BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric)
Company of Joplin, Missouri for Authority)
To File Tariffs Increasing Rates for Electric) <u>Case No. ER-2008-0093</u>
Service Provided to Customers in the Missouri)
Service Area of the Company.	

NOTICE REGARDING EXTERNAL COMMUNICATIONS

Issue Date: March 12, 2008

On February 29, 2008, I received the attached electronic mail message and attachment from Tom Snyder, Plant Manager, Ozark Beach Hydro, Empire District Electric Company.

Dated at Jefferson City, Missouri, on this 12th day of March, 2008. Davis, Chairman

Gregory, Sheryl

From:

Davis, Jeff

Sent:

Friday, February 29, 2008 1:33 PM

To:

Tom Snyder

Cc:

Gregory, Sheryl; Mills, Lewis

Subject: RE: Empire District Electric's comments to SWPA MinFlow report

Dear Tom,

We are planning to file comments and I hope to have a draft on Monday. I am directing my assistant Sheryl to file this as an external communication in the rate case.

Sincerely,

Jeff Davis

From: Tom Snyder [mailto:TSnyder@empiredistrict.com]

Sent: Friday, February 29, 2008 1:31 PM

To: George.robbins@SWPA.Gov; colette.honorable@arkansas.gov; j.cloud@occemail.com;

t.wright@kcc.state.ks.us; Davis, Jeff

Subject: Empire District Electric's comments to SWPA MinFlow report

Attached you will find the Empire District Electric Co.'s comments to the SWPA Draft Report on the White River Minimum Flows Study Determination of Offset to the Federal Hydropower Purpose and Impacts on Non-Federal Project, dated January 2008.

I will be out of the office until Friday of next week if you have a question please call on my cell phone.

Tom Snyder

Plant Manager

Ozark Beach Hydro

Empire District Electric Co.

417-546-2111

417-339-7702 Cell

<< Empire's Comments to SWPA report White River Minimum Flow Determination Of Offset Jan 2008 .doc>>

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February 29, 2008

Mr. George Robbins
Director, Division of Resources and Rates
Southwestern Power Administration
One West Third
Tulsa, OK 74103

Dear Mr. Robbins:

The Empire District Electric Company (Empire) appreciates the opportunity to provide its comments as the licensee at the Federal Energy Regulatory Commission Project No., 2221 (Ozark Beach) on the information filed by the Southwestern Power Administration (SWPA) in the Federal Register on February 5, 2008 (pages 6717-6719) with regard to the White River Reallocation and the documents supporting that information. Thank you for providing us with all of the backup documentation.

Our comments are divided into the following topic areas:

- 1. Energy lost at Ozark Beach
- 2. Split of on-peak and off-peak energy
- 3. Capacity lost at Ozark Beach
- 4. Price assigned to lost capacity
- 5. Price assigned to on-peak energy loss
- 6. Price assigned to off-peak energy loss
- 7. Loss of renewable energy from Ozark Beach
- 8. Accounting for carbon tax risk
- 9. Operating costs for replacement capacity
- 10. Total costs to Empire
- 11. Housekeeping details

1. Energy Lost at Ozark Beach

As the Southwestern Power Administration is aware from our series of meetings in 2007 and the analysis that Empire conducted, including the sensitivity analysis, the energy lost at Ozark Beach due to the White River Reallocation is the value that is the most disputed and has the most significant impact on the final dollar value calculated for the total reimbursement to Empire. The initial estimate of lost energy from the Corps of Engineers was 6,150 MWh. Empire's August 2007 report reflects a value for lost energy of 12,436 MWh. The January 2008 Draft Report by SWPA estimates the energy lost as 5,792 MWh on-peak and 2,853 MWh off-peak for a total of 8,645 MWh.

Empire has serious concerns about the results reflected in the SWPA analysis which are derived in large part by the SUPER program. We specifically question the applicability of the SUPER program to accurately model relatively small changes in actual conditions at Ozark Beach as opposed to overall macro level changes in an entire river basin. The

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largest concern relates to the average tailwater elevation differences in the before and after modeling for the White River Reallocation. The results from the SUPER program are only reflecting a 3.3 foot difference in tailwater elevation (Appendix A), when in fact the Reallocation requires a 5 foot difference as reflected in Figure 2 of your report. While a difference of 1.7 foot may be minor in analysis of an entire river basin, it represents a 34% understatement in the results for Ozark Beach. If this discrepancy alone were modified, increasing the lost energy by the ratio of 5 to 3.3 would result in a value for lost energy higher than Empire's figure of 12,436 MWh. Empire strongly believes that this issue needs to be revisited and that the lost energy value that is appropriate is a minimum of 12,436 MWh.

Additionally, Empire does not believe the Super program is accurately capturing the efficiency and energy gains due to the addition of new water wheels at Ozark Beach. If you compare the Super program base run (which includes the figures for the new turbines) against the same period of the historic computation or Empire's actual energy generation for that time, the Super program only predicts a 3.5% increase in power generation (Appendix B). In fact, it should show a 16% increase to properly reflect the difference between the old and new turbine wheels installed at Ozark Beach.

Another concern is the basis of using 1940-2003 water data in the model including the 18 years prior to the installation of the Table Rock dam. Empire does not understand how the modeling can be accurate for those early years and properly reflect the operation of Ozark Beach. This calls the entire methodology into question.

Finally, Empire is not able to determine if the Super program is properly modeling overall water flow through Ozark Beach. The water flow through Ozark Beach is not equal to Table Rock output, but rather about 8% higher due to flows coming into Lake Taneycomo.

We are very cognizant that the Empire ratepayers are the ones who shoulder the risk of analysis that does not properly account for the loss of energy and capacity at Ozark Beach. We are striving to protect their interests.

2. Split of on-peak and off-peak energy

As far back as the analysis conducted by the Corps of Engineers, a 67% on-peak and 33% off-peak split has been used. This split is acceptable to Empire.

3. Capacity lost at Ozark Beach

Empire agrees with SWPA that the capacity lost at Ozark Beach is 3 MW.

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4. Price assigned to Lost Capacity

SWPA has proposed using the cost of a combined cycle facility to calculate the cost of the lost capacity. Empire agrees that a combined cycle facility is the appropriate choice for replacement capacity and that capacity costs should be reflected over the entire 50 years. Empire's 2007 analysis did not capture the capacity cost for the entire 50 years. Revised calculations show our estimate of capacity costs using a 2007 value for combined cycle capacity costs of \$1093/kW (which would be equivalent to the 128.47/kW-year used by SWPA) is now \$9.2 million.

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The appropriate costs to use for a combined cycle unit at the time of implementation of the Reallocation should be from a source that contains current cost information, such as the Platts Power Outlook which Empire recommends for using for the on-peak and off-peak energy prices. Such a source captures the significant increases in capital costs currently being experienced in the market. Empire does not have access nor is it able to verify numbers put together by the Corps' Hydropower Analysis Center which appear to be based on old and out-dated numbers that don't reflect current market conditions for, among other components, steel, concrete, and labor.

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5. Price assigned to on-peak energy loss

SWPA has proposed using the price of power generated from combined cycle facilities in Missouri for the on-peak energy price. Empire had previously proposed using a price that was more reflective of the entire market in which Empire operates and to obtain those values from an industry source. Empire still believes that using data from an industry source (Platts) would be appropriate in this calculation process and urges SWPA to reconsider its approach.

6. Price assigned to off-peak energy loss

SWPA has proposed using the price of power generated from coal-fired steam in Missouri for the off-peak energy price. Empire had previously proposed using a price that was more reflective of the entire market, as off-peak energy is often supplied by natural gas and not only coal-fired generation. Empire would ask that SWPA reconsider its methodology and use the Platts forecast for both on-peak and off-peak market energy – to properly reflect the split in the types of generation at the margin during both on-peak and off-peak hours year round.

7. Loss of renewable energy from Ozark Beach

The State of Missouri has implemented voluntary requirements for utilities within the state to meet a Renewable Portfolio Standard. There are currently petitions circulating that would make renewable energy requirements mandatory.

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The loss of capacity and energy from Ozark Beach reduces Empire's ability to comply with this renewable energy requirement. Empire believes that it needs to be fairly compensated for the loss of the renewable energy that will no longer be generated by Ozark Beach. One method to do so would be to reinstate the risk premium methodology that was incorporated in Empire's spreadsheets as provided to SWPA in 2007 and agreeing on the level of the associated risk premium. This issue could only become more important if Missouri were to make the voluntary requirement mandatory or if a national Renewable Portfolio Standard were enacted. Our current analysis assumes a 5% renewable risk premium. This risk premium is to keep the Empire ratepayers from shouldering all of the long-term risk associated with the loss of energy and capacity from Ozark Beach.

8. Accounting for carbon risk

The costs associated with the implementation of a carbon tax will be completely borne by Empire's ratepayers if such a tax is enacted after the White River Reallocation moves forward. SWPA's appears to support inclusion of carbon costs in the damage calculation if a law is enacted prior to the White River Reallocation implementation. Unfortunately, a carbon tax could be enacted after the damage payment is made, and Empire's ratepayers would incur additional costs for the extra carbon tax that they will incur due to the loss of energy from the Ozark Beach facility.

We believe it appropriate to include damages for carbon costs, and we request that SWPA consider including a payment for carbon costs. Our analysis has incorporated a \$20/ton carbon tax implemented in 2012. Again, this assumption is to keep the Empire ratepayers from shouldering all of the long-term risk associated with the loss of energy and capacity from Ozark Beach.

9. Operating costs for replacement capacity

As SWPA is aware, the level of reimbursement due to Empire is to be determined in agreement with the regulatory commissions that oversee its rates. The Missouri Public Service Commission notes that fixed operating and maintenance (O&M) costs for the replacement capacity were not incorporated in the 2007 analysis. Empire has added fixed O&M costs to the analysis and determined that this cost amounts to almost another \$1 million over the 50 years being examined.

10. Total Costs to Empire

With the assumptions described above and summarized below, the total amount due to Empire as a result of the White River Reallocation is \$42,347,977:

Energy lost: 12,436 MWhCapacity lost: 3 MW

• On-peak/off-peak energy split: 67%/33%

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- Capacity price, combined cycle unit, \$1093/kW in 2007 \$; replacement combined cycle unit installed in 2046 at inflated capital cost
- Energy price, first quarter 2008 Platts
- Carbon tax, \$20/ton
- Renewable energy risk, 5% risk premium on both off-peak and on-peak energy prices
- Fixed O&M cost of \$11.18/kW in 2007\$

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Total Costs to Empire of White River Reallocation – 2011 Implementation				
Category	Net Present Value to January 1, 2011			
Capacity	\$9,200,894			
Energy (updated with new Platts #)	\$27,334,198			
Carbon Tax Risk	\$3,637,241			
Renewable Energy Risk	1,366,710			
Fixed O&M	808,934			
TOTAL	\$42,347,977			

Empire expects that the total level of costs for which its ratepayers are to be reimbursed will be recalculated with current pricing values for all parameters at the time the determination is made to move forward with the White River Reallocation and ask for funding from the U.S. Congress. These values are only placeholders demonstrating how the methodology would work.

11. Housekeeping details

Please change the references in your report from "Powersite Dam" to "Ozark Beach" as that is the official name of the facility. These occur at least on pages 4, 13-16, 24, C-1, and D-1 of the January 2008 Draft Report.

Empire acknowledges that SWPA has spent much time and effort on this project, including several meetings with Empire personnel. We appreciate this effort.

In addition, thank you for your consideration of our comments.

Sincerely,

Tom Snyder

Appen	dix A									Deleted: ¶	
		Beach (New	,								
SUPER o	-	X02 (minim	um flow r	un)		lookup	lookup	+1	lo .		
Date	Table Rock Total Discharge, cfs	Bull Shoals 12- M Pool Elev., Ft.	Gross Head, feet	Adjusted BS Pool Elev., Ft.	Adjusted Gross Head, feet	look-up capacity in table	nearest head	head+1'	hea cap (ta		
12/08/03	1,518	651.89	49.11	652.23	48.77	19.800	48	49	20.		
12/09/03	1,518	652.00	49.00	652.35	48.65	19.800	48	49	20.2	200	
12/10/03	1,518	652.10	48.90	652.45	48.55	19.800	48	49	20.2	200	
12/11/03	1,517	652.17	48.83	652.52	48.48	19.800	48	49	20.2	200	
12/12/03	1,516	652.16	48.84	652.51	48.49	19.800	48	49	20.2	200	
12/13/03	120	652.27	48.73	652.62	48.38	19.800	48	49	20.2	200	
12/14/03	120	652.30	48.70	652.65	48.35	19.800	48	49	20.2	200	
12/15/03	1,514	652.27	48.73	652.62	48.38	19.800	48	49	20.2	200	
12/16/03	1,514	652.28	48.72	652.63	48.37	19.800	48	49	20.2		
12/17/03	1,514	652.29	48.71	652.64	48.36	19.800	48	49	20.2	200	
12/18/03	1,513	652.22	48.78	652.57	48.43	19.800	48	49	20.2		
12/19/03	1,513	652.20	48.80	652.55	48.45	19.800	48	49	20.2		
12/20/03	120	652.24	48.76	652.59	48.41	19.800	48	49	20.2	200	
12/21/03	120	652.24	48.76	652.59	48.41	19.800	48	49	20.2		
12/22/03	1,512	652.29	48.71	652.64	48.36	19.800 <		49	20.2		
12/23/03	1,512	652.41	48.59	652.76	48.24	19.800	48	49	20.2		
12/24/03	1,511	652.44	48.56	652.79	48.21	19.800	48	49	20.2		
12/25/03	1,511	652.38	48.62	652.73	48.27	19.800	48	49	20.2		
12/26/03	1,511	652.36	48.64	652.71	48.29	19.800	48	49	20.2		
12/27/03	120	652.38	48.62	652.73	48.27	19.800	48	49	20.2	200	

660.74 AVG MinFlow Adjusted BS Pool Elev., Ft
657.46 AVG Base Adjusted BS Pool Elev., Ft
3.28 Difference between MinFlow run to Base run

19.800

19.800

19.800

19.800

48.15

48.17

48.23

48.26

12/28/03

12/29/03

12/30/03

12/31/03

120

1,510

1,510

1,510

652.50

652.48

652.42

652.39

48.50

48.52

48.58

48.61

652.85

652.83

652.77

652.74

20.200

20.200

20.200

20.200

49

49

49

49

48

48

48

Appendix B

	WRMF_Empire_Super.xls SUPER output - W08x01	
	(Base tab) / OB Daily	OBHistorical.xls / OB
	Energy MWH, column M	Daily Energy MWH
	(new wheels)	column M (old wheels)
10/03/02	66.9	138.2
10/04/02	67.8	80.0
10/05/02	15.7	11.3
10/06/02	15.9	10.7
10/07/02	70.6	46.0
10/08/02	71.3	18.5
10/09/02	72.1	85.8
10/10/02	73.0	83.4
10/11/02	73.8	25.1
10/12/02	17.0	18.3
10/13/02	17.2	34.9
10/14/02	76.1	93.4
10/15/02	76.6	128.2
10/16/02	76.7	248.4
10/17/02	76.7	137.3
10/18/02	76.7	114.4
10/19/02	17.5	54.4
10/20/02	17.5	30.3
10/21/02	76.8	154.4
10/22/02	76.8	284.2
10/23/02	76.8	236.7
10/24/02	76.9	184.2
10/25/02	76.9	142.5
10/26/02	17.6	11.6
10/27/02	17.6	12.1
10/28/02	76.9	204.9
	1,811,158	1,749,868
		j

1,811,158 / 1,749,868 103.50%

Super with new wheels only shows 3.5% more MWH when compared to Historical MWH with old wheels