

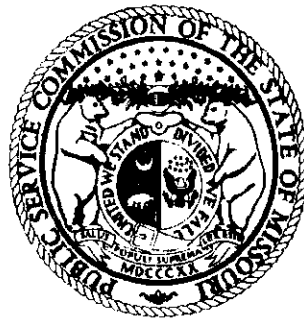
CONSTRUCTION AUDIT AND PRUDENCE REVIEW

PLUM POINT

**FOR COSTS REPORTED AS OF
OCTOBER 31, 2010**

**MISSOURI PUBLIC SERVICE COMMISSION
STAFF REPORT**

FILE NO. ER-2011-0004



*Jefferson City, Missouri
February 23, 2011*

****Denotes Highly Confidential****

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1 **CONSTRUCTION AUDIT AND PRUDENCE REVIEW**

2 **PLUM POINT**

3 **FOR COSTS REPORTED AS OF**

4 **OCTOBER 31, 2010**

5 ***I. Executive Summary***

6 *Staff Expert: Charles R. Hyneman*

7 This Report is the initial Report the Staff ("Staff") of the Missouri Public Service
8 Commission ("Commission") has compiled regarding the Empire District Electric Company's
9 ("Empire or Company") investment in the Plum Point Generating Station ("Plum Point").¹

10 Staff is proposing one adjustment to the Plum Point project for costs through
11 October 31, 2010 related to _____. Staff is adjusting Empire's plant in service to

12 reflect the actual costs of Plum Point project at October 31, 2010, the cutoff date for the Staff's
13 audit. Empire provided Staff a plant in service for Plum Point amount of _____ at
14 October 31, 2010. This amount is based on a budgeted total for Plum Point of _____.

15 As of October 31, 2010, the total requisition costs were _____. Empire's share of
16 Plum Point's total cost is _____ at October 31, 2010. This amount should be reduced by
17 * _____ to reflect Empire's share (7.52%, _____) of the _____

18 difference between the Plum Point current budget and requisition costs as of October 31, 2010.

19 Staff's audit at this time assumes that Empire's Allowance for Funds Used Doing
20 Construction (AFUDC) is based actual costs and not projected costs. This was confirmed with
21 Empire personnel on February 22, 2011. To the extent that the Staff's finds that these

¹ Staff is currently involved in the audits of seven (7) construction projects. These projects are Iatan 2 and Iatan Common Plant, Plum Point, Jeffrey 1-3 Flue Gas Desulphurization (FGD) Rebuild, Sibley 3 Selective Catalytic Reduction (SCR) equipment, Taum Sauk Rebuild, Sioux Wet Flue Gas Desulphurization (WFGD), and Spearville Wind 2 addition. This is the last of above listed audit reports.



1 adjustments were based not on actual cash expenditures, it will address this issue later in this rate
2 proceeding. AFUDC is related to the capitalization or charging to the project interest expense or
3 lost profits related to the cash funds expended on the project. One cannot incurred interest or lose
4 profits on funds not spent. Staff would propose to remove these expenses as inappropriate costs.

5 Staff is also aware of an outstanding issue regarding _____^{**} at _____^{**}
6 Plum Point. However, this issue is outside October 31, 2010 cutoff date for this audit. This issue
7 will be addressed in subsequent Plum Point audits.

8 ***II. PLUM POINT Power Plant Description***

9 Plum Point met Staff's in-service criteria as of August 13, 2010, and, pursuant to the
10 Commission-approved August 16, 2010, *Stipulation and Joint Requests Regarding Plum Point* in
11 File No. ER-2010-0130 was recommended to be accepted by the Commission as fully
12 operational and useful for service. The Plum Point power plant is a 665 MW coal plant in
13 Osceola, Arkansas. The Plum Point plant sits near the Mississippi River and consists of a
14 subcritical unit that will burn coal from the Powder River Basin, Wyoming. Plum Point is being
15 constructed pursuant to an Engineer, Procure, and Construct (EPC) Agreement with a
16 construction consortium (Plum Point Power Partners or PPPP). Plum Point Power Partners is a
17 joint venture of Zachry Construction Corporation, Black & Veatch, and Gilbert Central Corp, an
18 affiliate of Kiewit Construction Company. This agreement is a full EPC Wrap on the unit proper
19 with liquidated damage provisions tied to unit output, efficiency, and schedule.

20 In 2006 Empire paid _____^{**} for ownership of 50 megawatts of the plant giving
21 Empire a 7.52% ownership percentage of the plant. Empire also agreed to purchase an additional
22 50 megawatts of output with an option to convert that output into an ownership stake in 2015.

1 The Empire Regulatory Plan in Case No. EO-2005-0263 does not identify the Plum Point in the
2 specific investments noted in the Agreement.

3 The principle owner of the Plum Point 1 generating station is Plum Point Energy
4 Associates (PPEA). This entity owns 378 MW or 56.85% of the unit. Initially PPEA consisted of
5 Dynegy with 140MW or 37% of the unit, John Hancock with 125MW or 33% of the unit, and
6 Energy Investors Fund with 113MW or 30% of the unit. Later John Hancock and
7 Energy Investors Fund acquired the Dynegy interests. The remaining owners are:

Missouri Joint Municipal Electric Utility Commission	147MW	22.11%
Empire District Electric	50 MW	7.52%
East Texas Electric Cooperatives	50 MW	7.52%
Municipal Energy Agency of Mississippi (MEAM)	40MW	6.00%

8
9 Thus Empire is both owner of Plum Point as well as a purchaser of the energy from the plant.

10 ***III. Engineering Review***

11 *Staff Expert: David W. Elliott*

12 **I. Scope**

13 The Engineering Analysis Section of the Energy Department, Utility Operations Division
14 (“Engineering”), is responsible for and conducts Engineering Reviews of major electric utility
15 construction projects. The Engineering Review consists of two activities — monitor project
16 construction progress and review construction project change orders.

17 To monitor the progress of the project during construction, Engineering Staff makes
18 periodic field visits to the site. Ideally, Engineering Staff begin making field visits at the on-set
19 of the construction and continue visits until a project is determined to meet the criteria to be
20 considered “fully operational and used for service”. During a field visit, Engineering Staff meet
21 with construction and Company personnel to review the overall progress of construction, review

1 documents related to changes affecting the project, including documents of changes in the
2 schedule and changes in costs, and to receive updates of safety-related aspects of the project.

3 Engineering Staff review construction project change orders associated with the project
4 for the following:

- 5 • To understand the reason for the change at the point in time when the change
6 order was issued;
- 7 • To determine whether the change corrected an engineering-related problem,
8 resulted in a better design, or improved the operation or construction of the plant;
9 and
- 10 • To determine whether the change resulted in a safety concern, caused unnecessary
11 construction, or caused unnecessary duplication of facilities or work.

12 in any particular Engineering Review the number of field visits to monitor construction
13 progress, the number of meetings with construction and Company personnel and the number of
14 construction project change orders that Engineering Staff reviews vary depending on a number
15 of factors, including the project type, the project size, the project location, and the availability of
16 Engineering Staff to perform the Engineering Review.

17 Other than as it relates to the foregoing list, the Engineering Staff's review of change
18 orders does not include a review of events preceding issuance of a change order, any change in
19 construction project costs due to a change order, or any other action or inaction by the Company
20 which resulted in a change order.

21 During an Engineering Review, the Engineering Staff discuss the change orders with
22 Company and construction project personnel to understand the reasons for the change orders. In
23 addition, the Engineering Staff review contracts, agreements, purchase orders, drawings, and
24 correspondences related to the change orders. If Engineering Staff determine there is an
25 engineering concern with a change order, such as an unnecessary coal conveyor, the Engineering
26

1 Staff would share its concern with the Commission's Auditing Staff and consult with Staff
2 management to determine the appropriate response to take to address the concern.

3 **2. Activities and Conclusions related to the Staff Engineering Review of Plum Point**
4 **Project**

5 Based on its Engineering Review of the change orders provided by The Empire District
6 Electric Company ("Empire or Company"), Engineering Staff² found no engineering concerns
7 with any of the Plum Point Project change orders reviewed.

8 Empire has a 50 MW (7.52%) ownership share of the Plum Point generating plant located
9 near Osceola, Arkansas. The plant consists of a 665 MW coal-fired sub-critical generating unit
10 which became operational in August 2010. The majority owner of the plant is
11 Plum Point Energy Associates LLC, and the plant was built by Plum Point Power Partners
12 (PPPP), a joint venture of Zachry Construction Corp., Black & Veatch, and Gilbert Central Corp.

13 Because of the distance to the Plum Point project and Empire's small percentage
14 ownership, Engineering Staff visited the site five times during the construction project.
15 Engineering Staff first visited the Plum Point site on June 18, 2006, and last visited on
16 August 8, 2010. The last visit in August 8, 2010 took place after testing was completed to
17 determine if Plum Point unit met the in-service criteria.

18 During these site visits Engineering Staff toured the construction site, discussed
19 construction progress and future milestones, and reviewed any documentation relevant
20 construction progress or change orders the Engineering Staff reviewed.

21 Due to the limited number of change orders approved during the project, the
22 Engineering Staff requested from Empire copies of all approved change orders. As of
23 February 1, 2010, Engineering Staff received from Empire copies of 22 change orders.

² Engineering Staff that performed this review were David Elliott and Shawn Lange.

1 The Engineering Staff did an initial review of the 22 change orders and determined that
2 two were non-engineering issues, such as insurance coverage, temporary support personnel,
3 equipment leasing, purchase order/accounting corrections, negotiated settlements, and project
4 schedule delays. Engineering Staff reviewed the remaining 20 change orders and found no
5 engineering concerns with any of the Plum Point project change orders.

6 ***IV. Audit Objectives***

7 *Staff Expert: Charles R. Hyneman*

8 The objective for the audit addressed in this Report was to 1) determine whether the
9 Plum Point Project costs contain unreasonable, imprudent, inappropriate, or charges not of
10 benefit to Missouri ratepayers through October 31, 2010, and 2) if such charges are found, to
11 take appropriate action to ensure these costs are not charged in utility rates to
12 Missouri ratepayers.

13 ***V. Risk Assessment***

14 *Staff Expert: Charles R. Hyneman*

15 During the Staff's audit, it did not find evidence of any material costs that were
16 unreasonable, imprudent, inappropriate, or charges not of benefit to Missouri ratepayers through
17 October 31, 2010. During its audit of Plum Point costs Staff held discussions with the Staff's
18 audit supervisor for in File No. ER-2011-0004, Empire's current Missouri rate case to determine
19 if there were any known or suspected irregularities regarding costs being miscoded to Plum Point
20 or personal or excessive costs being charged to the project. Staff only found existence of certain
21 fees for lobbying services that Staff would consider inappropriate. Through discussions with
22 Empire personnel the Staff learned that Empire charged _____ to the Plum Point Project for

23 * * * * *
* * * * * performed by _____

1 information, and the consistent full cooperation professionalism and cooperativeness of Empire
2 personnel in conjunction with based on the Staff's experience in previous rate case and
3 construction audits with Empire were significant factors in affecting the audit scope for
4 Plum Point

5 Empire is both owner and buyer of Plum Point and its power. Plum Point Energy
6 Associates own a majority of Plum Point. PPEA consists of two entities, EIF Plum Point LLC
7 and John Hancock Life Insurance Company. These two entities acquired the interests of
8 Dynegy Services Plum Point (DSPP), the initial third member of PPEA. PPEA has purchase
9 agreements for its share of the output of Plum Point 1 generating station. The purchased power
10 agreements are with the following entities:

Southern Mississippi Electric Power Association	200 MW	30.08%
Southwestern Electric Cooperative, Inc.	78MW	11.73%
Missouri Joint Municipal Electric Utility Commission	50MW	7.52%
Empire District Electric	50MW	7.52%

11
12 The Staff made the determination that the Purchase Power agreements are outside the scope of
13 the Construction Audit of Plum Point.

14 ***VII. Auditing Procedures***

15 *Staff Expert: Charles R. Hyneman*

16 Staff auditors held meetings with Empire personnel to gain an understanding of several of
17 the key information sources involving the Plum Point construction project. Some examples of
18 the other specific audit activities that were performed during the audit are as follows:

- 19 a. Interviewed and held teleconferences with Empire personnel;
- 20 b. Reviewed Board of Director Minutes regarding any matters
21 relating to the construction projects;
- 22 c. Met with Empire project management personnel at Empire's Joplin
23 headquarters building to review project status and costs;

- d. Tested for existence and status of cost overruns;
- e. Examined listing of detail charges to project;
- f. Examined listing of all 113 project Change Notices; A Change Notice in the context of this project refers to a tracking mechanism for an approved modification to the overall project budget. These may or may not be associated with a Change Order related to an EPC contract. Change Notices are aggregated in detail in the Project Change Notice Log.
- g. Reviewed Empire's responses to Staff Data Requests.

VIII. Summary

In summary, the Staff conducted a construction audit and prudence review of the costs of the Plum Point construction project. The Staff is proposing one adjustment to remove _____

_____ According to documents provided by Empire to the Staff, total legal expenses charged to the Project were _____ of which Empire's share was _____

(See Schedule 2). The Plum Point Project does not have cost overruns as of October 31, 2010.

Actual costs at this date are approximately _____ the original budget. Schedule 1 attached to this Report is the October 2010 Project Budget for Plum Point.

SCHEDULE 1-1
HIGHLY CONFIDENTIAL IN ITS ENTIRETY

SCHEDULE 1-2
HIGHLY CONFIDENTIAL IN ITS ENTIRETY

SCHEDULE 2-1
HIGHLY CONFIDENTIAL IN ITS ENTIRETY

SCHEDULE 2-2
HIGHLY CONFIDENTIAL IN ITS ENTIRETY

SCHEDULE 2-3
HIGHLY CONFIDENTIAL IN ITS ENTIRETY

SCHEDULE 2-4
HIGHLY CONFIDENTIAL IN ITS ENTIRETY