, Sheila Johnson
Date 11/19/02

Subscribed and sworn to before me, a Notary Public within and for the State and County aforesaid, by

Angie L. Ballard
Notary Public



Tab 3

Proof Of Service

3. Proof of Service of Application

3.1 Clark County Judge Executive – SB 257, Section 3(3), Section 4(2)(h)

The Kentucky Pioneer Energy project facility will be located at the EKPC JK Smith site in rural Clark County. The site is not within a municipal corporation.



November 25, 2002

Mr. Drew Graham, Judge Executive
Clark County
Court House
34 South Main Street
Winchester, KY 40391

**Kentucky Pioneer Energy LLC
Siting Application
PSC Case Number 2002-00312
Service of Application**

Dear Judge Graham:

Kentucky Pioneer Energy proposes to construct a 540 MW base-load electric generating facility in Trapp, Clark County, Kentucky. The facility will be located on a 300-acre parcel near the center of the 3200-acre JK Smith site, under an existing long-term lease from East Kentucky Power Cooperative (EKPC). JK Smith is an existing and operational electric utility generating facility. EKPC has contracted to purchase the power under long-term agreement.

In accordance with SB 257, Section 4(2)(h) Kentucky Pioneer Energy LLC (KPE), is herewith providing you a copy of the application to site (locate) the project at the JK Smith Site in Clark County.

The Kentucky State Board of Electric Generation and Transmission Siting will consider the application, and the proposed project and its construction, is subject to Board approval. The Board is located at the Public Service Commission offices at 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602 and can be reached by telephone at 502-564-3940.

Electric power will be generated by two gas turbine driven generators operating in combined cycle.

The project will be based on Integrated Gasification Combined Cycle (IGCC) technology, where solid feed is converted to synthesis gas (syngas) in a gasification process. Once purified, the syngas will be used as a fuel for the gas turbines in the same manner that natural gas would be. Natural gas will serve as the start-up and back-up fuel for the turbines.

Respectfully,

Handwritten signature of Dwight N. Lockwood in black ink.

Dwight N. Lockwood
Vice President Regulatory Affairs

Received By, _____ Date

Handwritten signature of Drew Graham in black ink, with the date "11-25-02" written next to it.

Drew Graham, Judge Executive
Clark County Fiscal Court

3.2 Clark County Planning and Zoning Commission – SB 257, Section 4(2)(h)



November 25, 2002

Mr. Robert Blanton, Executive Director
Clark County Planning & Zoning Commission
32 Wall Street
Winchester, KY 40392

**Kentucky Pioneer Energy LLC
Siting Application
PSC Case Number 2002-00312
Service of Application**

Dear Mr. Blanton:

Kentucky Pioneer Energy proposes to construct a 540 MW base-load electric generating facility in Trapp, Clark County, Kentucky. The facility will be located on a 300-acre parcel near the center of the 3200-acre JK Smith site, under an existing long-term lease from East Kentucky Power Cooperative (EKPC). JK Smith is an existing and operational electric utility generating facility. EKPC has contracted to purchase the power under long-term agreement.

In accordance with SB 257, Section 4(2)(h) Kentucky Pioneer Energy LLC (KPE), is herewith providing you a copy of the application to site (locate) the project at the JK Smith Site in Clark County.

The Kentucky State Board of Electric Generation and Transmission Siting will consider the application, and the proposed project and its construction, is subject to Board approval. The Board is located at the Public Service Commission offices at 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602 and can be reached by telephone at 502-564-3940.

Electric power will be generated by two gas turbine driven generators operating in combined cycle.

The project will be based on Integrated Gasification Combined Cycle (IGCC) technology, where solid feed is converted to synthesis gas (syngas) in a gasification process. Once purified, the syngas will be used as a fuel for the gas turbines in the same manner that natural gas would be. Natural gas will serve as the start-up and back-up fuel for the turbines.

Respectfully,

A handwritten signature in black ink, appearing to read "Dwight N. Lockwood".

Dwight N. Lockwood
Vice President Regulatory Affairs

Received By, _____ Date _____
A handwritten signature in black ink, appearing to read "Robert Blanton".
11-25-02

Robert Blanton, Executive Director
Clark County Planning & Zoning

Global Energy, Inc., Suite 2000, 312 Walnut Street, Cincinnati, Ohio 45202 U.S.A.
(513) 621-0077 • FAX (513) 621-5947

Tab 4

Description of Site

4. DESCRIPTION OF SITE – SB 257, Section 4(2)(b), Section 5(3)(a)

- 4.1 **SB 257, Section 5(3)(a)** Kentucky Pioneer Energy, LLC (KPE) proposes to develop a 540 MW_e (net) electric power generation facility at the East Kentucky Power Cooperative (EKPC) JK Smith site in Trapp, Clark County, Kentucky; where EKPC operates approximately 400 MW_e of existing combustion turbine based power generation capacity. The facility will be on a parcel leased from EKPC, jointly utilize existing buildings, roads, rail facilities and other infrastructure. KPE will lease approximately 300-acres wholly within the approximate 3200-acre EKPC JK Smith property.

EKPC graded and partially developed the site for an energy complex. Little if any new site development work is required. KPE will be able to immediately begin site layout and foundation development for its facility. Space within the existing buildings is suitable for office and project management.

The Integrated Gasification Combined Cycle (IGCC) plant essentially integrates a gasification process area, a combined cycle power island and a feedstock handling area. The gasification process area converts solid feed into synthesis gas (Syngas or SG) which is then purified by removing sulfur compounds and other contaminants before use as a fuel in the power island. The power island will consist of two GE 7FA combustion turbines driving electric generators, two heat recovery steam generators and a steam turbine also driving a generator. The feedstock receiving, storage and handling facility will receive feedstock materials by rail, store and handle them. All feedstock handling will be in enclosed structures.

Gasification is an oxygen-blown chemical conversion process requiring an Air Separation Unit to provide the oxygen for gasification and nitrogen for process and syngas uses. The facility will have a new operations control building, including chemical analysis and other laboratory capabilities, which will be developed during plant design.

While syngas is the primary fuel for the combustion turbines, natural gas will be the start-up and back-up fuel. The computer controlled fuel control module at the gas turbines is capable of automatic blending of the two fuels in various proportions.

Water for the facility will be received from EKPC under its Withdrawal Authorization using the existing large capacity pipeline originally installed by EKPC. KPE will install a new intake structure at the Kentucky River to support the volume requirements of both KPE and EKPC. EKPC will meter the flow to KPE. Any wastewater will be treated by Kentucky Pioneer Energy and discharged to the Kentucky River under a Discharge Permit via the existing large capacity discharge line installed by EKPC.

The Kentucky Pioneer Energy project site is approximately two-miles from Trapp Elementary School and one-mile from Highway 89. This is well outside the 1000 or 2000-foot “setback” criteria, which does not apply to this project in any case.

A gate controlled access road off Highway 89 leads to a security guard station within the EKPC property and the main site area. Figures 1 and 2 depict the EKPC JK Smith site, and the KPE lease portion.

EKPC utilizes several existing buildings for its operations at the site, as shown in Figure 3. A portion of one building will be available under the lease agreement for use by Kentucky Pioneer. EKPC developed roads within the property for its JK Smith project, which KPE will utilize. These are depicted in Figure 3. Figures 1 and 2 also depict the existing CSX Mainline Railroad with a Y-Intersection into the site. Also shown is the existing rail-loop, and associated track, serving the site. KPE will require little else for its needs.

There are not public or private parks within a two-mile radius of the project site, or within this rural part of Clark County.

There are not specific legal boundaries established for the Kentucky Pioneer Energy project, in its lease with EKPC. The KPE lease simply provides for use of the parcel generally within the rail-loop and cooperative and joint use thereof.

Construction power and general electric service, needed whenever the facility is not generating electricity, will be obtained from Clark Energy.

Telephone service requirements have not yet been determined.

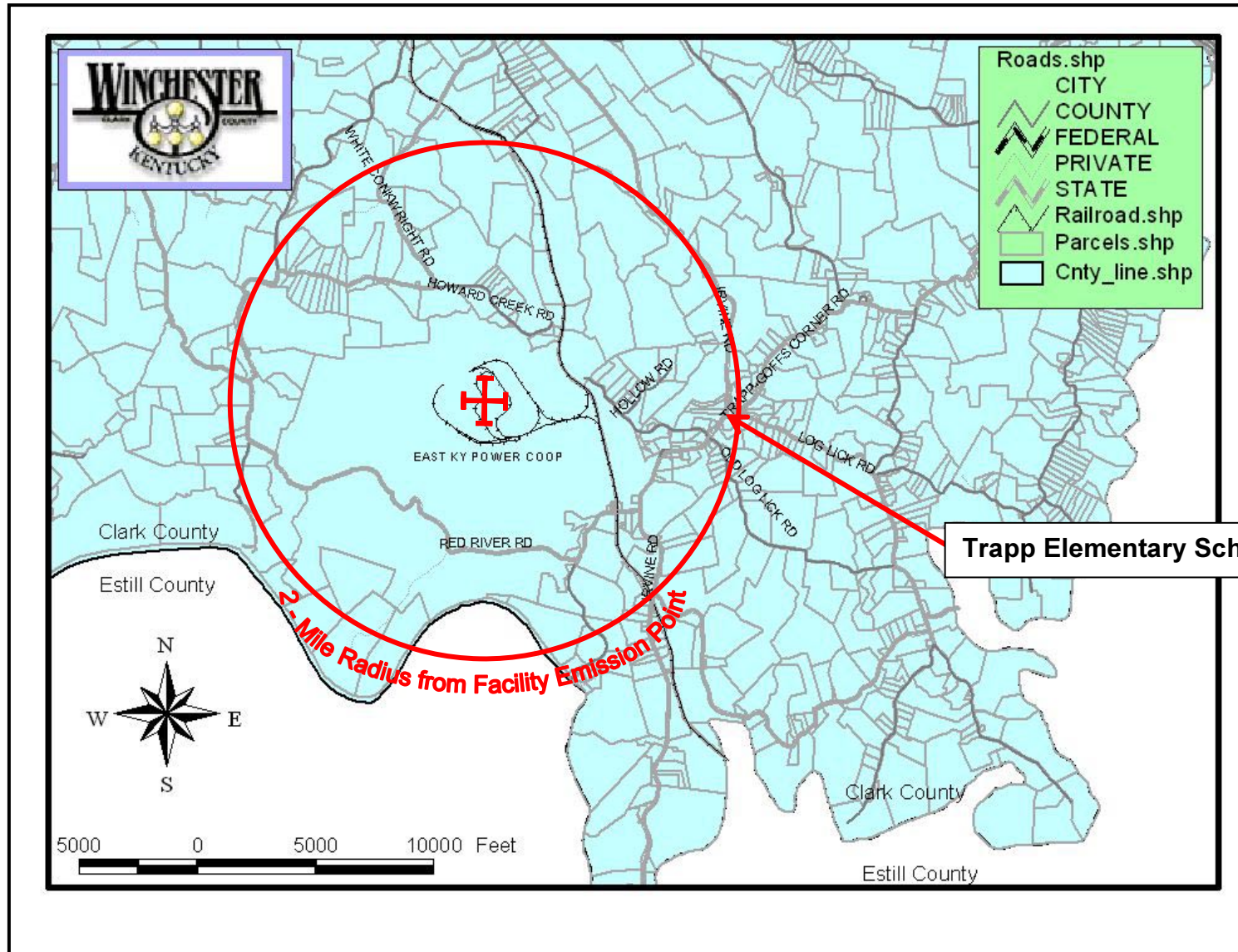
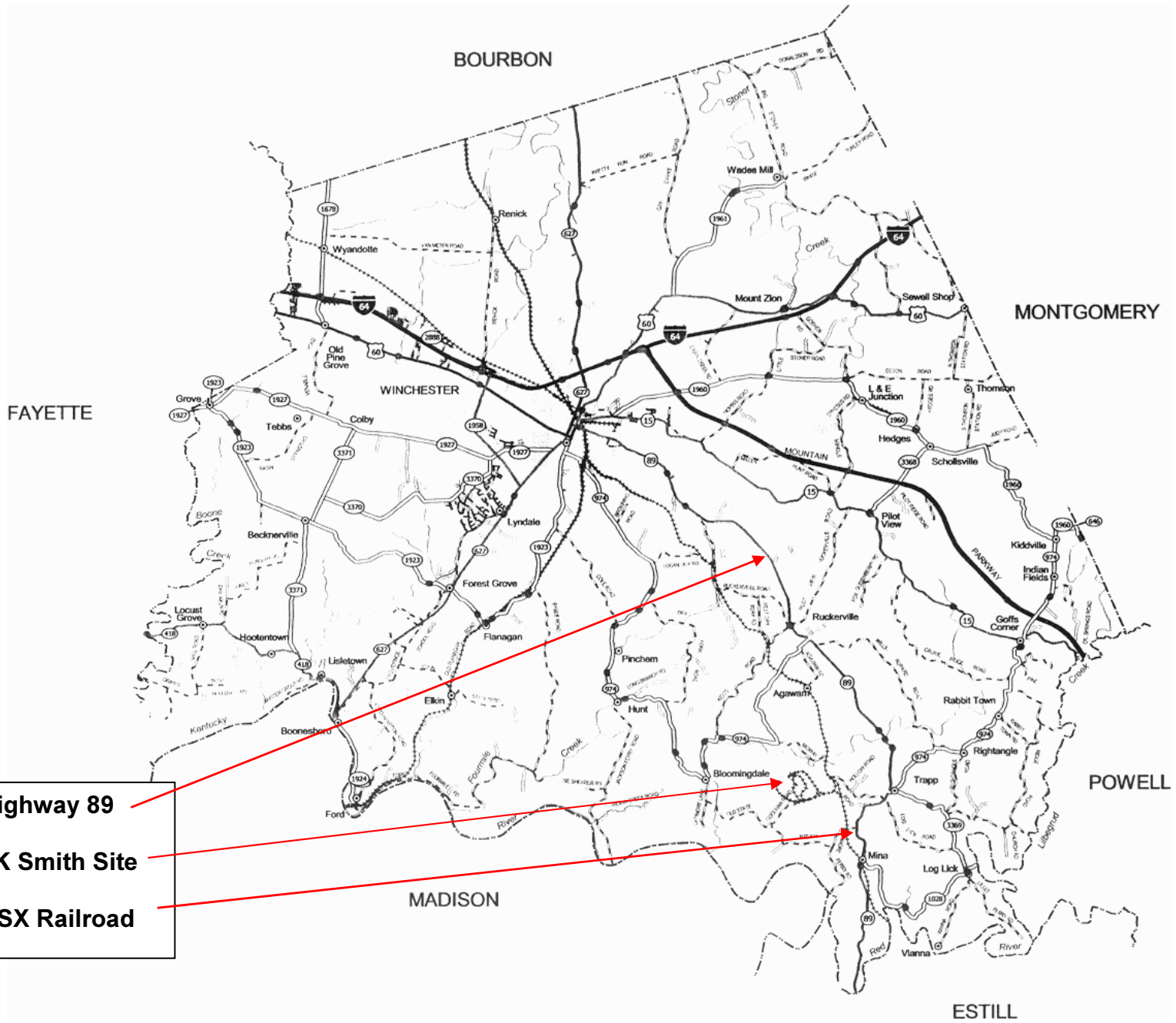


Figure 1
Kentucky Pioneer Energy at EKPC – JK Smith Site



Highway 89
JK Smith Site
CSX Railroad

Figure 2
Kentucky Department of Transportation
Map of Clark County

**Kentucky Pioneer Energy, LLC
Topographic Presentation**

**300-Acre Site Lease Area (Inside Rail Loop)
At EKPC ~ 3200-Acre JK Smith Site
Trapp, Clark County, Kentucky**

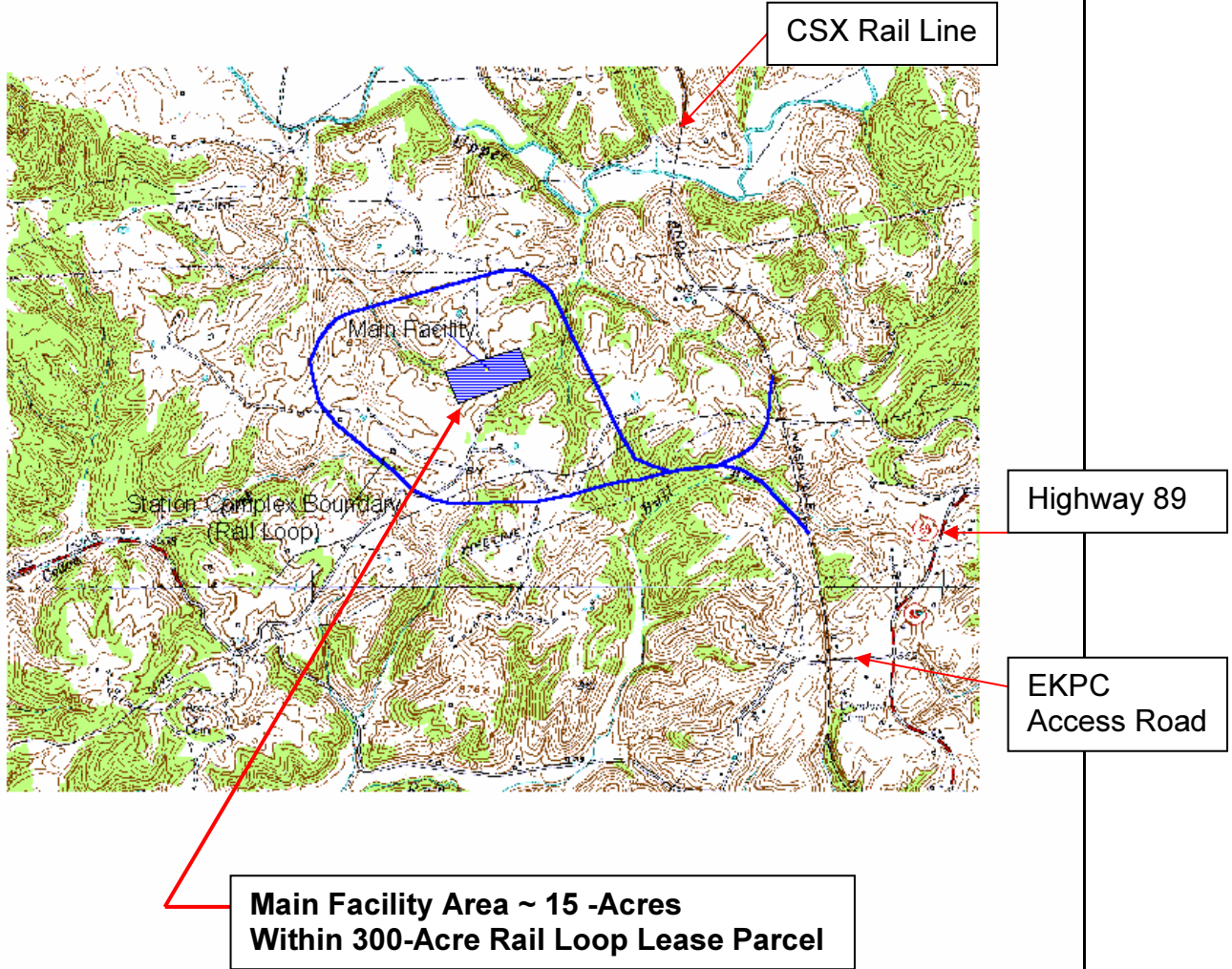


Figure 3

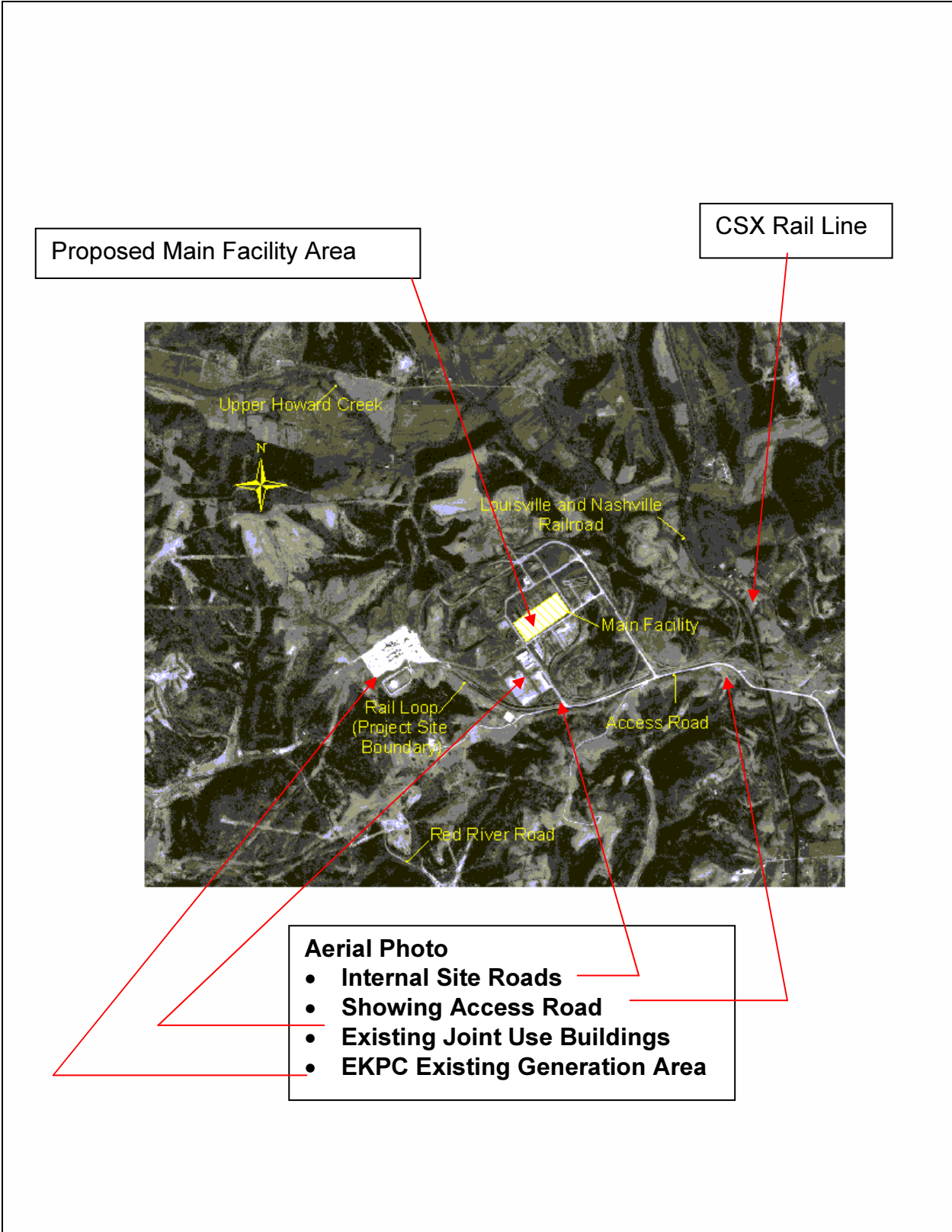


Figure 4

Tab 5

**Existing Generation
And
Setback Requirements**

5. EXISTING GENERATION AND SETBACK REQUIREMENTS - - SB 257, Section 4(2)(g), Section 3(2), Section 4(2)(e)

5.1 Co-Located with Existing Generation – SB 257, Section 4(2)(g): Kentucky Pioneer Energy will be located at an existing generating facility, on a 300-acre parcel leased from East Kentucky Power Cooperative (EKPC), fully within their approximate 3200-acre JK Smith site. KPE will be located on a parcel leased from and fully within the property owned by EKPC, who is therefore the sole adjacent landowner.

5.2 Existing Generating Capacity at Site – SB 257, Sections 3(2) and 4(2)(e): EKPC has five gas turbine driven generators operating at the JK Smith location, with an existing generating capacity of approximately 400 MW. KPE is therefore exempt from setback requirements relative to exhaust stacks of the combustion turbines.

If the setback requirement were applicable, the combustion turbine stacks would comply with the requirement in any case by being approximately 2-miles from the nearest school. There are also no residential neighborhoods, hospitals or nursing homes within this radius.

Tab 6

Public Involvement

Complete report of public involvement program undertaken prior to filing the application, including media coverage, direct mail, fliers, newsletters, public meetings, community advisory group, etc

Several initiatives have been undertaken over the course of project development, which have enabled public input to the project and the process. Chronologically, these are:

1. Public Event announcing the project, with Governor Patton as keynote speaker, hosted by and held at EKPC offices in Winchester and reported in Winchester-Sun on February 5, 1999. Approximately 80 persons from across the region attended. *See Figure 5 at the end of this listing.*
2. Editorial (“WOW”) extolling the vision of the project published by Winchester-Sun on February 10, 1999. *See Figure 6 at end of this list.*
3. Presentation to Interim Joint Committee on Agriculture and Natural Resources of the Kentucky Legislature, by invitation, by Dwight N. Lockwood, February 10, 1999. *See Figure 7 at the end of this list.*
4. US Department of Energy Notice of Intent to conduct an EIS was published in the Federal Register at 65 FR 20142 on April 14, 2000. Press Releases and News Media announcements in the Winchester-Sun, Lexington Herald-Leader, and Louisville Courier Journal were published contemporaneously.
5. DOE – Environmental Impact Statement (EIS) Public Scoping Meeting at Trapp Elementary School on May 4, 2000. This consisted of an informal informational opportunity between 4:00 PM and 6:00 PM, followed by the formal meeting between 7:00 PM and 9:00 PM. 36 persons attended, five made comments at the meeting and eight made written comments by the close of the comment period on May 31, 2000.
6. Notice by KPE of a Public Meeting specifically for receiving comments and input on the Siting or location of the facility at the JK Smith site in Trapp. This was for compliance with federal and state permit requirements relative to processing of RDF in the feedstock. Copies of the analysis were placed at the Clark County Library and Trapp Elementary School. The notice was placed in the Winchester-Sun in May 26, 2001. *See Figure 8 at the end of this list.*
7. Public Meeting at Trapp Elementary School on Siting the facility under the federal Municipal Waste Combustor rule, was held on June 28, 2001. The formal transcript of the event will be incorporated in a report attached to the notice to DAQ soon after construction begins. There were several comments, but no objections to the project. The comments will be formally addressed in the report.

8. KY-DAQ public hearing to approve the project air permit, May 1, 2001. Responded to project related questions during the hearing and participated in informal Q & A discussions before and after.
9. Met with Winchester-Sun Editorial Board on June 13, 2001 to provide background information on the project.
10. Met with Clark County Judge Executive Drew Graham and Magistrate Gary Taylor, and State Representative RJ Palmer, on June 13, 2001, briefings to provide background information on the project.
11. Met with Mayor Dixon, City of Winchester on June 22, 2001, briefing to provide background information on the project.
12. Presentation briefing to Winchester City Council on September 18, 2001, to discuss the project and provide background information on it.
13. US DOE Notice of Public Hearing to receive comments on Draft EIS, placed in the Federal Register (65 FR 57717) on November 16, 2002. Notices were also contemporaneously placed in Winchester-Sun, Lexington Herald-Leader, and Louisville Courier Journal. Though related to this project, these notices were made by US DOE, and therefore informed the public of activity related to the project and their opportunity to participate.
14. US Department of Energy Public Hearings on draft EIS in Lexington Public Library on December 10, 2001, and at Trapp Elementary School on December 11, 2001. KPE available for, and participated in, informal question & answer discussions before and after these meetings. The public comment period extended to January 25, 2002, and resulted in 118 oral comments and 255 written comments. These comments are responded to and reflected in the Final EIS.
15. Met with the Editorial Board of the Lexington-Herald-Leader on December 10, 2001, to respond to questions on the project for a planned article or editorial.
16. Meeting with Winchester-Sun Editorial Board on January 30, 2002, to provide input to a planned article in a Q & A format to foster community awareness.
17. Presentation and Question & Answer session to the Bluegrass Development District, Natural Resources and Environmental Protection Cabinet Advisory Committee, on March 13, 2002.

Winchester The Sun

Clark County's source for news

Vol. 127, No. 30 • Winchester, Kentucky • 50 cents



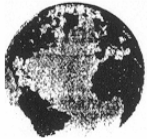
Thump

Harrison's Fillies
beat Lady Cards
69-45

B1

Friday

February 5, 1999



THE WINCHESTER SUN
ON THE WEB AT
[HTTP://WWW.WINCHESTERSUN.COM](http://www.winchestersun.com)

Power plant goes to Trapp



(Sun photos by James Mann)

Gov. Paul Patton addresses the more than 80 people attending a breakfast this morning at East Kentucky Power Cooperative to hear that Global Energy Inc. is planning to construct a \$450 million electric-generating facility at Trapp using alternative fuels.

Seated at far left in the front row is Roy Palk, EKP president and CEO; second from right is William B. Sturgill, president of the Kentucky Coal Marketing and Export Council.

Figure 5 – Part 1 of 5

Process will incorporate waste, coal

From staff reports

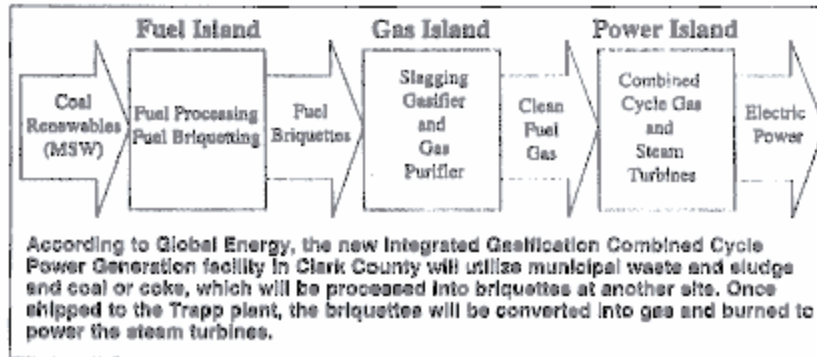
Integrated Gasification Combined Cycle Power Generation facilities such as the one planned at East Kentucky Power's J.K. Smith site at Trapp, are not new.

However, the Clark County facility will be the first in Kentucky and the nation to be commercially financed. Others have depended at least in part on funding from the federal government, according to H.L. Coffman, senior vice president of Global Energy Inc., Cincinnati.

Global's Kentucky subsidiary, Kentucky Pioneer Energy, will own, construct and operate the 400-megawatt facility which Coffman says will combine three proven and separate processes in advanced fuel technology.

They include a fuel island, a gas island and a power island.

According to Coffman, while fuel islands



can combine either sewage sludge or municipal solid waste with coal, the plant here will use municipal solid waste. A Global

facility under development in Scotland will

See WASTE, A3

Global Energy facility to be built on site once intended for EKP plant



From staff reports

The site near Trapp chosen by Global Energy for its Integrated Gasification Combined Cycle Power Generation facility was first selected as the site for a major power plant more than 18 years ago.

The 300 acres of land being leased by Global is part of 3,147 acres in the Trapp area purchased by East Kentucky Power Cooperative when it was planning construction of a \$1.7 billion coal-fired generating plant nearly two decades ago.

The Winchester-based cooperative first

See SITE, A3

A proposed power plant will be built on land owned by the East Kentucky Power Co-op.



(East Kentucky aerial photo)

The approximately 300 acres of land Global Energy Inc., Cincinnati, has leased from East Kentucky Power at Trapp are located within the area bounded by the railroad tracks. The living Road is more than a mile from the site in the far background.

Power

Continued from page A1

more realistic. Construction is expected to take about 30 months.

During an overview of the project, Harry Graves, Global's CEO and president, said up to 1,000 jobs could be created during the construction phase of the project, with about 120 permanent jobs at the site, including 100 operators.

Coffman told The Sun they would be "good quality" jobs and that as many as possible will be hired locally.

Patton said the technology proposed for the facility could "very well usher in a new era in energy generation in this state, utilization of coal in this state and disposal of solid waste in this nation."

It brings to one point the efforts and dreams of many people to find a use for the state's abundant coal resources and to convert it into electric energy more efficiently, Patton said.

The governor pledged that the state would be a "very cooperative partner in this venture." He lauded East Kentucky Power as being a "tremendous corporate citizen."

He labeled the project a step forward that would benefit not only the community, but the state and nation.

Roy Palk, East Kentucky president and CEO, noted the venture was not only a first for the cooperative, but for the power industry and for Kentucky.

It demonstrates a partnership that is a first between an independent power producer, an electric cooperative and technology that represents a "cleaner, brighter future for the coal industry," he said.

The project "will secure to a large degree East Kentucky's consumer cooperatives' future in terms of power supply and at a very competitive, affordable rate," Palk said.

William B. Sturgill, president of the Kentucky Coal Marketing and Export Council, spoke briefly, noting that the project will have an impact on the future of Kentucky and recalled a challenge from Patton to find projects to use the state's natural resources in the future.

While the footers had been cut on clean Kentucky coal technology, the house had never been built, Sturgill said, adding he hoped today's announcement

would change that.

Douglas M. Todd, manager of global IGCC programs for General Electric, showed a series of slides reviewing the technology involved and noting that GE has IGCC projects in the United States, Scotland, Italy, Singapore and Japan. All, he said, are working well.

The syngas produced in the gasification process is equal to or better than natural gas in environmental acceptability, he said.

Graves said Global Energy's main business is environmental technology and showed a series of slides on the IGCC process proposed here. He stressed that there will be no gas stack and no emissions from the plant.

According to Graves, 98.5 percent of the material fed into the gasifier emerges as a salable product.

The briquettes made by blending municipal solid waste and coal are very storable and shippable, Graves said, and "we believe will become a commodity type fuel in this country in the near future."

Although much engineering work needs to be done before a final determination can be made, a co-production concept could result in some of the synthetic gas being used as a feed stock in chemicals production, Drake told The Sun, with plastics among the possible uses.

In his remarks this morning, Graves said another possibility was up to 6,000 barrels a day of extremely high grade diesel fuel. Oil companies could blend that fuel with lesser quality diesel to bring it up to the desired specification, according to Coffman.

According to a news release distributed at this morning's meeting, a ton of municipal waste, as a primary renewable fuel, as about the same energy content as a barrel of oil. That's the equivalent of more than 200 million barrels of oil a year, the release said.

In addition to representatives of the Coal Council and the University of Kentucky Center for Applied Energy Research, which are providing assistance on technical issues related to fuels and co-production, state and local officials, Dr. Charles Wethington, president of the University of Kentucky, attended this morning's breakfast.

Clark County Judge/Executive Drew Graham, who was among the approximately 80 people present for the announcement, labeled it an "economic opportunity... that will be an asset to the community."

Venture to spend \$450 million on alternative fuel facility

From staff reports

A virtually emission free power plant fueled by synthetic gas derived from briquettes made by blending municipal solid waste and coal will be constructed in eastern Clark County.

Plans for the \$450 million facility were formally announced by Gov. Paul Patton at a breakfast this morning at East Kentucky Power Cooperative.

Global Energy Inc., Cincinnati, Ohio, has leased approximately 300 acres of land at East Kentucky's J.K. Smith site at Trapp with plans to construct a 400-megawatt power plant

there using combined cycle gas and steam turbines. The energy produced will be sold exclusively to East Kentucky.

Kentucky Pioneer Energy, a Global subsidiary, will construct and operate the facility at what will be known as the Kentucky Pioneer Environmental Energy Park.

According to H.L. Coffman, senior vice president for Global, construction could begin late this year, although he said the second quarter of 2000 was



Global Energy Inc. President Harry Graves announces plans for a \$450 million, 400-megawatt advanced fuels technology power plant at East Kentucky Power Cooperative this morning.

See POWER, A3

Figure 5 – Part 3 of 5

• Waste

Continued from page A1

use sludge.

Present plans call for the fuel island or islands which will serve the facility to be located in Kentucky, but not at the site. Coffman explained that there is not enough municipal solid waste in the Central Kentucky area to supply the plant's needs. No site for the fuel island(s) has been selected, he said.

The solid waste will contain no glass, refrigerators, paint cans or batteries, Coffman said. It will be combined with either petroleum coke or coal, using a binding component to produce briquettes similar in appearance to the charcoal briquettes used in backyard grills.

"We were brought in by the Kentucky Coal Council and obviously it would be to everybody's interest if we could figure out a way to use Kentucky coal and provide some sort of future for coal," Coffman told

The Sun.

The briquettes, approximately 50 percent coal and 50 percent solid waste, will be brought to the site by rail and stored in facilities to be constructed there, he said. He stressed that the briquettes will be odor free.

The briquettes will be fed into a gasification unit to be constructed at the site which will turn them into synthetic gas. An integral part of the gasification unit will be a desulfurization process which removes the sulfur from the coal and produces high quality elemental sulfur which can be sold, Coffman said. Such sulfur typically is used in the production of sulfuric acid and in fertilizer.

Frit, a glasslike substance, also is produced in the gasification process. Coffman said frit is very stable, unleachable and not considered hazardous waste "in any sense of the word." It too is salable, he said, and is commonly crushed and used as road aggregate.

The synthetic gas that remains after the sulfur and frit

have been removed will be fed into combined cycle gas and steam turbines and come out as low-cost power for East Kentucky, Coffman said.

The process, he said, provides for the future of coal in an environmentally superior manner, noting that "emissions are far below anything you would see in conventional technology." He added that because it is a closed system and not a combustion process, there will be no primary stack and the facility will be "almost completely emissions free."

David Drake, manager of new ventures for East Kentucky, agreed. "This is the cleanest coal power generation technology there is."

Drake noted that the Coal Council began looking at ways to encourage the development of advanced coal technology three years ago and that the Kentucky Center for Applied Energy Research at the University of Kentucky had concluded after extensive study that IGCC offered the most promising technology and one that could be quickly implemented.

Consequently, he said, the Coal Council began exploring ways to encourage its development and use.

Early indications were it would take 8-10 years to get a facility operational, he said, including a more indepth technical and economic assessment of IGCC. However, when Global representatives attending a conference in San Francisco learned of Kentucky's efforts, they informed the Coal Council they could shorten the timetable for the project because the engineering design already had been done and they had a similar project under development in Scotland, Drake noted.

Coffman told The Sun that a number of things remain to be done before construction can begin, including firming up waste and coal supply sources and a location for the fuel islands. Engineering assessments also need to be done, along with initial planning at the site, followed by environmental studies, regulatory reviews and finally, obtaining the required financing, he said.

•Site

Continued from page A1

announced plans to construct a new power plant with two 600-megawatt generators in October 1978. A final decision to locate the plant at Trapp was made in December 1980.

However, within a year, East Kentucky's board of directors, confronted with forecasts showing annual growth in electric usage through 2001 much lower than when plans were initially developed for the project, delayed anticipated completion of the first unit from 1985 to 1987 and canceled the second unit. In December 1982, it postponed completion of the plant until 1992. At the time estimates were that 10-12 percent of the work had been completed at the site.

In September 1987, EKP's board of directors once again voted to delay completion of the project, until 2001. It was canceled altogether in December 1993. At that time it was indicated the cooperative would write off approximately \$86 million in capitalized costs associated with the project, while retaining more than \$68 million in assets.

But the site has not been unused. Three gas-fired turbines, each generating 110 megawatts of electricity, have been constructed at the J.K. Smith site in recent years. They are for use at peak demand periods only and used only a relatively few hours a year, according to East Kentucky officials.

In contrast, Global is planning a base load facility that will operate around the clock.

The land being leased by Global is inside a rail loop constructed at the Smith site by East Kentucky and approximately one mile from the Irvine Road.

East Kentucky is using only 20 or so acres of the entire Smith site for its gas-fired turbines; the bulk of the area is undeveloped.

Global officials first visited the Smith site in November 1997, and in January 1998, East Kentucky's board of directors authorized negotiation of long-term lease and power purchase agreements. Those were completed late last year. Terms of the agreements were not dis-

closed.

East Kentucky agreed to the lease, according to David Drake, EKP's manager of new ventures, "because we're interested in enhancing the governor's efforts to secure the future of the coal industry. We're obviously interested in advanced power generation technology. We're interested in low-cost power."

Drake told The Sun East Kentucky sampled the market to see what kind of quotes it could get on power and that the negotiated agreement was not only competitive, "but puts us in a little better position... as best we can read the future market."

Global will use some of the infrastructure already in place

at the Smith site, including roads, rail lines and possibly underground piping.

Kentucky Pioneer Energy, a Kentucky subsidiary of Global, will own, construct and operate the facility.

Figure 5 – Part 5 of 5

Wow!

Proposed power plant great news

Last week's announcement that a new power plant utilizing advanced fuel technology will be located in Clark County unquestionably was one of the most exciting in many years.

Construction on the \$450 million facility most likely will begin sometime early next year and is expected to create up to 2,000 jobs while the plant is being built. Certainly that represents good news for the local economy, as do the more than 100 "good quality" permanent jobs officials of Global Energy Inc. have indicated will be created at the state-of-the-art electric generating facility.

And, it was good news for Kentucky as well. So much so that Gov. Paul Patton told those gathered at East Kentucky Power Cooperative for the announcement that it could very well usher in "a new era" not only in energy generation, but in utilization of Kentucky coal and in disposal of solid waste in the nation.

East Kentucky has leased approximately 300 acres of the 3,147 acres at its J.K. Smith site at Trapp, once planned as the site for two 600-megawatt coal-fired generating units. However, much lower than anticipated electric energy forecasts eventually resulted in that \$1.7 billion project being canceled. While East Kentucky has erected three gas-fired turbines, each generating 110 megawatts of electricity on the site, the vast majority of it has been unused.

That's about to change as Kentucky Pioneer Energy, a Global subsidiary, prepares to construct, own and operate Kentucky Pioneer Environmental Energy Park near Trapp. All of the energy generated will be purchased by East Kentucky Power. Indications are that the agreement the cooperative has negotiated with Global not only is competitive, but actually places East Kentucky in a little better position, and that translates into good news for the customers served by its distribution cooperatives.

It's all being made possible by technology that will allow Ken-

tucky coal, which has lost some of its competitiveness because of a high sulfur content, to be blended with municipal solid waste into briquettes. The odorless briquettes will not be produced here, but will be shipped to the plant by rail and fed into a gasification unit to turn them into synthetic gas (syngas) which then goes into combined cycle gas and steam turbines to produce low-cost power.

Not only is Kentucky coal expected to play a key role in the new plant, but the facility will be virtually emission free, with none of the stacks traditionally associated with power plants. That's good news in this age of increasing concern about the impact of emissions on the environment.

Equally important is the fact that the desulfurization process to remove the sulfur from the coal in the gasification process produces a high quality elemental sulfur which can be sold for use in making sulfuric acid or fertilizer among other uses. And, the vitreous frit produced in the gasification process is stable, unslakeable, nonhazardous and salable for use as road aggregate. There's also the possibility this plant will be able to produce up to 6,000 barrels a day of extremely high grade diesel fuel.

A lot of work still remains to be done before construction can begin. Coal and municipal solid waste sources have to be lined up; locations have to be found for the fuel island that will mix the coal and solid waste; engineering assessments must be done, along with environmental studies and regulatory reviews, and of course, financing for the project, the first in the nation to be commercially financed.

Hopefully there'll be no unanticipated delays, because the technology proposed for the new facility has proven itself in power applications around the world. And thanks to it, Clark County is now poised to enter the 21st century embracing technology that a few years ago was only a dream, but which today holds the key for a brighter tomorrow for Kentucky and indeed, the nation!

Figure 6

Winchester Sun. Feb.

**INTERIM JOINT COMMITTEE ON
AGRICULTURE AND NATURAL RESOURCES**

AGENDA

Meeting No. 9

DATE:	Wednesday, February 10, 1999
TIME:	1:30 p.m.
PLACE:	Room 149 , Capitol Annex

- 1 Call to order and roll call.
- 2 Approval of the minutes of the December 11, 1998 meeting.
- 3 Review of administration regulation:

Department of Fish and Wildlife Resources
301 KAR 2:251
- 4 Presentation related to the Kentucky Pioneer Energy Project: a clean coal technology project in Clark County:

William B. Sturgill, Chairman
Kentucky Coal Council

David Drake, Manager New Ventures
East Kentucky Power Cooperative

Dwight Lockwood, Manager Regulatory Affairs
Global Energy

Frank Derbyshire, Director
Center for Applied Energy Research
University of Kentucky
- 5 Any other business.
- 6 Adjournment.

Figure 7 – Part 1 of 2

1998-99 INTERIM

**INTERIM JOINT COMMITTEE ON
AGRICULTURE AND NATURAL RESOURCES**

MEMBERS

**Representative Jim Gooch, Co-Chair
Senator David Boswell, Co-Chair**

Senator Dick Adams	Senator Marshall Long
Senator Brett Guthrie	Senator Vernie McGaha
Senator Ernie Harris	Senator Tim Shaughnessy
Senator Paul Herron	Senator Elizabeth Tori
Senator Dan Kelly	Senator Ed Worley
Representative Royce Adams	Representative Jeffrey Hoover
Representative Rocky Adkins	Representative Thomas McKee
Representative Scott Alexander	Representative Fred Nesler
Representative Woody Allen	Representative R. J. Palmer
Representative Adrian Arnold	Representative Billy Polston
Representative John Arnold, Jr.	Representative William Scott
Representative Sheldon Baugh	Representative Dottie Sims
Representative James Bruce	Representative Jim Stewart
Representative Dwight Butler	Representative Gary Tapp
Representative Mike Cherry	Representative Roger Thomas
Representative Phillip Childers	Representative Mark Treesh
Representative Jack Coleman	Representative Johnnie Turner
Representative Hubert Collins	Representative Tommy Turner
Representative Ricky Cox	Representative Ken Upchurch
Representative Porter Hatcher	Representative Robin Webb
Representative Charlie Hoffman	Representative Brent Yonts

**LRC STAFF: Dan Risch, Andrew Cammack, Biff Baker,
Kim Burch, and Lisa Dale Thomas.**

QUORUM: 23

agml99

Figure 7 – Part 2 of 2

Saturday, May 26, 2001 — B7

Public Notice

**LEGAL
PUBLIC
NOTICE
KENTUCKY
PIONEER
ENERGY LLC
SITING ANALYSIS
AND MATERIAL
SEPARATION PLAN
PUBLIC MEETING
NOTICE**

Notice is hereby given of a public meeting on the siting analysis for the proposed construction of the Kentucky Pioneer Energy Integrated Gasification Combined Cycle (IGCC) electric generating facility located at the East Kentucky Power Cooperative JK Smith site in Trapp, Kentucky.

The public meeting will be held at 6:30 p.m. (EST) on June 28, 2001 at the Trapp Elementary School, 11400 Irvine Road, Trapp, Kentucky 40391 (Clark County).

The agenda for the siting analysis meeting is a brief overview of the IGCC project, discussion of the IGCC facility's siting analysis and material separation plan. This will be followed by public input or questions. The siting analysis presents the proposed facility's impact on ambient air quality, visibility, soils and vegetation, and considers air pollution control alternatives that minimize to the maximum extent practicable potential risks to public health or environment.

The IGCC facility will convert coal and renewable components, including refuse derived fuel (RDF), to synthesis gas for use as fuel in combustion turbines for generating electricity. Although the IGCC facility will not directly burn municipal solid waste, because RDF is intended as a component of the synthesis gas, the U.S. Environmental Protection Agency (USEPA) has determined that the facility must comply with the new source performance standards (NSPS) for municipal waste combustors, 40 C.F.R. Part 60.57b. This meeting and comment period satisfies the requirements of 40 CFR 60.57b in that regulation.

A copy of the siting analysis and material separation plan is available for public review at the Trapp Elementary School and the Clark County Public Library, 370 S. Burns Avenue, Winchester, Kentucky, during normal business hours. A copy also may be requested by calling Global Energy Inc. at 513-621-0077.

The public comment period on the siting analysis will run from May 29 to June 28, 2001. To be considered, written comments must be postmarked no later than June 28, 2001. Comments should be sent to Global Energy Inc., 312 Walnut Street, Suite 2000, Cincinnati, OH 45202. Comments also will be accepted at the public meeting.

For further information, contact Dwight N. Lockwood, P.E., QEP, Manager, Regulatory Affairs, Global Energy Inc., 312 Walnut Street, Suite 2000, Cincinnati, OH 45202; 513-621-0077.

May 26, 2001

Figure 8

Tab 7

**Effect on Electric Transmission
System in Kentucky**

7. **EFFECT OF PROJECT ON TRANSMISSION SYSTEM – SB 257, Section 4(2)(i) (Contact Dwight Lockwood)**

East Kentucky Power Cooperative (EKPC) has contracted to receive 100% of the generated electricity under a long-term contract. They will receive the power directly at the KPE step-up transformers in the project facility. EKPC intends to transmit the energy throughout its own system to its COOP members for use by their respective customers.

Under the power purchase agreement EKPC will receive power directly at the Kentucky Pioneer Energy bus-bar. As such there is no “Interconnect Agreement”, in the conventional sense, rather the interconnect agreement is inherent in the power purchase contract. KPE does not have any contractual electric transmission responsibilities nor will it be involved with transmission issues. EKPC has indicated to KPE and the Public Service Commission that it can accommodate KPE generation without changes to its transmission system. However, EKPC has determined, based on other system load and growth planning considerations, that they will install additional transmission capacity in the future. Transmission is entirely an EKPC responsibility.

The US DOE Environmental Impact Statement, based on information received by them from EKPC and noted in the Summary section, addresses transmission capacity that is being considered by EKPC.

Tab 8

Economic Impact on Region

8. **ECONOMIC IMPACT ON THE REGION – SB 257, Section 4(2)(j)**

The region surrounding the project in Trapp is predominantly rural and agricultural in nature, but with existing commercial operations in the area.

KPE believes the economic impact in the region surrounding the Clark County project is potentially significant. Investment of this magnitude in the region can serve to strengthen the economic foundation and serve as a catalyst for economic growth if desired.

Significantly too, adding low cost electricity to the capacity of EKPC and its Cooperative members is seen to benefit its customers in Kentucky.

US DOE, in its Environmental Impact Statement (EIS Chapter 5.3.4.1), in its discussion of Socio-Economic effects of the project makes these points:

Construction Phase

Several hundred workers over 30-36 months of construction results in approximately two times that in local indirect employment. This is estimated to generate approximately \$57 million of direct and \$53 million of indirect income in the Region. Additional direct employment, at peak periods could add a further \$3 million in each such month.

Unemployment in the Region is quite low at about 2%. The construction labor pool is readily available in the Region.

Rental housing is most commonly used by construction workers that travel to an area. Vacancy rates are in the 9% range.

Operational Phase

The 100-120 permanent workers at the site are estimated to result in approximately 250 indirect jobs in the Region and about \$12 million annual income.

Tab 9

Disclosure of Past

Environmental Violations

9. DISCLOSURE OF PAST ENVIRONMENTAL VIOLATIONS – SB 257, Section 4(2)(k)

Kentucky Pioneer Energy, LLC, is a project company of Global Energy Inc., a privately held corporation. The principal of Kentucky Pioneer Energy has no violations of federal or state environmental laws, rules, or administrative regulations, regardless of magnitude of the penalty. Further, there are no judicial or administrative actions pending.

Tab 10

Site Assessment Report

10. SITE ASSESSMENT REPORT, SB 257, Section 4(2)(l), Section 5(1)

10.1 National Environmental Policy Act (NEPA) Alternative

US Department of Energy (DOE) has completed an Environmental Impact Statement (EIS) as required by the National Environmental Policy Act (NEPA). Kentucky Pioneer Energy, therefore, qualifies for use of the NEPA Alternative provided in SB 257, Section 4(2)(l), in lieu of the required Site Assessment Report.

The Final Environmental Impact Statement (EIS) has been approved by US DOE, and published and submitted to USEPA for final review. A copy of this Final EIS is included in Tab 13, as an Appendix to this application. The single volume includes the main EIS document as well as Public Comments and DOE Responses to those comments.

To facilitate review of the Site Assessment requirement with respect to the NEPA document, KPE has provided EIS citations, and summary discussion of the EIS findings, for each of the required elements in the Site Assessment requirement.

10.2 Description of Facility, SB 257, Section 5(3)(a)

Kentucky Pioneer Energy, LLC (KPE) proposes to develop a 540 MW_e (net) electric power generation facility at the East Kentucky Power Cooperative (EKPC) JK Smith site in Trapp, Clark County, Kentucky; where EKPC operates approximately 400 MW_e of existing combustion turbine based power generation capacity. The facility will be on a parcel leased from EKPC, jointly utilize existing buildings, roads, rail facilities and other infrastructure. KPE will lease approximately 300-acres wholly within the approximate 3200-acre EKPC JK Smith property.

EKPC graded and partially developed the site for an energy complex. Little if any new site development work is required. KPE will be able to immediately begin site layout and foundation development for its facility. Space within the existing buildings is suitable for office and project management.

The Integrated Gasification Combined Cycle (IGCC) plant essentially integrates a gasification process area, a combined cycle power island and a feedstock handling area. The gasification process area converts solid feed into SG (synthesis gas or syngas) which is then purified by removing sulfur compounds and other contaminants before use as a fuel in the power island. The power island will consist of two GE 7FA combustion turbines driving electric generators, two heat recovery steam generators and a steam turbine also driving a generator. The feedstock receiving,

storage and handling facility will receive feedstock materials by rail, store and handle them. All feedstock handling will be in enclosed structures.

Gasification is an oxygen-blown chemical conversion process requiring an Air Separation Unit to provide the oxygen for gasification and nitrogen for process and SG uses. The facility will have a new operations control building, including chemical analysis and other laboratory capabilities, which will be developed during plant design.

While SG is the primary fuel for the combustion turbines, natural gas will be the start-up and back-up fuel. The computer controlled fuel control module at the gas turbines is capable of automatic blending of the two fuels in various proportions.

Water for the facility will be received from EKPC under its Withdrawal Authorization using the existing large capacity pipeline originally installed by EKPC. KPE will install a new intake structure at the Kentucky River to support the volume requirements of both KPE and EKPC. EKPC will meter the flow to KPE. Any wastewater will be treated by Kentucky Pioneer Energy and discharged to the Kentucky River under a Discharge Permit via the existing large capacity discharge line installed by EKPC.

10.3 Surrounding Land Uses, SB 257, Section 5(3)(a)1

10.3.1 EIS Chapter 4.2 Land Use – refers to the Clark County “Comprehensive Plan and Zoning Ordinance, noting that while the area is rural/agricultural, the project site is excluded from zoning constraints because utility structures (i.e. electric power generation) are excluded from zoning considerations.

It also notes that the host site has three existing gas turbine driven generators (since increased to five) of similar type as those intended for this project.

EIS Chapter 5.2.4 – Land Use Environmental Impact – concludes that no effects on surrounding land are expected during construction or operation.

10.3.2 Legal boundaries of the proposed site, SB 257, Section 5(3)(a)2

EIS Chapter 4.2 – notes that the proposed facility is a 300-acre parcel ‘fully within’ the host 3120-acre parcel owned by EKPC. The facility legal boundaries are defined by the site-lease with EKPC. There are no “public” property owners adjacent to the project site.

10.3.3 Proposed access control to the site, SB 257, Section 5(3)(a)3

Public access to the facility is already limited by the existing fence, gates, and security guard for the JK Smith site owned by EKPC. The gate is at State Highway 89, at the back of a large vehicle turn-out area.

10.3.4 Location of facility buildings, transmission lines and other structures, SB 257, Section 5(3)(a)4

KPE, as part of its lease arrangement with EKPC, will have joint use of existing buildings at the JK Smith site. Detailed KPE site layout plans for structures are not yet developed, though all will be within the parcel leased from EKPC.

A covered feedstock storage structure is planned and reflected in the air permit. An operations control and office building is planned, but its location within the parcel is undecided.

The gasification process and power generation facilities will be generally centrally located within the 300-acre lease parcel, but specific layout plans have not yet been developed, except to support permitting.

Transmission lines are not included in the KPE scope for the project because they are the contractual responsibility of EKPC, who has contracted to receive 100% of the generated power. EKPC transmission lines are separately subject to PSC approval.

10.3.5 Location and use of access ways, internal roads and railroads, SB 257, Section 5(3)(a)5

EIS Chapter 4.11.1 (Traffic and Transportation): The access road to the KPE leased project site within the EKPC owned property extends approximately one-mile from Kentucky Highway 89 at Trapp. EKPC earlier constructed a number of service roads, some currently unpaved, within their property. These provide ample existing access to the KPE facility area.

EIS Chapter 4.11.2 (Railroads): The site is approximately one-half mile from the 123-mile freight line segment between Winchester and Typo, Kentucky. The line is identified as C-273, and is owned and operated by CSX Transportation, Inc. Existing traffic averages 13.1 trains per day. A 3.1-mile rail loop connects this main freight line to the JK Smith site, and actually helps define the KPE 300-acre lease parcel. Extensive rail yard capacity exists within the JK Smith site, and is connected to the above-mentioned loop.

10.3.6 Existing or proposed utilities to service the facilities

Construction and back-up general service power will be obtained from Clark Energy. Site load will normally be self-generated. Start-up power during operations will be obtained from Clark Energy.

The site will have its own sanitary and process wastewater treating systems and discharge via a KPDES permit, to be issued by the Natural Resources and Environmental Protection Cabinet.

Water supply will be from EKPC, under its Withdrawal Authority. KPE will install a new water intake structure at the Kentucky River, to replace the existing one, which is of insufficient capacity. KPE has already made application to the US Army Corp of Engineers (USACE – Louisville) for this permit. USACE - Louisville has been waiting for the EIS process to be completed, before considering the application.

10.3.7 Compliance with applicable setback requirements, SB 257, Section 5(3)(a)7

See Tab 5 for discussion of Setback exemption for co-location with an existing generating facility with output greater than 10 MW.

10.3.8 Evaluation of noise levels expected

EIS Chapter 4.10 (Noise): Existing noise at the JK Smith site ranges from 39 to 55 dBA. Highway levels range from 52 to 69 dBA. Noise data taken at the JK Smith site were not affected by the combustion turbines already existing at the site, whether they were in operation or not.

EIS Chapter 5.10: Notes that noise during construction may range to 92 dBA. These would be attenuated to 71 dBA at 1000 feet, 61 dBA at 2500 feet, 50 dBA at 1-mile, and 44 dBA at 1.5 miles. Terrain and vegetation are expected to further attenuate these values. Very few residences exist within one-mile of the site. Nighttime construction noise will approximate background.

Operational noise, based on studies at similar sites estimated at 63 dBA at the site perimeter, 57 dBA at the EKPC property line, 54 dBA at the closest structure, and 45 dBA at Trapp. These are compatible with rural residential land use.

10.4 Scenic Evaluation, SB 257, Section 5(3)(b)

EIS Chapter 5.5 (Aesthetic and Scenic Resources):

DOE notes that the turbine exhaust stacks, at 213-feet tall, could be visible from Winchester and Pilot Knob, both approximately 8-miles distant. Hilly and irregular terrain is however likely to prevent visibility from Winchester, or even Trapp, which is approximately 2-miles distant.

FAA will require strobe lighting on the stacks to mitigate the potential for harmful bird strikes. Safety required structure lighting will be hooded and point downward, thereby minimizing stray light. DOE views these lighting issues as posing minimal impact at night.

DOE also states that there are no impacts to the aesthetic and scenic resources of the Daniel Boone National Forest and Red River.

DOE notes that cooling tower plume visibility will depend on meteorological conditions. Infrequent flare use would be visible in the same manner that the stacks are visible.

Construction dust may also be periodically apparent.

10.5 Property Value Evaluation, SB 257, section 5(3)(c)

EIS 5.3.3 – Socio-Economic: States that negligible property value impacts are expected due to the very sparsely populated region; with the closest residence is more than one-mile distant from the facility.

10.6 Peak and Average Noise Evaluation, SB 257, Section 5(3)(d)

EIS Chapter 4.10 (Noise): As described in Section 10.3.8, existing noise at the JK Smith site ranges from 39 to 55 dBA. Highway levels range from 52 to 69 dBA. Noise data taken at the JK Smith site were not affected by the combustion turbines already existing at the site, whether they were in operation or not.

EIS Chapter 5.10: Notes that noise during construction may range to 92 dBA. These would be attenuated to 71 dBA at 1000 feet, 61 dBA at 2500 feet, 50 dBA at 1-mile, and 44 dBA at 1.5miles. Terrain and vegetation are expected to further attenuate these values. Very few residences exist within one-mile of the site. Nighttime construction noise will approximate background.

Operational noise, based on studies at similar sites estimated at 63 dBA at the site perimeter, 57 dBA at the EKPC property line, 54 dBA at the closest structure, and 45 dBA at Trapp. These are compatible with rural residential land use.

10.7 Traffic Evaluation, SB 257, Section 5(3)(e)

EIS Summary Section and Chapter 5.11.4: Notes that operational staff of 100-120 will be in three shifts resulting in 30-40 per vehicle movements per shift per day. Due to the existing traffic being light, little impact on traffic due to normal operation of the project site is expected. Shift change periods may affect the relatively low traffic volume and flow at Highway 89 in Trapp. Other periods will experience insignificant impacts.

Truck traffic is difficult to predict, but is expected to be occasional enough to have minimal impact along Highway 89. A large area turnout is in place at the EKPC entrance, with the gate displaced from the highway.

Rail traffic can be fully handled within the EKPC property and is not expected to significantly impact the mainline rail operation.

10.8 Mitigation Measures, SB 257, Section 5(4)

The EIS also suggests consideration of certain mitigation measures.

10.8.1 **EIS 5.18.2:** A fugitive dust control plan during construction and operation will be developed and implemented.

10.8.2 **EIS 5.18.3:** A soil erosion control plan during construction will be developed and implemented. Further mitigation is unlikely to be necessary.

10.8.3 **EIS 5.18.6:** Landscaping in this private property well away from public access is not expected to be required, but will be considered as appropriate following construction.

10.8.4 FAA does require stack lighting to minimize bird strike mortality. This structure lighting will be minimized as far as safe operation will allow, and unnecessary illumination of the atmosphere avoided. Structure lighting will be designed to conform to US Fish and Wildlife Service recommendations.

10.8.5 **EIS 5.18.7:** Noise enclosures are already planned for the gas turbines and air separation unit compressor. DOE suggests 95 dBA within one-meter outside the enclosure (the standard measurement point) should be required. Similarly, DOE suggests that 65 dBA outside the gasifier environment should be required.

10.8.6 DOE also states that distance, terrain, and vegetation will also serve to attenuate and mitigate noise levels at the EKPC property line.

10.8.7 **EIS 5.18.8 (Traffic):** KPE has already met with Kentucky Department of Transportation officials to understand their typical areas of concern. KPE will work with KDOT as the project is developed, to consider whether traffic controls or turning lanes, for example, during construction or operations are appropriate.

10.8.8 Kentucky Department of Transportation (KDOT) officials also attended the June 28, 2001 public meeting at Trapp Elementary School, at the request of local elected officials. KDOT was asked to be available to respond to traffic related questions and concerns. There were none expressed.

KDOT has informally suggested early consultation with the agency for their guidance and direction. Specifically, KDOT has the authority to require implementation of any measures they deem appropriate, during any phase of the project.

Such aspects as traffic control during construction, especially during shift change, and operation, Highway 89 maintenance and refurbishing if damaged during construction, would be considered.

As requested by KDOT, KPE will submit a project description and implementation plan to KDOT, and work with them to meet their requirements.

KPE proposes that the Board defer to KDOT for oversight of this issue.

Tab 11

Permit Status

11. PERMIT STATUS – SB 257, Section 3(1) (Contact Dwight Lockwood)

11.1 Federal Permits – SB 257, Section 3(1)

ITEM	PERMIT OR APPROVAL	RESPONSIBLE AGENCY	REGULATED ACTIVITY	PERMIT STATUS
1	Phase II Acid Rain	US EPA & Kentucky Division of Air Quality	Operational compliance with Acid Rain Regulations	Issued June 7, 2001
2	Exempt Wholesale Generator (EWG)	Federal Energy Regulatory Commission (FERC)	Sale of Wholesale Electricity	EG01-132-000 Issued May 24, 2001
3	Nationwide Permit	US Army Corp of Engineers – Louisville	Discharge Line and Associated Intake Structure	Application Pending US DOE EIS
4	Environmental Impact Statement (EIS)	US DOE and USEPA under National Environmental Policy Act (NEPA)	Kentucky Pioneer Energy Gasification Facility	EIS Approved by DOE and Pending USEPA Review followed by Record of Decision (ROD)
5	Determination of Obstruction Hazard	Federal Aviation Administration	Construction of Tall Structures	Application not yet made.

11.2 State Permits – SB 257, Section 3(1)

ITEM	PERMIT OR APPROVAL	RESPONSIBLE AGENCY	REGULATED ACTIVITY	PERMIT STATUS
1	Declaratory Order of Non-Jurisdiction	Public Service Commission	Concurrence facility is not a regulated utility	Issued July 13, 2000
2	New Source Review (PSD) and Title V Permits	Kentucky Division of Air Quality	Construction and Operation of a Major Source.	Issued June 7, 2001; Extended to June 7, 2004
3	National Pollution Discharge Elimination System (NPDES)	Kentucky Division of Water	Discharge of cooling or process waste waters into surface waters	Application not yet made.
4	NPDES General Storm Water Operating Permit	Kentucky Division of Water	Discharge of Storm Water runoff during operation of facility	Application not yet made.
5	NPDES General Storm Water Permit for Construction (Notice of Intent)	Kentucky Division of Water	Discharge of storm water runoff during construction	Application not yet made
6	Water Withdrawal Permit	Kentucky Division of Water	Withdrawal of Water for Utility Use	Not required.
7	Wastewater Facility Construction Permit	Kentucky Division of Water	Construction of wastewater treatment facility	Application not yet made
8	Section 401 Water Quality Certification	Kentucky Division of Water	Required for USACE Permit	Pending DOE EIS and USACE action on Federal Permit
9	Determination of Obstruction Hazard	Kentucky Airport Zoning Commission	Construction of Tall Structures	Application not yet considered

11.3 Local Permits – SB 257, Section 3(1)

ITEM	PERMIT OR APPROVAL	RESPONSIBLE AGENCY	REGULATED ACTIVITY	PERMIT STATUS
1	No local permits needed.			

**11.4 Cumulative Environmental Assessment Notification And NEPA Alternative
– SB 257, Section 10(1)(a)**

11.4.1 SB 257, Section 10(2) Provides that documentation of compliance with the National Environmental Policy Act (NEPA) is an acceptable alternative for meeting the requirements of a cumulative environmental assessment under Section 4(2)(l).

Kentucky Pioneer Energy qualifies for this alternative by virtue of the Department of Energy prepared Environmental Impact Statement (EIS), included as the Appendix at Tab 13.

11.4.2 SB 257, Section 10(3)

While the NEPA documentation is provided by the EIS in Tab 13, summary discussion and information is provided here by KPE as well.

11.4.2.1 Section 10(3)(a) Air Pollution

Kentucky Natural Resources and Environmental Protection Cabinet issued the permit to construct {V-00-049} for this facility on June 7, 2001.

Section 10(3)(a)1. The two major sources of emissions from the facility are the stacks associated with the gas turbine driven electric generators. There are no stacks associated with the gasification process area, which produces the SG (synthesis gas) fuel for the turbines. Minor levels of particulate emissions will result mostly from feedstock handling and storage.

Section 10(3)(a)2. Combustion turbine emissions are commonly minimized by lowering the firing temperature by moisturizing the fuel as well as steam injection into the fuel combustor in the turbine. Sulfur is removed from the fuel after it is produced in the gasification system, and before it is used in the turbines, by conventional gas clean-up processes. Very stringent limits have been placed on the plant by the air permit. Solid materials receipt, storage and handling will be utilize enclosed equipment and structures, with particulate filtration on vents associated with storage structures.

11.4.2.2 Section 10(2)(b) Water Pollution

KPE has estimated that it will utilize approximately 4 MGD (million gallons per day) of water for various plant operations. Most of the water will be used in the gasification process, while some is used in the combustion turbine.

Section 10(2)(b)1. Water is extensively used and reused in various process operations, minimizing the quantity of wastewater produced. Approximately 0.4 MGD has been estimated as wastewater, comprising relatively normal constituents for a process plant, for treating and discharge. KPE has met with the Kentucky Division of Water and been advised as to the general expectations for wastewater treating and discharge to the Kentucky River under a National Pollution Discharge Elimination System (NPDES) permit. Discharge, upon approval of the Division of Water, will utilize the existing discharge line into the Kentucky River; though requirements of the Division of Water may necessitate modification discharge end of the line. A permit application will be prepared and submitted once more of the process design is completed and well before operations are scheduled to begin.

11.4.2.3 Section 10(2)(c) Wastes

Section 10(2)(c)1. The facility expects to generate solid wastes in fairly modest quantities and similar in nature to many manufacturing operations. These are not expected to be of significant quantity or problematic nature. Little hazardous waste is anticipated.

Section 10(2)(c)2. While coal is generally expected to produce ash that has regulated disposal aspects, the gasification technology being employed produces a vitrified frit or slag, from the “ash” content of the feedstock. This material has commercial market value, and is therefore not a waste.

11.4.2.4 Water Withdrawal, SB 257, Section 10(2)(d)

Section 10(2)(d)1. KPE will receive water from East Kentucky Power Cooperative (EKPC) under its Withdrawal authority. Kentucky Division of Water has informally advised KPE that the water will be metered from EKPC to ensure proper accounting of flows from the Kentucky River.

KPE currently plans to utilize existing capacity during construction. A new intake structure and pumping capacity will be installed to supply the new volumes planned by both EKPC and KPE. This intake will connect to the existing large capacity line to the project site.

Section 10(2)(d)2. As noted above, water is extensively reutilized in process area, primarily in heat exchange. Steam is also supplied by the steam turbine to the gasification process, taking optimum advantage of both its availability and its temperature.

Tab 12

Certification of Compliance

12. CERTIFICATION OF COMPLIANCE and SETBACK, Section 4(2)(d)

Statement certifying plant will be in compliance with all local ordinances and regulations concerning noise control, planning, zoning, and disclose setback requirements established by the planning and zoning commission as provided under Subsection (3) of Section 3 of this Act.

The plant will be designed, installed, and operated in compliance with any local ordinances and regulations affecting planning, zoning, noise, and set-back.

There are no Setback requirements imposed by Clark County Planning and Zoning Commission.

Dwight N. Lockwood

Original Signed

Dwight N. Lockwood, PE, QEP
Vice-President Regulatory Affairs

Tab 13

Appendix

US DOE

Environmental Impact Statement

(NEPA Compliance)