Kansas City Power & Light Company Page 1

10/30/2007

Filed
July 21, 2011
Data Center
Missouri Public
Service Commission



Department of Energy Section 48A Certification Application for Advanced Coal Project Credits

Date: Submitted by:	October 30, 2007 Kansas City Power & Light Company 1201 Walnut Street, Mail Stop 21 I		
Taxpayer Identification Number: Principal Contact:	Kansas City, Missouri 64106 44-0308720 Stephen T. Easley, Senior Vice President - Supply Phone Number: 816-556-2894 Email: Steve.Easley@KCPL.com		
Advanced Coal Project Name:	latan 2 Station		
Kansas City Power & Light Company (KCP&L advanced coal facility near Weston, Missouri. supercritical boiler and will burn subbituminou and will operate the new facility. Output fro KCP&L and four other partial owners.	The project, called latan 2, will incorporate a us coal. KCP&L will be the primary owner		
The total cost of the project is estimated at \$1 under Internal Revenue Code (IRC) Section 48 billion. KCP&L requests \$125.0 million under I coal project credit.	BA(b)(1) is estimated to be in excess of \$1.6		
"Under penalties of perjury, I declare that I accompanying documents, and, to the best o contained herein are true correct and complete	f my knowledge and belief, all of the facts		
	Date:		
Stephen T. Easley, Senior Vice President – Su Kansas City Power & Light Company	pply		
	Date:		
Michael Cline, Treasurer Great Plains Energy Incorporated	JOINT		

EXHIBIT 2

Department of Energy §48A Certification Application For Advanced Coal Project Credits

Contents

Cover Letter (Including 7.01 Signature Page, 7.02 Penalties of Perjury Statement)

5.02 Application for DOE Certification 5.03 Application for Section 48A Certification – IRS Consent to Public Disclosure of Allocation

Project Information Memorandum

- I. Summary and Introduction
- II. Technology and Technical Information
- III. Applicants Capability to Accomplish the Technical Objectives
- IV. Priority for Integrated Gasification Combined Cycle Projects
- V. Site Control and Ownership
- VI. Utilization of Project Output
- VII. Project Economics
- VIII. Project Development and Financial Plan
- IX. Project Contract Structure
- X. Permits Including Environmental Authorizations
- XI. Steam Turbine Purchase
- XII. Project Schedule
- XIII. Program Policy Factors Primary and Secondary Factors Addressed

Appendices

- Appendix A: Copy of Internal or External Engineering Reports
- Appendix B: Copy of Site Plan, Proof of Ownership
- **Appendix C: Copy of Siting Study**
- Appendix D: Power Purchase or Energy Sales Agreement
- **Appendix E: Energy Market Study**
- Appendix F: Market Study for Non-Power Output
- Appendix G: Financial Model of Project

Appendix H: Financial Statements and Credit Rating Agency Reports

Appendix I: Expressions of Interest or Commitment Letters from Funding Sources

Appendix J: Project Contract Terms and Conditions

Appendix K: Permits - (Federal, State, Local), Environmental Authorizations

Appendix L: Explanation if an Appendix is Not Included.

Appendix M: Overall Project Schedule

Appendix N: Board Meeting Minutes

Appendix O: latan 2 Operating Agreement

Appendix P: Comprehensive Energy Plan

Appendix Q: Schedule to Beginning of Construction

Appendix R: Steam Turbine Contract

Appendix S: Project Definition Report

Appendix T: Alstom Contract Guarantees

Appendix U: Examples of Prior Projects Completed by Applicant and Suppliers

Appendix V: latan Construction Project Execution Plan

Appendix W: Missouri and Kansas Stipulations and Commissions Approval

Appendix X: Team Member Resume's

Appendix Y: Plant Retrofit Considerations for Carbon Capture

Appendix Z: Transmission Facilities Agreement

5. Application For Certification

- 5.02. <u>Information Required in the Application for DOE Certification</u>. An application for DOE certification must include all of the information requested in Appendix B to this notice and all of the following:
- (1) The name, address, and taxpayer identification number of the taxpayer;

Name:

Kansas City Power & Light Company

Address:

1201 Walnut Street, Mail Stop 21I

Kansas City, Missouri 64106

Taxpayer ID:

44-0308720

(1a) The name, address, and taxpayer identification number of the common parent of the affiliated group;

Name:

Great Plains Energy Incorporated

Address:

1201 Walnut Street, Mail Stop 21I

Kansas City, Missouri 64106

Taxpayer ID:

43-1916803

(2) The name and telephone number of a contact person;

Name:

Stephen T. Easley

Title:

Senior Vice President - Supply,

Kansas City Power & Light Company

Tel No.

(816) 556-2894

Email

Steve.Easley@KCPL.com

(3) The name and address (or other unique identifying designation) of the qualifying advanced coal project;

Name:

latan 2 Station

Address:

20250 Highway 45 North Weston, MO 64098-8902

(4) A statement specifying whether the project is an IGCC project or a qualifying advanced coal project that uses another advanced coalbased technology;

Project Type: Advanced Coal Project

(5) In the case of an IGCC project, a statement specifying the type of coal (bituminous coal, subbituminous coal, or lignite) that will be the primary feedstock. An application for DOE certification with respect to an IGCC project will not be considered unless one of these types of coal is the primary feedstock. For purposes of \$\frac{1}{2}\sqrt{3}\$ (a)(a), a type of coal is the primary feedstock only if at all times more than 50 percent of the cumulative total fuel input (coal and any other fuel input) for the project will consist of that type of coal; (BMCD)

Coal Type: Not Applicable.

% Fuel Input: Not Applicable.

(6) The estimated total cost of the project and the estimated total qualified investment in the eligible property that will be part of the project;

Total Project Cost:

\$1,685,200,000

Total Qualified Investment:

\$125,000,000

(7) The amount of the qualifying advanced coal project credit requested for the project. The amount requested must not exceed the maximum amount provided in section 4.02(2) of this notice;

Requested Amount:

\$125,000,000

(8) If the taxpayer is or will be requesting an amount of the qualifying gasification project credit under § 48B for the same project, a statement specifying the credit the taxpayer prefers to receive;

Statement: Not Applicable.

(9) A statement specifying whether the project is a new electric generation unit (as defined in \S 48A(c)(6)), a retrofit of an existing electric generation unit, or a repower of an existing electric generation unit; and

Statement: This project consists of a new, single electric generation unit.

(10) A statement specifying whether this project is entitled to priority for greenhouse gas capture capability for IGCC projects;

Statement: Not Applicable.

(11) A statement specifying the number and types of generators to be used in the project;

Statement: One steam turbine generator.

(12) The exact total nameplate generating capacity, as defined in section 3.02 of Notice 2007-52, of the project.

Nameplate Capacity (MW): 914 MW (gross); 850 MW (net)

(13) A statement that the project is designed for the use of a feedstock substantially all of which is subbituminous coal and will achieve an emission level of not more than .04 lbs of sulfur dioxide per million BTU, determined on a 30-day average;

Statement: The latan 2 unit will share fuel unloading and fuel storage facilities with latan 1. The operating fuel supply for both units will be 100% Powder River Basin (PRB), subbituminous coal. Oil is available in limited quantities for start up and flame stability when required. The overall fuel mix will easily exceed 80% PRB subbituminous coal. The design coal for engineering development, boiler design and environmental control design, and engineering was a typical PRB coal, with adequate range around coal constituents to offer a representative range of future PRB fuel characteristics. The contract guarantees for performance of the wet Fludized Gas Desulfurization (FGD) unit for SO2 removal is the least stringent of 0.021 lbs/million BTU or 98% removal of SO2 from the unit's flue gas. Based on this guarantee and the utilization of subbituminous PRB coal, the guaranteed SO2 emission rate of latan 2 will be well below the 0.04 lbs/million BTU.

- 5.03. <u>Information Required in the Application for § 48A</u>

 <u>Certification</u>. Pursuant to § 48A(d)(2)(B), an application for § 48A certification must include all of the following:
- (1) The name, address, and taxpayer identification number of the taxpayer;

Name:

Kansas City Power & Light Company

Address:

1201 Walnut Street, Mail Stop 211

Kansas City, Missouri 64106

Taxpayer ID:

44-0308720

(1a) The name, address, and taxpayer identification number of the common parent of the affiliated group;

Name:

Great Plains Energy Incorporated

Address:

1201 Walnut Street, Mail Stop 211

Kansas City, Missouri 64106

Taxpayer ID:

43-1916803

(2) The name, telephone number, and fax number of a contact person. If necessary, attach any required power of attorney, preferably on Form 2848, Power of Attorney and Declaration of Representative;

Name:

Stephen T. Easley

Title:

Senior Vice President - Supply

Kansas City Power & Light Company

Tel No.

(816) 556-2894

Fax No.

(816) 556-2418

Email

Steve.Easley@KCPL.com

(3) One paper copy and one electronic version on a CD of the completed application for DOE certification submitted with respect to the project in accordance with section 5.02 of this notice.

Application Completed: October 30, 2007

(4) Consent to disclosure of Allocation.

See the following page of application for Consent to Public Disclosure.

Consent to Public Disclosure of Certain Qualifying Advanced Coal Project Program Application Information

In the event that the Application for Section 48A Certification of Kansas City Power & Light Company (the Applicant-Taxpayer) for an allocation of qualifying advanced coal project credits under section 48A of the Internal Revenue Code is approved, the undersigned authorized representative of the Applicant-Taxpayer hereby consents to the disclosure by the Internal Revenue Service through publication of a Notice in the Internal Revenue Bulletin or a press release of: (1) the name of the Applicant-Taxpayer; (2) if the Applicant-Taxpayer is a member of an affiliated group filing consolidated returns, the name of the common parent of the group; (3) the type and location of the project that is the subject of the Application for Section 48A Certification; and (4) the amount of the allocation, if any, of qualifying advanced coal projects credits for such project. The undersigned understands that this information might be published, broadcast, discussed, or otherwise disseminated in the public record.

This authorization shall become effective upon the execution thereof. Except to the extent disclosure is authorized herein, the returns and return information of the undersigned taxpayer are confidential and are protected by law under the Internal Revenue Code.

I certify that I have the authority to execute this consent to disclose on behalf of the taxpayer named below.

Date:

Signature:

Print Name: Stephen T. Easley

Title: Kansas City Power & Light Co., Senior Vice President – Supply

Name of Applicant-Taxpayer: Kansas City Power & Light Company (subsidiary of Great Plains Energy Incorporated)

Name of Commonly Controlled Parent Company of Affiliated Group: Great Plains Energy Incorporated

Taxpayer Identification Number of Applicant Taxpayer: 44-0308720

Taxpayer Address: 1201 Walnut St., Mailstop 21I, Kansas City, MO 64106

Project Name and Location: latan 2 Station, 20250 Highway 45 North, Weston, MO 64098-8902

Kansas City Power & Light Company Page 10

10/30/2007

The Amount of the Qualifying Advanced Coal Project Credit Allocated to the Project: \$125,000,000

Note: Treasury Regulations require that the Internal Revenue Service must receive this consent within 60 days after it is signed and dated.

Project Information Memorandum I. SUMMARY AND INTRODUCTION

Description of the Project

The project includes construction of an 914 gross MW (850 net) electric generation station utilizing a single pulverized coal fired boiler and a single reheat steam turbine at the existing latan Generating Station just outside of Weston, Missouri. The plant is located in the flood plain of the Missouri River and will include measures to mitigate potential impact of floods on operations. Such mitigation measures include elevation of the project site and impounding of the ash landfill areas with earthen berms consistent with the approach utilized on the existing latan unit. As a unit addition to an existing site, most of the flood protection was completed during the construction of the original unit.

The unit will be fueled by Powder River Basin subbituminous coal. Modifications to the existing fuel supply rail system are required to facilitate unloading of 150 car unit trains in the future. The existing unloading and fuel handling systems will be used and will be modified to provide additional redundancy and contingencies to facilitate maintenance of equipment without interruption of the operation of the current and proposed units.

The boiler is a pulverized coal fired boiler of the balanced-draft combustion design. Steam generated by the boiler is supplied to the steam turbine to complete the power generation cycle. The steam turbine includes eight stages of feedwater heating and will operate with steam in the supercritical pressure range (2690 psi) at main steam and reheat steam temperatures of 1080°F. Treated cooling water for the water-cooled surface condenser will be from a mechanical draft cooling tower system. Raw water for the cooling system will be supplied from a new collector well system located on the site.

Financing and Ownership Structure

KCP&L, Aquila, Inc. ("Aquila"), The Empire District Electric Company ("Empire"), Kansas Electric Power Cooperative, Inc. ("KEPCO") and Missouri Joint Municipal Electric Utility Commission ("MJMEUC") entered into the latan Unit 2 and Common Facilities Ownership Agreement ("Agreement") effective as of June 12, 2006. The Agreement provides for the construction, ownership and operation of latan Unit 2, a coal-fired electric generating facility of approximately 850 MW net generating capacity to be located on the East bank of the Missouri River in Platte County, Missouri at the existing latan Station. KCP&L and the other owners own latan Unit 2 as tenants in common, each with an undivided ownership interest.

Under the Agreement, KCP&L will construct, operate, and own approximately 55% of latan Unit 2 (465 MW), subject to certain adjustments. Aquila, Empire, KEPCO and

MJMEUC will own severally the remainder of latan Unit 2, and will reimburse KCP&L for their respective shares of the construction, operating and maintenance costs.

The Agreement contains representations and affirmative, negative, and financial responsibility covenants, including, without limitation, waiver of partition rights and rights of first refusal in the event a co-owner proposes to transfer its ownership interest. The Agreement also contains events of default including, without limitation, payment defaults, certain bankruptcy and insolvency events and other breaches of obligations under the Agreement. Upon a default during construction, the defaulting co-owner's share of latan Unit 2 is subject to reduction and the non-defaulting owners shall, unless otherwise agreed, pay their pro rata share of the defaulting owner's remaining construction obligations. Upon a payment default after latan Unit 2 is in service, KCP&L has the right to sell the defaulting co-owner's share of electricity to cover the co-owner's default, and will remit to the defaulting co-owner 90% of any excess revenues. If such payment default continues for more than three consecutive months, the co-owner will be obligated to sell its interest in latan Unit 2 to KCP&L (and to the other non-defaulting co-owners if KCP&L declines to purchase).

Financing for the project is expected to be provided in three primary forms: (1) Cash generated internally by KCP&L; (2) External debt financing, both short and long-term, obtained by KCP&L; and (3) Equity financing in the form of equity infusions into KCP&L from GPE (which, in turn, will issue equity, hybrid debt, and/or equity-linked securities to third-party investors). The project will not be financed on a standalone basis, but rather in the course of the overall financing plan for GPE and KCP&L.

Describe the main parties to the project, including background, ownership, and related experience

The latan 2 project Ownership Agreement can be found in Appendix O. The main parties to the project are:

KCP&L	54.71%
Aquila	18.00%
Empire District Electric	12.00%
Missouri Joint Municipal Electric Utility Commission	11.76%
Kansas Electric Power Cooperative, Inc.	3.53%

Each partner will own the above stated percentage of the output from the plant and are expected to utilize their proportionate share. On May 7, 2007, GPE, the parent of KCP&L, announced its intention to acquire all the outstanding shares of Aquila and its Missouri-based electric utility assets. Shareholder approval of this transaction was received on October 10, 2007. The transaction is expected to close in the first quarter of 2008.

KCP&L, Aquila, and Empire own, as tenants in common, the existing latan Unit 1 Station. The Ownership Agreement for Unit 1 was drafted on July 31, 1978.

Kansas City Power & Light Company Page 30

required coal needs in 2010, when the coal project is scheduled to come on-line. Coal supplies in place for 2010 include tonnages from:

- Jacobs Ranch
- Caballo
- Buckskin

Additional coal contracts will be entered into with PRB producers for 2010 and beyond as we identify opportunities to solicit the market. Historically, for KCP&L operated plants, all or nearly all projected coal requirements for a year are procured before the beginning of the year.

Coal transportation: explain the arrangements for transporting coal, including costs.

Coal transportation for the proposed project is expected to be supplied by the Burlington Northern Santa Fe Railroad (BNSF). A rail transportation contract with the BNSF is currently in place to the proposed site and is effective through December 31, 2010. Under this agreement, KCP&L supplies an adequate number of railcars to move nominated tonnages and the BNSF supplies all other transportation services. Rail transportation options after 2010 are being reviewed and evaluated. Internal projections indicate that total transportation costs including unit train depreciation, maintenance, and freight costs are estimated to range from approximately \$15.2 million in 2010 to \$108.6 million in 2036.

Operations & Maintenance Agreement: include a summary of the terms and conditions of the contract and a copy of the contract.

KCP&L will be the majority owner and the operator of latan 2. KCP&L currently operates more than 3200 MW of coal fired electric generation, and has operated similar facilities for nearly 100 years. The current workforce employed at the latan site is expected to grow by roughly 80 workers to operate and maintain the new unit. See Common Facilities Ownership Agreement below for a summary of the terms and conditions.

Shareholders Agreement: summarize key terms and include the agreement as an appendix.

The latan Unit 2 and Common Facilities Ownership Agreement is a binding agreement between KCP&L, Aquila, Empire, KEPCO and MJMEUC. The Owners intend to construct, own and operate a coal-fired electric generating facility of approximately 850 MW (net) generating capacity on the east bank of the Missouri River, near the Upper latan Bend, in Platte County, Missouri. The Owners have agreed that the latan Unit 2 Facility shall be owned by the Owners as tenants in common, each with an undivided ownership interest. This is to include enhancements and improvements to the Existing Common Facility in order to facilitate the joint operation of Units 1 and 2.

(with correspon		2 Facility Ownerslapacity entitlement	•	net Generating	
Capacity)					
KCP&L	Aquila	Empire	MJMEUC	KEPCO	
54.71%	18.00%	12.00%	11.76%	3.53%	
(465 MW)	(153 MW)	(102 MW)	(100 MW)	(30 MW)	
Interest in Common Facilities					
61.45%	18.00%	12.00%	6.58%	1.97%	

There shall be a Management Committee which will consist of two members representing each of the Owners. All policies relating to the management, operation and maintenance of the latan Unit 2 Facility, the Common Facilities, and the latan Station Site shall be determined and administered by the Management Committee. Each owner has the right to locate an employee, full or part-time, at the latan Station Site to monitor Unit 2 Construction.

Construction Management

Each Owner authorizes KCP&L to act as the exclusive operator to perform through KCP&L's own employees, agents, servants and contractors, all such functions as may be required for the actual design, permitting, development, procurement, construction, operation and maintenance of the latan Unit 2 Facility, the Common Facilities and the latan Station Site, subject to the direction and control of the Management Committee. KCP&L shall have sole responsibility for the planning, licensing, permitting, design, construction and testing of Unit 2 and the Common Facility Upgrades. Aquila will be responsible for supplying construction power under applicable retail rates or a special contract.

The Operator (KCP&L) shall report on a monthly basis the status of construction and provide the other Owners with changes to the budget and schedule, all contractor and sub-contractor monthly progress reports will be provided as requested. The Owners will be billed in accordance with the Cash Flow worksheet. KCP&L, during Construction, shall maintain Builder's Risk Insurance. The Owners have the right to review and comment on KCP&L's safety program for construction of Unit 2. In performing its responsibilities, the Operator shall carry out the provisions of this Agreement in accordance with Good Utility Practice.

At Closing

Upon closing KCP&L and the Owners shall settle all accounts and property as included in the Owners Agreement. Upon closing the Unit 1 Owners shall deliver a ground lease in recordable form that grants to MJMEUC and KEPCO certain property rights with respect to the real property on which Unit 2 and the Common Facilities are or will be