

Case No.: EO-2008-0046

Schedule RJJ-4

Data Request No. ILA-002 IND

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**AQUILA, INC.  
DATA REQUEST**

**CASE NO. EO-2008-0046  
AQUILA DATA REQUEST NO. ILA-002 IND**

**DATE OF REQUEST:** December 12, 2007

**DATE DUE:** January 1, 2008

**REQUESTOR:** Paul A. Boudreau

**REQUESTED FROM:** Mark Volpe

**QUESTION:** Please provide the following information concerning your rebuttal testimony filing:

- A. Page 10, Lines 3 – 17  
What percentage of costs associated with developing and operating an energy market are fixed costs?
- B. Page 10, Line 19 – Page 11, Line 13  
Please provide any analysis that you have performed or had performed to determine the appropriate administrative costs to use in comparing MISO and SPP.
- C. Page 10, Line 19 – Page 11, Line 13  
What adjustments do you propose be made in the Aquila Cost-Benefit Study to the administrative costs of MISO and/or SPP?

**RESPONSE:**

**A.** Based on my experience with the Midwest ISO and my review of the Midwest ISO 2008 Budget Review's full-time equivalents, an estimated percentage of the fixed costs associated with developing and operating an energy market would range from 95 to 97%. Once the costs of developing the energy market have been incurred, these costs are sunk and become fixed costs. Similarly, the incremental systems-related costs for hardware, software and ongoing support personnel become fixed costs. Data storage costs are the primary variable costs.

The Midwest ISO's core business is run primarily by Information Technology (IT), Real-Time/Market Operations, Transmission Management and Market Planning professionals. According to the Midwest ISO's proposed operating budget for next year, the 2008 budgeted full-time equivalents (FTEs) in these areas represent 620 out of 764 positions (81%) (See Exhibit 1, page 9). Other positions related to traditional administrative functions (i.e., Senior Management, Finance, Legal, and Human Resources), which are also fixed costs, increase the total percentage of fixed costs to approximately 95-97%.

**B.** Table A below depicts the adjusted administrative costs that should be used to compare MISO with SPP for the ten-year period from 2008 through 2017.

As shown on Table A, I recommend two adjustments to the Midwest ISO's administrative cost used by CRA. First, the administrative costs associated with MISO Ancillary Service Market (ASM) need to be backed out of the costs for all ten-years since SPP operates no such market and thus incurs no such costs. MISO's filing in Docket No. ER07-1372-000 indicates that the costs are estimated to be \$0.035/MWh.

(see [http://www.midwestmarket.org/publish/Document/13629d\\_10f71c31154\\_-7e6d0a48324a?rev=4](http://www.midwestmarket.org/publish/Document/13629d_10f71c31154_-7e6d0a48324a?rev=4)).

Secondly, the rate used by CRA should be reduced by 1.0 cent per MWh, which is the cost of the deferrals of start-up costs associated with Midwest ISO's existing energy market. This deferral will be totally amortized at the end of 2011 and will no longer be included in the rate. (Calculated based on the deferral balance at the end of 2005 was \$80.8 less \$45 in exit fees = \$35.8 million or a \$7 million dollar per year amortization over five-year time period from 2006 - 2011 divided by 650,847 GWh of MISO load equates to 1.0 per MWh)

SPP's administrative rate should reflect the current level of SPP's actual administrative costs as a starting point, not the Midwest ISO's. The CRA International Cost-Benefit Analysis at page 8 makes an inappropriate and unsupported assumption that, "SPP projects their administrative costs per MWh of market member load at roughly 20% below MISO." The current SPP administrative costs under Schedule 1A for 2007 are 19.0 cents per MWh as depicted in Exhibit 2.

(see [https://sppoasis.spp.org/documents/swpp/tariff/SPP\\_Billing\\_Breakout\\_Disclosure.pdf](https://sppoasis.spp.org/documents/swpp/tariff/SPP_Billing_Breakout_Disclosure.pdf))

The adjustments below use SPP's actual current level of administrative costs as the starting point for the entire ten-year time period because the current SPP Schedule 1A is capped at 20 cents per MWh. As stated in my rebuttal testimony, I believe the earliest year in which the SPP might be capable of implementing energy markets similar to MISO's is 2011. If the SPP was able to implement energy markets at a 20% cost reduction per MWh of market load in three years, I estimate the cost to be 18.0 cents per MWh.

As stated in the CRA analysis, MISO's all inclusive administrative rate of 36 cents per MWh includes 13 cents of Schedule 10 administrative costs attributable to the provision of transmission service (CRA International Analysis at 13) analogous to SPP's Schedule 1A costs of 19 cents per MWh. After backing out these costs, the theoretical SPP rate is 19.5 cents per MWh in 2008 dollars ( $36.0 - 13.0 - 3.5 = 19.5$ ). If SPP is assumed to experience a 20% cost reduction, the SPP rate reflecting such a reduction would be 15.6 cents per MWh ( $19.5 * 80\%$ ). Since the SPP energy market is at least three years from implementation, I used 18.0 cents per MWh rather than 15.6 cents in order to account for 5% annual inflation, wage increases and the overall increase in the price of IT software development costs and maintenance agreements.

The bottom of Table A includes adjustments to the SPP costs excluding the 20% assumed reduction from MISO's costs at 19.5 MWh cents and includes a 5% annual escalation factor for SPP energy market costs.

The data summarized in Table A depicts a better overall comparison of the comparable administrative costs that would actually be incurred by Aquila over the ten-year time horizon. MISO's costs are initially higher from 2008 through 2010 (33.8 cents per MWh in 2008 and decreasing to 32.1 cents per MWh in 2011) because their energy market already exists and they have incurred development and experience ongoing operating costs. Backing out the costs associated with the ASM project for the sake of comparison in overall market functionality and recognition of the total amortization of the deferrals associated with the

MISO existing energy market is appropriate. MISO's energy and transmission service administrative costs level off at 30.7 cents per MWh beginning in 2012.

Starting with MISO's administrative costs and reducing these costs by an unsupported 20% reduction assumption as stated in the CRA International Analysis is inappropriate. SPP's actual comparable administrative costs today are 46% higher (19 cents versus 13 cents per MWh) than MISO's costs for providing transmission service. This is consistent with the statement in my rebuttal testimony that they have 1/3 the load of MISO's to spread these fixed costs over. It is also unlikely that SPP could develop the energy markets at a cost per MWh market load that is 20% less than MISO's. Even if this hypothetical assumption was achievable, the SPP administrative costs beginning in 2011 are still 5 to 6 cents more than MISO's per MWh of market load. A more likely scenario depicts SPP's administrative rates at 10 to 11 cents per MWh of market load higher than MISO due to the fixed nature of these costs and overall increases in software and system development costs over the next three years.

TABLE A

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	Net Energy GWh	8,823	9,074	9,322	9,570	9,570	9,570	9,570	9,570	9,570	9,570
	<b>MISO Adm. Costs</b>										
	CRA Original Rate	0.373	0.358	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356
Less:	MISO ASM	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035
	Deferral Day 2	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.014</u>	<u>0.014</u>	<u>0.014</u>	<u>0.014</u>	<u>0.014</u>	<u>0.014</u>
	MISO Adm. Rate	<b>0.338</b>	<b>0.323</b>	<b>0.321</b>	<b>0.321</b>	<b>0.307</b>	<b>0.307</b>	<b>0.307</b>	<b>0.307</b>	<b>0.307</b>	<b>0.307</b>
	<b>SPP Adm. Rate</b>										
	SPP 1A	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Plus:	RT/DA Mkt	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.18</u>	<u>0.18</u>	<u>0.18</u>	<u>0.18</u>	<u>0.18</u>	<u>0.18</u>	<u>0.18</u>
	SPP Adm. Rate (including 20% reduction)	<b>0.19</b>	<b>0.19</b>	<b>0.19</b>	<b>0.37</b>	<b>0.37</b>	<b>0.37</b>	<b>0.37</b>	<b>0.37</b>	<b>0.37</b>	<b>0.37</b>
	SPP Adm Rate (excluding 20% reduction)	<b>0.19</b>	<b>0.19</b>	<b>0.19</b>	<b>0.42</b>	<b>0.42</b>	<b>0.42</b>	<b>0.42</b>	<b>0.42</b>	<b>0.42</b>	<b>0.42</b>

C. The adjustments to the respective RTO Administrative Costs using the same net energy in MWh from the CRA International Analysis (see Table 18 in the CRA analysis) times the revised rates from Table A above are shown on Table B below.

These adjustments show that over the ten-year time interval, the net present value (NPV) of MISO's administrative costs compared to SPP's under the assumed 20% reduction is \$1.3 million higher in MISO, but if the 20% reduction scenario is disregarded, SPP's costs exceed MISO's by \$700,000.

As stated in my rebuttal testimony, the key factor in CRA's analysis of SPP benefits is the erroneous recognition of \$45.8 million in net trade benefits from 2008 through 2010 that is based on SPP markets that do not exist.

As the administrative cost analysis goes out into future years (2011 - 2017), the difference in administrative costs favors MISO by \$400,000 per year under the 20% reduction in development and operating costs theorized by SPP, and closer to \$900,000 per year in those future years if the 20% reduction is not assumed to occur. However, under the NPV analysis these administrative costs have less of an impact in today's dollars.

**TABLE B****RTO Administrative Costs**

	Notes	NPV	Total	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Original	(From CRA C/B Analysis)	23.5	35.8	3.3	3.3	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
MISO	(adjusted for ASM/deferrals)	21.3	32.5	3.0	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7
SPP	(less 20% reduction)	<u>20.0</u>	32.1	1.7	1.7	1.8	3.5	3.6	3.7	3.8	3.9	4.0	4.1
	MISO NPV > SPP NPV	<b>1.3</b>											
SPP	(excluding 20% reduction)	<u>22.0</u>	35.4	1.7	1.7	1.8	4.0	4.1	4.2	4.3	4.4	4.5	4.6
	SPP NPV > MISO NPV	<b>0.7</b>											

**ATTACHMENTS:**

Exhibit 1 - MISO's 2008 Budget Review (page 9)

Exhibit 2 - SPP Cost Breakdown Required under Order No. 668

**ANSWERED BY:**

/s/ Mark Volpe

Signature

# Finance Subcommittee Report

Midwest ISO  
2008 Budget Review

# Midwest ISO Personnel

<u>Area</u>	<u>2007</u>	<u>2008</u>	Change
IT	192	205	13
Real-Time Operations	144	158	14
Market Operations	87	93	6
Transmission Management	79	87	8
Market Planning	69	77	8
Ancillary	38	1	-37
Legal & External Relations	32	39	7
Business Services	26	29	3
Finance	26	26	0
Executive	21	21	0
Planning & Performance Mgt	17	19	2
Interregional Coordination	6	6	0
Internal Audit	3	3	0
	<hr/> 740	<hr/> 764	<hr/> 24

**Budget does not fund all positions.**

**Ancillary Markets personnel moved from project to IT, RT Ops, etc.**



In accordance with Order 668, FERC now requires RTOs to provide a breakdown of the allocation of its operating costs into three specific accounts. SPP's cost allocation provided below is based on 2007 budget figures for billing periods beginning January 1, 2007.

561.4 Scheduling, System Control and Dispatching Services (43%)	8.07 cents per MWh
561.8 Reliability Planning and Standards Development Services (6%)	1.23 cents per MWh
575.7 Market Facilitation, Monitoring and Compliance Services (51%)	<u>9.70 cents per MWh</u>
	<b>19.00 cents per MWh</b>