

Skill. Integrity. Efficiency.

April 20, 2016

Aaron D. Greenwell Acting Executive Director Public Service Commission 211 Sower Boulevard, P.O. Box 615 Frankfort, Kentucky 40602-0615

Re:

In the Matter of: An Examination of the Application of the Fuel

Adjustment Clause of Big Rivers Electric Corporation from May 1, 2015

through October 31, 2015

Case No. 2016-00006

Dear Mr. Greenwell:

Enclosed for filing are an original and ten (10) copies of Big Rivers Electric Corporation's responses to the information requested at the April 7, 2016, hearing in the above-referenced matter. I certify that on this date, a copy of this letter and a copy of the responses were served on all parties of record by first-class mail.

Sincerely,

Tyson Kamuf

Counsel for Big Rivers Electric Corporation

TAK/lm Enclosures

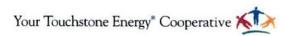
RECEIVED

APR 2 1 2016

PUBLIC SERVICE COMMISSION

ORIGINAL





COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

AN EXAMINATION OF THE APPLICATION)	
OF THE FUEL ADJUSTMENT CLAUSE)	C N-
OF BIG RIVERS ELECTRIC CORPORATION)	Case No.
FROM)	2016-00006
MAY 1, 2015 THROUGH OCTOBER 31, 2015)	

Response to Commission Staff's Request for Information from the Hearing of April 7, 2016

FILED: April 21, 2016

ORIGINAL

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2015 THROUGH OCTOBER 31, 2015 CASE NO. 2016-00006

VERIFICATION

I, Mark W. McAdams, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Mark W. McAdams

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Mark W. McAdams on this the day of April, 2016.

Notary Public, Kentucký State at Large

My Commission Expires

Notary Public, Kentucky State-At-Large My Commission Expires: July 3, 2018

ID 513528

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2015 THROUGH OCTOBER 31, 2015 CASE NO. 2016-00006

VERIFICATION

I, Nicholas R. (Nick) Castlen, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Nicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on this the <u>19</u> day of April, 2016.

Notary Public, Kentucky State at Large

My Commission Expires

Notary Public, Kentucky State-At-Large My Commission Expires: July 3, 2018

ID 513528

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2015 THROUGH OCTOBER 31, 2015 CASE NO. 2016-00006

Response to Commission Staff's Request for Information from the Hearing of April 7, 2016

April 21, 2016

1	Item 1) Refer to Big Rivers' response to Item 3 of the Commission
2	Staff's Third Request for Information dated March 18, 2016. Please
3	provide an electronic copy of all Big Rivers' spot fuel contracts related to
4	commodity and/or transportation since the resumption of its Fuel
5	Adjustment Clause in July 2009.
6	
7	Response) Please see the USB Drive accompanying these responses for
8	electronic copies of Big Rivers' spot fuel contracts related to commodity and
9	transportation since July 2009. The contracts are provided in a folder labelled
10	'CN 2016-00006 - PHDR Item 1 - Spot Contracts'. Within that folder the
11	contracts are then listed by year, by supplier, by contract.
12	
13	
14	Witness) Mark W. McAdams
15	

Case No. 2016-00006
Response to FAC Hearing Request for Information Item 1
Witness: Mark W. McAdams
Page 1 of 1

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2015 THROUGH OCTOBER 31, 2015 CASE NO. 2016-00006

Response to Commission Staff's Request for Information from the Hearing of April 7, 2016

April 21, 2016

1	Item 2)	Provide calculations of the power purchases that would have
2	been exclu	ided for recovery through the FAC, compared to what was
3	excluded,	if Big Rivers had used, as the cost of the highest cost unit for
4	each mont	h of the review period, an average of the cost to operate the unit
5	at minimu	m load and at full load, and using the natural gas costs that
6	were used	in Big Rivers' response to Item 6 of Staff's Third Request.
7	Please pro	vide responses in hard format as well as Excel spreadsheet
8	format.	
9		
10	Response)	Please see attachments. Electronic copies of the attachments are
11	also provide	ed in Excel spreadsheet format on the USB Drive accompanying these
12	responses.	The attachments are provided in a folder labelled 'CN 2016-00006 $-$
13	PHDR Item	2-Attachment'.
14		
15		
16	Witness)	Nicholas R. Castlen

17

Case No. 2016-00006
Response to FAC Hearing Request for Information Item 2
Witness: Nicholas R. Castlen
Page 1 of 1

Big Rivers Electric Corporation Case No. 2016-00006

Attachment for Response to Item 2 of Commission Staff's Request for Information from Hearing of April 7, 2016

Comparison of Purchased Power that would have been Excluded from FAC Using Alternative Calculation vs. Purchased Power that was Excluded from FAC Using Natural Gas Prices Provided in Big Rivers' Response to Staff's Third Request, Item 6

Purchased Power Exclusion based on Alternative Calculation (1)
Actual Purchased Power Exclusion per FAC Form A Filings
Increase/ (Decrease) in Purchased Power Excluded from FAC Recovery

 <u>May-15</u>	<u> </u>	<u> Jun-15</u>	<u>.</u>	<u>Jul-15</u>		 Aug-15	<u>s</u>	ep-15	 Oct-15	<u>Total</u>
\$ 18,370	\$	10,239	\$	1,149		\$ -	\$	286	\$ 20,801	\$ 50,845
\$ 59,834	\$	3,872	\$	1,033	(2)	\$ -	\$	2,508	\$ 20,678	\$ 87,925
\$ (41,464)	\$	6,367	\$	116		\$ -	\$	(2,222)	\$ 123	\$ (37,080)

Notes:

- (1) See page 2 for detailed calculations of the highest cost unit (\$/MWh) used to determine the purchased power exclusions (shown above) based on the alternative calculation, which used the average of the fuel cost to operate the unit at minimum load and the fuel cost to operate the unit at full load, using the natural gas prices provided in Big Rivers' response to Item 6 of Staff's Third Request (as requested by the Commission Staff during the FAC Review Hearing for Case No. 2016-00006 on April 7, 2016). Detailed calculations of the alternative purchased power exclusions for each month (shown above) are also provided with this attachment (tabs "May-15" through "Oct-15" in the excel file).
- (2) Purchased power exclusion for the July 2015 expense month as revised and included as an adjustment in Appendix A of Big Rivers' Form A filing for the August 2015 expense month.

Big Rivers Electric Corporation Case No. 2016-00006

Attachment for Response to Item 2 of Commission Staff's Request for Information from Hearing of April 7, 2016 Calculation of Highest Cost Unit • Using Average of the Fuel Costs to Operate the Highest Cost Unit at Full Load and at Minimum Load Using the Natural Gas Prices Provided in Big Rivers' Response to Staff's Third Request, Item 6

lighest Cost Unit During Month	<u>May-15</u> Reid CT		<u>Jun-15</u> Reid CT		<u>Jul-15</u> Reid CT		<u>Aug-15</u> Reid CT		<u>Sep-15</u> Reid CT	,	Oct-15 Station Two-Unit 1
Net MW - Full Load		65	65		65		65	_	65		153
Net MW - Minimum Load	11	10	10		10		10		10		115
Monthly Net Generation - Full Load (kWh)	48,360,		46,800,000		48,360,000		48,360,000		46,800,000		113,832,000
Monthly Net Generation - Minimum Load (kWh)	7,440,	000	7,200,000		7,440,000		7,440,000		7,200,000		85,560,000
Net Heat Rate - Full Load (Btu/kWh)	11,	719	11,719		11,719		11,719		11,719		10,632
Net Heat Rate - Minimum Load (Btu/kWh)	30,	336	30,636		30,636		30,636		30,636		. 10,912
Monthly Btu Burn - Full Load (Btu)	566,730,840,	000	548,449,200,000		566,730,840,000		566,730,840,000		548,449,200,000		1,210,261,824,000
Monthly Btu Burn - Minimum Load (Btu)	227,931,840,	000	220,579,200,000		227,931,840,000		227,931,840,000		220,579,200,000		933,630,720,000
Natural Gas Btu Content (Btu/Mcf)	1,000,	000	1,000,000		1,000,000		1,000,000		1,000,000		
Coal Btu Content (Btu/Ton) (1)						***					24,361,364
Natural Gas Burn Qty Full Load (Mcf)	566,730	.84	548,449.20		566,730.84		566,730.84		548,449.20		a conference tras
Natural Gas Burn Qty Minimum Load (McI)	227,931	.84	220,579.20		227,931.84		227,931.84		220,579.20		A
Coal Burn Qty Full Load (Tons)	ĵ		*	A	X 45 %			•			49,679.56
Coal Burn Qty Minimum Load (Tons)			80		• V						38,324.24
Naturai Gas Price (\$/Mcf) (2)	\$ 3	.06 _\$	3.41	\$	3.34	\$	3.08	\$	3.19		
Coal Price (\$/Ton) (3)			6 X 34 A			7986	On the V	**.	f-		\$ 63.52
Cost of Natural Gas Burned - Full Load (\$)	\$ 1,734,196	.37 \$	1,870,211.77	\$	1,892,881.01	\$	1,745,530.99	\$	1,749,552.95		# 2 % # ## # ###
Cost of Natural Gas Burned - Minimum Load (\$)	\$ 697,471	.43 \$	752,175.07	\$	761,292.35	\$	702,030.07	\$	703,647.65		
Cost of Coal Burned - Full Load (\$)				х /	\ x	VALLE TES				\$	3,155,645.65
Cost of Coal Burned - Minimum Load (\$)			Co							\$	2,434,355.72
Fuel Cost per MWh - Full Load (\$/MWh)	\$ 35	.86 \$	39.96	\$	39.14	\$	36.09	\$	37.38	\$	27.72
Fuel Cost per MWh - Minimum Load (\$/MWh)	\$ 93	.75 \$	104.47	\$	102.32	\$	94.36_	\$	97.73	\$	28.45
Average Fuel Cost per Mwh (\$/MWh)	\$ 64	.80 \$	72.22	\$	70.73	\$	65.23	\$	67.56	\$	28.09
(Highest Cost Unit \$/MWh, using alternative calculation)											

Big Rivers Electric Corporation Case No. 2016-00006

Attachment for Response to Item 2 of Commission Staff's Request for Information from Hearing of April 7, 2016

Calculation of Highest Cost Unit - Using Average of the Fuel Costs to Operate the Highest Cost Unit at Full Load and at Minimum Load

Using the Natural Gas Prices Provided In Big Rivers' Response to Staff's Third Request, Item 6

Notes:

(1) Coal BTU content based on actual quality of coal burned at Station Two - Unit 1 during October 2015 (see calculation below).

Coal - Btu/Ton:	<u>Oct-15</u>
Coal Burn (Btu)	1,122,687,388,560
Coal Burn Quantity (Tons)	46,084.75
Coal Btu/Ton	24,361,364

(i.e. May-15 and Aug-15), the gas prices above represent the lowest daily natural gas prices during the respective months (as provided by ACES Power Marketing), which were used for purposes of calculating the hypothetical fuel cost per MWh that the Reld CT could have generated power at for determining the highest cost unit used in Big Rivers' Form A Filings. For months when the Reld CT did operate (i.e. Jun-15, Jul-15, and Sep-15), the gas prices above represent the actual prices Big Rivers paid for natural gas during those months. For October 2015, the Reid CT was not available and, as a result, was not used as Big Rivers' highest cost unit for purposes of determining the purchased power exclusion in the Form A filing. Instead, Station Two - Unit 1 was used as the highest cost unit in the calculation for the October 2015 expense month, as it was the highest cost unit available during that month.

(see calculation below).

Coal - \$/Ton:	Oct-15
Total Cost of Coal Burned for Station Two - Unit 1	\$ 789,847.90
Tons of Coal Burned for Station Two - Unit 1	 12,435.24
Coal Price (\$/Tcn)	\$ 63.52

Total Purchases Over Highest Cost Unit: \$
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s): \$
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s): \$
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s): \$

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
Jun-15

	Purchases Above Highest Cost (for Form A Filing) \$ 10,238
(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel ex	uded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form
filing. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable	able fuel expense, as the entire costs of these purchases are already excluded from
recovery through the FAC	

	포	MWh		PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	8	REASON FOR PURCHASE	Post-Hearing DR (Item 2)	Post-Hearing DR (Item 2)	Highest Cost Unit	Total Cost Over Highest Cost Unit	t Over st Unit
6/1-6/30			s	,	\$	14,400.00	Buy	Power		HMPL	Available for System	S	72.22 \$		s	6
					s	14,400.00					Available for System Total				s	6
6/1-6/30		107,200.000	\$	33.07	\$	3,544,679.00	Buy	Power		IN Hub	Back-to-Back	\$	72.22 \$		\$	c
		107,200.000			s	3,544,679.00					Back-to-Back Total				s	
6/1 HE 7-11	11	17.936	s	23.69	s	424.84	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$,	s	c
6/1 HE 18-21	-21	29.824	s	23.88	s	712.32	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		s	ŕ
6/2 HE 7-8	8	10.770	s	25.50	s	274.68	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		s	•
6/2 HE 19-22	-22	15.834	s	21.99	s	348.13	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	r
6/3 HE 4		0.600	s	5.72	s	3.43	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		s	
6/3 HE 7-14	14	68.150	s	22.15	s	1,509.24	Buy	Power	Real Time	MISO	Domtar	\$	72.22		s	
6/3 HE 18-22	-22	44.295	s	22.93	s	1,015.72	Buy	Power	Real Time	MISO	Domtar	\$	72.22		\$	ŕ
6/4 HE 5-8	ec.	18.719	s	20.55	s	384.61	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$	1	s	r
6/4 HE 16-22	-22	37.056	s	23.29	s	862.96	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		s	į.
6/4 HE 24		3.100	s	21.82	s	67.65	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$,	\$	٠
6/5 HE 1-19	19	138.295	s	26.63	s	3,682.26	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$,	s	
6/5 HE 21-24	-24	32.016	s	22.06	s	706.17	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$,	s	i
6/6 HE 1-21	21	170.233	s	17.91	s	3,048.57	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	i
	-24	16.624	s	18.77	s	312.05	Buy	Power	Real Time	MISO	Domtar	s	_		s	ı
6/7 HE 1-12	12	88.391	s	14.72	s	1,300.94	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		\$	i
6/7 HE 15-22	-22	116.542	s	58.72	s	6,842.77	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		\$	ı
6/7 HE 24		14.000	s	24.40	s	341.66	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		s	,
6/8 HE 1-21	21	331.412	s	23.49	s	7,783.95	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		s	•
6/9 HE 2-23	23	135.210	s	29.07	s	3,930.28	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	,
	23	156.501	s	28.73	s	4,496.52	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		•	•
6/11 HE 2-5	2	18.646	s	19.41	s	361.97	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	
6/11 HE 7-22	22	84.248	s	29.69	s	2,500.99	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	ŕ
6/12 HE 2-5	2	22.318	s	20.21	s	451.06	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	
6/12 HE 7-21	21	118.850	s	26.82	s	3,187.77	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	•
6/13 HE 3-6	9	21.130	s	21.53	s	455.01	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		s	
6/13 HE 8-13	13	41.738	s	34.00	s	1,419.18	Buy	Power	Real Time	MISO	Domtar	s	72.22 \$		·s	•
6/14 HE 3-7	7	35.106	s	20.85	s	731.96	Buy	Power	Real Time	MISO	Domtar	S	72.22 \$		s	•
6/14 HE 9-16	16	33.684	s	27.99	s	942.90	Buy	Power	Real Time	MISO	Domtar	\$	72.22 \$		s	•
6/14 HE 20-22	-22	15.469	s	27.78	s	429.72	Buy	Power	Real Time	MISO	Domtar	\$	72.22		\$	•
6/15 HE 2-23	23	115.565	s	37.74	s	4,361.18	Buy	Power	Real Time	MISO	Domtar	\$	72.22 \$	•	\$	•
6/16 HE 7-20	50	91.309	s	44.29	s	4,044.38	Buy	Power	Real Time	MISO	Domtar	\$	72.22 \$		\$	٠
6/17 HE 3 Case No. 2016-00006	9000	2.215	s	20.76	s	45.98	Buy	Power	Real Time	MISO	Domtar	\$	72.22	,	s	
Attachment for Response to	Response to	Case No. 20 Incolors Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2	uest fr	om April 7, 201	6 Hear	ing - Item 2										

							_		_		n - 1 - 110 - 1 - 1		
									1 1		Revised Highest		
	1					l .		1	1 1		Cost Unit Calc for	Cost Over	T-16-10
DATE	HE	MWh	PRICE		OTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Post-Hearing DR (Item 2)	Highest Cost Unit	Total Cost Over Highest Cost Unit
6/17	HE 7-8	7.703	11.000		188.25	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	s -	rignest Cost Unit
6/17	HE 12-18	26.686			722.11	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/18	HE 3		\$ 20.02		94.09	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	ć	\$ -
6/18	HE 7-8	11.407	1000000		289.23	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	•	\$ -
6/18	HE 10-11				(2,491.86)	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$.	\$ -
6/18	HE 14		\$ 30.55		86.48	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$.	\$ -
6/18	HE 20	4.829			121.05	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$.	\$ -
6/18	HE 22	4.116	1 Section 1	1.0	108.86	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/19	HE 2-5	13.822	\$ 19.64	Ś	271.47	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	š -
6/19	HE 7		1200		453.95	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	š -	\$ -
6/19	HE 24	16.300	\$ 20.58	100	335.46	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/20	HE 1-6	98.417	\$ 17.54	\$	1,726.06	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/20	HE 18-22	55.497	The state of the s		1,408.59	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/21	HE 2	0.700	\$ 18.44	\$	12.91	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/21	HE 4-21	220.377		175	5,508.27	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/22	HE 6-9	13.628	\$ 24.04	\$	327.66	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/22	HE 11-22				1,667.27	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/23	HE 8-22	68.641	\$ 32.59	\$	2,237.34	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
6/24	HE 24	2.755			61.60	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/25	HE 13	2.042	\$ 24.99	\$	51.04	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/25	HE 16-24	47.574	\$ 26.21	\$	1,246.78	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/26	HE 2-9	27.226			585.78	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
6/26	HE 12-14	12.250	\$ 34.40	\$	421.36	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/27	HE 2-8	34.801	\$ 19.84	\$	690.61	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/27	HE 16-17	16.051	\$ 25.55	\$	410.04	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/27	HE 23	5.930	\$ 19.72	\$	116.97	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/28	HE 6-7	22.055	\$ 5.04	\$	111.24	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/28	HE 9-11	13.751	\$ 21.02	\$	288.99	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/28	HE 13-19	29.390	\$ 25.08	\$	737.14	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/28	HE 21	5.174	\$ 26.28	\$	135.97	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/28	HE 23-24	8.116	\$ 21.97	\$	178.27	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/29	HE 6-8	15.815	\$ 22.20	\$	351.03	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/29	HE 10-22	53.530	\$ 39.41	\$	2,109.71	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/29	HE 24	2.258	\$ 21.64	\$	48.88	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
6/30	HE 6-24	55.416	\$ 25.45		1,410.55	Buy	Power	Real Time	MISO	Domtar	\$ 72.22	\$ -	\$ -
		3,022.437		\$	79,004.02					Domtar Total			\$ - (3)
6/1	HE 7-10	118.464	· Contractor .		2,762.96	Buy	Power	Real Time	MISO	Economic	7		\$ -
6/1	HE 18-21	233.076			5,595.17	Buy	Power	Real Time	MISO	Economic	\$ 72.22		\$ -
6/2	HE 7-8	88.930	The state of the s		2,066.31	Buy	Power	Real Time	MISO	Economic	\$ 72.22		\$ -
6/2	HE 19-22				3,155.19	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/3	HE 7-9,11	335.150			7,317.51	Buy	Power	Real Time	MISO	Economic	\$ 72.22	ş -	\$ -
6/3	HE 18-21				9,175.87	Buy	Power	Real Time	MISO	Economic	\$ 72.22	5 -	\$ -
6/4	HE 5-8		\$ 22.12		4,181.11	Buy	Power	Real Time	MISO	Economic	\$ 72.22	5 -	\$ -
6/4	HE 19-21				2,468.62	Buy	Power	Real Time	MISO	Economic	\$ 72.22	5 -	\$ -
6/5	HE 1-19	608.605	\$ 27.02		16,447.27	Buy	Power	Real Time	MISO	Economic	\$ 72.22	5 -	\$ -
6/5	HE 21-24	143.484	\$ 21.59		3,097.13	Buy	Power	Real Time	MISO	Economic	\$ 72.22		\$ -
6/6	HE 1-21	2,765.267	The state of the s		61,035.06	Buy	Power	Real Time	MISO	Economic	\$ 72.22		\$ -
6/6	HE 23-24	101.276	The state of the s		1,909.17	Buy	Power	Real Time	MISO	Economic	\$ 72.22		\$ -
6/7	HE 1-12	480.309	\$ 17.78		8,537.94	Buy	Power	Real Time	MISO	Economic	\$ 72.22		\$ -
6/7 Case No.	HE 15-18-22 . 2016-00006	254.314	\$ 35.93	>	9,136.70	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2 Witness: Nicholas R. Castlen

Page 5 of 29

NATI		r			_					_		Daviesd Wahast		
No. Price No. Price St. Price Price St. Price St. Price St. Price St. Price Price St. Price St. Price St. Price St. Price Price St. Price Price St. Price Price St. Price					1							Revised Highest	Cost Over	
Math	1		l .		1				1	1 1		The second secon		Total Cost Over
Mile	DATE	HE	MWh	PRICE	1	TOTAL Cost	Ruy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	The second secon	The second second	The state of the s
Method 15.181 \$ 2.196 \$ 3.29.23 8.07 Power Real Time MISO Economic \$ 7.22.2 \$ \$ \$ \$ \$ \$ \$ \$ \$			100000000000000000000000000000000000000	The state of the s	' 5	III. T. M. VII. T. T. C. C.								\$.
Mile			1114 1114 1114 1114	****		and the same of th								\$ -
March Marc							11000000					7	*	\$ -
MF-720 772.49 5				****								-	100	\$ -
Fig.													s -	\$ -
Fig. 10, 187 \$ \$ \$ \$ \$ \$ \$ \$ \$							111-1216						\$ -	\$ -
	11.00			A CONTRACTOR								100000000000000000000000000000000000000	\$ -	\$ -
Fig. Ha S S S S S S S S S		HE 12-18	60.414	40.		1.745.48		Power	Real Time	MISO	Economic		\$ -	\$ -
Fig. 18 Fig. 10 1 19.897			7.101					Power					\$ -	\$ -
Fig. 18 Fig. 10 1 19.897	-			4.0			1.5-5-5-8						\$ -	\$ -
Fig.		HE 10-11	19.897					Power	Real Time				\$ -	\$ -
	6/18	HE 14	3.669					Power	Real Time	MISO	Economic		\$ -	\$ -
HE 22		HE 20-21	11.271				Buy	Power	Real Time	MISO			\$ -	\$ -
Fig.			14.384					Power	Real Time				\$ -	\$ -
Fig.				****			11.00.00						\$ -	\$ -
	6/19	HE 7	25.575	\$ 23.61	\$	603.87	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
	11.00												\$ -	\$ -
	6/20	HE 18-20,22	100.403	\$ 26.06	\$	2,616.47	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
			1,056.211					Power	Real Time	MISO	Economic		\$ -	\$ -
Fig.	6/22	HE 6-9	227.172	\$ 23.00	\$	5,225.47	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
		HE 11-22	215.264	\$ 32.43	\$	6,981.15	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
Fig.	6/23	HE 8-22	873.559	\$ 31.23	\$	27,277.77	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/27 HE 2-6,8	6/24	HE 24	9.045	\$ 22.36	\$	202.24	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/27 HE 16-17 32,859 \$ 25,60 \$ 841.08 Buy Power Real Time MISO Economic \$ 72,22 \$ \$ \$ \$ \$ \$ \$ \$ \$	6/25	HE 13	5.758	\$ 24.99	\$	143.88	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/27 HE 23 0.429 \$ 19.72 \$ 8.45 Buy Power Real Time MISO Economic \$ 72.22 \$. \$. 6 . 6 . 6 . 6 . 6 . 6 . 6 . 6 .	6/27	HE 2-6,8	110.471	\$ 19.98	\$	2,207.68	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/27 HE 23 0.429 \$ 19.72 \$ 8.45 Buy Power Real Time MISO Economic \$ 72.22 \$. \$. 6 . 6 . 6 . 6 . 6 . 6 . 6 . 6 .	6/27	HE 16-17	32.859	\$ 25.60	\$	841.08	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/28 HE 14-16,18 183.898 \$ 24.18 \$ 4,445.92 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - 6/28 HE 21 4.793 \$ 26.28 \$ 125.93 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/28 HE 24 16.772 \$ 21.03 \$ 351.77 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/29 HE 6-8 160.883 \$ 21.02 \$ 3,381.62 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/29 HE 11-22 349.381 \$ 32.22 \$ 11,256.95 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/29 HE 24 4.833 \$ 21.64 \$ 104.60 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 6-16 289.109 \$ 24.56 \$ 7,101.32 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 17-24 392.446 \$ 24.95 \$ 8,043.47 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	6/27	HE 23	0.429	\$ 19.72			Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/28 HE 21	6/28	HE 9-10	121.592	\$ 20.69	\$	2,515.42	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/28 HE 24 16.725 \$ 21.03 \$ 351.77 Buy Power Real Time MISO Economic \$ 72.22 \$. \$. \$. 6/29 HE 6-8 160.883 \$ 21.02 \$ 3,381.62 Buy Power Real Time MISO Economic \$ 72.22 \$. \$. \$. 6/29 HE 6-8 160.883 \$ 21.02 \$ 11,256.95 Buy Power Real Time MISO Economic \$ 72.22 \$. \$. \$. 6/29 HE 24 4.833 \$ 21.64 \$ 104.60 Buy Power Real Time MISO Economic \$ 72.22 \$. \$. \$. 6/30 HE 6-16 289.109 \$ 24.56 \$ 7,101.32 Buy Power Real Time MISO Economic \$ 72.22 \$. \$. \$. 6/30 HE 17-24 322.40 \$ \$ 24.95 \$ 8,043.47 Buy Power Real Time MISO GEO. Solution	6/28	HE 14-16,18	183.898	\$ 24.18	\$	4,445.92	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/29 HE 6-8 160.883 \$ 21.02 \$ 3,381.62 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/29 HE 11-22 349.381 \$ 32.22 \$ 11,256.95 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/29 HE 11-22 48.833 \$ 21.64 \$ 104.60 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 6-16 289.09 \$ 24.56 \$ 7,013.32 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 6-16 289.09 \$ 24.56 \$ 7,013.32 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 6-16 289.09 \$ 24.56 \$ 7,013.32 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - \$ - 6/30 HE 6-16 289.09 \$ 24.56 \$ 7,013.32 Buy Power Real Time MISO G1-U01 (15-06) \$ 72.22 \$ - \$ - \$ - \$ - 6/30 HE 6-16 289.09 \$ 24.56 \$ 7,013.32 Buy Power Real Time MISO G1-U01 (15-06) \$ 72.22 \$ - \$ - \$ - \$ - 6/30 HE 6-16 24 354.526 \$ 24.95 \$ 8,043.47 Buy Power Real Time MISO G1-U01 (15-06) \$ 72.22 \$ - \$ - \$ - \$ - 6/26 HE 16-24 354.526 \$ 25.84 \$ 9,162.15 Buy Power Real Time MISO G1-U01 (15-06) \$ 72.22 \$ - \$ - \$ - 6/26 HE 2-9 138.500 \$ 20.73 \$ 2,870.91 Buy Power Real Time MISO G1-U04 (15-05) \$ 72.22 \$ - \$ - \$ - 6/26 HE 12-14 30.077 \$ 34.43 \$ 1,035.63 Buy Power Real Time MISO G1-U04 (15-05) \$ 72.22 \$ - \$ - \$ - \$ - 6/26 HE 2-3 1,134.009 \$ 30.00 \$ 34.471.50 Buy Power Real Time MISO G1-U04 (15-05) \$ 72.22 \$ - \$ - \$ - \$ - 6/10 HE 2-3,6-23 994.699 \$ 30.44 \$ 27,541.18 Buy Power Real Time MISO H1-U03 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/11 HE 2-5 29.754 \$ 19.17 \$ 570.48 Buy Power Real Time MISO H1-U03 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/11 HE 2-5 29.754 \$ 19.17 \$ 570.48 Buy Power Real Time MISO H1-U03 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/11 HE 7-22 803.552 \$ 28.44 \$ 22,853.85 Buy Power Real Time MISO H1-U03 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/12 HE 7-51 286.50 \$ 2.324.50 Buy Power Real Time MISO H1-U03 (15-08) \$ 5.72.22 \$ - \$ - \$ - \$ - 6/12 HE 7-51 286.50 \$ 2.324.50 Buy Power Real Time MISO H1-U03 (15-08) \$ 5.72.22 \$ - \$ - \$ - \$ - 6/12 HE 7-51 286.50 \$ 2.324.50 Buy Power Real Time MISO H1-U03 (15-08) \$ 5.72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	6/28	HE 21	4.793	\$ 26.28	\$	125.93	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/29 HE 11-22 349.381 \$ 32.22 \$ 11,256.95 Buy Power Real Time MISO Economic \$ 72.22 \$ \$ \$ \$ \$ 6/29 HE 24 4.833 \$ 21.64 \$ 104.60 Buy Power Real Time MISO Economic \$ 72.22 \$ \$ \$ \$ \$ 6/30 HE 6-16 289.109 \$ 24.56 \$ 7,101.32 Buy Power Real Time MISO Economic \$ 72.22 \$ \$ \$ \$ \$ \$ \$ 6/30 HE 6-16 289.109 \$ \$ 24.56 \$ 7,101.32 Buy Power Real Time MISO Economic \$ 72.22 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6/28	HE 24	16.725	\$ 21.03	\$	351.77	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
6/29 HE 24 4.833 \$ 21.64 \$ 104.60 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 6-16 289.109 \$ 24.56 \$ 7,101.32 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 6-16 289.109 \$ 24.56 \$ 7,101.32 Buy Power Real Time MISO Economic \$ 72.22 \$ - \$ - \$ - 6/30 HE 17-24 322.446 \$ 24.95 \$ 3,57,318.78 Economic Total \$ \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	6/29	HE 6-8	160.883	\$ 21.02	\$	3,381.62	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
February	6/29	HE 11-22	349.381	\$ 32.22	\$	11,256.95	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
13,952.430	6/29	HE 24	4.833	\$ 21.64	\$	104.60	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
Columbia	6/30	HE 6-16	289.109	\$ 24.56	\$	7,101.32	Buy	Power	Real Time	MISO	Economic	\$ 72.22	\$ -	\$ -
Saccion Sacc														
6/25 HE 16-24 354.526 \$ 25.84 \$ 9,162.15 Buy Power Real Time MISO G1 - U04 (15-05) \$ 72.22 \$ - \$ - \$ - \$ 6/26 HE 2-9 138.500 \$ 20.73 \$ 2,870.91 Buy Power Real Time MISO G1 - U04 (15-05) \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	6/30	HE 17-24		\$ 24.95	_		Buy	Power	Real Time	MISO		\$ 72.22	\$ -	
6/26 HE 2-9 138.500 \$ 20.73 \$ 2,870.91 Buy Power Real Time MISO G1 - UO4 (15-05) \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$					_									
Second	6/25			S. Contraction									\$ -	•
Second	6/26	HE 2-9					Buy	Power	Real Time		G1 - UO4 (15-05)		\$ -	\$ -
6/9 HE 2-23 1,134.009 \$ 30.40 \$ 34,471.50 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ 6/10 HE 2-3,6-23 904.699 \$ 30.44 \$ 27,541.18 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ 6/11 HE 2-5 29.754 \$ 19.17 \$ 570.48 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ 6/11 HE 7-22 803.552 \$ 28.44 \$ 22,853.85 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ 6/12 HE 2-5 231.482 \$ 20.21 \$ 4,678.54 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$	6/26	HE 12-14		\$ 34.43	_		Buy	Power	Real Time	MISO		\$ 72.22	\$ -	
6/10 HE 2-3,6-23 904.699 \$ 30.44 \$ 27,541.18 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - 6/11 HE 2-5 29.754 \$ 19.17 \$ 570.48 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/11 HE 7-22 803.552 \$ 28.44 \$ 22,853.85 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/12 HE 2-5 231.482 \$ 20.21 \$ 4,678.54 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/12 HE 7-21 896.350 \$ 25.92 \$ 23,237.30 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - 6/13 HE 3-6 138.670 \$ 21.27 \$ 2,948.95 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$					_									*
6/11 HE 2-5 29.754 \$ 19.17 \$ 570.48 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ 6/11 HE 7-22 803.552 \$ 28.44 \$ 22,853.85 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ 6/12 HE 2-5 231.482 \$ 20.21 \$ 4,678.54 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ 6/12 HE 7-21 896.350 \$ 25.92 \$ 23,237.30 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$				*									\$ -	
6/11 HE 7-22 803.552 \$ 28.44 \$ 22,853.85 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - 6/12 HE 2-5 231.482 \$ 20.21 \$ 4,678.54 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - 6/12 HE 7-21 896.350 \$ 25.92 \$ 23,237.30 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - 6/13 HE 3-6 138.670 \$ 21.27 \$ 2,948.95 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$				****		100 Post 100	1.000					*	\$ -	•
6/12 HE 2-5 231.482 \$ 20.21 \$ 4,678.54 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - 6/12 HE 7-21 896.350 \$ 25.92 \$ 23,237.30 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - 6/13 HE 3-6 138.670 \$ 21.27 \$ 2,948.95 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ -	6/11												\$ -	
6/12 HE 7-21 896.350 \$ 25.92 \$ 23,237.30 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$				*		100 00000000000000000000000000000000000							\$ -	*
6/13 HE 3-6 138.670 \$ 21.27 \$ 2,948.95 Buy Power Real Time MISO H1 - UO3 (15-08) \$ 72.22 \$ - \$ -							110000						\$ -	*
												Y FEIGE	\$ -	
6/12 HE 9.12 107.062 \$ 20.74 \$ 5.996.95 Ruy Power Real Time MISO H1 - H0.2 (15.09) \$ 72.22 \$ \$				•		1 31.00						Y	\$ -	
0/15 15/25 1	6/13 Casa No.	HE 8-12	197.962	\$ 29.74	\$	5,886.85	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$ 72.22	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2
Witness: Nicholas R. Castlen

Page 6 of 29

DATE	HE	MWh	PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Cos	vised Highest et Unit Calc for st-Hearing DR (Item 2)	Hig	ost Over hest Cost Unit	Total Cost Over Highest Cost Unit
6/14	HE 3-7	127.494	\$ 20.65	\$ 2,632.82	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	72.22	\$	-	\$ -
6/14	HE 9-16	364.916	\$ 26.24	\$ 9,577.10	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	72.22	\$		\$ -
		4,828.888		\$ 134,398.57					H1 - UO3 (15-08) Total					\$ -
6/7	HE 16-17	56.000	\$ 106.80	\$ 5,980.56	Buy	Power	Real Time	MISO	RCT - UO0 (15-07)	\$	72.22	\$	34.58	\$ 1,936.24
		56.000		\$ 5,980.56					RCT - UO0 (15-07) Total					\$ 1,936.24
6/7	HE 18	38.135	\$ 46.89	\$ 1,788.18	Buy	Power	Real Time	MISO	RCT - UO2 (15-08)	\$	72.22	\$	-	\$ -
		38.135		\$ 1,788.18					RCT - UO2 (15-08) Total					\$ -
6/7	HE 16-17	140.709	\$ 121.54	\$ 17,102.39	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	72.22	\$	49.32	\$ 6,940.37
6/21	HE 17	18.612	\$ 104.15	\$ 1,938.37	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	72.22	\$	31.93	\$ 594.24
6/29	HE 10	28.597	\$ 99.08	\$ 2,833.28	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	72.22	\$	26.86	\$ 768.00
		187.918		\$ 21,874.04					To cover load and lack of gen Total					\$ 8,302.61
		130,131.356		\$ 4,180,555.32	Maria III			110	Grand Total				V 10 10 10 10	\$ 10,238.86

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
May-15

	(a)
Total Purchases Over Highest Cost Unit:	\$ 18,370.31
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ -
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ -
Purchases Above Highest Cost (for Form A Filing)	\$ 18,370.31

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filing. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

												Cos	evised Highest st Unit Calc for st-Hearing DR		Cost Over lighest Cost	Total Cost Over	
DATE	HE	MWh	ı	PRICE	L	TOTAL Cost	Buy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	1 1	(Item 2)		Unit	Highest Cost Unit	
5/1-5/31					\$	31,054.50	Buy	Power		HMPL	Available for System	\$	64.80	\$		\$ -	1
		-			\$	31,054.50					Available for System Total					\$ -	
5/1-5/31		102,400.000	\$	35.42	_	3,627,423.00	Buy	Power		IN Hub		\$	64.80	\$	7.0	\$ -	,
		102,400.000			\$	3,627,423.00				777	Back-to-Back Total					\$ -	(2)
5/1	HE 9-16	36.890		28.96		100000000000000000000000000000000000000	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$		\$ -	
5/1	HE 18-20	9.011		24.97			Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/1	HE 23-24	4.009		20.16	\$	80.81	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/2	HE 1-2	3.900	100	28.12		109.69	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/2	HE 7-10		-	25.84	\$	247.93	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/3	HE 6	0.700	\$	21.41	\$	14.99	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/3	HE 8-23	50.736	\$	29.33	\$	1,488.18	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/4	HE 5-8	15.438	\$	22.74	\$	351.04	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/4	HE 13	0.500	\$	28.03	\$	14.02	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/4	HE 20-21	10.468	\$	26.37	\$	276.02	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/5	HE 3	0.500	\$	22.90	\$	11.45	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/5	HE 5-6	7.670	\$	24.51	\$	188.01	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$		\$ -	
5/5	HE 9-12	6.800	\$	30.30	\$	206.07	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	(*)	\$ -	
5/5	HE 19-21	18.336	\$	30.76	\$	564.00	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/5	HE 24	5.239	\$	21.21	\$	111.13	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/6	HE 6-7	8.027	\$	25.72	\$	206.45	Buy	Power	Real Time	MISO	Domtar	\$	64.80	\$	-	\$ -	
5/6	HE 16-21	24.979	\$	44.35	\$	1,107.77	Buy	Power	Real Time	MISO	Domtar	\$	64.80	5	-	\$ -	
5/6	HE 23-24	9.604	\$	19.55	\$	187.77	Buy	Power	Real Time	MISO	Domtar	\$	64.80	5	-	\$ -	
5/7	HE 1-15	63.638	\$	24.09	\$	1,533.24	Buy	Power	Real Time	MISO	Domtar	\$	64.80	15		\$ -	
5/8	HE 6-19	186.047	\$	39.79	\$	7,402.02	Buy	Power	Real Time	MISO	Domtar	5	64.80	S		\$ -	
5/9	HE 2	1.500	\$	25.19	\$	37.79	Buy	Power	Real Time	MISO	Domtar	Ś	64.80	S		\$ -	
5/9	HE 4-7	18.646	- 10	22.34	- 33	416.51	Buy	Power	Real Time	MISO	Domtar	\$	64.80	S	-	\$ -	
5/9	HE 10	4.516		30.41	- 50		Buy	Power	Real Time	MISO	Domtar	\$	64.80	S	-	\$ -	
5/9	HE 19-21	10.028	7.1	26.29			Buy	Power	Real Time	MISO	Domtar	\$	64.80	5	-	\$ -	
5/10	HE 3	2.669	200	18.25	- 2		Buy	Power	Real Time	MISO	Domtar	\$	64.80	S	=	\$ -	
5/10	HE 6-8	7.536		24.64		185.69	Buy	Power	Real Time	MISO	Domtar	\$	64.80	Š	-	\$ -	
		62.753		26.18			Buy	Power	Real Time	MISO	Domtar	\$	64.80	5		¢ .	
Case No.	2016-00006	02.733	4	20.10	*	2,043.24					5 0.11Kui	-	04.00	1 ~		~	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 8 of 29

			Γ		Г							Revised Highest	C10	
			ı									Cost Unit Calc for	Cost Over	Tatal Cost Over
DATE	HE	MWh	ı	PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Post-Hearing DR (Item 2)	Highest Cost Unit	Total Cost Over Highest Cost Unit
5/10	HE 24	4.958	\$		¢	96.84	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	c ont	c righest cost onit
5/11	HE 5-9	11.759	Ś		5	390.02	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	š -	\$ -
5/11	HE 19	3.824			\$	94.24	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	š -	\$ -
5/11	HE 21-22	7.930	\$		\$	213.86	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	Š -	\$ -
5/11	HE 24	3.360				69.66	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/12	HE 2-3	8.221			-	158.08	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	5 -	\$ -
5/12	HE 5-18	55.624	100			1,903.20	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	s -	\$ -
5/12	HE 20-23	9.540	\$			255.37	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/13	HE 3	0.584	\$	19.24	\$	11.25	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/13	HE 5-24	39.713	\$	25.76	\$	1,023.10	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/14	HE 6-22	19.428	\$	33.72	\$	655.10	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/15	HE 2-18	33.230	\$	30.29	\$	1,006.70	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/15	HE 22	1.978	\$	24.38	\$	48.21	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/15	HE 24	3.155	\$	25.12	\$	79.24	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/16	HE 4-9	14.026	\$	23.74	\$	333.03	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/16	HE 24	2.700	\$	21.00	\$	56.71	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/17	HE 5-6	9.992	\$	20.53	\$	205.19	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/17	HE 8-24	82.208	\$	27.93	\$	2,296.35	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/18	HE 1-2	10.813	\$	19.70	\$	213.06	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/18	HE 5-10	32.180	\$	30.90	\$	994.45	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/18	HE 15-22	39.438	\$	26.52	\$	1,046.10	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/18	HE 24	3.652	\$	21.48	\$	78.43	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/19	HE 1-24	83.351	\$	25.81	\$	2,151.55	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/20	HE 7-24	50.803	\$	28.51	\$	1,448.31	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/21	HE 1-3	6.994	\$	21.32	\$	149.11	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/21	HE 5-24	75.754	\$	24.60	\$	1,863.69	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/22	HE 1-22	146.107	\$	28.19	\$	4,118.80	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/22	HE 24	2.712	\$	19.26	\$	52.22	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/23	HE 7-24	40.057	\$	23.21	\$	929.85	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/24	HE 1-6	15.640	\$	3.60	\$	56.25	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/24	HE 8-24	65.954	\$	21.81	\$	1,438.50	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/25	HE 1-24	120.946	\$	20.40	\$	2,467.26	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/26	HE 4-24	162.012	\$	33.03	\$	5,351.45	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$
5/27	HE 1-13	215.310	\$	23.94	\$	5,154.71	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/27	HE 15-16	21.339	\$	28.96	\$	617.92	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/27	HE 18-23	146.500	\$	25.21	\$	3,692.78	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/28	HE 1-24	713.509	\$	29.48	\$	21,031.48	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/29	HE 2-24	204.893	\$	28.67	\$	5,873.34	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/30	HE 9-22	109.614				4,295.30	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/30	HE 24	4.386			\$	91.55	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/31	HE 1-9	31.612				626.87	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/31	HE 11	3.824			\$	100.02	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/31	HE 14-16	10.674			100	183.91	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
5/31	HE 20-21	6.075			\$	136.00	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -
Case No	. 2016-00006	3.976	\$	16.20	\$	64.38	Buy	Power	Real Time	MISO	Domtar	\$ 64.80	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 9 of 29

												Revised Highest Cost Unit Calc for Post-Hearing DR	Cost Over Highest Cost	Total Cost Over
DATE	HE	MWh		PRICE	Ļ	TOTAL Cost	Buy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	(Item 2)	Unit	Highest Cost Unit
- 1-	1.00-2-02-22-22-	3,220.088			\$	91,250.07					Domtar Total			\$ -
5/3	HE 8-19,22-23	706.659	\$	26.18		18,497.73	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/4	HE 5-8	490.462	\$	22.14	3.0	10,857.56	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	Ş -
5/4	HE 20-21	30.132		26.45	-	797.03	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/5	HE 5-6	68.930	\$	21.17	\$	1,459.21	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/5	HE 19,21	8.064		27.67		223.13	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/5	HE 24	5.461		21.21	\$	115.83	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/6	HE 6-7	126.473		25.66		3,244.79	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/6	HE 19-21	45.621	\$	32.24		1,470.82	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/6	HE 23-24	116.396		19.22		2,236.81	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/7	HE 1-2,4-15	241.462	\$	27.41		6,617.40	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/8	HE 6-12,17-19	839.792	970	28.96		24,317.28	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/9	HE 4-7	394.054	\$	22.04		8,684.83	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/9	HE 10	1.284		30.41		39.06	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/9	HE 19-20	13.972	T	25.79	\$	360.31	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/10	HE 3	14.431		18.25		263.33	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/10	HE 6,8	11.364	\$	29.37	7	333.75	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/10	HE 10-19,21-22	1,078.366	\$	22.51	- 33	24,278.18	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/10	HE 24	24.342	\$	19.53		475.42	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/11	HE 5,8-9	61.140		28.22	3.	1,725.55	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/11	HE 19	2.476	\$	24.64	\$	61.00	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/11	HE 21-22			27.20	-	875.09	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/11	HE 24	6.740	\$	20.73	311	139.73	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/12	HE 2-3	25.879	\$	19.10		494.40	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/12	HE 5-9,11-14,16,1	131.558	\$	29.18		3,838.25	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/12	HE 21-23	17.560	- 153	26.67		468.30	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/13	HE 3	5.416	\$	19.24	- 5	104.22	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/13	HE 5-24	865.542	- 70	25.44		22,021.54	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/15	HE 22	8.322	\$	24.38		202.90	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/15	HE 24	07070000	\$	25.12		16.21	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/16	HE 4-9	141.974	\$	23.96		3,402.19	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/17	HE 5-6		\$	19.84		47.76	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/17	HE 8-20,22-24	334.432	\$	26.10	400	8,727.84	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/19	HE 4-16,18-24	1,278.354		25.66		32,799.40	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/23	HE 7-24	1,723.024	\$	23.81	\$	41,030.27	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/24	HE 1-6	11.060	\$	4.46	\$	49.31	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/24	HE 8-24	2,870.246	\$	22.73	\$	65,243.73	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/25	HE 1-20,22-24	1,262.003	\$	23.31	\$	29,419.51	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/26	HE 4-8,10,12-13,1	855.161	\$	26.39	\$	22,567.68	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/27	HE 1-13	635.890	\$	25.13	\$	15,981.49	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/27	HE 16	37.161	\$	29.04	\$	1,079.19	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/27	HE 20-23	221.100	\$	25.24	\$	5,581.32	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/28	HE 1-18,20-24	1,499.917	\$	25.99	\$	38,983.99	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/30	HE 1-8,13-14,16-2	925.975	\$	24.91	\$	23,069.90	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ -
5/30 ase No	HE 24 2016-00006	14.714	\$	20.87	\$	307.12	Buy	Power	Real Time	MISO	Economic	\$ 64.80	\$ -	\$ - (

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 10 of 29

			_		_			1		_	T	Dour	ised Highest		
	1		ı	- 1					1	1			Unit Calc for	Cost Over	
1	1 1		ı						1	1		100000000000000000000000000000000000000	Hearing DR	Highest Cost	Total Cost Over
DATE	HE	MWh	ı	PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	100000000000000000000000000000000000000	(Item 2)	Unit	Highest Cost Unit
5/31	HE 1-8	153.445	\$		Ś	2,460.58	Buy	Power	Real Time	MISO	Economic	S	64.80		s -
5/31	HE 11	3.913	Š		\$	102.32	Buy	Power	Real Time	MISO	Economic	Ś	64.80		\$ -
5/31	HE 14-16	160.004	*		\$	2,633.79	Buy	Power	Real Time	MISO	Economic	\$	64.80	¢	è
5/31	HE 21	89.940			\$	2,073.26	Buy	Power	Real Time	MISO	Economic	\$	64.80	¢	2
5/31	HE 24		0.77		5	160.66	Buy	Power	Real Time	MISO	Economic	\$	64.80	\$ -	\$ -
3/31	111. 24	17,605.356	7		\$	429,940.97	Duy	TOWEI	near time	141130	Economic Total	7	04.80	7	\$ -
5/17	HE 11-24	2,558.761	Ś		\$	71,287.01	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	64.80		\$ -
5/17	HE 21	231.000		45.31		10,467.65	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	64.80	\$	
5/18	HE 1-2	113.587		19.41		2,204.40	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	64.80	\$	
5/18	HE 5-8.10	216.610	100	28.52		6,178.71	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	64.80	\$	
5/18	HE 9	3.309		38.61		127.77	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	64.80	¢	
5/18	HE 15-22	123.962		27.03		3,351.14	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	Ś	64.80	¢	-
5/18	HE 24	30.948			\$	664.70	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	64.80	¢	-
5/19	HE 1-3	471.522		20.09		9,471.29	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	5	64.80	\$ -	-
3/19	HE 1-3	3,749.700	7		\$	103,752.68	buy	rowei	Real Time	141130	G1 - UO1 (15-04) Total	7	04.00	4	5 - (1)
5/29	HE 2-8,10-20,22-7	622.257	\$	27.58		17,162.20	Buy	Power	Real Time	MISO	G2 - UO4 (15-02)	\$	64.80		- (1)
5/29	HE 9,21	72.050		48.34		3,483.12	Buy	Power	Real Time	MISO		S	64.80	1.7	-
5/30	HE 1-8	407.618		20.22		8,242.40	Buy	Power	Real Time	MISO		S	64.80		
5/30	HE 9-12	330.610			\$	39,793.84	Buy	Power	Real Time	MISO	G2 - UO4 (15-02)	\$	64.80	*	18,370.31
3/30	HE 3-12	1,432.536	- P		\$	68,681.57	buy	rowei	Real Time	141130	G2 - UO4 (15-02) Total	7	04.80		18,370.31
5/20	HE 7-24	403.297	\$		\$	10,547.55	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	64.80		18,370.31
5/21	HE 1-3	87.506		21.61		1,891.27	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	5	64.80		
5/21	HE 5-24	1,132.246			\$	27,963.70	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	64.80	*	-
5/22	HE 1-22	775.493		26.12		20,256.62	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	64.80	\$ -	0.00
5/22	HE 24	59.888			\$	1,153.23	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	64.80	\$ -	
5/23	HE 7-11	383.218		23.12		8,861.80	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	64.80		-
3/23	HE 7-11	2.841.649	,		\$	70.674.17	buy	rowei	near time	IVIIO	H1 - UO4 (15-07) Total	7	04.80		-
5/1	HE 2-3	5.800	\$	18.23	<u> </u>	105.76	Buy	Power	Real Time	MISO		\$	64.80	\$ -	
5-114.0	HE 5-16	506.110		23.63		11,957.09	Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	\$	64.80	\$ -	
5/1 5/1	HE 18-20	141.289		24.92		3,520.66	Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	Ś	64.80	\$ -	
5/1	HE 23-24	148.691			\$	2,893.78	Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	S	64.80	\$ -	
5/2	HE 7-10	207.405	1.70	24.45		5,070.42	Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	\$	64.80	\$ -	
3/2	HE 7-10	1,009.295	4		\$	23,547.70	Duy	TOWEI	Near Time	141130	H2 - UO0 (15-07) Total	-	04.80	,	
5/13	HE 10-24	2,178.946	\$		\$	57,276.51	Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	\$	64.80	\$ - 5	(-)
5/14	HE 6-9,11-15,17-1	251.186		31.44		7,896.81	Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	S	64.80	\$ -	
5/14	HE 10,16,20	49.886	Villa.	45.33		2,261.59	Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	\$	64.80	\$	
5/15	HE 2-12,14-15,17	787.013		25.64		20,177.56	Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	S	64.80		
5/15	HE 13,16	60.857			\$	2,360.40	Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	5	64.80	\$ - 9	
3/13	HE 15,10	3,327.887	- J		\$	89,972.87	buy	TOWE	real time	IVIIO	H2 - UO1 (15-08) Total	2	04.80	3 - 3	
5/3	HE 20-21	120.705	\$		\$	5,185.41	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	4	- (1)
5/8	HE 13-16	210.361	1		\$	9,148.40	Buy	Power	Real Time	MISO		\$	64.80	\$ - 5	
5/8	HE 20	29.082		38.71		1,125.66	Buy	Power	Real Time	MISO		\$	64.80		
5/10	HE 20 HE 6	50.802			5	2,046.98	Buy	Power	Real Time	MISO		\$	64.80	- 3	
5/11	HE 10,15	9.618	-		\$	504.86	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	\$	
		21.998		45.31		996.85	Buy	Power	Real Time	MISO	To cover load and lack of gen	Ś	64.80	\$ - 5	
Case No.	. 2016-00006	21.330	P	43.31	7	230.03	buy	· Owel	redi fille	141130	TO COVER TODG BITG IBEK OF BETT	7	04.00	- 3	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 11 of 29

DATE	HE	MWh		PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Co	evised Highest ost Unit Calc for ost-Hearing DR (Item 2)	ŀ	Cost Over lighest Cost Unit	100	tal Cost Over
5/19	HE 17	59.672	\$	45.94	\$ 2,741.22	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	\$	-	\$	
5/25	HE 21	36.751	\$	38.19	\$ 1,403.69	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	\$	-	\$	
5/26	HE 9,11,15-18	84.727	\$	46.21	\$ 3,915.42	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	\$	-	\$	-
5/28	HE 19	144.074	\$	54.80	\$ 7,895.35	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	\$	-	\$	-
5/30	HE 15	129.082	\$	44.02	\$ 5,682.32	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	\$	-	\$	-
5/31	HE 9	55.708	\$	53.60	\$ 2,985.74	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	64.80	\$	-	\$	
		952.581			\$ 43,631.90					To cover load and lack of gen Total					\$	-
5/8	HE 13-16	1,251.000	\$	55.44	\$ 69,355.95	Buy	Power	Real Time	MISO	W1 - UO1 (15-06)	\$	64.80	\$		\$	-
		1,251.000			\$ 69,355.95					W1 - UO1 (15-06) Total					\$	
		137,790.091	a H		\$ 4,649,285.38				9/1	Grand Total	179				\$	18,370.31

	(a)
Total Purchases Over Highest Cost Unit:	\$ 23,429.00
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ 22,279.79
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$ -
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ -
Purchases Above Highest Cost (for Form A Filing)	\$ 1,149.21

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filing. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	HE	MWh		PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Cost Unit Calc for Post-Hearing D (Item 2)	100	Cost Over Highest Cost Unit	Total Cost Over Highest Cost Unit
7/1-7/31					\$	20,836.50	Buy	Power		HMPL	Available for System	\$ 70.3	3 \$		\$ -
		•			\$	20,836.50					Available for System Total				\$ -
7/1-7/31		110,400.000	\$	33.27	_	3,673,194.00	Buy	Power		IN Hub	Back-to-Back	\$ 70.7	3 \$		\$ -
		110,400.000			\$	3,673,194.00					Back-to-Back Total				\$ -
7/1	HE 5	0.400	1.4	17.02		6.81	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/1	HE 7	5.650		21.06		118.96	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/1	HE 9-11	9.014		22.09	\$	199.13	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/1	HE 16-20	25.386		25.22		640.33	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/1	HE 22-24	19.184	\$	22.99	\$	441.08	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/2	HE 2-5	20.190	\$	19.16	\$	386.78	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/2	HE 7	4.861	\$	23.19	\$	112.75	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/2	HE 9-10	10.802	\$	24.23	\$	261.76	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/2	HE 12-24	64.460	\$	25.47	\$	1,641.81	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/3	HE 1-21	156.031	\$	23.20	\$	3,619.82	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/3	HE 23-24	14.669	\$	20.33	\$	298.21	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$.
7/4	HE 1-7	51.697	\$	12.69	\$	655.87	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/4	HE 9-24	190.596	\$	23.86	\$	4,547.04	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/5	HE 1-2	12.336	\$	3.91	\$	48.19	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$.
7/5	HE 4-7	20.082	\$	(3.48)	\$	(69.86)	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/5	HE 9-19	39.833	\$	26.22	\$	1,044.50	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/5	HE 22-24	11.322	\$	21.26	\$	240.67	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$		\$ -
7/6	HE 4	0.829	\$	12.49	\$	10.35	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/6	HE 7-22	54.308	\$	30.34	\$	1,647.75	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/6	HE 24	0.714	\$	20.74	\$	14.81	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 \$	-	\$ -
7/7	HE 3-5	10.884	\$	20.43	\$	222.35	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 5	-	\$ -
7/7	HE 7-8	8.880	\$	31.55	\$	280.17	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 5		\$ -
7/7	HE 10-11	10.211	\$	28.88	\$	294.85	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	3 5		\$ -
7/7	HE 19	6.751	\$	19.93	\$	134.57	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	-		\$ -
7/7	HE 21	4.840	\$	18.48	\$	89.43	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	-		s -
7/8	HE 1-10	45.902	\$	20.83	\$	956.37	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	-		\$.
7/8	HE 12-24	71.317	\$	31.93	\$	2,276.83	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	_		\$ -
7/9	HE 1-5	17.360	\$	19.29	\$	334.85	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	-	-	\$ -
7/9	HE 7	4.030	\$	23.89	\$	96.25	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	_	-	\$ -
7/9	HE 12-21	41.538	\$	34.57	\$	1,435.93	Buy	Power	Real Time	MISO	Domtar	\$ 70.7			\$
7/9	HE 23	1.715	\$	33.19	\$	56.91	Buy	Power	Real Time	MISO	Domtar	\$ 70.7	_		s

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 13 of 29

				- 1		1	1	l	1 1		Cost Unit Calc for	Cost Over	
DATE	HE	MWh	PRI	ce	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Post-Hearing DR (Item 2)	Highest Cost Unit	Total Cost Over
7/10	HE 2-5		S	19.45		Buy		Real Time	MISO		MO-MOR.	7.777.7	Highest Cost Unit
7/10	HE 7-19	50.344		30.78		Buy	Power Power	Real Time	MISO	Domtar Domtar	\$ 70.73 \$ 70.73	\$ -	\$.
7/11	HE 6-7	8.405		18.88		Buy	Power	Real Time	MISO			\$ -	\$ -
7/11	HE 10	0.428		(2.28)			Power	Real Time	MISO	Domtar	\$ 70.73 \$ 70.73	\$ -	\$ -
7/11	HE 13-14		\$		\$ 138.01	Buy	Power	Real Time	MISO	Domtar Domtar		\$ -	\$ -
7/11	HE 18-21	17.209			\$ 490.44	Buy	Power	Real Time	MISO	Domtar			\$ - \$ -
7/11	HE 23	4.402			\$ 108.85	Buy	Power	Real Time	MISO				*
7/12	HE 12-22	42.241			\$ 1,887.29	Buy	Power	Real Time	MISO	Domtar			\$ -
7/12	HE 24	5.174			\$ 106.98	Buy	Power	Real Time	MISO	Domtar Domtar			\$ -
7/13	HE 2-22	98.219			\$ 3,117.47	Buy	Power	Real Time	MISO				\$ -
7/13	HE 24	6.114		24.78		Buy		Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/14	HE 1-22	99.332			\$ 2,850.93	Buy	Power Power	Real Time		Domtar	\$ 70.73		\$ -
7/14	HE 24	3.457		23.21					MISO	Domtar	\$ 70.73	\$ -	\$ -
7/15	HE 4-5	6.774			\$ 135.35	Buy	Power	Real Time		Domtar	\$ 70.73		\$ -
7/15	HE 7-14	5.026			\$ 170.53	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/15	HE 17-22	32.699					Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/15	HE 24	4.721			\$ 836.86 \$ 97.85	Buy	Power	Real Time Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/16	HE 2-24	132.803			\$ 5,072.00		Power		MISO	Domtar	\$ 70.73	\$ -	\$ -
7/17	HE 3-8					Buy	Power	Real Time		Domtar	\$ 70.73	\$ -	\$ -
7/18	HE 1-24	32.318			*	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/19	HE 1-24	129.866 11.483	*		\$ 3,082.40 \$ 257.07	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
			100			Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/19	HE 4-22	122.851	7			Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$
7/19 7/20	HE 24 HE 1	5.012			\$ 114.01	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/20	HE 4-7	5.401 16.254		23.11	\$ 124.82 \$ 344.96	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/20	HE 9				The state of the s	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/20	HE 21	1.261 0.281		24.63		Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
	HE 1	2.150		5.45 22.93		Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/21	HE 4-22	374.502		35.73	,	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/21	HE 24				\$ 13,379.73 \$ 205.50	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
						Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/22	HE 1 HE 4	8.674 10.758		22.64		Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
		129.800	100	35.63		Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/22	HE 8-18 HE 23-24		10			Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
7/22	HE 1-7	9.809 27.397				Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -
1111					,	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
7/23	HE 24	6.179			187	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$
7/24	HE 4		*		\$ 16.28	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	•	\$ -
7/24	HE 6-22	130.122		38.24		Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
7/24	HE 24	7.918 8.220			\$ 182.71 \$ 187.30	Buy	Power	Real Time	MISO	Domtar		50	\$ -
7/25	HE 1				4	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
7/25	HE 4-7	27.058		19.05		Buy	Power	Real Time	MISO	Domtar	·	*	\$ -
7/25	HE 10				\$ 163.17	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	•	\$ -
7/25	HE 15	7.702			\$ 231.74	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
7/25	HE 19-21	12.314	5		\$ 363.12	Buy	Power	Real Time	MISO	Domtar	7	\$ -	\$ -
7/25	HE 24				\$ 129.43	Buy	Power	Real Time	MISO	Domtar			\$ -
7/26	HE 1				\$ 125.20	Buy	Power	Real Time	MISO	Domtar			\$ -
7/26	HE 5-8		107		\$ 454.50	Buy	Power	Real Time	MISO	Domtar	\$ 70.73		\$ -
7/26	HE 10	5.466			\$ 136.98	Buy	Power	Real Time	MISO	Domtar			\$ -
7/26	HE 24	6.546	5	22.70	\$ 148.61	Buy	Power	Real Time	MISO	Domtar	\$ 70.73	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2 Witness: Nicholas R. Castlen

Page 14 of 29

Case No. 2016-00006	Attachment for Response to Staff's Data Request from April 7, 2016 Hea	Witness: Nicholas R. Castlen	Page 15 of 29	
	ring - Item 2			
	sponse to Staff's Data Request from April 7, 2016 Hearing - Item 2	R. Castlen		

											Case No. 2016-00006	Case No
•		\$ 70.73	Economic	MISO	Real Time	Power	Buy	5,243.75	25.61 \$	204.734 \$	HE 7-14	7/15
•		\$ 70.73 \$	Economic	MISO	Real Time	Power	Buy	807.53	19.89 \$	40.606 \$	HE 4-5	7/15
1	,	\$ 70.73	Economic	MISO	Real Time	Power	Buy	830.17	23.21 \$	35.770 \$	HE 24	7/14
		\$ 70.73 \$	Economic	MISO	Real Time	Power	Buy	33,548.24	28.26 \$	1,187.132 \$	HE 1-22	7/14
		\$ 70.73 \$	Economic	MISO	Real Time	Power	Buy	1,247.66	24.78 \$	50.358 \$	HE 24	7/13
		_	Economic	MISO	Real Time	Power	Buy	30,450.77	32.35 \$	941.215 \$	HE 2-4,6-22	7/13
	\$	_	Economic	MISO	Real Time	Power	Buy	662.94	20.67 \$	32.065 \$	HE 24	7/12
		70.73	Economic	MISO	Real Time	Power	Buy	23,036.85	40.61 \$	567.326 \$	HE 12-16,18-22	7/12
		_	Economic	MISO	Real Time	Power	Buy	841.14	28.43 \$	29.585 \$	HE 18-21	7/11
		70.73	Economic	MISO	Real Time	Power	Buy	403.60	27.77 \$	14.533 \$	HE 13-14	7/11
	,	70.73	Economic	MISO	Real Time	Power	Buy	77.71	17.28 \$	4.496 \$	HE 6-7	7/11
		\$ 70.73	Economic	MISO	Real Time	Power	Buy	5,756.62	28.80 \$	199.896 \$	HE 7-19	7/10
	•	_	Economic	MISO	Real Time	Power	Buy	2,193.35	19.37 \$	113.230 \$	HE 2-5	7/10
	·	-	Economic	MISO	Real Time	Power	Buy	17,713.38	35.09 \$	504.795 \$	HE 12-21	7/9
	•	_	Economic	MISO	Real Time	Power	Buy	461.86	23.89 \$	19.336 \$	HE 7	7/9
		\$ 70.73	Economic	MISO	Real Time	Power	Buy	548.76	19.65 \$	27.922 \$	HE 1-5	7/9
	,	\$ 70.73	Economic	MISO	Real Time	Power	Buy	17,615.24	26.83 \$	656.597 \$	HE 12-24	7/8
•		_	Economic	MISO	Real Time	Power	Buy	4,887.31	20.73 \$	235.713 \$	HE 1-10	7/8
	,	_	Economic	MISO	Real Time	Power	Buy	34.52	18.48 \$	1.868 \$	HE 21	7/7
	•	\$ 70.73	Economic	MISO	Real Time	Power	Buy	192.17	19.93 \$	9.641 \$	HE 19	7/7
•	,	\$ 70.73	Economic	MISO	Real Time	Power	Buy	55.76	30.83 \$	1.809 \$	HE 7-8	7/7
,	•	\$ 70.73	Economic	MISO	Real Time	Power	Buy	902.62	19.92 \$	45.311 \$	HE 3-5	7/7
•	•	_	Economic	MISO	Real Time	Power	Buy	409.94	20.74 \$	19.768 \$	HE 24	7/6
	•	\$ 70.73	Economic	MISO	Real Time	Power	Buy	31,969.78	28.68 \$	1,114.808 \$	HE 7-22	7/6
	•	_	Economic	MISO	Real Time	Power	Buy	2,777.72	20.49 \$	135.535 \$	HE 22-24	7/5
•	•	_	Economic	MISO	Real Time	Power	Buy	16,586.64	26.88 \$	617.049 \$	HE 9-19	7/5
	•	_	Economic	MISO	Real Time	Power	Buy	(59.95)	(1.36) \$	43.984 \$	HE 4-7	7/5
	\$	70.73	Economic	MISO	Real Time	Power	Buy	111.28	4.12 \$	27.033 \$	HE 1-2	7/5
	· ·	70.73	Economic	MISO	Real Time	Power	Buy	18,533.71	22.81 \$	812.462 \$	HE 9-24	7/4
		70.73	Economic	MISO	Real Time	Power	Buy	892.13	12.34 \$	72.311 \$	HE 1-7	7/4
	,	70.73	Economic	MISO	Real Time	Power	Buy	1,647.14	20.46 \$	80.502 \$	HE 23-24	7/3
		70.73	Economic	MISO	Real Time	Power	Buy	24,575.88	22.17 \$	1,108.387 \$	HE 1-21	7/3
		70.73	Economic	MISO	Real Time	Power	Buy	9,252.85	25.09 \$	368.787 \$	HE 12-24	7/2
		70.73	Economic	MISO	Real Time	Power	Buy	1,675.18	24.10 \$	69.514 \$	HE 9-10	7/2
	,	70.73	Economic	MISO	Real Time	Power	Buy	172.24	23.19 \$	7.426 \$	HE 7	7/2
		70.73	Economic	MISO	Real Time	Power	Buy	1,172.63	19.02 \$	61.639 \$	HE 2-5	7/2
		70.73	Economic	MISO	Real Time	Power	Buy ,	1,278.49	23.24 \$	55.016 \$	HE 22-24	7/1
		\$ 70.73	Fronomic	MISO	Real Time	Power	Buy	2,474.15	25.27 \$	97.914 \$	HE 16-20	7/1
		70.73	Economic	MISO	Real Time	Power	Bir	1,589.40	23.87 \$	66 586 5	HE 9-10	7/1
. (3)	2	20 72	Economic Formation of the Control of	OSIM	Real Time	Power	Bin	1 710 83	21.06 \$	81 250 \$	HF 7	7/1
	\$	\$ 70.73	Domtar	MISO	Keal Time	Power	Buy	5,119.11	27.36 \$	187.133 \$	HE 1-11,1/-24	1/31
•		70.73	Domtar	MISO	Real Time	Power	Buy	5,/10.95	32.99 \$	1/3.120 \$	HE 1-24	1/30
\$	\$	70.73	Domtar	MISO	Keal Time	Power	Buy	12,128.80	39.// 5	304.940 \$	HE 1-24	7/29
\$	•	70.73	Domtar	MISO	Real Time	Power	Buy	15,491.56	48.92 \$	316.659 \$	HE 4-24	7/28
	\$	\$ 70.73	Domtar	MISO	Real Time	Power	Buy	430.50	22.32 \$	19.291 \$	HE 1-2	7/28
	•	_	Domtar	MISO	Real Time	Power	Buy	1,856.59	38.50 \$	48.223 \$	HE 14-22	7/27
•		70.73	Domtar	MISO	Real Time	Power	Buy	953.66	22.71 \$	41.988 \$	HE 3-8	7/27
\$		0.73	Domtar	MISO	Real Time	Power	Buy	25.58	18.44 \$	1.387 \$	HE 1	7/27
Highest Cost Unit	Unit	(Item 2)	REASON FOR PURCHASE	СР	DA/RT	Execution	Buy/Sell	TOTAL Cost	PRICE	MWh	Ħ	DATE
Total Cost Over	Highest Cost	Post-Hearing DR										
	2000	Care Hall Cale for		1	1	1			-			7

				_				T	1		Cost Unit Calc for	Cost Over	
							1		1 1		Post-Hearing DR	Highest Cost	Total Cost Over
DATE	HE	MWh	PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	(Item 2)	Unit	Highest Cost Unit
7/15	HE 17-22	273.655	\$ 25	10 \$	6,868.77	Buy	Power	Real Time	MISO	Economic	\$ 70.73		\$ -
7/15	HE 24			73 \$	309.18	Buy	Power	Real Time	MISO	Economic	\$ 70.73	-	
7/16	HE 2-9,13,19-20	202.303		74 \$	5,410.42	Buy	Power	Real Time	MISO	Economic	\$ 70.73		\$.
7/17	HE 3-8	72.015		94 \$	1,652.19	Buy	Power	Real Time	MISO	Economic	\$ 70.73	-	\$.
7/18	HE 1,6-22	1,054.185		33 \$	25,645.05	Buy	Power	Real Time	MISO	Economic	\$ 70.73	-	\$.
7/21	HE 1			93 \$	564.96	Buy	Power	Real Time	MISO	Economic	\$ 70.73	-	\$.
7/21	HE 24			92 \$	202.40	Buy	Power	Real Time	MISO	Economic	\$ 70.73	-	\$.
7/22	HE 1	23.954	55	64 \$	542.29	Buy	Power	Real Time	MISO	Economic	\$ 70.73		š .
7/22	HE 4			04 \$	1.47	Buy	Power	Real Time	MISO	Economic	\$ 70.73	š -	\$.
7/22	HE 23-24	48.815		01 \$	1,025.69	Buy	Power	Real Time	MISO	Economic	\$ 70.73	š .	\$.
7/23	HE 19			17 \$	18.70	Buy	Power	Real Time	MISO	Economic	\$ 70.73	s .	\$.
7/23	HE 24	17.721		66 \$	383.75	Buy	Power	Real Time	MISO	Economic	\$ 70.73	s -	\$.
7/24	HE 24	19.926		08 \$	459.83	Buy	Power	Real Time	MISO	Economic	\$ 70.73		\$.
7/25	HE 1	17.328		79 \$	394.84	Buy	Power	Real Time	MISO	Economic	\$ 70.73	s -	\$ - \$ -
7/25	HE 4-7			85 \$	325.79	Buy	Power	Real Time	MISO	Economic	\$ 70.73	s -	\$.
7/25	HE 10	5.099		78 \$	131.43	Buy	Power	Real Time	MISO			\$ -	*
7/25	HE 15	0.732		09 \$	22.04	Buy	Power	Real Time	MISO	Economic	\$ 70.73	,	\$ -
7/25	HE 19-21	6.176		74 \$	183.72				MISO	Economic	\$ 70.73		\$ -
7/25	HE 24		5.0	70 \$		Buy	Power	Real Time		Economic	7 70.73	\$ -	\$ -
		17.937			443.10	Buy	Power	Real Time	MISO	Economic	\$ 70.73	\$ -	\$ -
7/26	HE 1	241700	,	68 \$	562.06	Buy	Power	Real Time	MISO	Economic	\$ 70.73	\$ -	\$ -
7/26	HE 24	8.825		70 \$	200.35	Buy	Power	Real Time	MISO	Economic	\$ 70.73	\$ -	\$ -
7/28	HE 1-2			41 \$	1,144.83	Buy	Power	Real Time	MISO	Economic	\$ 70.73	\$ -	\$ -
7/28	HE 4,6-8,12-1517	235.716		69 \$	8,413.56	Buy	Power	Real Time	MISO	Economic	\$ 70.73	\$ -	\$ -
7/29	HE 12-17,22	114.174	\$ 46	85 \$	5,349.44	Buy	Power	Real Time	MISO	Economic	\$ 70.73	\$ -	\$ -
		12,024.683		\$	324,537.84					Economic Total			\$ -
7/16	HE 7-14,17-24	2,958.908		32 \$	104,515.82	Buy	Power	Real Time	MISO	G2 - UO1 (15-03)	\$ 70.73	\$ -	\$ -
7/16	HE 15-16	436.274	\$ 107	98 \$	47,109.08	Buy	Power	Real Time	MISO	G2 - UO1 (15-03)	\$ 70.73	\$ 37.25	\$ 16,251.44
		3,395.182		\$	151,624.91	11001117011			- Contractor	G2 - UO1 (15-03) Total			\$ 16,251.44 (1
7/28	HE 13-22,24	1,911.371		39 \$	90,589.21	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$ 70.73	0.00	\$ -
7/28	HE 20			57 \$	18,636.34	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$ 70.73	\$ 12.84	\$ 2,863.55
7/29	HE 1-2, 6-24	3,707.844	7.0	89 \$	155,307.38	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$ 70.73	\$ -	\$ -
7/30	HE 1-2,5-10,12-27	373.642		39 \$	10,234.06	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$ 70.73	\$ -	\$ -
7/30	HE 11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		93 \$	1,874.36	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$ 70.73	\$ 6.20	\$ 151.09
7/31	HE 7,9-24	754.088	\$ 38	76 \$	29,227.93	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$ 70.73	\$ -	\$ -
		6,994.309		\$	305,869.27					G2 - UO1 (15-04) Total			\$ 3,014.64 (1)
7/18	HE 2-24	3,429.615		92 \$	82,019.50	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/19	HE 1-2	82.250		48 \$	1,848.80	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/19	HE 4-22			05 \$	20,440.83	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/19	HE 24	18.553		75 \$	422.00	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/20	HE 1	14.731	\$ 23	11 \$	340.44	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/20	HE 4-7	118.844	\$ 21	62 \$	2,568.94	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/21	HE 4-12,14-22	490.974	\$ 29	10 \$	14,286.25	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/22	HE 9,11,13-18	36.499	\$ 36	04 \$	1,315.56	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/23	HE 1-7	352.303	\$ 20	24 \$	7,129.81	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73	\$ -	\$ -
7/24	HE 6-15,18-22	217.706	\$ 31	22 \$	6,796.72	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73		\$ -
7/24	HE 16	7.976	\$ 99	52 \$	793.76	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73		\$ 229.62
7/26	HE 5-8	83.788	\$ 19	96 \$	1,672.23	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73		\$ 225.02
7/26	HE 10			06 \$	2,044.45	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73		\$ -
7/27	HE 4-8	147.241	100	19 \$	3,267.83	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$ 70.73		\$ - \$ -
1111	2016-00006							control trends	0.00000			•	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 16 of 29

DATE	HE	MWh	PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE		ost Unit Calc for ost-Hearing DR (Item 2)	Cost Over Highest Cost Unit	100	tal Cost Over
7/27	HE 15-20	43.249	\$ 36.40	\$ 1,574.16	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.73	\$ -	\$	-
7/28	HE 20	15.430	\$ 83.57	\$ 1,289.48	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.73	\$ 12.84	\$	198.13
		5,925.555		\$ 147,810.75					H2 - UO1 (15-10) Total				\$	427.76
7/21	HE 13	24.009	\$ 92.09	\$ 2,210.92	Buy	Power	Real Time	MISO	RCT - UO1 (15-16)	\$	70.73	\$ 21.36	\$	512.76
		24.009		\$ 2,210.92					RCT - UO1 (15-16) Total				\$	512.76
7/12	HE 17	48.336	\$ 83.90	\$ 4,055.23	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	70.73	\$ 13.17	\$	636.45
		48.336		\$ 4,055.23					To cover load and lack of gen Total				5	636.45
7/29	HE 13-24	4,462.000	\$ 42.87	\$ 191,292.45	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	\$	70.73	\$ -	\$	
7/30	HE 1-10,12-24	9,486.157	\$ 30.42	\$ 288,529.61	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	\$	70.73	\$ -	5	
7/30	HE 11	417.000	\$ 76.93	\$ 32,080.37	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	S	70.73	\$ 6.20	\$	2,585.96
7/31	HE 1-15	5,576.520	\$ 28.07	\$ 156,532.29	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	\$	70.73	\$ -	Ś	
		19,941.677		\$ 668,434.72					W1 - UO2 (15-07) Total				\$	2,585.96 (1
		162,471.643		\$ 5,414,827.91					Grand Total	24	1		\$	23,429.00

	(a)
Total Purchases Over Highest Cost Unit:	\$ 1,535.68
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ 1,535.68
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ -
Purchases Above Highest Cost (for Form A Filing)	\$

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filing. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	HE	MWh		PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Cost L	sed Highest Init Calc for Hearing DR Item 2)	Cost Over Highest Cost Unit	Total Cost Over Highest Cost Unit
8/1-8/31		10.0011	_	rnice	Ś	46,210.50	Buy	Power	DAYKI	HMPL	Available for System	S	65.23		The state of the world of
0/10/51					\$	46,210.50	Duy	rower		THYTE	Available for System Total	P	03.23	\$ -	\$ -
8/1-8/31		100,800.000	Ś	31.96	- T	3.221.283.00	Buy	Power		IN Hub	Back-to-Back	Ś	65.23	\$ -	\$ -
		100,800.000	-		\$	3,221,283.00					Back-to-Back Total	7	03.23	7	\$ - (
8/1	HE 2-14	112.739	\$	21.56	\$	2,431.14	Buy	Power	Real Time	MISO	Domtar	Ś	65.23	s -	\$
8/1	HE 22	5.334	\$	21.25	\$	113.33	Buy	Power	Real Time	MISO	Domtar	\$	65.23		\$.
8/1	HE 24	12.032	\$	19.34	\$	232.66	Buy	Power	Real Time	MISO	Domtar	5	65.23	- 100	\$.
8/2	HE 9	10.834	\$	21.96	\$	237.91	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$.
8/2	HE 11-21	201.854	\$	46.40	\$	9,366.98	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/2	HE 23-24	21.372	\$	22.20	\$	474.44	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/3	HE 10-24	130.741	\$	32.27	\$	4,218.83	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$.
8/4	HE 1-5	43.336	\$	20.35	\$	881.69	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/4	HE 7-16	40.069	\$	30.62	\$	1,227.05	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/6	HE 1	4.602	\$	20.90	\$	96.16	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/6	HE 3-8	21.089	\$	21.25	\$	448.05	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$.
8/8	HE 9-22	87.863	\$	28.24	\$	2,481.55	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/8	HE 24	9.592	\$	23.34	\$	223.90	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/9	HE 1	7.219	\$	22.71	\$	163.91	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/9	HE 5-7	27.446	\$	19.57	\$	537.13	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$.
8/9	HE 9-12	40.537	\$	24.39	\$	988.63	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/9	HE 20-22	19.570	\$	27.06	\$	529.63	Buy	Power	Real Time	MISO	Domtar	S	65.23	\$ -	\$ -
8/9	HE 24	11.914	\$	23.20	\$	276.38	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/10	HE 3-12	335.186	\$	24.26	\$	8,130.96	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/10	HE 16-24	297.136	\$	26.84	\$	7,976.36	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/11	HE 1-22	845.430	\$	32.71	\$	27,652.66	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/11	HE 24	42.618	\$	22.76	\$	969.91	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$.
8/12	HE 1	53.018	\$	23.00	\$	1,219.41	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/12	HE 3-24	1,053.596	\$	36.80	\$	38,772.64	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/13	HE 1	16.591	\$	20.36	\$	337.82	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/13	HE 3-4	8.291	\$	16.87	\$	139.90	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/13	HE 7-10	137.628	\$	22.67	\$	3,119.75	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/13	HE 24	8.490	\$	20.98	\$	178.14	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/14	HE 1	8.437	\$	21.93	\$	185.04	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -
8/14	HE 4	12.388	\$	20.25	\$	250.84	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$ -	\$ -

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 18 of 29

				Т							Revised Highest Cost Unit Calc for	Cost Over	
DATE	HE	MWh	PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Post-Hearing DR (Item 2)	Highest Cost Unit	Total Cost Over Highest Cost Unit
8/14	HE 6-8	45.272	\$ 25	.82 \$	1,168.70	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/14	HE 21-22	45.016	\$ 25	.95 \$	1,168.32	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$.
8/14	HE 24	43.378	\$ 27	.17 \$	961.55	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/15	HE 1-22	801.366	1000	.48 \$	22,022.79	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/15	HE 24	2.955		.16 \$		Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/16	HE 5	0.087	\$ 37	.84 \$	2.86	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/16	HE 8-22	99.853	\$ 26	.20 \$	2,616.06	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/16	HE 24	5.955		.45 \$		Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/17	HE 1	7.745	\$ 27	.25 \$	172.33	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/17	HE 4-11	49.919	\$ (55	.64) \$	(2,777.30)	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/18	HE 2	6.038	\$ 20	.93 \$	126.37	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/18	HE 4-5	11.726	\$ 20	.51 \$	240.55	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/18	HE 8-11	26.854	\$ 24	.92 \$	669.13	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/18	HE 13-22	69.931	\$ 34	.59 \$	2,419.05	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/18	HE 24	6.470	\$ 20	.36 \$	131.74	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/19	HE 3-21	135.941	\$ 35	.73 \$	4,857.58	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/19	HE 23	3.068	\$ 20	.55 \$	63.04	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/20	HE 7	3.500	\$ 2:	.26 \$	74.42	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/20	HE 9-23	66.622	\$ 24	.13 \$	1,607.80	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/21	HE 7-21	162.720	\$ 24	.96 \$	4,060.77	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/22	HE 9	3.554	\$ 22	.94 \$	81.53	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/22	HE 12-22	49.315	\$ 24	.52 \$	1,209.02	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/22	HE 24	6.719	\$ 15	.98 \$	107.35	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/23	HE 1-2	8.664	\$ 13	.41 \$	98.88	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/23	HE 5-6	7.000	\$.13 \$	49.94	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/23	HE 10-24	124.844	\$ 30	.69 \$	3,831.17	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/24	HE 1	1.773	\$ 17	.56 \$	22.28	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/24	HE 7-8	13.178	\$ 20	.44 \$	269.40	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/24	HE 10-22	454.257	\$ 28	.18 \$	12,800.86	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/25	HE 5	0.934	\$ 24	.28 \$	22.68	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/25	HE 7-8	81.818	\$ 22	.80 \$	1,865.17	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/25	HE 10-21	567.490	\$ 24	.12 \$	13,689.66	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/26	HE 7	7.324	\$ 23	.95 \$	160.73	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/26	HE 11-21	89.632	\$ 23	.77 \$	2,130.16	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/27	HE 1	1.992	\$ 16	.11 \$	32.09	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/27	HE 3-7	21.467	\$ 17	.89 \$	384.11	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/27	HE 11-15	26.509	\$ 24	.82 \$	657.83	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/27	HE 17-22	34.016	\$ 26	.18 \$	890.71	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/27	HE 24	5.768	\$ 20	.00 \$	115.34	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/28	HE 1-24	149.134	\$ 24	.22 \$	3,611.40	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/29	HE 2-23	147.658	\$ 24	.01 \$	3,545.10	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/30	HE 2-8	32.487	\$ 19	.17 \$	622.94	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/30	HE 9	5.509	\$ 6	.30 \$	34.72	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/30	HE 11	1.808	\$ 24	.94 \$	45.10	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/30	HE 21	4.926	\$ 25	.70 \$	126.60	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/31	HE 5-22	70.286	\$ 33	.46 \$	2,211.11	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
8/31	HE 24	3.209	\$ 23	.73 \$	76.13	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
	- 2046 00006	7,142.641		\$	202,330.80					Domtar Total			\$ - (3

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 19 of 29

			07	_									
1	1 1	1							1 1		Revised Highest		
1							1		1 1		Cost Unit Calc for	Cost Over	
DATE	HE	MWh	PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	Post-Hearing DR (Item 2)	Highest Cost Unit	Total Cost Over Highest Cost Unit
8/1	HE 3-13	314.725	10.100.000	97 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$ -
8/1	HE 24	39.104		34 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	s -	\$.
8/2	HE 9			96 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	s -	\$.
8/2	HE 11,14,20-21	52.382		09 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$.
8/3	HE 10-13,15,19-2	94.217		12 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	s -	\$.
8/4	HE 1-5	87.355		04 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$.
8/4	HE 7-10,12-13,15	173.865		98 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	š -
8/6	HE 1			90 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23		š -
8/6	HE 3-8	171.167	\$ 21	82 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	s -	\$.
8/8	HE 9-21	207.396		15 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$.
8/8	HE 24	5.144		34 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$ -
8/9	HE 5-7	11.042	\$ 19	59 \$	216.30	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$.
8/9	HE 9-12	99.454	\$ 24	49 \$	2,436.01	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$.
8/9	HE 24	16.606		20 \$	385.25	Buy	Power	Real Time	MISO	Economic	\$ 65.23	s -	\$.
8/10	HE 3-4,7-9	155.771	\$ 24	79 \$	3,862.08	Buy	Power	Real Time	MISO	Economic	\$ 65.23	s -	\$ -
8/10	HE 22	91.473	\$ 23	25 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$.
8/11	HE 1,6,9-13,20-22	351.675	\$ 25	43 S		Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$
8/12	HE 1	4.178	\$ 23	05 \$	96.30	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$.
8/12	HE 3-24	241.649		37 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	š .
8/13	HE 7	46.149	\$ 20	39 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/15	HE 1-22			41 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	200	\$.
8/16	HE 8-22	712.118	5 24	97 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	25.3	\$.
8/17	HE 1	1.175		22 5		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/17	HE 5-7,11	191.999	\$ 21	64 \$	4,155.71	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	š -
8/18	HE 2	28.001	\$ 20	93 \$	585.99	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/18	HE 4-5			61 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/18	HE 8-11	177.910	\$ 24	57 \$	4,371.53	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/18	HE 15-22	135.933	\$ 27	62 \$	3,754.64	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/18	HE 24	83.649	\$ 20	36 \$	1,703.10	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/19	HE 3-10,15-21	626.827	\$ 25	36 \$	15,897.11	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/20	HE 7	3.633		26 \$		Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/20	HE 9-23	1,394.011	\$ 24	51 \$	34,170.29	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/21	HE 7-21	986.688	\$ 25	02 \$	24,690.46	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/22	HE 9	14.902	\$ 22	94 \$	341.81	Buy	Power	Real Time	MISO	Economic	The second secon	\$ -	\$ -
8/22	HE 12-22	826.873	\$ 24	50 \$	20,256.47	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	š -
8/22	HE 24	11.953	\$ 15	98 \$	190.98	Buy	Power	Real Time	MISO	Economic	\$ 65.23	150	\$ -
8/23	HE 1-2	12.531	\$ 11	61 \$	145.50	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/23	HE 5-6	5.375	\$ 6	84 \$	36.77	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/23	HE 10-14,19-24	1,129.167	\$ 22	72 \$	25,657.96	Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$ -
8/24	HE 7-8	184.054	\$ 20	36 \$	3,747.94	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
8/24	HE 10-22	837.966	\$ 27	21 \$		Buy	Power	Real Time	MISO	Economic			\$ -
8/25	HE 10-21	247.168	\$ 24	31 \$	6,008.39	Buy	Power	Real Time	MISO	Economic			\$ -
8/26	HE 7	25.789	7.0	95 \$		Buy	Power	Real Time	MISO	Economic	The state of the s		\$ -
8/26	HE 11-21	237.819		88 \$		Buy	Power	Real Time	MISO	Economic	The second secon	*	\$ -
8/27	HE 3-7	97.547	\$ 23	26 \$	2,269.03	Buy	Power	Real Time	MISO	Economic			\$ -
8/27	HE 11-15	234.369	\$ 24	79 \$		Buy	Power	Real Time	MISO	Economic		*	\$ -
8/28	HE 10,15-20		\$ 28	12 \$	2,333.88	Buy	Power	Real Time	MISO	Economic		•	\$ -
8/29	HE 2-12,14-23	361.260	\$ 23	44 \$	8,466.13	Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$ -
C N-	2046 00006					10000							

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 20 of 29

	,					_	1			_	,			_	,						(1)	
Total Cost Over Highest Cost Unit				•				•		*			•	ř		890.85	34.67	610.17			1,535.68	1,535.68
	\$	\$	\$.	\$	\$	s	\$	\$	\$	s	\$	\$	\$	s	\$	17.13 \$	3.09 \$	\$ 85	\$	\$	s	S
Cost Over Highest Cost Unit																17	3	29				S. S. C. S. P.
	65.23 \$	65.23 \$	65.23 \$	65.23 \$	65.23 \$		65.23 \$	65.23 \$	65.23 \$		65.23 \$	65.23 \$	65.23 \$		65.23 \$	65.23 \$	65.23 \$	65.23 \$	65.23 \$	23 \$		
Cost Unit Calc for Post-Hearing DR (Item 2)	65	65	65	65	65		65	65	9		65	65	65		.65	65.	65.	.65	65.	65.23		
Cost U Post-I	s	s	s	s	S		s	s	s		s	w	S		\$	S	S	s	\$	S		
REASON FOR PURCHASE	Economic	Economic	Economic	Economic	Economic	Economic Total	61 - UO1 (15-08)	G1 - UO1 (15-08)	G1 - UO1 (15-08)	G1 - UO1 (15-08) Total	G2 - UO1 (15-04) Total	H2 - UO1 (15-10) Total	Grand Total									
8	MISO	MISO	MISO	MISO	MISO		MISO	MISO	MISO		MISO	MISO	MISO		MISO	MISO	MISO	MISO	MISO	MISO		
DA/RT	Real Time	Real Time	Real Time	Real Time	Real Time		Real Time	Real Time	Real Time		Real Time	Real Time	Real Time		Real Time		The state of the s					
Execution DA/RT	Power	Power	Power	Power	Power		Power	Power	Power		Power	Power	Power		Power	Power	Power	Power	Power	Power		
Buy/Sell	Buy	Buy	Buy	Buy	Buy		Buy	Buy	Buy		Buy F	Buy	Buy F		Buy	Buy	Buy	Buy	Buy	Buy		THE REAL PROPERTY.
TOTAL Cost	1,564.63	5.51	99'9	12,024.65	482.91	291,129.58	30,509.55	831.04	100,895.96	132,236.55	4,513.30	660.65	2,255.55	7,429.50	5,441.11	4,282.33	767.04	1,955.80	15,162.59	4,891.48	32,500.35	3,933,120.27
	4 \$	\$ 0	\$ 0	1 \$	3 \$	\$	\$ 6	\$ 0	1 \$	s	4 \$	2 \$	5 1	\$	5 1	\$ 9	2 \$	1 \$	\$ 0	\$ 0	s	s
PRICE	18.44	6.30	25.70	26.11	23.73		26.19	20.00	25.11		58.24	48.82	44.57		44.07	82.36	68.32	94.81	48.90	41.90		
	337 \$	0.875 \$	0.259 \$	516 \$	353 \$	156	139 \$	561 \$	314 \$	513	\$ 161	13.533 \$	\$ 809	533	\$ \$ \$	\$ \$66	228 \$	\$ 629	371 \$	752 \$	136	380
MWh	84.837	3.0	0.7	460.616	20.353	11,877.456	1,165.139	41.561	4,017.814	5,224.513	77.497	13.5	50.603	141.633	123.463	51.993	11.228	20.629	310.071	116.752	634.136	125,820.380
#	HE 2-8	HE 9	HE 21	HE 5-13,18,21-22	HE 24		HE 17-22	HE 24	HE 1-24		HE 15-19	HE 14,16	HE 11,14		HE 14-19	HE 14-18	HE 13-14	HE 11-14	HE 15-18	HE 14-17,19-20		
DATE	8/30	8/30	8/30	8/31	8/31		8/27	8/27	8/28		8/2	8/3	8/4		8/11	8/12	8/18	8/19	8/23	8/31		

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
Sep-15

	(a)
Total Purchases Over Highest Cost Unit:	\$ 5,481.50
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	1,925.58
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ 3,270.29
Purchases Above Highest Cost (for Form A Filing)	\$ 285.63

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filling. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	us.	Anat-		ppics		TOTAL Cost		Fun audi	D4 /BT	Count	DEACON FOR BURGUES	Cost U Post-H	ed Highest Init Calc for Hearing DR	MWh Cost Highest C		Total Cost Over
DATE	HE	MWh	Ś	PRICE	_	TOTAL Cost	0		DA/RT	У	REASON FOR PURCHASE	-	tem 2)	Unit		Highest Cost Unit
9/1-9/30	0	-	>		\$	40,797.00 40,797.00	Buy	Power		HMPL	Available for System	\$	67.56	\$	-	\$ -
9/1-9/30	0	100,800.000	•	34.03		3,430,695.00	D	Daniel		IN Hub	Available for System Total		67.56	4		\$ -
3/1-3/3/	0	100,800.000	>	34.03	\$	3,430,695.00	Buy	Power		IN HUD	Back-to-Back	\$	67.56	\$	•	\$ -
9/17	HE 15-21	676.796	ć	25.65		17,361.40	Buy	Power	Real Time	MISO	Back-to-Back Total CT - UO0 (15-19)	S	67.56			\$ -
7/1/	111. 13-21	676.796	7	23.03	\$	17,361.40	buy	rower	near rime	IVIIO	CT - UO0 (15-19) Total	2	07.30	Þ	*	\$ -
9/1	HE 1	3.706	S	21.31		78.97	Buy	Power	Real Time	MISO	Domtar	Ś	67.56	ė		\$ - \$ -
9/1	HE 3-11	32.497		26.71		867.99	Buy	Power	Real Time	MISO	Domtar	\$	67.56	¢		÷ -
9/1	HE 15-24	240.052		38.56		9,255.74	Buy	Power	Real Time	MISO	Domtar	S	67.56	¢		÷ -
9/2	HE 1-22	146.366		31.35		4,588.40	Buy	Power	Real Time	MISO	Domtar	\$	67.56	¢		÷ -
9/2	HE 24	5.660		22.24		125.88	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	
9/3	HE 1	1.464		19.46		28.49	Buy	Power	Real Time	MISO	Domtar	5	67.56	4		· ·
9/3	HE 4	4.548		18.70		85.05	Buy	Power	Real Time	MISO	Domtar	S	67.56	\$		¢ ·
9/3	HE 6-9	22.760		22.74	100	517.48	Buy	Power	Real Time	MISO	Domtar	S	67.56	Š		4
9/3	HE 11-15	31.468	17/	38.59	1,0	1,214.32	Buy	Power	Real Time	MISO	Domtar	\$	67.56	Š		\$
9/3	HE 20-22	19.390		26.65		516.73	Buy	Power	Real Time	MISO	Domtar	S	67.56	\$	4	Š
9/4	HE 3-8	27.933		23.12	100	645.69	Buy	Power	Real Time	MISO	Domtar	S	67.56	\$		\$
9/4	HE 10-19	64.561		34.20		2,207.88	Buy	Power	Real Time	MISO	Domtar	S	67.56	\$		\$ -
9/4	HE 21-24		S	24.09	\$	3,351.08	Buy	Power	Real Time	MISO	Domtar	S	67.56	Ś		\$ -
9/5	HE 1-4	67.559	\$	20.03	\$	1,353.01	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$		\$ -
1/5	HE 8-24	379.589	\$	24.79	\$	9,411.38	Buy	Power	Real Time	MISO	Domtar	S	67.56	Ś	-	\$ -
9/6	HE 1-5	94.671	\$	19.09	\$	1,807.15	Buy	Power	Real Time	MISO	Domtar	S	67.56	\$	-	\$ -
/6	HE 9-22	325.226	\$	27.55	\$	8,959.66	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	_	\$ -
/6	HE 24	44.065	\$	20.45	\$	901.13	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
1/7	HE 3	4.332	\$	16.72	\$	72.43	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
/7	HE 9-21	68.552	\$	31.87	\$	2,184.46	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
/8	HE 6	5.326	\$	22.74	\$	121.11	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$		\$ -
1/8	HE 8-22	89.161	\$	37.26	\$	3,321.79	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$		\$ -
/8	HE 24	6.611	\$	23.92	\$	158.14	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
/9	HE 3-4	15.295	\$	20.07	\$	306.91	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$		\$
/9	HE 8-9	20.188	\$	24.50	\$	494.50	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
/9	HE 11	0.656	\$	18.97	\$	12.44	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
/9	HE 22	9.203	\$	22.40	\$	206.15	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
/10	HE 8	3.835	\$	23.50	\$	90.12	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
/10	HE 13-22	53.450	\$	36.92	\$	1,973.41	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$ -
9/11	HE 6	3.144	\$	22.03	\$	69.26	Buy	Power	Real Time	MISO	Domtar	\$	67.56	\$	-	\$

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 22 of 29

	T	1			_	Т		T	1	Т		Revised Highest	1	
										Count		Cost Unit Calc for	MWh Cost Over	
										erpart		Post-Hearing DR	Highest Cost	Total Cost Over
DATE	HE	MWh	. 9	PRICE		TOTAL Cost		Execution	DA/RT	У	REASON FOR PURCHASE	(Item 2)	Unit	Highest Cost Unit
9/11	HE 8	3.792		24.51		92.94	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	\$ -	\$ -
9/11	HE 18-22	22.740	\$		\$	536.95	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	\$ -	\$ -
9/12	HE 10-22	28.442		23.43		666.39	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	\$ -	\$ -
9/13	HE 9-12	7.813			\$	165.14	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/13	HE 15-17	4.615	\$	21.84	\$	100.78	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/13	HE 20	2.064	\$		\$	50.24	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/13	HE 22	23.978	\$	18.41	\$	441.43	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	-	\$ -
9/14	HE 6	35.998	\$		\$	728.24	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/14	HE 8-10	92.743	100		\$	2,401.58	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/14	HE 12	31.732		26.04	\$	826.30	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	\$ -	\$ -
9/14	HE 15-16	4.644			\$	114.08	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/15	HE 5-8	52.676			\$	1,151.89	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	-	\$ -
9/15	HE 14-15	8.033	\$		\$	274.00	Buy	Power	Real Time	MISO	Domtar	\$ 67.56 \$ 67.56	\$ -	\$ -
9/15	HE 18	2.688	**	24.73	\$	66.47	Buy	Power	Real Time	MISO	Domtar	7 07.00	\$ -	\$ -
9/15	HE 20-24 HE 3	4.899 0.757	\$	17.15 9.69	\$	84.01 7.34	Buy	Power	Real Time	MISO	Domtar	\$ 67.56 \$ 67.56	\$ -	\$ -
9/16							Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
9/22	HE 10 HE 6-24	0.012 161.522		25.00 28.66	\$	0.30	Buy	Power Power	Real Time	MISO	Domtar	4 01150	1000	\$ -
9/23 9/24	HE 1-8	104.197	\$	21.03	\$	4,628.56 2,191.32	Buy	Power	Real Time Real Time	MISO	Domtar		\$ -	\$ -
9/24	HE 2-24	807.677			\$	19,415.69	Buy			MISO	Domtar		1.7	\$ -
	HE 4-7	26.112			5	516.39	Buy	Power	Real Time	MISO	Domtar			\$ -
9/26 9/26	HE 10-13	137.181	\$	31.83	\$	4,367.08	Buy	Power Power	Real Time Real Time	MISO	Domtar Domtar			\$ -
9/26	HE 15-22	118.041			\$	2,959.39	V	Power	Real Time	MISO		7		\$ -
9/27	HE 2	0.054			5	3.89	Buy	Power	Real Time	MISO	Domtar Domtar	\$ 67.56 \$ 67.56		\$ 0.24
9/27	HE 6-13	288.892			S	6,148.64	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ 0.24 \$ -
9/27	HE 15-22	395.527			Ś	22,085.45	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	100	\$ - \$ -
9/28	HE 6-10	124.914	7.0		\$	11,709.24	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	To an arrange	\$ 3,270.05
9/28	HE 12-15	55.073			5	1,476.75	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ 3,270.03
9/28	HE 18-22	150.838	\$		\$	5,935.37	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		ş - \$ -
9/29	HE 6-24	680.218	Š		5	17,982.95	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/30	HE 6-11	259.459	0.00	23.33		6,053.56	Buy	Power	Real Time	MISO	Domtar	\$ 67.56		\$ -
9/30	HE 16-21	226.000	Š		Ś	5,165.99	Buy	Power	Real Time	MISO	Domtar	\$ 67.56	*	\$ -
5,50	112 20 22	5,793.689	*		\$	173,275.10			Tigger Filling	111100	Domtar Total	V 07.30		\$ 3,270.29 (3)
9/1	HE 1	26.716	\$	21.32	\$	569.47	Buy	Power	Real Time	MISO	Economic	\$ 67.56		\$ -
9/1	HE 3-11	352.577	\$	26.99	\$	9,517.42	Buy	Power	Real Time	MISO	Economic	\$ 67.56		\$ -
9/1	HE 15-22	481.467	\$	34.73	\$	16,720.52	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	Š -
9/2	HE 1-11,13-22	764.884	\$	24.94	\$	19,073.36	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	, \$ -
9/2	HE 24	0.255	\$	22.26	\$	5.67	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/3	HE 4	0.475	\$	18.69	\$	8.88	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/3	HE 6-9	234.229	\$	23.02	\$	5,390.82	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/3	HE 11-15	62.413	\$	39.71	\$	2,478.70	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/3	HE 20-22	34.914	\$	26.85	\$	937.31	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/4	HE 3-8	104.959	\$	21.15	\$	2,220.05	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	5 -
9/4	HE 10-19	100.759	\$	35.24	\$	3,551.19	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	
9/4	HE 21-24	27.227	\$	22.42	\$	610.30	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/5	HE 1-4	26.820	\$	19.56	\$	524.47	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	-
9/5	HE 8-24	578.905	\$	22.56	\$	13,059.61	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	.
9/6	HE 1-2	51.349	\$	19.14	\$	983.08	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	-
9/6	HE 9-22	625.357	\$	25.08	\$	15,685.07	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	-
9/6	HE 24	37.565	\$	20.45	\$	768.28	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	-

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 23 of 29

										T		Revised Highest		
										Count		Cost Unit Calc for	MWh Cost Over	
	1 1									erpart		Post-Hearing DR	Highest Cost	Total Cost Over
DATE	HE	MWh		PRICE		TOTAL Cost		Execution	DA/RT	y	REASON FOR PURCHASE	(Item 2)	Unit	Highest Cost Unit
9/7	HE 3	1.348	\$	16.73	\$	22.56	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/7	HE 9-21	403.575	\$	27.04	\$	10,911.16	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/8	HE 6	2.281	\$	22.75	\$	51.90	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/8	HE 8-16,18-22	452.198	\$	34.23	\$	15,477.75	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/8	HE 24	3.643	\$	23.92	\$	87.14	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/9	HE 3-4	23.008	\$	19.93	\$	458.65	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/9	HE 8-9	100.944	\$	24.51	\$	2,474.05	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/9	HE 22	8.593	\$	22.39	\$	192.44	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/10	HE 8	9.949	\$	23.50	\$	233.78	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/10	HE 14-22	135.423	\$	37.76	\$	5,112.98	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/11	HE 6	26.268	\$	22.03	\$	578.59	Buy	Power	Real Time	MISO	Economic	\$ 67.56		Š -
9/11	HE 8	23.093	\$	24.51	\$	566.00	Buy	Power	Real Time	MISO	Economic	\$ 67.56		\$ -
9/11	HE 18-22	175.820	S	23.70		4,167.48	Buy	Power	Real Time	MISO	Economic	\$ 67.56		\$ -
9/12	HE 10-22		\$	23.63		28,063.37	Buy	Power	Real Time	MISO	Economic	\$ 67.56		\$ -
9/13	HE 9-12	156.008	Ś	21.30		3,323.32	Buy	Power	Real Time	MISO	Economic	\$ 67.56	1.7	Š -
9/13	HE 15-17		\$	21.76	-	4,477.47	Buy	Power	Real Time	MISO	Economic	\$ 67.56	· ·	\$ -
9/13	HE 20		\$	24.34	-	1,512.19	Buy	Power	Real Time	MISO	Economic	\$ 67.56	1.0	\$ -
9/14	HE 6	2.374		20.17		47.89	Buy	Power	Real Time	MISO	Economic	\$ 67.56	1.2	\$ -
9/14	HE 8-10	54.938	\$	24.64	Ś	1,353.93	Buy	Power	Real Time	MISO	Economic	\$ 67.56	7	\$ -
9/14	HE 12		Š	26.04		855.53	Buy	Power	Real Time	MISO	Economic	\$ 67.56		\$ -
9/15	HE 5-8	81.421	-	21.32		1,736.22	Buy	Power	Real Time	MISO	Economic	\$ 67.56		\$ - \$ -
9/15	HE 20-24	86.795	5	16.53		1,434.40	Buy	Power	Real Time	MISO	Economic	\$ 67.56		•
	HE 1-3	106.617		12.25	124	A STATE OF THE STA		Power	Real Time	MISO				\$ -
9/16	HE 6		5	11.98		1,306.02 278.56	Buy		Real Time	MISO	Economic			\$ -
9/16	HE 9	11.744	S	23.25		273.09	Buy	Power		MISO	Economic	7 0.1150	7	\$ -
9/16			\$				Buy		Real Time	MISO	Economic			\$ -
9/16	HE 16-22			28.10		1,163.64	Buy	Power	Real Time		Economic	4 050		\$ -
9/17	HE 3-14,22-24	361.196	\$	50.41		18,206.29	Buy	Power	Real Time	MISO	Economic	\$ 67.56	E.T	\$ -
9/18	HE 6	48.594	\$	24.98		1,214.12	Buy	Power	Real Time	MISO	Economic	\$ 67.56	*	\$ -
9/19	HE 6		\$	19.75		1,302.83	Buy	Power	Real Time	MISO	Economic	\$ 67.56	7	\$ -
9/19	HE 15,21-24	1,406.968	\$			32,057.93	Buy	Power	Real Time	MISO	Economic	\$ 67.56	- T	\$ -
9/20	HE 1-8,10-15,21-7		\$	23.14	-	5,295.80	Buy	Power	Real Time	MISO	Economic	\$ 67.56	T	\$ -
9/21	HE 8		\$	23.03		733.15	Buy	Power	Real Time	MISO	Economic	\$ 67.56	7	\$ -
9/21	HE 21		\$	25.17		560.33	Buy	Power	Real Time	MISO	Economic	\$ 67.56	•	\$ -
9/21	HE 23	4.798	\$	18.95		90.94	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/22	HE 1-10	703.858	\$	23.24		16,359.25	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/23	HE 6-10,12-24	881.536	\$	28.74		25,333.95	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/24	HE 1-8		\$	27.17		8,454.92	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/25	HE 6,8,15,19-24		\$	23.61		14,516.91	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/26	HE 10-13	22.191	\$	25.47	-151	565.19	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ - !	\$ -
9/27	HE 8-9,11-12	140.441		21.91		3,076.68	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/27	HE 16,22	277.481	\$	25.07	\$	6,957.13	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ - :	\$ -
9/29	HE 6,8,11,16	51.168	\$	23.92	\$	1,223.92	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ -	\$ -
9/30	HE 6-9	255.862	\$	23.45	\$	6,000.47	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ - !	\$ -
9/30	HE 17-19	44.583	\$	22.85	\$	1,018.87	Buy	Power	Real Time	MISO	Economic	\$ 67.56	\$ - :	5 -
		12,403.663			\$	321,233.02					Economic Total			\$ -
9/1	HE 21-24	571.913	\$	28.41	\$	16,247.66	Buy	Power	Real Time	MISO	G1 - UO2 (15-09)	\$ 67.56	\$ -	\$ -
		571.913			\$	16,247.66					G1 - UO2 (15-09) Total			
9/27	HE 15,17-21	1,048.661	\$	68.54	\$	71,876.95	Buy	Power	Real Time	MISO	G2 - UO1 (15-06)	\$ 67.56	\$ 0.98	1,029.38
		1,048.661			\$	71,876.95					G2 - UO1 (15-06) Total			
9/18	HE 14	155.798	\$	30.70	\$	4,783.34	Buy	Power	Real Time	MISO	G2 - UO4 (15-05)	\$ 67.56	\$ - 5	-

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2 Witness: Nicholas R. Castlen

Page 24 of 29

DATE	HE	MWh		PRICE	TOTAL Cost		Execution	DA/RT	Count erpart y	REASON FOR PURCHASE	Cos	vised Highest t Unit Calc for st-Hearing DR (Item 2)	MWh Cost Over Highest Cost Unit	al Cost Over
		155.798			\$ 4,783.34			*		G2 - UO4 (15-05) Total				\$
9/2	HE 12	6.525	\$	111.33	\$ 726.46	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	67.56	\$ 43.77	\$ 285.63
9/18	HE 7	7.454	\$	35.46	\$ 264.34	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	67.56	\$ -	\$ -
9/25	HE 7,9-14,16-18	591.751	\$	27.06	\$ 16,010.36	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	67.56	\$ -	\$
9/29	HE 7,9-10	60.982	\$	40.58	\$ 2,474.80	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	67.56	\$ -	\$
		666.711			\$ 19,475.95					To cover load and lack of gen Total				\$ 285.63
9/19	HE 16-20	1,727.749	\$	27.40	\$ 47,333.37	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/20	HE 9,16,18-20	2,017.704	\$	29.30	\$ 59,108.82	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/20	HE 1-8,10-15,21-7	6,347.958	\$	21.01	\$ 133,381.94	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/21	HE 1-6	916.000	\$	19.19	\$ 17,575.91	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/21	HE 8	18.200	\$	34.30	\$ 624.20	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/21	HE 12-24	765.000	\$	30.34	\$ 23,211.56	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/21	HE 9-10	84.330	\$	78.19	\$ 6,593.53	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	67.56	\$ 10.63	\$ 896.20
9/21	HE 14-21	149.190	\$	30.28	\$ 4,517.77	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/22	HE 1-6	726.000	\$	19.78	\$ 14,361.65	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
9/22	HE 12-24	829.000	\$	33.06	\$ 27,407.76	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	67.56	\$ -	\$ -
		13,581.131			\$ 334,116.50					W1 - UO2 (15-08) Total				\$ 896.20
100		135,698.363	(6)		\$ 4,429,861.92	The Later		Die State		Grand Total		100000000000000000000000000000000000000		\$ 5,481.50

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
Oct-15

	(a)
Total Purchases Over Highest Cost Unit:	\$ 198,850.43
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ 5,580.86
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$ 140,092.00
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ 32,376.25
Purchases Above Highest Cost (for Form A Filing)	\$ 20,801.32

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filling. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

Date	HE	мwн	Price (\$/MWH)	Total Cost	Buy/Sell	Execution	DA/RT	СР	Reason for Purchase	Cost Post	ised Highest Unit Calc for -Hearing DR (Item 2)	Cost Over Highest Cost Unit	Total Cost Over Highest Cost Unit
10/1-10	/31		\$ -	\$ 43,275.00	Buy	Power		HMPL	Available for System	\$	28.09	\$ -	\$ -
				\$ 43,275.00					Available for System Total				\$ -
10/1-10	/31	144,800.000	\$ 29.06	\$ 4,207,524.00	Buy	Power		IN Hub	Back-to-Back	\$	28.09	\$ 0.97	\$ 140,092.0
		144,800.000		\$ 4,207,524.00					Back-to-Back Total				\$ 140,092.0
10/1	HE 6-22	844.350	\$ 23.11	\$ 19,508.75	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/2	HE 6-20	499.402	\$ 24.77	\$ 12,370.39	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/3	HE 1-9	124.887	\$ 19.62	\$ 2,450.76	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/3	HE 12-13	32.143	\$ 25.13	\$ 807.62	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/3	HE 18-21	162.376	\$ 23.88	\$ 3,877.19	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/3	HE 24	5.098	\$ 23.07	\$ 117.63	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/4	HE 1	26.636	\$ 20.53	\$ 546.87	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/4	HE 3-6	104.925	\$ 19.67	\$ 2,063.55	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/4	HE 9-24	801.063	\$ 25.18	\$ 20,166.84	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/5	HE 2-4	16.734	\$ 20.93	\$ 350.30	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/5	HE 6-23	614.415	\$ 30.57	\$ 18,780.58	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 2.48	\$ 1,521.6
10/6	HE 3-4	67.023	\$ 21.57	\$ 1,445.50	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/6	HE 6-18	598.403	\$ 34.19	\$ 20,460.13	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 6.10	\$ 3,650.99
10/6	HE 22-23	62.528	\$ 23.15	\$ 1,447.45	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/7	HE 3-23	902.027	\$ 47.40	\$ 42,760.59	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 19.31	\$ 17,422.64
10/8	HE 3-4	16.418	\$ 20.75	\$ 340.68	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/9	HE 6-17	516.805	\$ 29.82	\$ 15,412.03	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 1.73	\$ 894.9
10/9	HE 19-22	57.224	\$ 25.68	\$ 1,469.52	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/10	HE 7-23	881.763	\$ 24.40	\$ 21,511.89	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/11	HE 9-10	55.794	\$ 21.70	\$ 1,210.59	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/11	HE 13-23	487.008	\$ 22.30	\$ 10,862.20	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/12	HE 6-22	613.832	\$ 40.91	\$ 25,109.54	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 12.82	\$ 7,867.00
10/13	HE 7-21	509.302	\$ 28.39	\$ 14,457.20	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 0.30	\$ 150.91
10/14	HE 1	6.516	\$ 19.51	\$ 127.12	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/14	HE 7	9.019	\$ 26.21	\$ 236.39	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/14	HE 20-22	159.251	\$ 28.52	\$ 4,541.22	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 0.43	\$ 67.87
10/14	HE 24	6.287	\$ 19.61	\$ 123.28	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/15	HE 2-3	9.109	\$ 16.40	\$ 149.40	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/15	HE 5-24	155.209	\$ 23.40	\$ 3,631.57	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2

Witness: Nicholas R. Castlen

Page 26 of 29

He Monte Monte Génerol Generol Gen				Price								Cost Unit Calc for	Cost Over	Total	i i
He 2-10 20.0000 2.00000 2.00000 2.000000 2.0000000 2.0000000 2.0000000 2.00000000 2.0000000000	Date	HE	MWH	(\$/MMH)	Total		Buy/Sell		DA/RT	ð	Reason for Purchase	(Item 2)	Unit	Highest Co	ost Unit
14.2.2.3. 14.2.3.6. 2.6.0.7. 2.6.9.9.9. By Power Real Time MICO Dominat \$ 2.0.0.0. \$ \$ 2.0.0.0. \$	10/16	HE 1-3	20.499	\$ 20.4.			Buy	Power	Real Time	MISO	Domtar			s	
111.2.3.3. 116.3.3.4. 12.9.3.5. 4.0.4.0.0. By Powers Real lime MIOD Dominat \$ 2.0.0. \$ \$ 2.0.0. \$	10/16	HE 5-20	114.736	\$ 26.0.	5 4	2,990.90	Buy	Power	Real Time	MISO	Domtar		_	\$	1
(H. 1.3.) 3.0.6.11 3.4.2.5 3.4.3.4 N. 1.0.4.2 Realline MIO Dominary 5 2.0.0.0 S 7.0.0.0 H. 1.3.4 3.0.6.15 5.4.3.5 5.4.3.6 5.4.3.6 1.0.0.0 Dominary 5 2.0.0.0 9 5 2.0.0 5 7 2 1.0.0.0	10/16	HE 22-24	16.733	\$ 23.9	\$ \$	400.90	Buy	Power	Real Time	MISO	Domtar			s	ì
He 13-34 13-54 15-54	10/17	HE 1-13	52.671	\$ 24.2	3 \$	1,276.42	Buy	Power	Real Time	MISO	Domtar		_	\$	•
14.1.2.3. 86.3.7.6. 86.3.7.6. 86.3.7.6. 86.3.7.6. 96.3.7.6. 96.3.7.6. 97.0.0. 14.1.2.3. 96.3.7.6. 97.0.0. 14.1.2.3. 96.3.7.6. 97.0.0. 14.1.2.3. 97.0.0. 14.1.2.3. 97.0.0. 14.1.2.3. 97.0.0. 14.1.2.3.<	10/17	HE 19-23	20.656	\$ 26.0	3 \$	537.68	Buy	Power	Real Time	MISO	Domtar		-	s	Э
HE 124 S66 788 S 28.09 S 28.09 <th< td=""><td>10/18</td><td>HE 1-24</td><td>96.376</td><td>\$ 25.1.</td><td>\$ 1</td><td>2,419.69</td><td>Buy</td><td>Power</td><td>Real Time</td><td>MISO</td><td>Domtar</td><td></td><td>_</td><td>s</td><td>•</td></th<>	10/18	HE 1-24	96.376	\$ 25.1.	\$ 1	2,419.69	Buy	Power	Real Time	MISO	Domtar		_	s	•
He had been been been been been been been bee	10/19	HE 1-24	646.768	\$ 26.3.	s	17,022.73	Buy	Power	Real Time	MISO	Domtar		\$	S	r
HE \$2.1 201348 \$ 27.739 Boy Power Real Time MISCO Domant \$ 28.00 \$ \$ HE \$4.2 13.643 6.1457.2 Boy Power Real Time MISCO Domant \$ 28.00 \$ \$ HE \$4.2 3.13.25 4.24.24 1.45.20 Boy Power Real Time MISCO Domant \$ 28.00 \$ \$ \$ HE \$4.2 3.13.25 6.24.24 Boy Power Real Time MISCO Domant \$ 28.00 \$ \$ \$ HE \$4.2 4.6.24 Boy Power Real Time MISCO Domant \$	10/20	HE 2-13	287.669	\$ 25.3	s	7,286.99	Buy	Power	Real Time	MISO	Domtar		S	\$	ť
HE 2A 18340 S 2334 S 4733 B BM Power Rall Time MISCO Domat S 2360 S S - 2560 S	10/20	HE 16-21	201.314	\$ 27.7.	\$ 2	5,579.79	Buy	Power	Real Time	MISO	Domtar		\$	S	•
He G A 2014 1867 S A 2014 1873 B P Power Real Time MISO Demand MISO Demand S 2000 S 2014 S 1873 B P Power Real Time MISO Demand S 2000 S 2000 S 2014 S 1867 S P P Power Real Time MISO Demand S 2014 S 2014 S 1866 S P P P Power Real Time MISO Demand S 2014 S 2014 S 1866 S P P P Power Real Time MISO Demand S 2014 Real Time MISO Demand S 2014 S 2014 S 2014 Real Time MISO Demand S 2014 S 2014 S 2014 S 2014 Real Time MISO Demand S 2014 S 2014 S 2014 Real Time MISO Demand S 2014 S 2014 S 2014 Real Time MISO Demand S 2014 S 2014 S 2014 Real Time MISO Demand S 2014 S 2014 S 2014 Real Time MISO Demand S 2014 S 201	10/20	HE 24	19.840	\$ 23.8	\$ 6	473.98	Buy	Power	Real Time	MISO	Domtar		S	· s	
HE 52.1 133.21 3. 145.42 Bay Town Roal Time MISO Domata \$ 1.50.9 \$ 1.51.5 \$	10/21	HE 4	1.667	\$ 23.24	\$	38.73	Buy	Power	Real Time	MISO	Domtar		\$	S	,
H15-21 65.58 5.58.56 1.99 Power Real Time MISO Dometar S 7.80 \$ <td>10/21</td> <td>HE 6-7</td> <td>33.632</td> <td>\$ 43.24</td> <td>\$ 1</td> <td>1,454.22</td> <td>Buy</td> <td>Power</td> <td>Real Time</td> <td>MISO</td> <td>Domtar</td> <td></td> <td>\$</td> <td></td> <td>509.50</td>	10/21	HE 6-7	33.632	\$ 43.24	\$ 1	1,454.22	Buy	Power	Real Time	MISO	Domtar		\$		509.50
HE 2.3. E 5.2. 1.9.5. Bby Power Real Time MISO Domatr S 2809 S	10/21	HE 15-21	133.221	\$ 26.5	\$	3,536.72	Buy	Power	Real Time	MISO	Domtar		S		
HET 2. 34.12 5 C17.83 BW Power Real Time MISC Dominar S 28.09 5	10/21	HE 24	6.528	\$ 22.9	5 1	149.57	Buy	Power	Real Time	MISO	Domtar		S	. 5	1
HF 9.23 4.4453 5 2.246 S 4.210,40 S Power Real Time MISO Domtary S 1.88 S <td>10/22</td> <td>HE 1-2</td> <td>34.127</td> <td>\$ 21.0</td> <td>\$</td> <td>717.89</td> <td>Buy</td> <td>Power</td> <td>Real Time</td> <td>MISO</td> <td>Domtar</td> <td></td> <td>s</td> <td>S</td> <td>,</td>	10/22	HE 1-2	34.127	\$ 21.0	\$	717.89	Buy	Power	Real Time	MISO	Domtar		s	S	,
HE 4.3.1 4.0.2444 5 2.1.3.6.3.6 9.1.3.4 Power Real Time MISO Domrat S 200 5 2.0.2.5.6 9.1.3.4 Power Real Time MISO Domrat S 200 5 9.1.4 9.1.4 9.1.4 Power Real Time MISO Domrat S 200 5 9.1.4	10/22	HE 7	14.453	\$ 29.9	\$ 5	432.40	Buy	Power	Real Time	MISO	Domtar		s		26.42
Het 4 4.537 \$ 20.22 \$ 9.174 By Power Real Time MISO Dontar 5 26.05 \$<	10/22	HE 9-23	442.444	\$ 27.4	\$	12,150.49	Buy	Power	Real Time	MISO	Domtar		s		,
He 12.15 1.164 5 2.246 5 9.94 97.36 Buy Power RealTime MISO Domar 5 2.809 5 2.5 5 8.9 Power RealTime MISO Domar 5 2.809 5 2.5 5 1.6 3.8 4 Power RealTime MISO Domar 5 2.809 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 5 1.5 3 5 2.5 4 9	10/23	HE 4	4.537	\$ 20.2.	\$ 2	91.74	Buy	Power	Real Time	MISO	Domtar		S	S	4
Hi Hi Hi Hi Hi Hi Hi Hi	10/23	HE 12-16	21.644	\$ 22.90	\$ \$	497.36	Buy	Power	Real Time	MISO	Domtar		S	S	
HE 12.0 54.088 5 264 5 1,693.05 By Power Real Time MISO Donntar 5 28.09 5 1.55 1.55 1.55 1.55 1.63.10 9 Neal Time MISO Donntar 5 2.809 5 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 7.5 8 9	10/24	HE 6	4.116	\$ 22.4	\$ 5	92.45	Buy	Power	Real Time	MISO	Domtar		s	\$	
HE 5-1 11182 S 1333 S 2343 By Power RealTime MISO MISO Domtar S 2809 S 9-15 S	10/24	HE 11-20	54.088	\$ 29.64	S	1,603.05	Buy	Power	Real Time	MISO	Domtar		\$		83.7
HE 82.1 10.033 9.55.0 451.26 By Power Real Time MISO Domfar \$ 28.09 \$ 9.41 9.41 9.41 9.41 9.41 9.41 9.41 9.42 9.41 9.42 9.41 9.42 9.42 9.42 9.42 9.42 9.42 <t< td=""><td>10/25</td><td>HE 5-7</td><td>11.182</td><td>\$ 21.3</td><td>3 \$</td><td>238.47</td><td>Buy</td><td>Power</td><td>Real Time</td><td>MISO</td><td>Domtar</td><td></td><td>S</td><td>S</td><td>٠</td></t<>	10/25	HE 5-7	11.182	\$ 21.3	3 \$	238.47	Buy	Power	Real Time	MISO	Domtar		S	S	٠
HE 2 12,734 S 1862 5 2090 By Power RealTime MISO MSO Domtar S 28,09 S	10/25	HE 18-21	12.033	\$ 37.50	\$ (451.26	Buy	Power	Real Time	MISO	Domtar		s	S	113.26
HE 5-2. 6 3.104 7.796 5 1.764.11 Buy Power Real Time MISO Domtar \$ 28.09 \$ \$ HE 24 3.436 \$ 1.706.11 Buy Power Real Time MISO Domtar \$ 28.09 \$ \$ HE 24 3.436 \$	10/26	HE 2	2.734	\$ 18.6.	\$ 2	20.90	Buy	Power	Real Time	MISO	Domtar		s	s	,
HE 24 3.436 5 1.31 Buy Power RealTime MISO Domfar \$ 28.09 \$. \$ 5 5 5 4 Power RealTime MISO Domfar \$ 28.09 \$. .	10/26	HE 5-22	63.104	\$ 27.9	\$ \$	1,764.11	Buy	Power	Real Time	MISO	Domtar			\$	1
HE 2-3 7.368 1.407295 Buy Power Real Time MISO Domtar \$ 28.09 \$ <td></td> <td>HE 24</td> <td>3.436</td> <td>\$ 21.3(</td> <td>\$ 0</td> <td>73.18</td> <td>Buy</td> <td>Power</td> <td>Real Time</td> <td>MISO</td> <td>Domtar</td> <td></td> <td>_</td> <td>\$</td> <td>ï</td>		HE 24	3.436	\$ 21.3(\$ 0	73.18	Buy	Power	Real Time	MISO	Domtar		_	\$	ï
HE 5-24 51.883 S 841 \$ 1,472.95 Buy Power RealTime RalTime Ploontar MISO Dontar \$ 28.09 \$ 0.32 \$ 5 \$ 0.32	10/27	HE 2-3	7.368	\$ 19.0	\$ \$	140.39	Buy	Power	Real Time	MISO	Domtar		\$	s	٠
HE 1.24 130.104 S 1.516.96 Buy Power RealTime MISO Domntar \$ 28.09 \$ \$ HE 5.10 130.104 \$ 2.245 \$ 4.968 Buy Power RealTime MISO Domntar \$ 28.09 \$ \$ HE 13-24 15.203 \$ 2.524 \$ 2.888 Buy Power RealTime MISO Domntar \$ 28.09 \$ \$ HE 13-24 15.203 \$ 2.224 \$ 385.22 Buy Power RealTime MISO Domntar \$ 28.09 \$ \$ HE 1-24 46.141 \$ 2.229 1.347.00 Buy Power RealTime MISO Domntar \$	10/27	HE 5-24	51.853	\$ 28.4.	\$ 1	1,472.95	Buy	Power	Real Time	MISO	Domtar		\$	S	16.39
HE 5-10 19523 5 496.88 Buy Power Real Time MISO Domtar \$ 28.09 \$	10/28	HE 1-24	130.104	\$ 27.0	3 \$	3,516.96	Buy	Power	Real Time	MISO	Domtar		\$	S	•
HE 13-4 10.972 \$ 12.52 \$ 1.88 Buy Power Real Time MISO Domtar \$ 28.09 \$	10/29	HE 5-10	19.523	\$ 25.4	\$ \$	496.88	Buy	Power	Real Time	MISO	Domtar		\$	s	ř
HE 19-24 15.203 \$ 15.34 \$ 185.22 Buy Power Real Time MISO Domtar \$ 28.09 \$ \$ HE 1.1 2.118 \$ 1.2.29 \$ 1.40.0 Buy Power Real Time MISO Domtar \$ 28.09 \$ \$ HE 1.24 46.141 \$ 1.2.29 \$ 1.318.73 Buy Power Real Time MISO Domtar \$ 28.09 \$ \$ HE 1.24 46.141 \$ 1.2.29 \$ 1.318.73 Buy Power Real Time MISO Economic \$ 28.09 \$ \$ HE 6.716-1 372.097 \$ 1.61.00 Buy Power Real Time MISO Economic \$ 28.09 \$ \$ HE 6.716-1 372.097 \$ 2.124 \$ 86.02.28 Buy Power Real Time MISO Economic \$ 28.09 \$ \$ HE 6.716-1 372.097 \$ 26.56 Buy Power Real Time MISO Economic \$ 28.09 \$ \$ HE 6.12-14.1 <td< td=""><td>10/29</td><td>HE 13</td><td>0.972</td><td>\$ 22.5.</td><td>\$ 2</td><td>21.88</td><td>Buy</td><td>Power</td><td>Real Time</td><td>MISO</td><td>Domtar</td><td></td><td>\$</td><td>\$</td><td>î</td></td<>	10/29	HE 13	0.972	\$ 22.5.	\$ 2	21.88	Buy	Power	Real Time	MISO	Domtar		\$	\$	î
HE 1 2.118 \$ 22.29 \$ 47.21 Buy Power Real Time MISO Domtar S 28.09 \$ 5 \$ 8	10/29	HE 19-24	15.203	\$ 25.3	4 \$	385.22	Buy	Power	Real Time	MISO	Domtar			S	ĩ
HE 4.24 46.141 \$ 5 9.19 \$ 1,347.00 Buy Power Real Time Rail Time MISO MISO Domtar \$ 28.09 \$ 1.10 \$ HE 1.24 59.159 \$ 1,318.73 Buy Power Real Time Rail Time Roll Ti	10/30	HE1	2.118	\$ 22.22	\$ 6	47.21	Buy	Power	Real Time	MISO	Domtar		\$	s	9
HE 1-24 59.159 \$ 22.29 \$ 1,318.73 Buy Power Real Time MISO Domtar Total \$ 28.09 \$	10/30	HE 4-24	46.141	\$ 29.15	s	1,347.00	Buy	Power	Real Time	MISO	Domtar		s		50.89
HE 6-7,10-21 372,097 \$ 316,835.30 Power Real Time MISO Economic \$ 28.09 \$ \$ \$	10/31	HE 1-24	59.159	\$ 22.22	\$	1,318.73	Buy	Power	Real Time	MISO	Domtar			\$,
HE 6-7,10-21 372,097 \$ 8,609.22 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 6-7,10-13 23.43 \$ 15.28 \$ 6,002.83 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 19-21 67.965 \$ 1,611.00 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 16,20-21 31.885 \$ 26.10 \$ 6,654.45 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 20-21 35.348 \$ 27.12 \$ 96,654.45 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 7,11-13 66,507 \$ 1,746.71 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 7-8,10-23 462.200 \$ 24.54 \$ 11,341.26 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 9 2.56 \$ 1,346.71 Buy			10,998.192			6,835.30					Domtar Total				2,376.25
HE 6-7,15-17 237,493 \$ 25.28 \$ 6,002.83 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 19-21 67.965 \$ 23.05 \$ 1,611.00 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 16,20-21 31.885 \$ 26.56 \$ 846.72 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 20-21 35.348 \$ 27.12 \$ 958.81 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 7,11-13 66.507 \$ 2.6.26 \$ 1,746.71 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 7-8,10-23 462.200 \$ 2.4.54 \$ 11,341.26 Buy Power Real Time MISO Economic \$ 28.09 \$ HE 9 2.5.60 \$ 1,341.26 Buy Power Real Time MISO Economic \$ <td>10/1</td> <td>HE 6-7,10-21</td> <td>372.097</td> <td>\$ 23.1</td> <td>s</td> <td>8,609.22</td> <td>Buy</td> <td>Power</td> <td>Real Time</td> <td>MISO</td> <td>Economic</td> <td></td> <td>_</td> <td>\$</td> <td>,</td>	10/1	HE 6-7,10-21	372.097	\$ 23.1	s	8,609.22	Buy	Power	Real Time	MISO	Economic		_	\$,
HE 19-21 67.965 5 23.70 1,611.00 Buy Power Real Time MISO Economic \$ 28.09 HE 16,20-21 31.885 5 26.56 846.72 Buy Power Real Time MISO Economic \$ 28.09 HE 20-21 35.348 5 26.10 5 6,554.45 Buy Power Real Time MISO Economic \$ 28.09 HE 7,11-13 66.507 5 26.26 5 1,746.71 Buy Power Real Time MISO Economic \$ 28.09 HE 7,8,10-23 462.200 2 24.54 5 11,341.26 Buy Power Real Time MISO Economic \$ 28.09 HE 9 2.560 2 24.54 5 11,341.26 Buy Power Real Time MISO Economic \$ 28.09 HE 9 2.550 2 3 8.09 Power Real Time <td< td=""><td>10/2</td><td>HE 6-7,15-17</td><td>237.493</td><td>\$ 25.28</td><td>s</td><td>6,002.83</td><td>Buy</td><td>Power</td><td>Real Time</td><td>MISO</td><td>Economic</td><td></td><td>_</td><td>s</td><td>.1</td></td<>	10/2	HE 6-7,15-17	237.493	\$ 25.28	s	6,002.83	Buy	Power	Real Time	MISO	Economic		_	s	.1
HE 16,20-21 31.885 5 6.654.45 Buy Power Real Time MISO Economic \$ 28.09 HE 6-12,14,18 255.006 \$ 26.10 \$ 6,654.45 Buy Power Real Time MISO Economic \$ 28.09 HE 20-21 35.348 \$ 27.12 \$ 958.81 Buy Power Real Time MISO Economic \$ 28.09 HE 7,11-13 66.507 \$ 26.26 \$ 1,746.71 Buy Power Real Time MISO Economic \$ 28.09 HE 7-8,10-23 462.200 24.54 \$ 11,341.26 Buy Power Real Time MISO Economic \$ 28.09 HE 9 2.560 \$ 21.57 \$ 6,408.22 Buy Power Real Time MISO Economic \$ 28.09 HE 9 2.550 \$ 6,408.22 Buy Power Real Time MISO	10/3	HE 19-21	67.965	\$ 23.70	s	1,611.00	Buy	Power	Real Time	MISO	Economic		_	s	,
HE 6-12,14,18 255.006 \$ 6,554.45 Buy Power Real Time MISO Economic \$ 28.09 HE 20-21 35.348 \$ 27.12 \$ 958.81 Buy Power Real Time MISO Economic \$ 28.09 HE 7,11-13 66.507 \$ 26.26 \$ 1,746.71 Buy Power Real Time MISO Economic \$ 28.09 HE 7-8,10-23 462.200 \$ 24.54 \$ 11,341.26 Buy Power Real Time MISO Economic \$ 28.09 HE 9 2.560 \$ 21.57 \$ 6,408.22 Buy Power Real Time MISO Economic \$ 28.09 HE 14-18,23 \$ 6,408.22 Buy Power Real Time MISO Economic \$ 28.09	10/5	HE 16,20-21	31.885	\$ 26.5	\$	846.72	Buy	Power	Real Time	MISO	Economic		_	s	,
HE 20-21 35.348 5 27.12 5 958.81 Buy Power Real Time MISO Economic \$ 28.09 HE 7,11-13 66.507 5 26.26 5 1,746.71 Buy Power Real Time MISO Economic \$ 28.09 HE 7-8,10-23 462.200 5 24.54 5 11,341.26 Buy Power Real Time MISO Economic \$ 28.09 HE 9 2.560 5 21.57 5 55.22 Buy Power Real Time MISO Economic \$ 28.09 HE 14-18,23 28.5751 5 22.43 6,408.22 Buy Power Real Time MISO Economic \$ 28.09	10/6	HE 6-12,14,18	255.006	\$ 26.10	s	6,654.45	Buy	Power	Real Time	MISO	Economic		_	s	,
HE 7,11-13 66.507 \$ 26.26 \$ 1,746.71 Buy Power Real Time MISO Economic \$ HE 7-8,10-23 462.200 \$ 24.54 \$ 11,341.26 Buy Power Real Time MISO Economic \$ HE 9 2.560 \$ 21.57 \$ 55.22 Buy Power Real Time MISO Economic \$ HE 14-18,23 28.5751 \$ 5.22.43 \$ 6,408.22 Buy Power Real Time MISO Economic \$	7/01	HE 20-21	35.348	\$ 27.1.	\$ 5	958.81	Buy	Power	Real Time	MISO	Economic		_	\$	٠
HE 7-8,10-23 462.200 \$ 24.54 \$ 11,341.26 Buy Power Real Time MISO Economic \$ HE 9	10/9	HE 7,11-13	66.507	\$ 26.2	s	1,746.71	Buy	Power	Real Time	MISO	Economic		\$	s	٠
HE 9 2.560 \$ 2.1.57 \$ 55.22 Buy Power Real Time MISO Economic Economic \$ HE 14-18,23 2.85.75.1 \$ 22.43 \$ 6,408.22 Buy Power Real Time MISO Economic \$	10/10	HE 7-8,10-23	462.200	\$ 24.5	s	11,341.26	Buy	Power	Real Time	MISO	Economic		\$	\$,
HE 14-18,23 285.751 \$ 22.43 \$ 6,408.22 Buy Power Real Time MISO Economic \$	10/11	HE 9	2.560	\$ 21.5.	\$ 1	55.22	Buy	Power	Real Time	MISO	Economic		\$	S	í
	10/11	HE 14-18,23	285.751	\$ 22.4	s	6,408.22	Buy	Power	Real Time	MISO	Economic			\$	

Case No. 2016-00006 Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2 Witness: Nicholas R. Castlen Page 27 of 29

DAME FAPE FAPE <th< th=""><th></th><th></th><th>_</th><th></th><th></th><th></th><th></th><th></th><th></th><th>Cost Unit Calc for</th><th>x Cost Over</th><th></th></th<>			_							Cost Unit Calc for	x Cost Over	
HE 6.11 48.7279 5 23.35 4.04.43.01 Bwy Power Real Time MISO HE 7.12.0 1.553 5 2.62.0 6.04 Power Real Time MISO HE 7.12.0 1.553 5 2.62.0 1.384.0 Bwy Power Real Time MISO HE 7.2.2.4 1.56.5 1.324.05 8.04 Power Real Time MISO HE 2.2.4 1.56.6 1.21.21.36 Bwy Power Real Time MISO HE 1.2.2.4 1.56.6 1.24.36.15 Bwy Power Real Time MISO HE 2.2.4 1.23.61.8 1.24.61.8 Bwy Power Real Time MISO HE 2.2.4 1.24.61.8 1.24.61.8 Bwy Power Real Time MISO HE 2.2.4 1.24.62.9 3.04.48.15 Bwy Power Real Time MISO HE 2.2.4 1.24.62.9 3.04.48.15 Bwy Power Real Time MISO HE 2.2.4 1.24.62.9 3.04.48.15		Price (\$/MWH)		Total Cost	Buy/Sell	Execution	DA/RT	ð	Reason for Purchase	Post-Hearing DR (Item 2)	R Highest Cost Unit	Total Cost Over Highest Cost Unit
HE 9-11,20 18,691 6.408 B by Power Real Time MISO HE 72 25.24 6 2.45 6 1.98.40 B by Power Real Time MISO HE 14.22 5.24 6 2.45 6 1.293.05 B by Power Real Time MISO HE 14.22 1.554 5 1.564 5 1.233.05 B by Power Real Time MISO HE 15.22.44 5.658 5 1.565 5 1.253.05 B by Power Real Time MISO HE 15.22.44 5.658 5 1.252.25 1.545.21 B by Power Real Time MISO HE 15.24 1.234.61 9.048 8 9.09 Power Real Time MISO HE 15.24 1.234.61 2.246 5 1.245.20 8.241.61 B by Power Real Time MISO HE 15.24 1.234.62 2.246 5 1.245.20 8.249.74 Power Real Time MISO HE 27.24 2.246 5 1.243.20 Buy Power Real Time MISO HE 15.24 1.134.20 1.0		s	1	10,434.91	Buy	Power	Real Time	MISO	Economic	\$ 28.09	- \$ 60	s
HE 74 7.5275 2.6264 5 1.239.05 Buy Power Real Time MKO HE 74 17.547 5 2.646 5 1.239.05 Buy Power Real Time MKO HE 22 10.564 5 1.234.05 Real Time MKO HE 22 10.5655 2.034.5 1.219.36 Buy Power Real Time MKO HE 12.24 6.685 2.034.5 1.219.36 Buy Power Real Time MKO HE 13.24 6.685 2.045.5 3.048.1 Buy Power Real Time MKO HE 23.4 1.023.6 3.048.9 Power Real Time MKO HE 3.4 1.023.7 2.045.5 5.789.9 Buy Power Real Time MKO HE 4.4 1.023.4 2.045.5 5.789.7 Buy Power Real Time MKO HE 5.7 1.023.4 2.045.5 1.512.2 8.049.7 Power Real Time MKO HE 5.7 1.023.4 2.045.5 1.212.3		s	4.83 \$	4,636.29	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	v,
HE 14422 55.245 3.4416 BUY Power Real Time MISO HE 24 11.547 1.0614 1.0614 3.4416 BUY Power Real Time MISO HE 2 1.0614	7.5	s	6.20 \$	198.40	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	s
HE 24 10514 1659 17717 Buy Power Real Time MISO HE 22 10514 1659 17717 Buy Power Real Time MISO HE 12 5942 2034 1,21936 Buy Power Real Time MISO HE 12,24 565 2034 1,21936 Buy Power Real Time MISO HE 22,24 365 2597 5318 Buy Power Real Time MISO HE 23 1,625 5245 578,97 8211 Buy Power Real Time MISO HE 23 1,625 578,97 821 Buy Power Real Time MISO HE 24 30,234 2,645 578,97 821 Buy Power Real Time MISO HE 24 30,234 2,446 1,484 90 Power Real Time MISO HE 24 30,234 2,446 1,484 90 Power Real Time MISO HE 24 30,245 3,245 Buy Power Real Time MISO MISO HE 24 3,245 Buy Power Rea		s	4.64 \$	1,293.05	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	s
HE 2 10644 5 1669 17171 BM Power Real Time MISO HE 12.24 59.92 3 0.34 12.19.34 BM Power Real Time MISO HE 12.24 65.68 2 0.35.5 1.245.21 BM Power Real Time MISO HE 2.24 1.23.61 5 2.45.21 BM Power Real Time MISO HE 2.24 1.23.62 3.21.8 BM Power Real Time MISO HE 2.24 1.28.62 3.24.89 BM Power Real Time MISO HE 3 2.023 2.62.9 5.78.29 BM Power Real Time MISO HE 4.24 1.28.42.0 1.24.20 1.24.20 1.24.20 MISO HE 1.16.0 6.73.34 2.24.6 1.24.20 BM Power Real Time MISO HE 2.24 1.34.20 2.24.9 1.24.20 BM Power Real Time MISO HE 2.24 <td>17.5</td> <td>S</td> <td>9.61 \$</td> <td>344.16</td> <td>Buy</td> <td>Power</td> <td>Real Time</td> <td>MISO</td> <td>Economic</td> <td>\$ 28.09</td> <td>\$ 60</td> <td>\$</td>	17.5	S	9.61 \$	344.16	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	\$
HE 12-24 59942 5 2034 5 1219.36 BN Power Real Time MISO HE 22-24,11-18.7 1,265.25 5 1,245.21 BN Power Real Time MISO HE 25-8-11-18.7 1,265.25 5 34.41.31 BN Power Real Time MISO HE 20-24 1,218.29 5 26.65 5 34.21.31 BN Power Real Time MISO HE 1.16.20 57.83.4 5 26.65 5 57.82.9 BN Power Real Time MISO HE 2.44 1.28.77 5 26.25 5 1.512.38 BN Power Real Time MISO HE 2.44 1.28.77 5 2.24.29 BN Power Real Time MISO HE 2.14 1.28.24 1.51.2.58 By Power Real Time MISO HE 2.14 1.28.24 1.51.2.58 By Power Real Time MISO HE 5.1.18.20.22 5	10.6	s	\$ 69.9	177.17	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	s
HE 12,24 15 568 5 1352 5 15,4521 Buy Power Real Time MISO HE 15,821,118,2 1,234615 5 204815 Buy Power Real Time MISO HE 20 3,128 5 2645 5 3,24815 Buy Power Real Time MISO HE 21 2,023 5 2625 5 5,7837 Buy Power Real Time MISO HE 12,14 17,877 5 2246 5 1,512,28 Buy Power Real Time MISO HE 21,14 17,877 5 2246 5 1,424,20 Buy Power Real Time MISO HE 21 3,00218 5 2246 5 1,424,20 Buy Power Real Time MISO HE 21 3,00218 3,242,0 Buy Power Real Time MISO HE 21 3,00218 3,242,0 Buy Power Real Time MISO HE 21 3,00218 3,141,14 Buy		s	0.34 \$	1,219.36	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	٠,
HE 55,8-9,11-18,7 1,234 615 5 30,4815 By Power Real Time MISO HE 20 3,162 5 25.29 5 82.11 By Power Real Time MISO HE 21 2,023 5 5.18 9 Power Real Time MISO HE 13-14 3,187 5 2,623 9 9 Power Real Time MISO HE 13-14 1,5273 5 2,433 9 Power Real Time MISO HE 13-14 1,5273 5 2,442 By Power Real Time MISO HE 5-1 3,465 2,424 By Power Real Time MISO HE 5-1 3,202 2,442 By Power Real Time MISO HE 5-1 3,202 2,443 By Power Real Time MISO HE 5-1 3,242 2,440.47 By Power Real Time MISO HE 5-1 3,242 3 1,414.47 By Power Real Time		s	3.52 \$	1,545.21	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	s
HE 20 3 15.2 5 25.9 8 21.1 B Wy Power Real Time MISO HE 21 2.023 5 62.5 5 3.18 B Wy Power Real Time MISO HE 4 3.0291 5 0.22 5 61.23 B Wy Power Real Time MISO HE 11-14 17.877 5 24.25 5 1,432.2 B Wy Power Real Time MISO HE 11-15.20 5 9248 5 24.26 1,444.2 B Wy Power Real Time MISO HE 5-7 200.118 5 21.25 8 40.4 Power Real Time MISO HE 5-7 13.20.2 2 42.8 1,444.2 B Wy Power Real Time MISO HE 5-10.20.2.1.2 13.25 2 42.2 B Wy Power Real Time MISO HE 5-10.20.2.1.2.2 14.34.14 B Wy Power Real Time MISO HE 5-10.20.2.1.2.2 2 60.3 14.14.4 B Wy Power Real Time MISO HE		s	4.66 \$	30,448.15	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	S
HE 21 2.023 5.629 5.5318 Buy Power Real Time MISO HE 18 30.291 5 5.789 Buy Power Real Time MISO HE 2.14 17.877 5 2.423 5.789.2 Buy Power Real Time MISO HE 12-14 17.877 5 2.423 5 1.438.20 Buy Power Real Time MISO HE 11-16.20 59.848 5 2.446 5 1.488.20 Buy Power Real Time MISO HE 21 3.465 5 2.115 5 4.2429 Buy Power Real Time MISO HE 24 13.20 8 7.404.7 Buy Power Real Time MISO HE 24 1.569 1.129 1.414.4 Buy Power Real Time MISO HE 24 1.509.30 2 1.21.29 1.414.4 Buy Power Real Time MISO HE 24 1.500.30 3 1.41.4 Buy Power Real Time MISO HE 24 1.22.2 1.500.30 Buy Power Real Time MISO	3.1	s	5.97 \$	82.11	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	S
HE 18 21822 5 645 5 57897 Bby Power RealTime MISO MISO HE 2-14 17.877 2.246 15.12.58 Bby Power RealTime MISO MISO HE 12-14 17.877 2.246 1,512.58 Bby Power RealTime MISO MISO HE 12-16 2.001.18 2.246 2.1,512.58 Bby Power RealTime MISO MISO HE 2-1 3.465 2.248 2.430.7 Bby Power RealTime MISO MISO HE 2-1 3.465 2.248 2.440.47 Bby Power RealTime MISO MISO HE 2-1 1.569 2.212.9 3.441.47 Bby Power RealTime MISO HE 2-1 1.569 2.129 3.434.26 Bby Power RealTime MISO HE 5-10-12.16,19- 6.0035 2.129 1.344.40 Bby Power RealTime MISO HE 5-10-12.16,19- 6.2203 2.129 1.354.08 Bby Power RealTime MISO HE 5-10-12.16,19- 6.2203 2.137.30 Bby Power RealTime MISO<	2.0	S	6.29 \$	53.18	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	S
HE 4 30,291 CORT 612.39 BUY Power Real Time MISO HE 17-14 17,877 2,423 5,433.20 BUY Power Real Time MISO HE 1-16,20 59,848 5 1,484.20 BUY Power Real Time MISO HE 5-7 200,118 2,148.6 6 1,484.20 BUY Power Real Time MISO HE 5-7 200,118 2,121.9 5 244.29 BUY Power Real Time MISO HE 5-1-18,20-2 5-633.22 5 14,14.47 BUY Power Real Time MISO HE 5-1-18,20-1.7 1,269.9 19,17 182.2 14,14.47 BUY Power Real Time MISO HE 5-10,12,16,19-7 6,20.93 19,17 18,24.29 BUY Power Real Time MISO HE 5-10,12,16,19-7 6,20.93 19,17 18,24.29 BUY Power Real Time MISO HE 5-10 1,23,1.24 <td>21.8</td> <td>s</td> <td>6.45 \$</td> <td>578.97</td> <td>Buy</td> <td>Power</td> <td>Real Time</td> <td>MISO</td> <td>Economic</td> <td>\$ 28.09</td> <td>\$ 60</td> <td>S</td>	21.8	s	6.45 \$	578.97	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	S
HE 12-14 11 2877 \$ 12.45 \$ 1433.2 Buy Power Real Time MISO HE 12-14 15.20 59.48 \$ 12.46 \$ 1.432.0 Buy Power Real Time MISO HE 27 20.0118 \$ 12.45 \$ 1.432.0 Buy Power Real Time MISO HE 27 20.0118 \$ 12.19 \$ 4.240.7 Buy Power Real Time MISO HE 27 243.22 \$ 242.9 Buy Power Real Time MISO HE 24 24.32 \$ 242.9 Buy Power Real Time MISO HE 24 24.32 \$ 19.45 \$ 14.414.7 Buy Power Real Time MISO HE 24.22 \$ 19.45 \$ 11.414.7 Buy Power Real Time MISO HE 24.22 \$ 19.45 \$ 11.414.7 Buy Power Real Time MISO HE 24.25 \$ 12.25 \$ 13.42 \$ Buy Power Real Time MISO HE 24.25 \$ 12.25 \$ 15.365.16 Buy Power Real Time MISO HE 1.02.12.16.19 \$ 12.27 \$ 15.365.16 Buy Power Real Time MISO HE 1.02.12.16.19 \$ 12.27 \$ 15.365.16 Buy Power Real Time MISO HE 1.02.13.13 \$ 2.25 \$ 3.736.6 Buy Power Real Time MISO HE 1.02.13.14.2 \$ 12.21 \$ 15.365.16 Buy Power Real Time MISO HE 1.02.11.2 \$ 12.13 \$ 12.25 \$ 15.365.16 Buy Power Real Time MISO HE 1.02.11.2 \$ 12.13 \$ 12.25 \$ 10.840.3 Buy Power Real Time MISO HE 1.02.11.2 \$ 13.314.2 \$ 12.21 \$ 10.840.3 Buy Power Real Time MISO HE 1.02.11.2 \$ 13.314.2 \$ 12.21 \$ 10.840.3 Buy Power Real Time MISO HE 1.02.11.2 \$ 13.314.2 \$ 12.21 \$ 10.840.3 Buy Power Real Time MISO HE 1.02.11.2 \$ 13.30.0 \$ 12.23 \$ Buy Power Real Time MISO HE 1.02.11.3 \$ 13.00 \$ 12.23 \$ Buy Power Real Time MISO HE 1.02.11.3 \$ 13.00 \$ 12.00 \$ 1	30.2	\$	0.22 \$	612.39	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	\$
HE 6 67334 5 2.246 5 1,512.58 Buy Power Real Time MISO HE 11-16.20 59388 5 2480 5 1,484.70 Buy Power Real Time MISO HE 2.7 3.465 5 24.29 8.48.75 Buy Power Real Time MISO HE 2.7 1.320 5 24.29 8.04 9.00 Real Time MISO HE 2.4 1.569 5 2.603 2.14,14.4 Buy Power Real Time MISO HE 2.4 1.569 5 1.41,41.4 Buy Power Real Time MISO HE 2.4 1.580 8 1.41,41.4 Buy Power Real Time MISO HE 5.10.12.16.19:2 2.033 2 1.24,14.4 3.40 Power Real Time MISO HE 5.10.2.1.6.19:2 2.06570 8 1.25.6 1.26.6 Buy Power Real Time MISO HE 1.2		S	4.23 \$	433.22	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	S
HE 11-16, 20 59,848 5 24,80 5 1,484,20 Buy Power Real Time MISO HE 5-7 3.465 5 24,047 Buy Power Real Time MISO HE 2 13,465 5 24,29 Buy Power Real Time MISO HE 2.1 13,465 5 24,29 Buy Power Real Time MISO HE 2.3 1,265 1,212 3,342 Buy Power Real Time MISO HE 2.3 499 1,144 Buy Power Real Time MISO HE 5.0-12,16,19-1 664,71 5 12,365.16 Buy Power Real Time MISO HE 19-24 120,138 5 2,706.97 Buy Power Real Time MISO HE 19-24 120,138 5 2,706.97 Buy Power Real Time MISO HE 19-24 120,138 5 2,206.97 Buy Power Real Time MISO HE 19-24 120,138 5 2,206.97 Buy Power Real Time MISO HE 19-24 1331,205 8 3,735.06 Buy Power	67.3	s	2.46 \$	1,512.58	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	S
HE 5-7 200118 2119 4,240.47 Buy Power Real Time MISO HE 21 13.465 24.20.47 Buy Power Real Time MISO HE 2 13.202 26.03 14,141.47 Buy Power Real Time MISO HE 2-3 1.569 21.29 14,141.47 Buy Power Real Time MISO HE 2-3 1.569 21.29 13.42.0 Buy Power Real Time MISO HE 2-3 1.560.90 21.29 13.42.0 Buy Power Real Time MISO HE 5-10.12.16,19- 684.771 22.71 15,549.08 Buy Power Real Time MISO HE 19-24 129.138 22.29 80.785 Buy Power Real Time MISO HE 19-24 1.39.208 80.780 Buy Power Real Time MISO HE 4-1.2.1.14.17.1 36.200 8.24.59 Buy Power Real Time MISO		<>	4.80 \$	1,484.20	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	\$
HE 21 3.465 5 2.322 8.045 Buy Power Real Time MISO HE 27,18,20-22 5.43.282 2.63.25 2.44.29 Buy Power Real Time MISO HE 2,4 1.580 5 1.41,14.47 Buy Power Real Time MISO HE 2,3 1.580 5 1.41,14.47 Buy Power Real Time MISO HE 2,3 1.590 5 1.54,54.08 Buy Power Real Time MISO HE 5,10-12,16,19-5 68.4771 5 1.546,08 Buy Power Real Time MISO HE 19-24 1.29,138 5 2.271 5 1.546,08 Buy Power Real Time MISO HE 19-24 1.29,138 5 2.253 5 2.06,37 Buy Power Real Time MISO HE 19-24 1.29,138 5 2.253 5 2.056,37 Buy Power Real Time MISO	200.1	\$	1.19 \$	4,240.47	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	S
HE 2 13.120 \$ 18.62 \$ 244.29 Buy Power Real Time MISO HE 57-18,20-22 533.282 \$ 26.03 \$ 14,14.17 Buy Power Real Time MISO HE 2-3 94.99 \$ 12.29 \$ 12.34 Buy Power Real Time MISO HE 5-10 50.035 \$ 24.75 \$ 15,365.16 Buy Power Real Time MISO HE 5-10 206.970 \$ 22.71 \$ 15,549.08 Buy Power Real Time MISO HE 1-10 206.970 \$ 22.71 \$ 10,840.33 Buy Power Real Time MISO HE 1 36.240 \$ 22.71 \$ 10,840.33 Buy Power Real Time MISO HE 4-5,12,14-17,11 479.508 \$ 22.21 \$ 10,840.33 Buy Power Real Time MISO HE 1-7,9,11-24 1,314.29 \$ 22.21 \$ 10,840.33 Buy Power Real Time MISO HE 24 \$ 300.05 \$ 22.21 <td< td=""><td>3.4</td><td>\$</td><td>3.22 \$</td><td>80.45</td><td>Buy</td><td>Power</td><td>Real Time</td><td>MISO</td><td>Economic</td><td>\$ 28.09</td><td>\$ 60</td><td>\$</td></td<>	3.4	\$	3.22 \$	80.45	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 60	\$
HE 5,7-18,20-22 543.282 5 26.03 5 14,14.14 Buy Power Real Time MISO HE 24 1.569 1.29 3.342 Buy Power Real Time MISO HE 5.7,0,12-17,21 6.00,935 2.475 5 15,545.16 Buy Power Real Time MISO HE 5.10-12,16,19 684.771 5 2.271 5 15,549.08 Buy Power Real Time MISO HE 5.10-12,16,19 684.771 5 2.271 5 15,549.08 Buy Power Real Time MISO HE 19-24 1.29,138 5 2.229 8,078.28 Buy Power Real Time MISO HE 19-24 1.29,138 5 2.229 8,076.23 Buy Power Real Time MISO HE 4-5,12,14-17 1.331.429 2.10.1 5 2.2795.32 Buy Power Real Time MISO HE 1.79,11-24 1.331.429 2.10.1 5	13.1	\$	8.62 \$	244.29	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	S
HE 24 1.569 \$ 12.29 33.42 Buy Power Real Time MISO MISO HE 27,10,12-17,21 620.935 \$ 19.17 \$ 182.10 Buy Power Real Time MISO MISO HE 5,10-12,16,19 684771 \$ 2.71 \$ 15,365.16 Buy Power Real Time MISO MISO HE 5,10-12,16,19 684771 \$ 2.21 \$ 15,365.16 Buy Power Real Time MISO MISO HE 5-10 26,6970 \$ 25,35 \$ 3,273.06 Buy Power Real Time MISO MISO HE 19-24 1,29,138 \$ 25,25 \$ 3,273.06 Buy Power Real Time MISO HE 19-24 1,331.429 \$ 21,03,227.74 \$ 10,227.74 MISO HE 1-79,11-24 1,331.429 \$ 21,03,227.74 Buy Power Real Time MISO HE 12-19 1,357.23 68.44 \$ 9,288.83 Buy Power Real Time MISO HE 11-17 3,000 \$ 7,03 \$ 12,29 \$ 10,023 \$ 14,052.88 Buy Power Real Time MISO HE 11-17 32,090 \$ 24,05		S	6.03 \$	14,141.47	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	15
HE 2-3 9.499 \$ 19,17 \$ 182,10 Buy Power Real Time MISO HE 5-7,10,12-17,21 620,935 \$ 24,75 \$ 15,546.36 Buy Power Real Time MISO HE 5-10-12,16,19 684.771 \$ 22,71 \$ 15,549.38 Buy Power Real Time MISO HE 19-24 129.138 \$ 25.35 \$ 3,273.06 Buy Power Real Time MISO HE 19-24 129.138 \$ 22.29 \$ 807.82 Buy Power Real Time MISO HE 19-24 1,29.138 \$ 22.29 \$ 807.82 Buy Power Real Time MISO HE 1-3-11-24 1,331.40 \$ 21.01 \$ 27.253 \$ 80.782 Buy Power Real Time MISO HE 24 1,331.20 \$ 2.01 10,243.33 Buy Power Real Time MISO HE 24 8,000 \$ 30,30 \$ 244.55.88 Buy Power Real Time MISO HE 11-17 320,902 \$	1.5	s	1.29 \$	33.42	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	\$
HE 5-7,10,12-17,21 620.935 \$ 4.75 \$ 15,365.16 Buy Power Real Time MISO HE 5,10-12,16,19- 664.771 \$ 22.71 \$ 15,490.8 Buy Power Real Time MISO HE 5,10-12,16,19- 2664.771 \$ 22.71 \$ 15,490.8 Buy Power Real Time MISO HE 19-24 129.138 \$ 25.35 \$ 807.82 Buy Power Real Time MISO HE 19-24 1,331.429 \$ 22.261 \$ 10,840.33 Buy Power Real Time MISO HE 4-5,12,14-17.11 479.508 \$ 22.61 \$ 10,840.33 Buy Power Real Time MISO HE 12-19 1,331.225 \$ 197.227.74 \$ 180.00 \$ 12.01 \$ 12.27.74 \$ 180.00 \$ 12.27.74 \$ 12.27.74 \$ 180.00 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.74 \$ 12.27.33 \$ 12.27.33	9.4	s	9.17 \$	182.10	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	s
HE 5,10-12,16,19 684,771 \$ 22,71 \$ 15,549,08 Buy Power Real Time MISO HE 5-10 206,970 \$ 25.16 \$ 5,206,97 Buy Power Real Time MISO HE 19-24 129,138 \$ 22.29 \$ 30,73.6 Buy Power Real Time MISO HE 4-5,12,1-24 1,331,429 \$ 22.29 \$ 807,82 Buy Power Real Time MISO HE 12-19 1,331,429 \$ 22.21 \$ 10,840,33 Buy Power Real Time MISO HE 12-19 1,331,429 \$ 21.01 \$ 10,223,3 Buy Power Real Time MISO HE 24 1,331,420 \$ 10,223 \$ 10,223,7 Buy Power Real Time MISO HE 24 3,000 \$ 30.30 \$ 24,239 Buy Power Real Time MISO HE 11-17 32,090 \$ 24,70 \$ 45,023 Buy Power Real Time MISO HE 24 1,000 \$ 1,000 <t< td=""><td></td><td>\$</td><td>4.75 \$</td><td>15,365.16</td><td>Buy</td><td>Power</td><td>Real Time</td><td>MISO</td><td>Economic</td><td>\$ 28.09</td><td>\$ 6</td><td>S</td></t<>		\$	4.75 \$	15,365.16	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	S
HE 5-10 206.970 \$ 5,206.97 Buy Power Real Time MISO HE 19-24 129.138 \$ 25.35 \$ 3,273.06 Buy Power Real Time MISO HE 19-24 129.138 \$ 22.53 \$ 3,273.06 Buy Power Real Time MISO HE 4-5,12,14-17,11 36.240 \$ 22.261 \$ 10,840.33 Buy Power Real Time MISO HE 1-7,9,11-24 1,331.429 \$ 21.01 \$ 27,927.74 Buy Power Real Time MISO HE 24 8,357.225 \$ 9,288.83 Buy Power Real Time MISO HE 24 8,000 \$ 242.39 Buy Power Day Ahead MISO HE 11-7 130.16,18 30.30 \$ 242.39 Buy Power Real Time MISO HE 11-17 30.00 \$ 7.03 \$ 171.09 Buy Power Real Time MISO HE 11-17 320.902 \$ 31.10 \$ 9,979.38 Buy Power Rea		S	2.71 \$	15,549.08	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	\$
HE 19-24 129.138 \$ 25.35 \$ 3,273.06 Buy Power Real Time MISO HE 1 36.240 \$ 22.29 807.82 Buy Power Real Time MISO HE 4-5,12,14-17,11 479.508 \$ 22.21 \$ 10,840.33 Buy Power Real Time MISO HE 12-19 1,331.429 \$ 21.01 \$ 27,975.32 Buy Power Real Time MISO HE 12-19 1,331.429 \$ 21.01 \$ 27,975.32 Buy Power Real Time MISO HE 24 8,307.03 \$ 197,227.74 Real Time MISO HE 14 3.000 \$ 30.30 \$ 1,20.31 Buy Power Day Ahead MISO HE 11-17 146.723 \$ 110 \$ 120.31 Buy Power Real Time MISO HE 11-17 320.902 \$ 110 \$ 9,979.38 Buy Power Real Time MISO HE 34 1,000 \$ 120.97 \$ 120.97 Buy Power Real Time<		s	5.16 \$	5,206.97	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	\$
HE 1 36.240 \$ 22.29 \$ 807.82 Buy Power Power Real Time MISO HE 4-5,12,14-17,11 479.508 \$ 22.61 \$ 10,840.33 Buy Power Real Time MISO MISO HE 1-7,9,11-24 1,331.429 \$ 22.61 \$ 10,840.33 Buy Power Real Time MISO MISO HE 12-19 135.725 \$ 68.44 \$ 9,288.83 Buy Power Day Ahead MISO MISO HE 24 8.000 \$ 30.30 \$ 171.09 Buy Power Day Ahead MISO MISO HE 14-19 1,801.657 \$ 24.70 \$ 44,505.88 Buy Power Real Time MISO MISO HE 11-17 320.902 \$ 31.10 \$ 9,979.38 Buy Power Real Time MISO MISO HE 24 1,000 \$ 120.97 \$ 1,20.97 Buy Power Real Time MISO MISO HE 3-17-19 39.354 \$ 32.33 \$ 1,20.24 Buy Power Real Time MISO MISO HE 8-9 1,118.197 \$ 56.91 \$ 6,726.03 Buy Power Real Time MISO MISO HE 6-7 2,668.522 \$ 74,338.88 Buy Power Real Time MISO HE 5,7-14,16-18,24 1,058.947 3,27.3 22,339.24		s	5.35 \$	3,273.06	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	s
HE 4-5,12,14-17,11 479-508 \$ 22.61 \$ 10,840.33 Buy Power Real Time MISO HE 1-79,11:24 1,331.429 \$ 21.01 \$ 27,975.32 Buy Power Real Time MISO HE 12-19 135.723 \$ 68.44 \$ 9,288.83 Buy Power Real Time MISO HE 14 8.000 \$ 30.03 \$ 17.09 Buy Power Day Ahead MISO HE 14 3.000 \$ 7.03 \$ 17.09 Buy Power Day Ahead MISO HE 11-17 320.902 \$ 17.03 44,505.88 Buy Power Real Time MISO HE 24 1.000 \$ 120.97 \$ 44,505.88 Buy Power Real Time MISO HE 24 1.000 \$ 120.97 \$ 120.97 Buy Power Real Time MISO HE 24 1.000 \$ 120.97 \$ 120.97 Buy Power Real Time MISO HE 8-9 1.171.415 \$ 27.43 \$ 47.02.46	36.2	s	2.29 \$	807.82	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	\$
HE 1-7,9,11-24 1,331,429 \$ 1011 \$ 27,975.32 Buy Power Real Time MISO HE 12-19 135,725 \$ 197,227.74 \$ 197,227.74 \$ 197,227.74 \$ 197,227.74 HE 12-19 135,723 \$ 68.44 \$ 9,288.83 Buy Power Real Time MISO HE 14 8,000 \$ 30.30 \$ 171.09 Buy Power Day Ahead MISO HE 1 1,600 \$ 57.03 \$ 171.09 Buy Power Day Ahead MISO HE 11-17 320,902 \$ 120.05 \$ 44,505.88 Buy Power Real Time MISO HE 24 1,000 \$ 120.97 \$ 120.97 Buy Power Real Time MISO HE 8-9 1,171.415 \$ 56.91 \$ 6,726.03 Buy Power Real Time MISO HE 6-7 2,668.522 \$ 74,338.88 Buy Power Real Time MISO HE 6-7 2,668.522 \$ 74,938.88 Buy Power Real Time		s	2.61 \$	10,840.33	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	S
HE 12-19 135.7225 \$ 197,227.74 HE 24 135.723 68.44 \$ 9,288.83 Buy Power Real Time MISO HE 24 8.000 \$ 7.03 \$ 171.09 Buy Power Day Ahead MISO HE 1 1.80.057 \$ 7.03 \$ 9,702.31 Power Day Ahead MISO HE 1-1.7 1.801.657 \$ 24.70 \$ 44,505.88 Buy Power Real Time MISO HE 14-1.7 320.902 \$ 31.10 \$ 9,703.31 Buy Power Real Time MISO HE 24 1.000 \$ 120.97 Buy Power Real Time MISO HE 8-9 1.71415 \$ 56.91 \$ 6,726.03 Buy Power Real Time MISO HE 6-7 215.998 \$ 35.33 \$ 1,272.28 Buy Power Real Time MISO HE 6-7 215.998 \$ 35.33 \$ 4,702.46 Buy Power Real Time MISO HE 6-7-14,16-18,21 1,058.947		\$	1.01 \$	27,975.32	Buy	Power	Real Time	MISO	Economic	\$ 28.09	\$ 6	\$
HE 12-19 135.723 \$ 68.44 \$ 9,288.83 Buy Power Power Real Time Power MISO HE 24 8.000 \$ 30.30 \$ 242.39 Buy Power Day Ahead MISO HE 1 3.000 \$ 57.03 \$ 171.09 Buy Power Day Ahead MISO HE 9-10,12-16,18- 1,801.657 \$ 24.70 \$ 44,505.88 Buy Power Real Time MISO HE 11-17 320.902 \$ 31.10 \$ 9,979.38 Buy Power Real Time MISO HE 15,17-19 39.354 \$ 32.33 \$ 1,272.28 Buy Power Real Time MISO HE 34 1,000 \$ 120.97 \$ 1,200.97 \$ 6,726.03 Buy Power Real Time MISO HE 6-7 215.998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,078.994 \$ 35.277.9 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,078.99 \$ 30.40 \$ 3,277.9 Buy Power Real Time MISO HE 5,7-8,11-20 107.809 \$ 30.40 \$ 8,245.67 Buy Power Real Time MISO <td>8,357.2</td> <td>125</td> <td>\$</td> <td>197,227.74</td> <td></td> <td></td> <td></td> <td></td> <td>Economic Total</td> <td></td> <td></td> <td>\$</td>	8,357.2	125	\$	197,227.74					Economic Total			\$
HE 24 8.000 \$ 30.30 \$ 171.09 Buy Power Day Ahead MISO HE 1 3.000 \$ 57.03 \$ 171.09 Buy Power Day Ahead MISO HE 9-10,12-16,18- 1,801.657 \$ 24.70 \$ 9,702.31 HE 9-10,12-16,18- 1,801.657 \$ 24.70 \$ 44,505.88 Buy Power Real Time MISO HE 15,17-19 39.354 \$ 32.33 \$ 1,272.28 Buy Power Real Time MISO HE 13,15-17 118.197 \$ 56.91 \$ 67,26.03 Buy Power Real Time MISO HE 6-7 215.998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 5,7-14,16-18,21 1058.947 \$ 120.37 \$ 120.397 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,058.947 \$ 22.839.24 Buy Power Real Time MISO HE 5,7-8,11-20 359.231 \$ 8,845.67 Buy Power Real Time MISO		s	8.44 \$	9,288.83	Buy	Power	Real Time	MISO	62-U01 (15-07)	\$ 28.09	9 \$ 40.35	5 \$ 5,476.37
HE 1 3.000 \$ 57.03 \$ 171.09 Buy Power Day Ahead MISO HE 9-10,12-16,18- 1,801.657 \$ 24.70 \$ 44,505.88 Buy Power Real Time MISO HE 11-17 320.902 \$ 31.10 \$ 9,979.38 Buy Power Real Time MISO HE 15,17-19 39.354 \$ 32.33 \$ 1,272.28 Buy Power Real Time MISO HE 13,15-17 118.197 \$ 56.21 6,726.03 Buy Power Real Time MISO HE 8-9 171.415 \$ 27.43 \$ 4,702.46 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,058.947 \$ 21.57 \$ 74,938.8 A 76.31.89 Weer Real Time MISO HE 5,7-14,16-18,21 1,078.09 \$ 30.40 \$ 3,277.79 Buy Power Real Time MISO HE 5,7-8,11.20 107.80 \$ 30.40 \$ 8,845.67 Buy Power Real Time MISO	8.0	\$	0.30 \$	242.39	Buy	Power	Day Ahead	MISO	G2-U01 (15-07)	\$ 28.09	9 \$ 2.21	17.67
HE 9-10,12-16,18. 1,801.657 \$ 9,702.31 Power Real Time MISO HE 11-17 320.902 31.10 \$ 9,979.38 Buy Power Real Time MISO HE 12,17-19 39.354 32.33 \$ 1,272.28 Buy Power Real Time MISO HE 24 1.000 \$ 120.97 \$ 120.97 Buy Power Real Time MISO HE 3,15-17 118.197 \$ 56.91 \$ 6,726.03 Buy Power Real Time MISO HE 6-7 215.998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,058.947 \$ 21.57 \$ 22,839.48 \$ 32,77.79 Buy Power Real Time MISO HE 5,7-8,11-20 359,231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO	3.0	s	7.03 \$	171.09	Buy	Power	Day Ahead	MISO	G2-U01 (15-07)	\$ 28.09	-	1 \$ 86.82
HE 9-10,12-16,18- 1,801,657 \$ 24,70 \$ 44,505.88 Buy Power Real Time MISO HE 11-17 320,902 \$ 31.10 \$ 9,979.38 Buy Power Real Time MISO HE 15,17-19 39.354 \$ 32.33 \$ 1,272.28 Buy Power Real Time MISO HE 24 1.000 \$ 120.97 \$ 120.97 Buy Power Real Time MISO HE 8-9 1.13.197 \$ 56.91 \$ 6,726.03 Buy Power Real Time MISO HE 8-9 1.14.15 \$ 12.743 \$ 7,431.88 Buy Power Real Time MISO HE 6-7 2.15.98 \$ 7,431.88 Buy Power Real Time MISO HE 5,7-14,16-18,24 1,058.97 \$ 12,738.84 A 3,237.79 Buy Power Real Time MISO HE 5,7-8,11-20 359,231 \$ 30,40 \$ 3,277.79 Buy Power Real Time MISO	146.7	723	\$	9,702.31					G2-U01 (15-07) Total			\$ 5,580.86
HE 11-17 320.902 \$ 31.10 \$ 9,979.38 Buy Power RealTime MISO HE 15,17-19 39.354 \$ 12.37 \$ 1,272.28 Buy Power RealTime MISO HE 24 1.000 \$ 120.97 \$ 1,200.97 Buy Power RealTime MISO HE 13,15-17 118.197 \$ 56.91 \$ 6,726.03 Buy Power RealTime MISO HE 6-7 215.998 \$ 35.31 \$ 7,631.88 Buy Power RealTime MISO HE 6-7 215.998 \$ 35.33 \$ 7,4338.88 HE 6-15,14,16-18,21 1,058.947 \$ 22,839.24 Buy Power RealTime MISO HE 6,15,19 107.809 \$ 30.40 \$ 32,77,9 Buy Power RealTime MISO HE 5,7-8,11-20 359.231 \$ 24,625.7 Buy Power RealTime MISO HE 5,7-8,11-20 359.231 \$ 8,845.67 Buy Power RealTime MISO	54*	S	4.70 \$	44,505.88	Buy	Power	Real Time	MISO	G2-UO4 (15-07)		- \$ 6	\$
HE 15,17-19 39.354 \$ 32.33 \$ 1,272.28 Buy Power Real Time MISO HE 24 1.000 \$ 120.97 \$ 120.97 Buy Power Day Ahead MISO HE 13,15-17 118.197 \$ 56.91 \$ 6,726.03 Buy Power Real Time MISO HE 6-7 215.998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 6-7 215.98 \$ 35.33 \$ 7,4338.88		S	11.10 \$	9,979.38	Buy	Power	Real Time	MISO	G2-UO4 (15-07)	\$ 28.09	9 \$ 3.01	1 \$ 965.25
HE 24 1.000 \$ 120.97 \$ 120.97 Buy Power Day Ahead MISO HE 13,15-17 118,197 \$ 56.91 \$ 6,726.03 Buy Power Real Time MISO HE 8-9 171.415 \$ 27.43 \$ 4,702.46 Buy Power Real Time MISO HE 6-7 215,998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 6,15,19 1,058.94 \$ 21.57 \$ 22,839.24 Buy Power Real Time MISO HE 6,15,19 107.889 \$ 30.40 \$ 3,277.9 Buy Power Real Time MISO HE 5,7-8,11-20 359,231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO MISO		\$	12.33 \$	1,272.28	Buy	Power	Real Time	MISO	G2-U04 (15-07)	\$ 28.09	9 \$ 4.24	166.83
HE 13,15-17 118.197 \$ 6,726.03 Buy Power Real Time MISO HE 8-9 171.415 \$ 27,43 \$ 4,702.46 Buy Power Real Time MISO HE 6-7 215.998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,058.947 \$ 12,57 \$ 22,839.24 Buy Power Real Time MISO HE 6,15,19 107.809 \$ 30.40 \$ 3,277.79 Buy Power Real Time MISO HE 5,7-8,11-20 359.231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO	1.0	s	\$ 76.0	120.97	Buy	Power	Day Ahead	MISO	G2-UO4 (15-07)	\$ 28.09	9 \$ 92.88	3 \$ 92.88
HE 8-9 171.415 \$ 27.43 \$ 4,702.46 Buy Power Real Time MISO HE 6-7 2.15.998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,058.947 \$ 21.57 \$ 22,839.24 Buy Power Real Time MISO HE 6,15,19 107.809 \$ 30.40 \$ 3,277.79 Buy Power Real Time MISO HE 5,7-8,11-20 359.231 \$ 8,845.67 Buy Power Real Time MISO		s	6.91 \$	6,726.03	Buy	Power	Real Time	MISO	62-004 (15-07)	\$ 28.09	9 \$ 28.82	3,405.88
HE 6-7 215.998 \$ 35.33 \$ 7,631.88 Buy Power Real Time MISO HE 5,7-14,16-18,21 1,058.947 \$ 21.57 \$ 22,839.24 Buy Power Real Time MISO HE 6,15,19 107.809 \$ 30.40 \$ 3,277.79 Buy Power Real Time MISO HE 5,7-8,11-20 359.231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO	171.4	s	7.43 \$	4,702.46	Buy	Power	Real Time	MISO	G2-U04 (15-07)	\$ 28.09	\$ 6	S
2,668.522 \$ 74,938.88 HE 5,7-14,16-18,21 1,058.947 \$ 21.57 \$ 22,839.24 Buy Power Real Time MISO HE 6,15,19 107.809 \$ 30,40 \$ 3,277.79 Buy Power Real Time MISO HE 5,7-8,11-20 359,231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO	215.9	\$		7,631.88	Buy	Power	Real Time	MISO	G2-U04 (15-07)	\$ 28.09		1,564.51
HE 5,7-14,16-18,21 1,058.947 \$ 21.57 \$ 22,839.24 Buy Power Real Time MISO HE 6,15,19 107.809 \$ 30.40 \$ 3,277.79 Buy Power Real Time MISO HE 5,7-8,11-20 359.231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO	2,668.5	122	\$	74,938.88					G2-U04 (15-07) Total			\$ 6,195.35
HE 6,15,19 107.809 \$ 3.0.40 \$ 3,277.79 Buy Power Real Time MISO HE 5,7-8,11-20 359.231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO		\$	1.57 \$	22,839.24	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$ 28.09	-	S
HE 5,7-8,11-20 359.231 \$ 24.62 \$ 8,845.67 Buy Power Real Time MISO		\$	0.40 \$	3,277.79	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$ 28.09	9 \$ 2.31	. \$ 249.42
		\$	4.62 \$	8,845.67	Buy	Power	Real Time	MISO	G2-U04 (15-08)		-	\$
18.354 \$ 33.66 \$ 617.74 Buy Power Real Time MISO		s	3.66 \$	617.74	Buy	Power	Real Time	MISO	G2-U04 (15-08)	\$ 28.09	_	\$ 102.19

Case No. 2016-00006 Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 2 Witness: Nicholas R. Castlen Page 28 of 29

Date	HE	мwн	Price (\$/MWH)	Total Cost	Buy/Sell	Execution	DA/RT	СР	Reason for Purchase	Cost Post	unit Calc for t-Hearing DR (Item 2)	Cost Over Highest Cost Unit		ital Cost Over
10/17	HE 1-12	340.301	\$ 24.36	\$ 8,289.29	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	\$	-
10/17	HE 20-23	124.551	\$ 24.35	\$ 3,032.97	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	5	
10/17	HE 19	25.532	\$ 34.51	\$ 881.12	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ 6.42	\$	163.92
10/18	HE 1-7,9-15,17-18,	954.917	\$ 23.51	\$ 22,448.89	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	\$	4
10/18	HE 8,19	95.654	\$ 36.22	\$ 3,464.89	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ 8.13	\$	777.97
		3,085.297		\$ 73,697.60					G2-UO4 (15-08) Total				\$	1,293.50
10/27	HE 24	95.573	\$ 21.92	\$ 2,094.96	Buy	Power	Real Time	MISO	H1-UO1 (15-09)	\$	28.09	\$ -	\$	-
10/28	HE 1-5,7-9	495.445	\$ 21.36	\$ 10,580.50	Buy	Power	Real Time	MISO	H1-UO1 (15-09)	\$	28.09	\$ -	\$	
10/28	HE 6	75.773	\$ 31.78	\$ 2,408.05	Buy	Power	Real Time	MISO	H1-UO1 (15-09)	\$	28.09	\$ 3.69	\$	279.60
		666.791		\$ 15,083.52					H1-UO1 (15-09) Total				\$	279.60
10/8	HE 24	11.000	\$ 31.48	\$ 346.27	Buy	Power	Day Ahead	MISO	To cover load and lack of gen	\$	28.09	\$ 3.39	\$	37.28
10/9	HE 6,10	34.670	\$ 29.31	\$ 1,016.03	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 1.22	\$	42.16
10/10	HE 9	25.200	\$ 32.26	\$ 812.96	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 4.17	\$	105.09
10/19	HE 6-7,10,19	161.213	\$ 39.91	\$ 6,434.45	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 11.82	\$	1,905.98
10/20	HE 6	17.371	\$ 28.15	\$ 489.05	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 0.06	\$	1.09
10/22	HE 16-17,19	31.815	\$ 28.47	\$ 905.88	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 0.38	\$	12.20
10/24	HE 17-19	29.551	\$ 38.00	\$ 1,122.88	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 9.91	\$	292.80
10/25	HE 20	26.364	\$ 48.33	\$ 1,274.15	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 20.24	\$	533.60
10/26	HE 6-8,19	157.652	\$ 36.18	\$ 5,703.37	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 8.09	\$	1,274.94
10/27	HE 8-9,11,18-19	173.567	\$ 42.30	\$ 7,342.01	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 14.21	\$	2,466.52
10/28	HE 6,13-15,17-18,:	284.082	\$ 35.08	\$ 9,965.15	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 6.99	\$	1,985.29
10/30	HE 6-11,13,18	496.505	\$ 36.72	\$ 18,233.11	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 8.63	\$	4,286.28
10/31	HE 8,10	39.006	\$ 30.39	\$ 1,185.33	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 2.30	\$	89.64
		1,487.995		\$ 54,830.65					To cover load and lack of gen Total				\$	13,032.87
		172,210.745		\$ 4,993,115.00			120,191102		Grand Total	WARRIED AND ADDRESS			Ś	198,850.43

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF BIG RIVERS ELECTRIC CORPORATION FROM MAY 1, 2015 THROUGH OCTOBER 31, 2015 CASE NO. 2016-00006

Response to Commission Staff's Request for Information from the Hearing of April 7, 2016

April 21, 2016

1	Item 3) Provide calculations of the power purchases that would have
2	been excluded for recovery through the FAC, compared to what was
3	excluded, if Big Rivers had used, as the cost of the highest cost unit for
4	each month of the review period, an average of the cost to operate the unit
5	at minimum load and at full load, and using an average of the lowest and
6	highest natural gas cost for each month. Please provide responses in hard
7	format as well as Excel spreadsheet format.
8	
9	Response) Please see attachments. Electronic copies of the attachments are
10	also provided in Excel spreadsheet format on the USB Drive accompanying these
11	responses. The attachments are provided in a folder labelled 'CN 2016-00006 -
12	PHDR Item 3 - Attachment'. Further note that for October 2015, as explained in
13	footnote (2) on page 3 of the attachment, "the Reid CT was not available and, as a
14	result, was not used as Big Rivers' highest cost unit for purposes of determining the
15	purchased power exclusion in the Form A filing." Consequently, the Item 3
16	Attachment (hardcopy) does not include a page for October 2015 Daily Natural
17	Gas Prices, and there is no sheet labelled 'Oct-15Gasprices' in the Excel
18	spreadsheet.
19	
20	
21	Witness) Nicholas R. Castlen
22	
23	

Case No. 2016-00006
Response to FAC Hearing Request for Information Item 3
Witness: Nicholas R. Castlen
Page 1 of 1

Big Rivers Electric Corporation Case No. 2016-00006

Attachment for Response to Item 3 of Commission Staff's Request for Information from Hearing of April 7, 2016 Comparison of Purchased Power that would have been Excluded from FAC Using Alternative Calculation vs. Purchased Power that was Excluded from FAC Using Average of Highest Natural Gas Price and Lowest Natural Gas Price Each Month

	<u> </u>	<u> May-15</u>	<u>Jun-15</u>	<u>ل</u>	<u>ul-15</u>	<u>A</u>	ug-15	<u>s</u>	ep-15	Oct-15	<u>Total</u>
Purchased Power Exclusion based on Alternative Calculation (1)	\$	16,969	\$ 11,093	\$	1,172	\$	-	\$	301	\$ 20,801	\$ 50,336
Actual Purchased Power Exclusion per FAC Form A Filings	\$	59,834	\$ 3,872	\$	1,033 (2)	\$	-	\$	2,508	\$ 20,678	\$ 87,925
Increase/ (Decrease) in Purchased Power Excluded from FAC Recovery	\$	(42,865)	\$ 7,221	\$	139	\$	-	\$	(2,207)	\$ 123	\$ (37,589)

Notes

- (1) See page 2 for detailed calculations of the highest cost unit (\$/MWh) used to determine the purchased power exclusions (shown above) based on the alternative calculation, which used the average of the fuel cost to operate the unit at minimum load and the fuel cost to operate the unit at full load, using the average of the highest natural gas costs and the lowest natural gas costs each month (as requested by the Commission Staff during the FAC Review Hearing for Case No. 2016-00006 on April 7, 2016). Detailed calculations of the alternative purchased power exclusions for each month (shown above) are also provided with this attachment (tabs "May-15" through "Oct-15" in the excel file).
- (2) Purchased power exclusion for the July 2015 expense month as revised and included as an adjustment in Appendix A of Big Rivers' Form A filing for the August 2015 expense month.

Big Rivers Electric Corporation Case No. 2016-00006

Attachment for Response to Item 3 of Commission Staff's Request for Information from Hearing of April 7, 2016 Calculation of Highest Cost Unit - Using Average of the Fuel Costs to Operate the Highest Cost Unit at Full Load and at Minimum Load Using the Average of the Highest Natural Gas Price and the Lowest Natural Gas Price Each Month

May-15 <u>Jun-15</u> Aug-15 Sep-15 Oct-15 Reid CT Reid CT **Highest Cost Unit During Month** Reld CT Reid CT Reid CT Station Two-Unit 1 Net MW - Full Load 65 65 65 65 65 153 Net MW - Minimum Load 10 10 10 10 10 115 Monthly Net Generation - Full Load (kWh) 48,360,000 46,800,000 48,360,000 48,360,000 46.800.000 113.832.000 Monthly Net Generation - Minimum Load (kWh) 7.440.000 7,200,000 7,440,000 7,440,000 7,200,000 85,560,000 Net Heat Rate - Full Load (Btu/kWh) 11,719 11.719 11,719 11,719 11,719 10,632 Net Heat Rate - Minimum Load (Btu/kWh) 30.636 30.636 30,636 30.636 30,636 10,912 Monthly Btu Burn - Full Load (Btu) 566,730,840,000 548,449,200,000 566,730,840,000 566,730,840,000 548,449,200,000 1,210,261,824,000 220,579,200,000 Monthly Btu Burn - Minimum Load (Btu) 227.931.840.000 227.931.840.000 227,931,840,000 220,579,200,000 933,630,720,000 Natural Gas Btu Content (Btu/Mcf) 1,000,000 1,000,000 1,000,000 1.000.000 1,000,000 Coal Btu Content (Btu/Ton)(1) 24,361,364 Natural Gas Burn Qty. - Full Load (Mcf) 566,730.84 548,449.20 566,730.84 566,730.84 548,449.20 Natural Gas Burn Qty. - Minimum Load (Mcf) 227,931.84 220,579.20 227,931.84 227,931.84 220.579.20 Coal Burn Qty. - Full Load (Tons) 49.679.56 Coa! Burn Qty. - Minimum Load (Tons) 38,324.24 Highest Natural Gas Price during Month (\$/Mcf)(2) 3.49 \$ 3.44 \$ 3.49 \$ 3.44 \$ 3.24 3.16 \$ Lowest Natural Gas Price during Month (\$/Mcf)(2) 3.03 \$ 3.05 \$ 3.08 \$ 2.92 ___ Avg. of High & Low Natural Gas Price (\$/Mcf) (2) 3.26 \$ 3.25 \$ 3.33 \$ 3.26 \$ 3.08 Coal Price (\$/Ton) (3) \$ 63.52 1,847,542.54 \$ 1,779,717.65 \$ 1,884,380.04 \$ 1.847.542.54 \$ Cost of Natural Gas Burned - Full Load (\$) 1,689,223.54 Cost of Natural Gas Burned - Minimum Load (\$) 743,057.80 \$ 715,779.50 \$ 757,873.37 \$ 743,057.80 \$ 679.383.94 Cost of Coal Burned - Full Load (\$) 3,155,645.65 Cost of Coa! Burned - Minimum Load (\$) 2,434,355.72 38.20 \$ 38.03 \$ 38.97 \$ Fuel Cost per MWh - Full Load (\$/MWh) 38.20 \$ 36.09 \$ 27,72 Fuel Cost per MWh - Minimum Load (\$/MWh) 99.87 \$ 99.41 \$ 101.86 \$ 99.87 \$ 94.36 28.45 69.04 \$ 68.72 \$ 70.42 \$ 69.04 \$ 65.23 \$ Average Fuel Cost per Mwh (\$/MWh) 28.09 (Highest Cost Unit \$/MWh, using alternative calculation)

Big Rivers Electric Corporation Case No. 2016-00006

Attachment for Response to Item 3 of Commission Staff's Request for Information from Hearing of April 7, 2016

Calculation of Highest Cost Unit - Using Average of the Fuel Costs to Operate the Highest Cost Unit at Full Load and at Minimum Load

Using the Average of the Highest Natural Gas Price and the Lowest Natural Gas Price Each Month

Notes:

(1) Coal BTU content based on actual quality of coal burned at Station Two - Unit 1 during October 2015 (see calculation below).

Coal - Btu/Ton:	Oct-15
Coal Burn (Btu)	1,122,687,388,560
Coal Burn Quantity (Tons)	46,084.75
Coal Btu/Ton	24,361,364

See attachments ("Daily Natural Gas Prices") for the daily natural gas prices used to calculate the averages of the highest and lowest natural gas prices during each month from May 2015 through September 2015 (i.e. the months during the review period in which the Reid CT was used as Big Rivers highest cost unit for purposes of calculating the purchased power exclusion in the monthly Form A filing). For October 2015, the Reid CT was not available and, as a result, was not used as Big Rivers' highest cost unit for purposes of determining the purchased power exclusion in the Form A filing. Instead, Statlon Two - Unit 1 was used as the highest cost unit in the calculation for the October 2015 expense month, as it was the highest cost unit available during that month.

Coal price per ton for Station Two - Unit 1 calculated based on actual cost of coal burned for Station Two - Unit 1 during October 2015 (see calculation below).

Coal - \$/Ton:	 Oct-15
Total Cost of Coal Burned for Station Two - Unit 1	\$ 789,847.90
Tons of Coal Burned for Station Two - Unit 1	 12,435.24
Coat Price (\$/Ton)	\$ 63.52

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
May-15

(a)
\$ 16,968.53
\$ -
\$ -
\$ -
\$ 16,968.53
 \$ \$ \$ \$ \$

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filling. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	HE	MWh		PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Cost	vised Highest t Unit Calc for t-Hearing DR (Item 3)	Cost Over Highest Cost Unit	Total Cost Over Highest Cost Unit
5/1-5/31					\$	31,054.50	Buy	Power		HMPL	Available for System	\$	69.04	\$ -	\$ -
					\$	31,054.50					Available for System Total				\$ -
5/1-5/31		102,400.000	\$	35.42	\$	3,627,423.00	Buy	Power		IN Hub	Back-to-Back	\$	69.04	\$ -	\$ -
		102,400.000			\$	3,627,423.00					Back-to-Back Total				\$ -
5/1	HE 9-16			28.96	200	1,068.28	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/1	HE 18-20	9.011	2.5	24.97		225.03	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/1	HE 23-24	4.009		20.16		80.81	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/2	HE 1-2	3.900	\$	28.12	2.50	109.69	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/2	HE 7-10	9.595	\$	25.84	\$	247.93	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/3	HE 6	0.700	\$	21.41	\$	14.99	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/3	HE 8-23	50.736	\$	29.33	\$	1,488.18	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/4	HE 5-8	15.438	\$	22.74	\$	351.04	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/4	HE 13	0.500	\$	28.03	\$	14.02	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/4	HE 20-21	10.468	\$	26.37	\$	276.02	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/5	HE 3	0.500	\$	22.90	\$	11.45	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/5	HE 5-6	7.670	\$	24.51	\$	188.01	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/5	HE 9-12	6.800	\$	30.30	\$	206.07	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/5	HE 19-21	18.336	\$	30.76	\$	564.00	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/5	HE 24	5.239	\$	21.21	\$	111.13	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/6	HE 6-7	8.027	\$	25.72	\$	206.45	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/6	HE 16-21	24.979	\$	44.35	\$	1,107.77	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/6	HE 23-24	9.604	\$	19.55	\$	187.77	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/7	HE 1-15	63.638	\$	24.09	\$	1,533.24	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/8	HE 6-19	186.047	\$	39.79	\$	7,402.02	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/9	HE 2	1.500	\$	25.19	\$	37.79	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/9	HE 4-7	18.646	\$	22.34	\$	416.51	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/9	HE 10	4.516	\$	30.41	\$	137.34	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/9	HE 19-21	10.028	\$	26.29	\$	263.60	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/10	HE 3	2.669	\$	18.25	\$	48.70	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/10	HE 6-8	7.536	\$	24.64	\$	185.69	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
5/10	HE 10-22	62.753	\$	26.18	\$	1,643.14	Buy	Power	Real Time	MISO	Domtar	5	69.04	\$ -	\$ -

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 4 of 34

			_									Deviced Webert		
			ı					1				Revised Highest	C+ O	
			ı					1				Cost Unit Calc for Post-Hearing DR	Cost Over	Tetal Cast Over
DATE	HE	MWh	ı	PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	(Item 3)	Highest Cost Unit	Total Cost Over Highest Cost Unit
DATE			ı	2012/00/20	,		10.000							The second and the second second
5/10	HE 24	4.958	0.00	19.53 33.17		96.84	Buy	Power	Real Time	MISO	Domtar	\$ 69.04 \$ 69.04	\$ -	\$ -
5/11	HE 5-9	11.759	\$			390.02	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
5/11	HE 19	3.824		24.64		94.24	Buy	Power	Real Time	MISO	Domtar		-	\$ -
5/11	HE 21-22	7.930		26.97 20.73		213.86 69.66	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
5/11	HE 24	3.360 8.221	100	19.23			Buy	Power	Real Time	MISO	Domtar	\$ 69.04 \$ 69.04	\$ -	\$ -
5/12	HE 2-3				5.0	158.08	Buy	Power	Real Time		Domtar	4 05,0.	\$ -	\$ -
5/12	HE 5-18	55.624 9.540		34.22 26.77		1,903.20	Buy	Power	Real Time	MISO	Domtar		÷ -	\$ -
5/12	HE 20-23		23.0			255.37	Buy	Power	Real Time		Domtar		\$ -	
5/13	HE 3	0.584		19.24 25.76	100	11.25 1,023.10	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ - \$ -
5/13	HE 5-24	39.713					Buy	Power	Real Time	MISO	Domtar		\$ -	*
5/14	HE 6-22	19.428		33.72		655.10	Buy	Power	Real Time	MISO	Domtar	-	\$ -	\$ -
5/15	HE 2-18	33.230		30.29		1,006.70	Buy	Power	Real Time	MISO	Domtar	7 05.01	\$	\$ - \$ -
5/15	HE 22	1.978				48.21	Buy	Power	Real Time		Domtar	\$ 69.04	5 -	•
5/15	HE 24	3.155		25.12		79.24	Buy	Power	Real Time	MISO	Domtar	\$ 69.04	\$ -	\$ -
5/16	HE 4-9	14.026		23.74		333.03	Buy	Power	Real Time		Domtar	\$ 69.04	÷ -	\$ -
5/16	HE 24	2.700 9.992	127	21.00 20.53	0.7	56.71 205.19	Buy	Power	Real Time	MISO	Domtar	\$ 69.04 \$ 69.04	-	\$ -
5/17	HE 5-6			27.93			Buy	Power	Real Time	MISO	Domtar		÷ -	\$ -
5/17	HE 8-24	82.208				2,296.35	Buy	Power	Real Time		Domtar	4 05101	\$ -	\$ -
5/18	HE 1-2	10.813		19.70		213.06	Buy	Power	Real Time	MISO	Domtar		-	\$ -
5/18	HE 5-10	32.180		30.90		994.45	Buy	Power	Real Time	MISO	Domtar	V 05101	\$ -	\$ -
5/18	HE 15-22	39.438		26.52	1	1,046.10	Buy	Power	Real Time	MISO	Domtar	7 05.01	\$ -	5 -
5/18	HE 24	3.652		21.48		78.43	Buy	Power	Real Time		Domtar	· 05101	\$ -	\$ -
5/19	HE 1-24	83.351		25.81	\$	2,151.55	Buy	Power	Real Time	MISO	Domtar	Ç 05.01	\$ -	\$ -
5/20	HE 7-24	50.803 6.994		28.51 21.32		1,448.31 149.11	Buy	Power	Real Time Real Time	MISO	Domtar	7 05.0.	\$ -	\$ -
5/21	HE 1-3						Buy	Power			Domtar		· -	\$ -
5/21	HE 5-24	75.754		24.60 28.19	130	1,863.69	Buy	Power	Real Time	MISO	Domtar		÷ -	\$ -
5/22	HE 1-22	146.107				4,118.80	Buy	Power	Real Time	MISO	Domtar		\$ - \$ -	\$ -
5/22	HE 24	2.712	7.	19.26	100	52.22 929.85	Buy	Power	Real Time	MISO	Domtar	7 05.0.	\$ -	\$ -
5/23	HE 7-24	40.057		23.21 3.60	5		Buy	Power	Real Time	MISO	Domtar	7 03.0.	· -	\$ -
5/24	HE 1-6	15.640 65.954		21.81	2	56.25 1,438.50	Buy	Power	Real Time Real Time	MISO	Domtar	\$ 69.04 \$ 69.04	\$ -	\$ -
5/24	HE 8-24	120.946		20.40		2,467.26	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ - \$ -
5/25	HE 1-24 HE 4-24	162.012		33.03		5,351.45	Buy	Power	Real Time	MISO	Domtar	\$ 69.04	÷ -	\$ -
5/26			111	23.94					Real Time	MISO	Domtar		\$ - \$ -	
5/27	HE 1-13	215.310 21.339		28.96		5,154.71 617.92	Buy	Power	Real Time	MISO	Domtar		\$ - \$ -	\$ - \$ -
5/27	HE 15-16						Buy	Power			Domtar	-		
5/27	HE 18-23	146.500		25.21	77	3,692.78	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
5/28	HE 1-24	713.509		29.48		21,031.48	Buy	Power	Real Time	MISO	Domtar	·	\$ -	\$ -
5/29	HE 2-24	204.893		28.67	-	5,873.34	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
5/30	HE 9-22	109.614	-	39.19		4,295.30	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
5/30	HE 24	4.386		20.87		91.55	Buy	Power	Real Time	MISO	Domtar	4 05101	\$ -	\$ -
5/31	HE 1-9	31.612		19.83		626.87	Buy	Power	Real Time	MISO	Domtar	4 05.01	\$ -	\$ -
5/31	HE 11	3.824		26.15		100.02	Buy	Power	Real Time	MISO	Domtar	\$ 69.04	-	\$ -
5/31	HE 14-16	10.674		17.23	17	183.91	Buy	Power	Real Time	MISO	Domtar	\$ 69.04	-	\$ -
5/31	HE 20-21	6.075		22.39	\$	136.00	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
5/31	HE 24	3.976	>	16.20	>	64.38	Buy	Power	Real Time	MISO	Domtar	\$ 69.04	\$ -	\$ -

Case No. 2016-00006 Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3 Witness: Nicholas R. Castlen Page 5 of 34

											100000	evised Highest st Unit Calc for	Cost Over		
	1								1 1			st-Hearing DR	Highest Cost	1	otal Cost Over
DATE	HE	MWh	PRICE	2	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	1	(Item 3)	Unit	1910	ghest Cost Unit
		3,220.088		\$	91,250.07					Domtar Total				\$	-
5/3	HE 8-19,22-23	706.659	\$ 26.18	\$	18,497.73	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/4	HE 5-8	490.462	\$ 22.14	\$	10,857.56	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/4	HE 20-21	30.132	\$ 26.45	\$	797.03	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/5	HE 5-6	68.930	\$ 21.17	\$	1,459.21	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	2
5/5	HE 19,21	8.064	\$ 27.67	\$	223.13	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/5	HE 24	5.461	\$ 21.21	\$	115.83	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/6	HE 6-7	126.473	\$ 25.66	\$	3,244.79	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	2
5/6	HE 19-21	45.621	\$ 32.24	\$	1,470.82	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/6	HE 23-24	116.396	\$ 19.22	\$	2,236.81	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/7	HE 1-2,4-15	241.462	\$ 27.41	\$	6,617.40	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	4
5/8	HE 6-12,17-19	839.792	\$ 28.96	\$	24,317.28	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/9	HE 4-7	394.054	\$ 22.04	\$	8,684.83	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/9	HE 10	1.284	\$ 30.41	\$	39.06	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/9	HE 19-20	13.972	\$ 25.79	\$	360.31	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	72
5/10	HE 3	14.431	\$ 18.25	\$	263.33	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/10	HE 6,8	11.364	\$ 29.37	\$	333.75	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/10	HE 10-19,21-22	1,078.366	\$ 22.51	\$	24,278.18	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/10	HE 24	24.342	\$ 19.53	\$	475.42	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/11	HE 5,8-9	61.140	\$ 28.22	\$	1,725.55	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/11	HE 19	2.476	\$ 24.64	\$	61.00	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/11	HE 21-22	32.170	\$ 27.20	\$	875.09	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/11	HE 24	6.740	\$ 20.73	\$	139.73	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/12	HE 2-3	25.879	\$ 19.10	\$	494.40	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/12	HE 5-9,11-14,16,18	131.558	\$ 29.18	\$	3,838.25	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	2
5/12	HE 21-23	17.560	\$ 26.67	\$	468.30	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/13	HE 3	5.416	\$ 19.24	\$	104.22	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/13	HE 5-24	865.542	\$ 25.44	\$	22,021.54	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	•
5/15	HE 22	8.322	\$ 24.38	\$	202.90	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/15	HE 24	0.645	\$ 25.12	\$	16.21	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/16	HE 4-9	141.974	\$ 23.96	\$	3,402.19	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	4:
5/17	HE 5-6	2.408	\$ 19.84	\$	47.76	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/17	HE 8-20,22-24	334.432	\$ 26.10	\$	8,727.84	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/19	HE 4-16,18-24	1,278.354	\$ 25.66	\$	32,799.40	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/23	HE 7-24	1,723.024	\$ 23.81	\$	41,030.27	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	2.0
5/24	HE 1-6	11.060	\$ 4.46	\$	49.31	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/24	HE 8-24	2,870.246	\$ 22.73	\$	65,243.73	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/25	HE 1-20,22-24	1,262.003	\$ 23.31	\$	29,419.51	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/26	HE 4-8,10,12-13,19	855.161	\$ 26.39	\$	22,567.68	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/27	HE 1-13	635.890	\$ 25.13	\$	15,981.49	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/27	HE 16	37.161	\$ 29.04	\$	1,079.19	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/27	HE 20-23	221.100	\$ 25.24	\$	5,581.32	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/28	HE 1-18,20-24	1,499.917	\$ 25.99	\$	38,983.99	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	
5/30	HE 1-8,13-14,16-22	925.975	\$ 24.91	\$	23,069.90	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$	-
5/30	HE 24	14.714	\$ 20.87	\$	307.12	Buy	Power	Real Time	MISO	Economic	S	69.04	\$ -	Ś	

Case No. 2016-00006 Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3 Witness: Nicholas R. Castlen Page 6 of 34

	I								П			evised Highest	S1-0	
									1 1			st Unit Calc for	Cost Over	
DATE	HE	MWh	PF	RICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Po	st-Hearing DR (Item 3)	Highest Cost Unit	Total Cost Over Highest Cost Unit
5/31	HE 1-8	153.445	\$	16.04	\$ 2,460.58	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
5/31	HE 11	3.913	\$	26.15	\$ 102.32	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
5/31	HE 14-16	160.004	\$	16.46	\$ 2,633.79	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
5/31	HE 21	89.940	\$	23.05	\$ 2,073.26	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
5/31	HE 24	9.920	\$	16.20	\$ 160.66	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
		17,605.356			\$ 429,940.97					Economic Total				\$ -
5/17	HE 11-24	2,558.761	\$	27.86	\$ 71,287.01	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	69.04	\$ -	\$ -
5/17	HE 21	231.000	\$	45.31	\$ 10,467.65	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	69.04	\$ -	\$ -
5/18	HE 1-2	113.587	\$	19.41	\$ 2,204.40	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	5	69.04	\$ -	\$ -
5/18	HE 5-8,10	216.610	\$	28.52	\$ 6,178.71	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	69.04	\$ -	\$ -
5/18	HE 9	3.309	\$	38.61	\$ 127.77	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	S	69.04	\$ -	\$ -
5/18	HE 15-22	123.962	\$	27.03	\$ 3,351.14	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	5	69.04	\$ -	\$ -
5/18	HE 24	30.948	\$	21.48	\$ 664.70	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	5	69.04	\$ -	\$ -
5/19	HE 1-3	471.522	\$	20.09	\$ 9,471.29	Buy	Power	Real Time	MISO	G1 - UO1 (15-04)	\$	69.04	\$ -	\$ -
		3,749.700			\$ 103,752.68					G1 - UO1 (15-04) Total				\$ - (1)
5/29	HE 2-8,10-20,22-24	622.257	\$	27.58	\$ 17,162.20	Buy	Power	Real Time	MISO	G2 - UO4 (15-02)	\$	69.04	\$ -	\$ -
5/29	HE 9,21	72.050	\$	48.34	\$ 3,483.12	Buy	Power	Real Time	MISO	G2 - UO4 (15-02)	5	69.04	\$ -	\$ -
5/30	HE 1-8	407.618	\$	20.22	\$ 8,242.40	Buy	Power	Real Time	MISO	G2 - UO4 (15-02)	\$	69.04	\$ -	\$ -
5/30	HE 9-12	330.610	\$	120.36	\$ 39,793.84	Buy	Power	Real Time	MISO	G2 - UO4 (15-02)	5	69.04	\$ 51.325	\$ 16,968.53
		1,432.536			\$ 68,681.57					G2 - UO4 (15-02) Total	1		7 32.323	\$ 16,968.53
5/20	HE 7-24	403.297	\$	26.15	\$ 10,547.55	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	69.04	\$ -	\$ -
5/21	HE 1-3	87.506	\$	21.61	\$ 1,891.27	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	69.04	\$ -	\$ -
5/21	HE 5-24	1,132.246	\$	24.70	\$ 27,963.70	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	69.04	\$ -	\$
5/22	HE 1-22	775.493	\$	26.12	\$ 20,256.62	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	69.04	\$ -	\$
5/22	HE 24	59.888	\$	19.26	\$ 1,153.23	Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	69.04	\$ -	\$ -
5/23	HE 7-11	383.218	\$	23.12		Buy	Power	Real Time	MISO	H1 - UO4 (15-07)	\$	69.04	\$ -	Š -
		2,841.649			\$ 70,674.17	,			V1 - 110000	H1 - UO4 (15-07) Total	1		*	\$ -
5/1	HE 2-3	5.800	\$	18.23	\$ 105.76	Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	\$	69.04	\$ -	\$ -
5/1	HE 5-16	506.110	\$	23.63	\$ 11,957.09	Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	\$		\$ -	Š -
5/1	HE 18-20	141.289	\$	24.92		Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	Š		\$ -	\$ -
5/1	HE 23-24	148.691	\$	19.46	\$ 2,893.78	Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	\$	69.04	\$ -	\$ -
5/2	HE 7-10	207.405	\$	24.45		Buy	Power	Real Time	MISO	H2 - UO0 (15-07)	\$		\$ -	\$ -
		1,009.295			\$ 23,547.70					H2 - UO0 (15-07) Total	-	03.04	~	\$ - (1)
5/13	HE 10-24	2,178.946	\$	26.29		Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	Ś	69.04	\$ -	\$ - (1)
5/14	HE 6-9,11-15,17-19	251.186	\$	31.44		Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	\$	69.04	\$ -	\$ -
5/14	HE 10,16,20		\$	45.33		Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	5	69.04	\$.	\$ -
5/15	HE 2-12,14-15,17-1	787.013	\$	25.64		Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	\$	69.04	\$	\$ - \$ -
5/15	HE 13.16	60.857		38.79		Buy	Power	Real Time	MISO	H2 - UO1 (15-08)	5		\$ -	\$ - \$ -
		3,327.887	_		\$ 89,972.87					H2 - UO1 (15-08) Total	-	03.04	,	
5/3	HE 20-21		\$	42.96		Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	69.04	\$ -	\$ - (1) \$ -
5/8	HE 13-16	210.361		43.49		Buy	Power	Real Time	MISO	To cover load and lack of gen	Š		\$ -	\$ - \$ -
5/10	HE 20	29.082		38.71		Buy	Power	Real Time	MISO	To cover load and lack of gen	\$		•	\$ - \$ -
5/11	HE 6		Ś	40.29		Buy	Power	Real Time	MISO	To cover load and lack of gen	\$		\$ -	\$ - \$ -
5/12	HE 10,15		Ś	52.49		Buy	Power	Real Time	MISO	To cover load and lack of gen	\$		*	\$ - \$ -
5/17	HE 21	21.998		45.31		Buy	Power	Real Time	MISO	To cover load and lack of gen	\$			\$ -
-,		22.550	7	.5.51	550.05	July		com	111130	to cover road and lack of Bell	2	09.04	7	-

Case No. 2016-00006
Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3
Witness: Nicholas R. Castlen
Page 7 of 34

DATE	HE	MWh		PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Co	evised Highest st Unit Calc for st-Hearing DR (Item 3)	Cost Over Highest Cost Unit	10000	otal Cost Over hest Cost Unit
5/19	HE 17	59.672	\$	45.94	\$ 2,741.22	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	69.04	\$ -	\$	-
5/25	HE 21	36.751	\$	38.19	\$ 1,403.69	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	69.04	\$ -	\$	-
5/26	HE 9,11,15-18	84.727	\$	46.21	\$ 3,915.42	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	69.04	\$ -	\$	-
5/28	HE 19	144.074	\$	54.80	\$ 7,895.35	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	69.04	\$ -	\$	-
5/30	HE 15	129.082	\$	44.02	\$ 5,682.32	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	69.04	\$ -	\$	-
5/31	HE 9	55.708	\$	53.60	\$ 2,985.74	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	69.04	\$ -	\$	-
		952.581			\$ 43,631.90					To cover load and lack of gen Total				\$	-
5/8	HE 13-16	1,251.000	\$	55.44	\$ 69,355.95	Buy	Power	Real Time	MISO	W1 - UO1 (15-06)	\$	69.04	\$ -	\$	
		1,251.000			\$ 69,355.95					W1 - UO1 (15-06) Total				\$	
		137,790.091	7-3		\$ 4,649,285.38				la lett.	Grand Total		See By the World		\$	16,968.53

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
Jun-15

	(a)
Total Purchases Over Highest Cost Unit:	\$ 11,092.57
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ -
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$ -
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ -
Purchases Above Highest Cost (for Form A Filing)	\$ 11,092.57

(a) <u>Note</u>: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filing. Accordingly, amounts related to these purchases are <u>not included in the calculation of the purchases above highest cost units</u> to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	не	MWh		PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Cost Post-	sed Highest Unit Calc for Hearing DR (Item 3)	Cost Over Highest Cost Unit	Total Cost Over Highest Cost Unit
6/1-6/30		-	\$	-	\$	14,400.00	Buy	Power		HMPL	Available for System	\$	68.72	\$ -	\$ -
		•			\$	14,400.00					Available for System Total				\$ -
6/1-6/30		107,200.000		33.07	\$	3,544,679.00	Buy	Power		IN Hub	Back-to-Back	\$	68.72	\$ -	\$ -
L	100	107,200.000	-		\$	3,544,679.00					Back-to-Back Total				\$ -
6/1	HE 7-11	17.936		23.69		424.84	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/1	HE 18-21			23.88		712.32	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/2	HE 7-8	10.770	20	25.50		274.68	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/2	HE 19-22	15.834		21.99	71.	348.13	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/3	HE 4	0.600		5.72	\$	3.43	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/3	HE 7-14	68.150	\$	22.15	\$	1,509.24	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/3	HE 18-22	44.295	\$	22.93	\$	1,015.72	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/4	HE 5-8	18.719	\$	20.55	\$	384.61	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/4	HE 16-22	37.056	\$	23.29	\$	862.96	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/4	HE 24	3.100	\$	21.82	\$	67.65	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/5	HE 1-19	138.295	\$	26.63	\$	3,682.26	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/5	HE 21-24	32.016	\$	22.06	\$	706.17	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/6	HE 1-21	170.233	\$	17.91	\$	3,048.57	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/6	HE 23-24	16.624	\$	18.77	\$	312.05	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/7	HE 1-12	88.391	\$	14.72	\$	1,300.94	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$.
6/7	HE 15-22	116.542	\$	58.72	\$	6,842.77	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/7	HE 24	14.000	\$	24.40	\$	341.66	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/8	HE 1-21	331.412	\$	23.49	\$	7,783.95	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/9	HE 2-23	135.210	\$	29.07	\$	3,930.28	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/10	HE 2-23	156.501	\$	28.73	\$	4,496.52	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/11	HE 2-5	18.646	\$	19.41	\$	361.97	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/11	HE 7-22	84.248	\$	29.69	\$	2,500.99	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/12	HE 2-5	22.318	\$	20.21	\$	451.06	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/12	HE 7-21	118.850	\$	26.82	\$	3,187.77	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/13	HE 3-6	21.130	\$	21.53	\$	455.01	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$ -
6/13	HE 8-13	41.738	\$	34.00	\$	1,419.18	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$.
6/14	HE 3-7	35.106	\$	20.85	\$	731.96	Buy	Power	Real Time	MISO	Domtar	\$	68.72	\$ -	\$.

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 9 of 34

				_					_				
				- 1			1				Revised Highest		
1				- 1			1	l	1		Cost Unit Calc for	Cost Over	
DATE	HE	MWh	PRICE	- 1	TOTAL Cost	Dun/Sall	Execution	DA/RT	СР	REASON FOR PURCHASE	Post-Hearing DR	Highest Cost	Total Cost Over
	HE 9-16		100	1	And the second second	Buy/Sell	1	1	1		(Item 3)	Unit	Highest Cost Unit
6/14	HE 20-22		50.	.99		Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$ -
6/15	HE 2-23	15.469 115.565			\$ 429.72	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$ -
6/16	HE 7-20	91.309		.74		Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$ -
6/17	HE 3			.29	\$ 4,044.38	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$ -
6/17	HE 7-8	7.703	,	.44		Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$ -
6/17	HE 12-18	26.686		.06		Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$ -
6/18	HE 3	4.699		.02		Buy	Power	Real Time Real Time	MISO	Domtar	\$ 68.72 \$ 68.72	\$ -	\$ -
6/18	HE 7-8	11.407		.36		Buy	Power	Real Time	MISO	Domtar	7 00.72	\$ -	\$ -
6/18	HE 10-11	7.303		.20)		Buy	Power		MISO	Domtar	Y 0017 E	\$ -	\$ -
6/18	HE 14			.55		Buy	Power	Real Time Real Time	MISO	Domtar		\$ -	\$ -
6/18	HE 20	4.829	100	.07	*	Buy	Power	Real Time	MISO	Domtar	7 00.72	\$ -	\$ -
6/18	HE 22	4.116		.45		Buy	Power	Real Time	MISO	Domtar			\$ -
6/19	HE 2-5				\$ 271.47	Buy	Power	Real Time	MISO	Domtar Domtar	\$ 68.72 \$ 68.72		
6/19	HE 7		7 Å)	.61		Buy	Power	Real Time	MISO	Domtar			\$ -
6/19	HE 24	16.300		.58		Buy	Power	Real Time	MISO	Domtar	\$ 68.72 \$ 68.72		
6/20	HE 1-6			.54		Buy	Power	Real Time	MISO	Domtar	\$ 68.72		\$ -
6/20	HE 18-22		100		\$ 1,408.59	Buy	Power	Real Time	MISO	Domtar	\$ 68.72		\$.
6/21	HE 2	0.700			\$ 12.91	Buy	Power	Real Time	MISO	Domtar	\$ 68.72		\$ -
6/21	HE 4-21				\$ 5,508.27	Buy	Power	Real Time	MISO	Domtar	\$ 68.72		\$ - \$ -
6/22	HE 6-9	13.628		200	\$ 327.66	Buy	Power	Real Time	MISO	Domtar	\$ 68.72		\$.
6/22	HE 11-22		100	.98		Buy	Power	Real Time	MISO	Domtar	\$ 68.72		\$ -
6/23	HE 8-22	68.641			\$ 2,237.34	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$ - \$ -
6/24	HE 24			.36		Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$	\$ - \$ -
6/25	HE 13	2.042			\$ 51.04	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	š -	\$ -
6/25	HE 16-24	47.574	\$ 26	.21	\$ 1,246.78	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	š .	\$ -
6/26	HE 2-9	27.226	\$ 21	.52	\$ 585.78	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	š .
6/26	HE 12-14	12.250	\$ 34	.40	\$ 421.36	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$.	Š
6/27	HE 2-8	34.801	\$ 19	.84	\$ 690.61	Buy	Power	Real Time	MISO	Domtar		\$ -	\$.
6/27	HE 16-17	16.051	\$ 25	.55	\$ 410.04	Buy	Power	Real Time	MISO	Domtar		\$ -	\$
6/27	HE 23	5.930	\$ 19	.72	\$ 116.97	Buy	Power	Real Time	MISO	Domtar	-	š -	š -
6/28	HE 6-7	22.055	\$ 5	.04	\$ 111.24	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$.
6/28	HE 9-11	13.751	\$ 21	.02	\$ 288.99	Buy	Power	Real Time	MISO	Domtar		\$ -	\$.
6/28	HE 13-19	29.390	\$ 25	.08	\$ 737.14	Buy	Power	Real Time	MISO	Domtar		š -	\$.
6/28	HE 21	5.174	\$ 26	.28	\$ 135.97	Buy	Power	Real Time	MISO	Domtar		\$ -	\$.
6/28	HE 23-24	8.116	\$ 21	.97	\$ 178.27	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
6/29	HE 6-8	15.815	\$ 22	.20	\$ 351.03	Buy	Power	Real Time	MISO	Domtar	\$ 68.72	\$ -	\$.
6/29	HE 10-22	53.530	\$ 39	.41	\$ 2,109.71	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
6/29	HE 24	2.258	\$ 21	.64	\$ 48.88	Buy	Power	Real Time	MISO	Domtar		\$ -	\$ -
6/30	HE 6-24	55.416	\$ 25	.45	\$ 1,410.55	Buy	Power	Real Time	MISO	Domtar		\$ -	š -
		3,022.437		9	\$ 79,004.02					Domtar Total			\$ - (3)
6/1	HE 7-10	118.464	\$ 23	.32	\$ 2,762.96	Buy	Power	Real Time	MISO	Economic	\$ 68.72	\$ -	\$ -
6/1	HE 18-21	233.076	\$ 24	.01	\$ 5,595.17	Buy	Power	Real Time	MISO	Economic	\$ 68.72	\$ -	\$ -
6/2	HE 7-8		200	.24		Buy	Power	Real Time	MISO	Economic	\$ 68.72	\$ -	\$ -
6/2	HE 19-22	132.566	\$ 22	.80	\$ 3,155.19	Buy	Power	Real Time	MISO	Economic	\$ 68.72	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 10 of 34

	1		Т		Г			Ι		П			vised Highest		
1			ı					1		1 1			t Unit Calc for	Cost Over	
DATE	HE	MWh		PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Po	st-Hearing DR (Item 3)	Highest Cost Unit	Total Cost Over Highest Cost Unit
6/3	HE 7-9,11	335.150	\$	21.83	\$	7,317.51	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$.
6/3	HE 18-21	406.105	\$	22.59	\$	9,175.87	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/4	HE 5-8	188.981	\$	22.12	\$	4,181.11	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/4	HE 19-21	99.444	\$	24.82	\$	2,468.62	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/5	HE 1-19	608.605	\$	27.02	\$	16,447.27	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/5	HE 21-24	143.484	\$	21.59	\$	3,097.13	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/6	HE 1-21	2,765.267	\$	22.07	\$	61,035.06	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/6	HE 23-24	101.276	\$	18.85	\$	1,909.17	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/7	HE 1-12	480.309	\$	17.78	\$	8,537.94	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/7	HE 15-18-22	254.314	\$	35.93	\$	9,136.70	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/8	HE 1-21	1,690.788	\$	23.17	\$	39,183.99	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/9	HE 8	15.181	\$	21.69	\$	329.23	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/14	HE 20-22	116.631	\$	27.79	\$	3,240.62	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/15	HE 2-23	1,340.135	\$	35.47	\$	47,530.26	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/16	HE 7-20	772.491	\$	40.14	\$	31,008.02	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/17	HE 3	7.285		20.76	\$	151.20	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/17	HE 7-8	10.697	\$	24.39	\$	260.91	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/17	HE 12-18	60.414	\$	28.89	\$	1,745.48	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/18	HE 3	7.101	\$	20.02	\$	142.18	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/18	HE 7-8	58.893	\$	25.53	\$	1,503.72	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/18	HE 10-11	19.897	\$	(466.82)	\$	(9,288.28)	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/18	HE 14	3.669	\$	30.55	\$	112.09	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/18	HE 20-21	11.271	\$	22.87	\$	257.79	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$.
6/18	HE 22	14.384	\$	26.45	\$	380.44	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/19	HE 2-5	16.278	\$	18.95	\$	308.45	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/19	HE 7	25.575	\$	23.61	\$	603.87	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/20	HE 1-6	63.383	\$	15.95	\$	1,010.71	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/20	HE 18-20,22	100.403	\$	26.06	\$	2,616.47	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/21	HE 4-16,18-21	1,056.211	\$	25.72	\$	27,164.39	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/22	HE 6-9	227.172	\$	23.00	\$	5,225.47	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/22	HE 11-22	215.264	\$	32.43	\$	6,981.15	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/23	HE 8-22	873.559	\$	31.23		27,277.77	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/24	HE 24	9.045	\$	22.36	\$	202.24	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/25	HE 13	5.758	\$	24.99	\$	143.88	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/27	HE 2-6,8	110.471	\$	19.98	\$	2,207.68	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/27	HE 16-17	32.859	\$	25.60	\$	841.08	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/27	HE 23	0.429	\$	19.72	\$	8.45	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/28	HE 9-10	121.592	\$	20.69	\$	2,515.42	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/28	HE 14-16,18	183.898		24.18	\$	4,445.92	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/28	HE 21	4.793	\$	26.28	\$	125.93	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/28	HE 24	16.725	\$	21.03	\$	351.77	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/29	HE 6-8	160.883	\$	21.02	\$	3,381.62	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/29	HE 11-22	349.381	\$	32.22	\$	11,256.95	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/29	HE 24	4.833	\$		\$	104.60	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -
6/30	HE 6-16	289.109	\$	24.56	\$	7,101.32	Buy	Power	Real Time	MISO	Economic	\$	68.72	\$ -	\$ -

Case No. 2016-00006 Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3 Witness: Nicholas R. Castlen Page 11 of 34

DATE	HE	MWh		PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Cos	vised Highest t Unit Calc for tt-Hearing DR (Item 3)	Cost Over Highest Cost Unit	7.76.000.00	Cost Over
		13,952.430			\$ 357,318.78					Economic Total				\$	-
6/30	HE 17-24	322.446	\$	24.95	\$ 8,043.47	Buy	Power	Real Time	MISO	G1 - UO1 (15-06)	\$	68.72	\$ -	\$	- 4
		322.446			\$ 8,043.47					G1 - UO1 (15-06) Total				\$	-
6/25	HE 16-24	354.526	\$	25.84	\$ 9,162.15	Buy	Power	Real Time	MISO	G1 - UO4 (15-05)	\$	68.72	\$ -	\$	-
5/26	HE 2-9	138.500	\$	20.73	\$ 2,870.91	Buy	Power	Real Time	MISO	G1 - UO4 (15-05)	\$	68.72	s -	\$	
6/26	HE 12-14	30.077	\$	34.43	\$ 1,035.63	Buy	Power	Real Time	MISO	G1 - UO4 (15-05)	\$	68.72	\$ -	\$	2
		523.104			\$ 13,068.70					G1 - UO4 (15-05) Total				\$	-
6/9	HE 2-23	1,134.009	\$	30.40	\$ 34,471.50	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	68.72	\$ -	\$	-
5/10	HE 2-3,6-23	904.699	\$	30.44	\$ 27,541.18	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	68.72	s -	Ś	
5/11	HE 2-5	29.754	\$	19.17	\$ 570.48	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	68.72	s -	Ś	
5/11	HE 7-22	803.552	\$	28.44	\$ 22,853.85	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	68.72	\$ -	Ś	
5/12	HE 2-5	231.482	\$	20.21	\$ 4,678.54	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	5	68.72	\$ -	\$	
5/12	HE 7-21	896.350	\$	25.92	\$ 23,237.30	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	68.72	\$.	Ś	_
5/13	HE 3-6	138.670	\$	21.27	\$ 2,948.95	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	68.72	\$.	\$	
5/13	HE 8-12	197.962	\$	29.74	\$ 5,886.85	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	Ś	68.72	\$.	Ś	
6/14	HE 3-7	127.494	\$	20.65	\$ 2,632.82	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	\$	68.72	\$.	Ś	
5/14	HE 9-16	364.916	\$	26.24	\$ 9,577.10	Buy	Power	Real Time	MISO	H1 - UO3 (15-08)	5	68.72	\$ -	Ś	
		4,828.888			\$ 134,398.57					H1 - UO3 (15-08) Total				Ś	
5/7	HE 16-17	56.000	\$	106.80	\$ 5,980.56	Buy	Power	Real Time	MISO	RCT - UO0 (15-07)	\$	68.72	\$ 38.08	\$	2,132.24
		56.000			\$ 5,980.56					RCT - UO0 (15-07) Total				Ś	2,132.24
5/7	HE 18	38.135	\$	46.89	\$ 1,788.18	Buy	Power	Real Time	MISO	RCT - UO2 (15-08)	Ś	68.72	\$ -	\$	-
		38.135			\$ 1,788.18					RCT - UO2 (15-08) Total				\$	
5/7	HE 16-17	140.709	\$	121.54	\$ 17,102.39	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	68.72	\$ 52.82	Ś	7,432.86
5/21	HE 17	18.612	\$	104.15	\$ 1,938.37	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	68.72	\$ 35.43	\$	659.38
5/29	HE 10	28.597	\$	99.08	\$ 2,833.28	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	68.72	\$ 30.36		868.09
		187.918			\$ 21,874.04					To cover load and lack of gen Total	1		7 30.30	\$	8,960.33
200	W 5 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	130,131.356	VC		\$ 4,180,555.32			100		Grand Total	7 100	No. of the last	Was a second	-	11,092.57

	(a)
Total Purchases Over Highest Cost Unit:	\$ 23,799.88
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ 22,628.24
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$ -
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$
Purchases Above Highest Cost (for Form A Filing)	\$ 1,171.64

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filing. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	HE	MWh	PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	113500	t Unit Calc for t-Hearing DR (Item 3)	0.000	ost Over hest Cost Unit	A STATE OF THE PARTY OF THE PAR	Cost Over
7/1-7/31				\$ 20,836.50	Buy	Power		HMPL	Available for System	\$	70.42	\$	-	\$	
				\$ 20,836.50					Available for System Total					\$	-
7/1-7/31		110,400.000	\$ 33.27	\$ 3,673,194.00	Buy	Power		IN Hub	Back-to-Back	\$	70.42	\$		\$	•
		110,400.000		\$ 3,673,194.00					Back-to-Back Total					\$	-
7/1	HE 5	0.400	\$ 17.02	\$ 6.81	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	-
7/1	HE 7	5.650	\$ 21.06	\$ 118.96	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	•
7/1	HE 9-11	9.014	\$ 22.09	\$ 199.13	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	
7/1	HE 16-20	25.386	\$ 25.22	\$ 640.33	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	-
7/1	HE 22-24	19.184	\$ 22.99	\$ 441.08	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	
7/2	HE 2-5	20.190	\$ 19.16	\$ 386.78	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	-
7/2	HE 7	4.861	\$ 23.19	\$ 112.75	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	-
7/2	HE 9-10	10.802	\$ 24.23	\$ 261.76	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	-
7/2	HE 12-24	64.460	\$ 25.47	\$ 1,641.81	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	-
7/3	HE 1-21	156.031	\$ 23.20	\$ 3,619.82	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	-
7/3	HE 23-24	14.669	\$ 20.33	\$ 298.21	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	-
7/4	HE 1-7	51.697	\$ 12.69	\$ 655.87	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	-
7/4	HE 9-24	190.596	\$ 23.86	\$ 4,547.04	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	+	\$	-
7/5	HE 1-2	12.336	\$ 3.91	\$ 48.19	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	_
7/5	HE 4-7	20.082	\$ (3.48)	\$ (69.86)	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	-
7/5	HE 9-19	39.833	\$ 26.22	\$ 1,044.50	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	
7/5	HE 22-24	11.322	\$ 21.26	\$ 240.67	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	
7/6	HE 4	0.829	\$ 12.49	\$ 10.35	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	
7/6	HE 7-22	54.308	\$ 30.34	\$ 1,647.75	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	-
7/6	HE 24	0.714	\$ 20.74	\$ 14.81	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	-
7/7	HE 3-5	10.884	\$ 20.43	\$ 222.35	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	-
7/7	HE 7-8	8.880	\$ 31.55	\$ 280.17	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	
7/7	HE 10-11	10.211	\$ 28.88	\$ 294.85	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	
7/7	HE 19	6.751	\$ 19.93	\$ 134.57	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$		\$	9
7/7	HE 21	4.840	\$ 18.48	\$ 89.43	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	
7/8	HE 1-10	45.902	\$ 20.83	\$ 956.37	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	
7/8	HE 12-24	71.317	\$ 31.93	\$ 2,276.83	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	
7/9	HE 1-5	17.360	\$ 19.29	\$ 334.85	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$	-	\$	

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 13 of 34

			_		_							Continue			
			ı		ı					1 1		Cost Unit C		Cost Over	
DATE	HE	MWh	ı	PRICE	ı	TOTAL Cost	Buy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	Post-Hear		Highest Cost	Total Cost Over
			Ļ		Ļ		- "					(Item		Unit	Highest Cost Unit
7/9	HE 7	4.030		23.89		96.25	Buy	Power	Real Time	MISO	Domtar	\$	70.42		\$ -
7/9	HE 12-21	41.538	0.00	34.57		1,435.93	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/9	HE 23	1.715		33.19		56.91	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$.
7/10	HE 2-5	16.799		19.45		326.72	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/10	HE 7-19	50.344		30.78		1,549.82	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/11	HE 6-7	8.405		18.88		158.70	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/11	HE 10	0.428		(2.28)		(0.98)	Buy	Power	Real Time	MISO	Domtar	5	70.42	\$ -	\$ -
7/11	HE 13-14	5.402		25.55	0	138.01	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/11	HE 18-21	17.209	100			490.44	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/11	HE 23	4.402		24.73	3.0	108.85	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/12	HE 12-22	42.241		44.68		1,887.29	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/12	HE 24	5.174	0.75	20.67		106.98	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/13	HE 2-22	98.219		31.74		3,117.47	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/13	HE 24	6.114		24.78		151.48	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/14	HE 1-22	99.332		28.70	2	2,850.93	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/14	HE 24	3.457		23.21		80.24	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/15	HE 4-5	6.774		19.98		135.35	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/15	HE 7-14	5.026		33.93	-	170.53	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/15	HE 17-22	32.699	223	25.59		836.86	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/15	HE 24	4.721		20.73		97.85	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/16	HE 2-24	132.803		38.19		5,072.00	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/17	HE 3-8	32.318			U.	713.05	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/18	HE 1-24	129.866		23.74		3,082.40	Buy	Power	Real Time	MISO	Domtar	\$	7 01 100	\$ -	\$ -
7/19	HE 1-2	11.483		22.39		257.07	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/19	HE 4-22	122.851		27.15		3,335.02	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/19	HE 24	5.012				114.01	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/20	HE 1	5.401	- 50	23.11		124.82	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/20	HE 4-7	16.254		21.22		344.96	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/20	HE 9	1.261		24.63	-	31.06	Buy	Power	Real Time	MISO	Domtar	\$	-	\$ -	\$ -
7/20	HE 21	0.281		5.45		1.53	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/21	HE 1	2.150		22.93		49.31	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/21	HE 4-22	374.502		35.73	-	13,379.73	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/21	HE 24	8.965		22.92		205.50	Buy	Power	Real Time	MISO	Domtar	\$	100000000000000000000000000000000000000	\$ -	\$ -
7/22	HE 1	8.674		22.64		196.36	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/22	HE 4	10.758		21.04		226.40	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/22	HE 8-18	129.800		35.63		4,624.37	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/22	HE 23-24	9.809		21.68		212.68	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/23	HE 1-7	27.397		20.12		551.35	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/23	HE 24	6.179	100	21.66		133.80	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/24	HE 4	1.058		15.39		16.28	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -
7/24	HE 6-22	130.122		38.24		4,975.42	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/24	HE 24	7.918		23.08		182.71	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/25	HE 1	8.220			\$	187.30	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
7/25	HE 4-7	27.058		19.05		515.33	Buy	Power	Real Time	MISO	Domtar	\$	7. 4.7.7.4	\$ -	\$ -
7/25	HE 10	6.330			\$	163.17	Buy	Power	Real Time	MISO	Domtar	\$		•	\$ -
7/25	HE 15	7.702	\$	30.09	\$	231.74	Buy	Power	Real Time	MISO	Domtar	\$	70.42	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 14 of 34

	1														(3)																															
Total Cost Over Highest Cost Unit			•		•				. \$. \$		•						•						•						•				•			•	•						,	
Lost Over Highest Cost Unit	,	•	•	•		,								,		,				,			,	٠	,	٠	,	,			•	,	i			,	,	•	٠		,		٠			•
Post-Hearing DR (Item 3)	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42		\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42	\$ 70.42 \$			\$ 70.42 \$	
REASON FOR PURCHASE	Domtar	Domtar	Domtar	Domtar	Domtar Total	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic	Economic				Economic	Economic																	
ಕಿ	MISO	MISO	MISO	MISO		MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO	MISO																	
DA/RT	Real Time	Real Time	Real Time	Real Time		Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time	Real Time																	
Execution	Power			Power	Power	Power		Power	Power	Power	Power	Power	Power	Power	Power	Power		Power	Power	Power	Power	Power	Power	Power	Power	Power F	Power	Power		Power																
Buy/Sell		Buy			Buy	Buy	Buy	Buy	Buy	Buy		Buy	Buy	Buy		Buy	Buy		Buy		Buy	Buy	Buy	Buy	Buy				Buy	Buy	Buy	Buy	Buy	Buy	Buy	Buy		Buy	Buy P							
TOTAL Cost	363.12	129.43	125.20	454.50	136.98	148.61	25.58	953.66	1,856.59	430.50	15,491.56	12,128.80	5,710.95	5,119.11	116,253.78	1,710.83	1,589.40	2,474.15	1,278.49	1,172.63	172.24	1,675.18	9,252.85	24,575.88	1,647.14	892.13	18,533.71	111.28	(56.65)	16,586.64	2,77.72	31,969.78	409.94	902.62	55.76	192.17	34.52	4,887.31	17,615.24	548.76	461.86	17,713.38	2,193.35	5,756.62	77.71	403.60
PRICE	29.49 \$	24.70 \$	22.68 \$	19.46 \$	25.06 \$	22.70 \$	18.44 \$	22.71 \$	38.50 \$	22.32 \$	48.92 \$	39.77 \$	32.99 \$	27.36 \$	\$	21.06 \$	23.87 \$	25.27 \$	23.24 \$	19.02 \$	23.19 \$	24.10 \$	25.09 \$	22.17 \$	20.46 \$	12.34 \$	22.81 \$	4.12 \$	(1.36) \$	26.88 \$	20.49 \$	28.68 \$	20.74 \$	19.92 \$	30.83 \$	19.93 \$	18.48 \$	20.73 \$	26.83 \$	19.65 \$	23.89 \$	35.09 \$	19.37 \$	28.80 \$	17.28 \$	27.77 \$
MWh	12.314 \$	5.239 \$	5.520 \$	23.354 \$	5.466 \$	6.546 \$	1.387 \$	41.988 \$	48.223 \$	19.291 \$	316.659 \$	304.940 \$	173.120 \$	187.133 \$	3,717.891	81.250 \$	\$ 985.99	97.914 \$	55.016 \$	61.639 \$	7.426 \$	69.514 \$	368.787 \$	1,108.387 \$	80.502 \$	72.311 \$	812.462 \$	27.033 \$	43.984 \$	617.049 \$	135.535 \$	1,114.808 \$	19.768 \$	45.311 \$	1.809 \$	9.641 \$	1.868 \$	235.713 \$	\$ 268.959	27.922 \$	19.336 \$	\$ 64.795 \$	113.230 \$	\$ 968.661	4.496 \$	14.533 \$
Ħ	HE 19-21	HE 24	HE 1	HE 5-8	HE 10	HE 24	HE 1	HE 3-8	HE 14-22	HE 1-2	HE 4-24	HE 1-24	HE 1-24	HE 1-11,17-24		HE 7	HE 9-10	HE 16-20	HE 22-24	HE 2-5	HE 7	HE 9-10	HE 12-24	HE 1-21	HE 23-24	HE 1-7	HE 9-24	HE 1-2	HE 4-7	HE 9-19	HE 22-24	HE 7-22	HE 24	HE 3-5	HE 7-8	HE 19	HE 21	HE 1-10	HE 12-24	HE 1-5	HE 7	HE 12-21	HE 2-5	HE 7-19	HE 6-7	HE 13-14
DATE	7/25	7/25	7/26	1/26	7/26	1/26	7/27	7/27	7/27	7/28	7/28	7/29	7/30	7/31		7/1	7/1	7/1	7/1	7/2	7/2	7/2	7/2	7/3	7/3	7/4	7/4	1/5	1/5	1/5	1/5	9/1	9/1	1/1	1/1	1/1	1/1	2/8	2/8	6/1	6/1	6/1	7/10	7/10	7/11	7/11

Case No. 2016-00006
Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3
Witness: Nicholas R. Castlen
Page 15 of 34

				т —					т т		Ca	et Hult Culo for	C-+ 0	
		- 1		1					1 1			st Unit Calc for	Cost Over	T-1-10-10
DATE	HE	MWh	PRICE	1	TOTAL Cost	Buy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	Po	st-Hearing DR (Item 3)	Highest Cost Unit	Total Cost Over
	HE 18-21			ć								A CONTRACTOR OF THE PARTY OF TH		Highest Cost Unit
7/11	HE 12-16,18-22	29.585 567.326	\$ 28.43		841.14	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/12	HE 24		\$ 20.67		23,036.85 662.94	Buy	Power	Real Time Real Time	MISO	Economic	\$	70.42		\$ -
7/13	HE 2-4,6-22	941.215	· comment			Buy		2019/19/2019	MISO	Economic	100	70.42		\$ -
7/13	HE 24		\$ 24.78		30,450.77	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/14	HE 1-22	1,187.132			1,247.66 33,548.24	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/14	HE 24		\$ 23.21		830.17	Buy	Power	Real Time		Economic	\$	70.42		\$ -
	HE 4-5					Buy		Real Time	MISO	Economic	10.00	70.42		\$ -
7/15				100	807.53	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/15	HE 7-14		\$ 25.61		5,243.75	Buy	Power	Real Time	MISO	Economic	\$	70.42	5 -	\$ -
7/15	HE 17-22		\$ 25.10		6,868.77	Buy	Power	Real Time	MISO	Economic	\$	70.42	, -	\$ -
7/15	HE 24	14.916			309.18	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$
7/16	HE 2-9,13,19-20		\$ 26.74		5,410.42	Buy	Power	Real Time	MISO	Economic	\$	70.42	, s	\$ -
7/17	HE 3-8	72.015			1,652.19	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/18	HE 1,6-22		\$ 24.33		25,645.05	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/21	HE 1	24.638	*	-	564.96	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/21	HE 24		\$ 22.92		202.40	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/22	HE 1		\$ 22.64		542.29	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/22	HE 4	0.070	\$ 21.04		1.47	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/22	HE 23-24		\$ 21.01		1,025.69	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/23	HE 19	0.600	\$ 31.17	\$	18.70	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/23	HE 24	17.721	\$ 21.66	\$	383.75	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/24	HE 24	19.926	\$ 23.08	\$	459.83	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/25	HE 1	17.328	\$ 22.79	\$	394.84	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/25	HE 4-7	17.282	\$ 18.85	\$	325.79	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/25	HE 10	5.099	\$ 25.78	\$	131.43	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/25	HE 15	0.732	\$ 30.09	\$	22.04	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/25	HE 19-21	6.176	\$ 29.74	\$	183.72	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$ -
7/25	HE 24	17.937	\$ 24.70	\$	443.10	Buy	Power	Real Time	MISO	Economic	S	70.42	\$ -	Š -
7/26	HE 1	24.780	\$ 22.68	\$	562.06	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$.
7/26	HE 24	8.825	\$ 22.70	\$	200.35	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$ -	\$.
7/28	HE 1-2	51.096	\$ 22.41	\$	1,144.83	Buy	Power	Real Time	MISO	Economic	5	70.42	s .	\$.
7/28	HE 4,6-8,12-1517-2	235.716	\$ 35.69	\$	8,413.56	Buy	Power	Real Time	MISO	Economic	\$	70.42	\$.	\$
7/29	HE 12-17,22	114.174		\$	5,349.44	Buy	Power	Real Time	MISO	Economic	S	70.42	\$ -	\$ -
		12,024.683	1	\$	324,537.84					Economic Total	1	70112	*	\$ -
7/16	HE 7-14,17-24	2,958.908	\$ 35.32	\$	104,515.82	Buy	Power	Real Time	MISO	G2 - UO1 (15-03)	5	70.42	\$ -	\$ -
7/16	HE 15-16	436.274			47,109.08	Buy	Power	Real Time	MISO	G2 - UO1 (15-03)	S	70.42		\$ 16,386.68
		3,395.182	J.	\$	151,624.91			22777 72077		G2 - UO1 (15-03) Total	-	70.12	¥ 37.50	\$ 16,386.68 (1)
7/28	HE 13-22,24	1,911.371	\$ 47.39	_	90,589.21	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	S	70.42	\$ -	\$ -
7/28	HE 20		\$ 83.57	-	18,636.34	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	70.42	3	\$ 2,932.68
7/29	HE 1-2, 6-24		\$ 41.89		155,307.38	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	70.42	\$ 13.13	\$ 2,932.08
7/30	HE 1-2,5-10,12-22,	373.642	140		10,234.06	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	70.42	\$ -	\$.
7/30	HE 11	24.364	· ·		1,874.36	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	70.42		\$ 158.64
7/31	HE 7,9-24		\$ 38.76		29,227.93	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	70.42	7 0.02	\$ 158.64
751	116 / 13 67	6,994.309	y 50.70	\$	305,869.27	ouy	, JWEI	near rinte	WIIDO	G2 - UO1 (15-04) Total	3	70.42	, .	
7/18	HE 2-24	3,429.615	\$ 23.92		82,019.50	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	Ś	70.42	\$.	\$ 3,091.32 (1) \$ -
7/19	HE 1-2	82.250			1,848.80	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$		\$ -	\$ - \$ -
1113	116 4-6	02.230	y 22.40	Y	1,040.00	Duy	OWE	near time	WIIJU	112 - 001 (13-10)	P	70.42	.	•

Case No. 2016-00006 Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3 Witness: Nicholas R. Castlen Page 16 of 34

											st Unit Calc for ost-Hearing DR	Cost Over Highest Cost	Total Cost Over
DATE	HE	MWh	PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	CP	REASON FOR PURCHASE	100	(Item 3)	Unit	Highest Cost Unit
7/19	HE 4-22	784.820	\$ 26.05	\$ 20,440.83	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/19	HE 24	18.553	\$ 22.75	\$ 422.00	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/20	HE 1	14.731	\$ 23.11	\$ 340.44	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/20	HE 4-7	118.844	\$ 21.62	\$ 2,568.94	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/21	HE 4-12,14-22	490.974	\$ 29.10	\$ 14,286.25	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/22	HE 9,11,13-18	36.499	\$ 36.04	\$ 1,315.56	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/23	HE 1-7	352.303	\$ 20.24	\$ 7,129.81	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/24	HE 6-15,18-22	217.706	\$ 31.22	\$ 6,796.72	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/24	HE 16	7.976	\$ 99.52	\$ 793.76	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ 29.10	\$ 232.09
//26	HE 5-8	83.788	\$ 19.96	\$ 1,672.23	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/26	HE 10	81.578	\$ 25.06	\$ 2,044.45	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/27	HE 4-8	147.241	\$ 22.19	\$ 3,267.83	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/27	HE 15-20	43.249	\$ 36.40	\$ 1,574.16	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ -	\$ -
7/28	HE 20	15.430	\$ 83.57	\$ 1,289.48	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	70.42	\$ 13.15	\$ 202.92
		5,925.555		\$ 147,810.75					H2 - UO1 (15-10) Total				\$ 435.01
7/21	HE 13	24.009	\$ 92.09	\$ 2,210.92	Buy	Power	Real Time	MISO	RCT - UO1 (15-16)	\$	70.42	\$ 21.67	
		24.009		\$ 2,210.92					RCT - UO1 (15-16) Total				\$ 520.21
7/12	HE 17	48.336	\$ 83.90	\$ 4,055.23	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	70.42	\$ 13.48	\$ 651.43
		48.336		\$ 4,055.23					To cover load and lack of gen Total				\$ 651.43
7/29	HE 13-24	4,462.000	\$ 42.87	\$ 191,292.45	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	\$	70.42	\$ -	\$ -
//30	HE 1-10,12-24	9,486.157	\$ 30.42	\$ 288,529.61	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	\$	70.42	\$ -	\$ -
7/30	HE 11	417.000	\$ 76.93	\$ 32,080.37	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	\$	70.42	\$ 6.51	\$ 2,715.23
7/31	HE 1-15	5,576.520	\$ 28.07	\$ 156,532.29	Buy	Power	Real Time	MISO	W1 - UO2 (15-07)	\$	70.42	\$ -	\$ -
		19,941.677		\$ 668,434.72					W1 - UO2 (15-07) Total	•			\$ 2,715.23
		162,471.643	14 (1)	\$ 5,414,827.91	A FIRE C	AT THE PARTY OF		7	Grand Total			F. A. TOPPER TO THE	\$ 23,799.88

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
Aug-15

	(a)
Total Purchases Over Highest Cost Unit:	\$ 1,224.33
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ 1,224.33
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$ -
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ -
Purchases Above Highest Cost (for Form A Filing)	\$

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filling. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	HE	MWh		PRICE	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Cos	vised Highest t Unit Calc for t-Hearing DR (Item 3)	Cost Over Highest Cost Unit	Total Cost Over Highest Cost Unit
8/1-8/31					\$ 46,210.50	Buy	Power		HMPL	Available for System	\$	69.04	\$ -	\$ -
					\$ 46,210.50					Available for System Total				\$ -
8/1-8/31		100,800.000	\$	31.96	\$ 3,221,283.00	Buy	Power		IN Hub	Back-to-Back	\$	69.04	\$ -	\$ -
		100,800.000			\$ 3,221,283.00					Back-to-Back Total				\$ -
8/1	HE 2-14	112.739	\$	21.56	\$ 2,431.14	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/1	HE 22	5.334	\$	21.25	\$ 113.33	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/1	HE 24	12.032	\$	19.34	\$ 232.66	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/2	HE 9	10.834	\$	21.96	\$ 237.91	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/2	HE 11-21	201.854	\$	46.40	\$ 9,366.98	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/2	HE 23-24	21.372	\$	22.20	\$ 474.44	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/3	HE 10-24	130.741	\$	32.27	\$ 4,218.83	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/4	HE 1-5	43.336	\$	20.35	\$ 881.69	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/4	HE 7-16	40.069	\$	30.62	\$ 1,227.05	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/6	HE 1	4.602	\$	20.90	\$ 96.16	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/6	HE 3-8	21.089	\$	21.25	\$ 448.05	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/8	HE 9-22	87.863	\$	28.24	\$ 2,481.55	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/8	HE 24	9.592	\$	23.34	\$ 223.90	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/9	HE 1	7.219	\$	22.71	\$ 163.91	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/9	HE 5-7	27.446	\$	19.57	\$ 537.13	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/9	HE 9-12	40.537	\$	24.39	\$ 988.63	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/9	HE 20-22	19.570	\$	27.06	\$ 529.63	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/9	HE 24	11.914	\$	23.20	\$ 276.38	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/10	HE 3-12	335.186	\$	24.26	\$ 8,130.96	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/10	HE 16-24	297.136	\$	26.84	\$ 7,976.36	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/11	HE 1-22	845.430	\$	32.71	\$ 27,652.66	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/11	HE 24	42.618	\$	22.76	\$ 969.91	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/12	HE 1	53.018	\$	23.00	\$ 1,219.41	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/12	HE 3-24	1,053.596	100	36.80	\$ 38,772.64	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/13	HE 1	16.591		20.36	337.82	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/13	HE 3-4	8.291		16.87	139.90	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/13	HE 7-10	137.628		22.67	3,119.75	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 18 of 34

	T		Г					T	T	П			vised Highest		
1			l										t Unit Calc for	Cost Over	
DATE	HE	MWh		PRICE		TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	Pos	st-Hearing DR (Item 3)	Highest Cost Unit	Total Cost Over Highest Cost Unit
8/13	HE 24	8.490		20.98		178.14	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/14	HE 1	8.437		21.93		185.04	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/14	HE 4	12.388		20.25		250.84	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/14	HE 6-8	45.272		25.82		1,168.70	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/14	HE 21-22	45.016		25.95	100	1,168.32	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/14	HE 24	43.378		22.17		961.55	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/15	HE 1-22	801.366		27.48	7.1	22,022.79	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/15	HE 24	2.955		21.16	***	62.53	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/16	HE 5	0.087	\$	32.84	- 10	2.86	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/16	HE 8-22	99.853	\$	26.20		2,616.06	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/16	HE 24	5.955	\$	21.45	0.0	127.71	Buy	Power	Real Time	MISO	Domtar	\$	- Contraction of the Contraction	\$ -	\$ -
8/17	HE 1	7.745	\$	22.25		172.33	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/17	HE 4-11	49.919	\$	(55.64)		(2,777.30)	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/18	HE 2	6.038	100	20.93		126.37	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/18	HE 4-5	11.726	\$	20.51	-	240.55	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/18	HE 8-11	26.854	\$	24.92		669.13	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/18	HE 13-22	69.931	\$		\$	2,419.05	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/18	HE 24	6.470	0.0	20.36	7	131.74	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/19	HE 3-21	135.941	\$	35.73	110	4,857.58	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/19	HE 23	3.068	\$	20.55		63.04	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/20	HE 7	3.500	\$		\$	74.42	Buy	Power	Real Time	MISO	Domtar	\$	- Commentered	\$ -	\$ -
8/20	HE 9-23	66.622	\$	24.13		1,607.80	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/21	HE 7-21	162.720	\$		\$	4,060.77	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/22	HE 9	3.554	\$	22.94		81.53	Buy	Power	Real Time	MISO	Domtar	\$	-	\$ -	\$ -
8/22	HE 12-22	49.315	\$		\$	1,209.02	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/22	HE 24	6.719	\$	15.98	100	107.35	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/23	HE 1-2	8.664	\$	11.41		98.88	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/23	HE 5-6	7.000	\$	7.13		49.94	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/23	HE 10-24	124.844	\$		\$	3,831.17	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/24	HE 1	1.773	\$	12.56		22.28	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$
8/24	HE 7-8	13.178	\$	20.44		269.40	Buy	Power	Real Time	MISO	Domtar	\$	7.00	\$ -	\$ -
8/24	HE 10-22	454.257	\$	28.18		12,800.86	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/25	HE 5	0.934	\$	24.28	1000	22.68	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/25	HE 7-8	81.818	\$	22.80		1,865.17	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/25	HE 10-21	567.490	\$	24.12		13,689.66	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/26	HE 7	7.324	\$	21.95		160.73	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/26	HE 11-21		\$	23.77		2,130.16	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/27	HE 1	1.992	\$	16.11		32.09	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/27	HE 3-7	21.467	\$		\$	384.11	Buy	Power	Real Time	MISO	Domtar	\$	15.5 (5.5)	\$ -	\$ -
8/27	HE 11-15	26.509	\$		\$	657.83	Buy	Power	Real Time	MISO	Domtar	\$			\$ -
8/27	HE 17-22	34.016	\$	26.18		890.71	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/27	HE 24	5.768	\$	5.00	\$	115.34	Buy	Power	Real Time	MISO	Domtar	\$		53	\$ -
8/28	HE 1-24	149.134	\$	24.22		3,611.40	Buy	Power	Real Time	MISO	Domtar	\$		\$ -	\$ -
8/29	HE 2-23	147.658	\$		\$	3,545.10	Buy	Power	Real Time	MISO	Domtar	\$			\$ -
8/30	HE 2-8	32.487	5	19.17	5	622.94	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -

Case No. 2016-00006
Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3
Witness: Nicholas R. Castlen
Page 19 of 34

_			_		_							_			
													evised Highest		
	1 1		ı		ı				l.	1 1		100	st Unit Calc for	Cost Over	
			l	22100	ı	TOTAL 6 .	n /c !!	Fun mustic m	D 4 /DT	CP	DEACON FOR BURGUAGE	P	ost-Hearing DR	Highest Cost	Total Cost Over
DATE	HE	MWh	Ļ	PRICE	Ļ	TOTAL Cost	Buy/Sell	Execution	DA/RT		REASON FOR PURCHASE		(Item 3)	Unit	Highest Cost Unit
8/30	HE 9	5.509	\$	6.30	1.5	34.72	Buy	Power	Real Time	MISO	Domtar	\$	69.04		\$ -
8/30	HE 11	1.808	\$	24.94		45.10	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/30	HE 21	4.926	\$	25.70		126.60	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/31	HE 5-22	70.286	\$	575 (511.0)		2,211.11	Buy	Power	Real Time	MISO	Domtar	\$	69.04	\$ -	\$ -
8/31	HE 24	3.209 7.142.641	\$	23.73	\$	76.13 202,330.80	Buy	Power	Real Time	MISO	Domtar Domtar Total	\$	69.04	\$ -	\$ -
8/1	HE 3-13		\$	22.97	_	7,229.74	Buy	Power	Real Time	MISO	Economic	\$	69.04	ė.	\$ - (3)
8/1	HE 24	39.104	\$	19.34		756.10	Buy	Power	Real Time	MISO	Economic	\$	69.04	100	\$ -
8/2	HE 9	8.867	\$	21.96	-34	194.69	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ - \$ -
8/2	HE 11,14,20-21	52.382	\$	29.09	\$	1,524.02	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/3	HE 10-13,15,19-22,			30.12		2,837.67	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$.
8/4	HE 1-5	87.355	Ś	20.04	Š	1,750.72	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$.
8/4	HE 7-10,12-13,15-1	173.865	Ś			5,038.00	Buy	Power	Real Time	MISO	Economic	\$	69.04	š -	\$.
8/6	HE 1	19.495	\$	20.90	\$	407.36	Buy	Power	Real Time	MISO	Economic	S	69.04	\$ -	š .
8/6	HE 3-8	171.167	\$		1.0	3,734.83	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$.
8/8	HE 9-21	207.396	\$	27.15	\$	5,631.16	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	š .
8/8	HE 24	5.144	\$	23.34		120.09	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/9	HE 5-7	11.042	\$	19.59	\$	216.30	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$.
8/9	HE 9-12	99.454	\$	24.49	\$	2,436.01	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	š -
8/9	HE 24	16.606	\$	23.20		385.25	Buy	Power	Real Time	MISO	Economic	\$	69.04	š -	\$ -
8/10	HE 3-4,7-9	155.771	\$	24.79	\$	3,862.08	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/10	HE 22	91.473	5	23.25	\$	2,126.98	Buy	Power	Real Time	MISO	Economic	5	69.04	\$ -	\$ -
8/11	HE 1,6,9-13,20-22	351.675	\$	25.43	\$	8,942.31	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/12	HE 1	4.178	\$	23.05	\$	96.30	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/12	HE 3-24	241.649	\$	26.37	\$	6,371.15	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/13	HE 7	46.149	\$	20.39	\$	940.77	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/15	HE 1-22	460.258	\$	23.41	\$	10,776.64	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/16	HE 8-22	712.118	\$	24.97	\$	17,783.79	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/17	HE 1	1.175	\$	22.22	\$	26.11	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/17	HE 5-7,11	191.999	\$	21.64	\$	4,155.71	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/18	HE 2	28.001	\$	20.93	\$	585.99	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/18	HE 4-5	6.828	\$	20.61	\$	140.74	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/18	HE 8-11	177.910	\$	24.57	\$	4,371.53	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/18	HE 15-22	135.933	\$	27.62		3,754.64	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/18	HE 24	83.649	\$		11.	1,703.10	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/19	HE 3-10,15-21	626.827	\$	25.36		15,897.11	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/20	HE 7	3.633	\$	21.26	\$	77.23	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/20	HE 9-23	1,394.011		24.51		34,170.29	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/21	HE 7-21	986.688	\$	25.02	\$	24,690.46	Buy	Power	Real Time	MISO	Economic	\$		\$ -	\$ -
8/22	HE 9	14.902	\$		\$	341.81	Buy	Power	Real Time	MISO	Economic	\$		•	\$ -
8/22	HE 12-22	826.873	\$	24.50	\$	20,256.47	Buy	Power	Real Time	MISO	Economic	\$		•	\$ -
8/22	HE 24	11.953	\$	15.98	1000	190.98	Buy	Power	Real Time	MISO	Economic	\$		\$ -	\$ -
8/23	HE 1-2	12.531	\$	11.61		145.50	Buy	Power	Real Time	MISO	Economic	\$		\$ -	\$ -
8/23	HE 5-6	5.375	\$		\$	36.77	Buy	Power	Real Time	MISO	Economic	\$		\$ -	\$ -
8/23	HE 10-14,19-24	1,129.167	\$	22.72	\$	25,657.96	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 20 of 34

										6.0		Co	evised Highest est Unit Calc for ost-Hearing DR	Cost Over Highest Cost	Total Cost Over
DATE	HE	MWh	ᄂ	PRICE	_	TOTAL Cost	Buy/Sell	Execution	DA/RT	СР	REASON FOR PURCHASE	_	(Item 3)	Unit	Highest Cost Unit
8/24	HE 7-8	184.054		20.36		3,747.94	Buy	Power	Real Time	MISO	Economic	\$	69.04		\$ -
8/24	HE 10-22	837.966		27.21		22,799.54	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/25	HE 10-21	247.168		24.31		6,008.39	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/26	HE 7	25.789	117	21.95		566.01	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/26	HE 11-21			23.88	-	5,679.03	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/27	HE 3-7	97.547		23.26		2,269.03	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/27	HE 11-15	234.369		24.79	200	5,810.93	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/28	HE 10,15-20			28.12		2,333.88	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/29	HE 2-12,14-23	361.260	\$	23.44	\$	8,466.13	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/30	HE 2-8	84.837	\$	18.44	\$	1,564.63	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/30	HE 9	0.875	\$	6.30	\$	5.51	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/30	HE 21	0.259	\$	25.70	\$	6.66	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/31	HE 5-13,18,21-22	460.616	\$	26.11	\$	12,024.65	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
8/31	HE 24	20.353	\$	23.73	\$	482.91	Buy	Power	Real Time	MISO	Economic	\$	69.04	\$ -	\$ -
		11,877.456			\$	291,129.58					Economic Total				\$ -
8/27	HE 17-22	1,165.139	\$	26.19	\$	30,509.55	Buy	Power	Real Time	MISO	G1 - UO1 (15-08)	\$	69.04	\$ -	\$ -
8/27	HE 24	41.561	\$	20.00	\$	831.04	Buy	Power	Real Time	MISO	G1 - UO1 (15-08)	\$	69.04	\$ -	\$ -
8/28	HE 1-24	4,017.814	\$	25.11	\$	100,895.96	Buy	Power	Real Time	MISO	G1 - UO1 (15-08)	\$	69.04	\$ -	\$ -
		5,224.513			\$	132,236.55					G1 - UO1 (15-08) Total				\$ -
8/2	HE 15-19	77.497	\$	58.24	\$	4,513.30	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	69.04	\$ -	\$ -
8/3	HE 14,16	13.533	\$	48.82	\$	660.65	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	69.04	\$ -	\$ -
8/4	HE 11,14	50.603	\$	44.57	\$	2,255.55	Buy	Power	Real Time	MISO	G2 - UO1 (15-04)	\$	69.04	\$ -	\$ -
		141.633			\$	7,429.50					G2 - UO1 (15-04) Total				\$ -
8/11	HE 14-19	123.463	\$	44.07	\$	5,441.11	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	69.04	\$ -	\$ -
8/12	HE 14-18	51.993	\$	82.36	\$	4,282.33	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	69.04	\$ 13.32	\$ 692.76
8/18	HE 13-14	11.228	\$	68.32	\$	767.04	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	69.04	\$ -	\$ -
8/19	HE 11-14	20.629		94.81	\$	1,955.80	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	69.04	\$ 25.77	\$ 531.57
8/23	HE 15-18	310.071		48.90		15,162.59	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$		\$ -	\$ -
8/31	HE 14-17,19-20	116.752		41.90	\$	4,891.48	Buy	Power	Real Time	MISO	H2 - UO1 (15-10)	\$	69.04	\$ -	\$ -
		634.136			\$	32,500.35					H2 - UO1 (15-10) Total			-	\$ 1,224.33
	WAR TWENTY	125,820.380	7	Mark State	\$	3,933,120.27	10 17 18	2-11-11	A 10 1 2	40714	Grand Total	1	- 31 Jan 194		\$ 1,224.33

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
Sep-15

	(a)
Total Purchases Over Highest Cost Unit:	\$ 8,427.75
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ 4,565.45
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$ -
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ 3,561.46
Purchases Above Highest Cost (for Form A Filing)	\$ 300.83

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filing. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

DATE	HE	MWh	PRICE	TOTAL Cost		Execution	DA/RT	Count erpart y	REASON FOR PURCHASE	Cost U	ed Highest Init Calc for Hearing DR Item 3)	High	Cost Over est Cost Unit	Cost Over
9/1-9/30)	-	\$ -	\$ 40,797.00	Buy	Power		HMPL	Available for System	\$	65.23	\$	-	\$ -
				\$ 40,797.00					Available for System Total					\$
9/1-9/30)	100,800.000	\$ 34.03	\$ 3,430,695.00	Buy	Power		IN Hub	Back-to-Back	\$	65.23	\$		\$ -
		100,800.000		\$ 3,430,695.00					Back-to-Back Total					\$ 12
9/17	HE 15-21	676.796	\$ 25.65	\$ 17,361.40	Buy	Power	Real Time	MISO	CT - UO0 (15-19)	\$	65.23	\$	-	\$
		676.796		\$ 17,361.40					CT - UO0 (15-19) Total					\$ -
9/1	HE 1	3.706	\$ 21.31	\$ 78.97	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	(4)	\$ -
9/1	HE 3-11	32.497	\$ 26.71	\$ 867.99	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$
9/1	HE 15-24	240.052	\$ 38.56	\$ 9,255.74	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$ (=)
9/2	HE 1-22	146.366	\$ 31.35	\$ 4,588.40	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$ -
9/2	HE 24	5.660	\$ 22.24	\$ 125.88	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$.2
9/3	HE 1	1.464	\$ 19.46	\$ 28.49	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$
9/3	HE 4	4.548	\$ 18.70	\$ 85.05	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$
9/3	HE 6-9	22.760	\$ 22.74	\$ 517.48	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$
9/3	HE 11-15	31.468	\$ 38.59	\$ 1,214.32	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$		\$
9/3	HE 20-22	19.390	\$ 26.65	\$ 516.73	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$		\$
9/4	HE 3-8	27.933	\$ 23.12	\$ 645.69	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	*	\$
9/4	HE 10-19	64.561	\$ 34.20	\$ 2,207.88	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	2	\$ -
9/4	HE 21-24	139.089	\$ 24.09	\$ 3,351.08	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$ -
9/5	HE 1-4	67.559	\$ 20.03	\$ 1,353.01	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$ -
9/5	HE 8-24	379.589	\$ 24.79	\$ 9,411.38	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	~	\$ -
9/6	HE 1-5	94.671	\$ 19.09	\$ 1,807.15	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$		\$ -
9/6	HE 9-22	325.226	\$ 27.55	\$ 8,959.66	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$ -
9/6	HE 24	44.065	\$ 20.45	\$ 901.13	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$
9/7	HE 3	4.332	\$ 16.72	\$ 72.43	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$		\$ -
9/7	HE 9-21	68.552	\$ 31.87	\$ 2,184.46	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$
9/8	HE 6	5.326	\$ 22.74	\$ 121.11	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$
9/8	HE 8-22	89.161	\$ 37.26	\$ 3,321.79	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	2	\$
9/8	HE 24	6.611	\$ 23.92	\$ 158.14	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$ -
9/9	HE 3-4	15.295	\$ 20.07	\$ 306.91	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$ -
9/9	HE 8-9	20.188	\$ 24.50	\$ 494.50	Buy	Power	Real Time	MISO	Domtar	\$	65.23	\$	-	\$

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 22 of 34

			_		_							Revised Highest		
										Count		Cost Unit Calc for	MWh Cost Over	
		1								erpart		Post-Hearing DR	Highest Cost	Total Cost Over
DATE	HE	MWh		PRICE		TOTAL Cost		Execution	DA/RT	У	REASON FOR PURCHASE	(Item 3)	Unit	Highest Cost Unit
9/9	HE 11	0.656	\$	18.97	\$	12.44	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
9/9	HE 22	9.203	\$	22.40	\$	206.15	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
9/10	HE 8	3.835	\$	23.50	\$	90.12	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
9/10	HE 13-22	53.450	\$	36.92	\$	1,973.41	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
9/11	HE 6	3.144	\$	22.03		69.26	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/11	HE 8	3.792	\$	24.51		92.94	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
9/11	HE 18-22	22.740		23.61	-	536.95	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/12	HE 10-22	28.442		23.43		666.39	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/13	HE 9-12	7.813	200	21.14	\$	165.14	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/13	HE 15-17	4.615	100	21.84	\$	100.78	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/13	HE 20	2.064	\$	24.34	\$	50.24	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	ed :	\$ -
9/13	HE 22	23.978	10.0	18.41		441.43	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/14	HE 6	35.998		20.23	- 1	728.24	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/14	HE 8-10	92.743		25.89	\$	2,401.58	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/14	HE 12	31.732	100	26.04	\$	826.30	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	res	\$ -
9/14	HE 15-16	4.644	200	24.57		114.08	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/15	HE 5-8	52.676		21.87	\$	1,151.89	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/15	HE 14-15	8.033		34.11		274.00	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/15	HE 18	2.688	\$	24.73		66.47	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/15	HE 20-24	4.899	\$	17.15		84.01	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/16	HE 3	0.757		9.69	\$	7.34	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/22	HE 10	0.012	0.0	25.00		0.30	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/23	HE 6-24	161.522	7.	28.66	27.	4,628.56	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/24	HE 1-8	104.197		21.03		2,191.32	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/25	HE 2-24	807.677		24.04	\$	19,415.69	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/26	HE 4-7	26.112	100	19.78		516.39	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/26	HE 10-13	137.181		31.83	\$	4,367.08	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/26	HE 15-22	118.041		25.07		2,959.39	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/27	HE 2	0.054	13.00	71.96		3.89	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ 0.36
9/27	HE 6-13	288.892	- 11	21.28		6,148.64	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/27	HE 15-22	395.527		55.84	\$	22,085.45	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ -
9/28	HE 6-10	124.914		93.74		11,709.24	Buy	Power	Real Time	MISO	Domtar	\$ 65.23		\$ 3,561.10
9/28	HE 12-15	55.073	850		\$	1,476.75	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
9/28	HE 18-22	150.838		39.35	- 7	5,935.37	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$
9/29	HE 6-24	680.218		26.44		17,982.95	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
9/30	HE 6-11	259.459	12.7	23.33	. 70	6,053.56	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	-	\$ -
9/30	HE 16-21	226.000	\$	22.86		5,165.99	Buy	Power	Real Time	MISO	Domtar	\$ 65.23	\$ -	\$ -
		5,793.689		24.22	\$				n 199	14460	Domtar Total	4		\$ 3,561.46 (3)
9/1	HE 1	26.716	200	21.32		569.47	Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$ -
9/1	HE 3-11	352.577	2.0	26.99	\$	9,517.42	Buy	Power	Real Time	MISO	Economic	\$ 65.23	4	\$ -
9/1	HE 15-22	481.467		34.73	\$	16,720.52	Buy	Power	Real Time	MISO	Economic	\$ 65.23	-	\$ -
9/2	HE 1-11,13-22	764.884		24.94		19,073.36	Buy	Power	Real Time	MISO	Economic	\$ 65.23	-	\$ -
9/2	HE 24	0.255	\$	22.26	\$	5.67	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/3	HE 4	0.475	\$	18.69	\$	8.88	Buy	Power	Real Time	MISO	Economic	\$ 65.23		\$ -
9/3	HE 6-9	234.229	\$	23.02	5	5,390.82	Buy	Power	Real Time	MISO	Economic	\$ 65.23	5 -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 23 of 34

	т т		_		_			т		1	n	Berterd III-bare		
										Count		Revised Highest Cost Unit Calc for		
					1					erpart		Post-Hearing DR		Total Cost Over
DATE	HE	MWh		PRICE		TOTAL Cost		Execution	DA/RT	у	REASON FOR PURCHASE	(Item 3)	Unit	Highest Cost Unit
9/3	HE 11-15	62.413	\$	39.71	\$	2,478.70	Buy	Power	Real Time	MISO	Economic	\$ 65.2	\$ -	\$ -
9/3	HE 20-22	34.914	\$	26.85	\$	937.31	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/4	HE 3-8	104.959	\$	21.15	\$	2,220.05	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/4	HE 10-19	100.759	\$	35.24	\$	3,551.19	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/4	HE 21-24	27.227	\$	22.42	\$	610.30	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/5	HE 1-4	26.820	\$	19.56	\$	524.47	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/5	HE 8-24	578.905	\$	22.56	\$	13,059.61	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/6	HE 1-2	51.349	\$	19.14	\$	983.08	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/6	HE 9-22	625.357	\$	25.08	\$	15,685.07	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/6	HE 24	37.565	\$	20.45	\$	768.28	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/7	HE 3	1.348	\$	16.73	\$	22.56	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/7	HE 9-21	403.575	\$	27.04	\$	10,911.16	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/8	HE 6	2.281	\$	22.75	\$	51.90	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/8	HE 8-16,18-22	452.198	\$	34.23	\$	15,477.75	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/8	HE 24	3.643	\$	23.92	\$	87.14	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/9	HE 3-4	23.008	\$	19.93	\$	458.65	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/9	HE 8-9	100.944	\$	24.51	\$	2,474.05	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/9	HE 22	8.593	\$	22.39	\$	192.44	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/10	HE 8	9.949	\$	23.50	\$	233.78	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/10	HE 14-22	135.423	\$	37.76	\$	5,112.98	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/11	HE 6	26.268	\$	22.03	\$	578.59	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/11	HE 8	23.093	\$	24.51	\$	566.00	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/11	HE 18-22	175.820	\$	23.70	\$	4,167.48	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/12	HE 10-22	1,187.592	\$	23.63	\$	28,063.37	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/13	HE 9-12	156.008	\$	21.30	\$	3,323.32	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/13	HE 15-17	205.765	\$	21.76	\$	4,477.47	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/13	HE 20	62.132	\$	24.34	\$	1,512.19	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/14	HE 6	2.374	\$	20.17	\$	47.89	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/14	HE 8-10	54.938	\$	24.64	\$	1,353.93	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/14	HE 12	32.852	\$	26.04	\$	855.53	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/15	HE 5-8	81.421	\$	21.32	\$	1,736.22	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/15	HE 20-24	86.795	\$	16.53	\$	1,434.40	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/16	HE 1-3	106.617	\$	12.25	\$	1,306.02	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/16	HE 6	23.254	\$	11.98	\$	278.56	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/16	HE 9	11.744	\$	23.25	\$	273.09	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/16	HE 16-22	41.416	\$	28.10	\$	1,163.64	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/17	HE 3-14,22-24	361.196	\$	50.41	\$	18,206.29	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/18	HE 6	48.594	\$	24.98	\$	1,214.12	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/19	HE 6	65.962	\$	19.75	\$	1,302.83	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/19	HE 15,21-24	1,406.968	\$	22.79	\$	32,057.93	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/20	HE 1-8,10-15,21-24	228.905	\$	23.14	\$	5,295.80	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/21	HE 8	31.832	\$	23.03	\$	733.15	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/21	HE 21	22.263	\$	25.17	\$	560.33	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/21	HE 23	4.798	\$	18.95	\$	90.94	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -
9/22	HE 1-10	703.858	\$	23.24	\$	16,359.25	Buy	Power	Real Time	MISO	Economic	\$ 65.23	\$ -	\$ -

										Count		Cos	evised Highest at Unit Calc for st-Hearing DR	MWh Cost Over Highest Cost	Total Cost Over
DATE	HE	MWh	L	PRICE	_	TOTAL Cost		Execution	DA/RT	у	REASON FOR PURCHASE		(Item 3)	Unit	Highest Cost Unit
9/23	HE 6-10,12-24	881.536	\$	28.74	\$	25,333.95	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/24	HE 1-8	311.224	\$	27.17	\$	8,454.92	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/25	HE 6,8,15,19-24	614.880	17.	23.61		14,516.91	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/26	HE 10-13	22.191	\$	25.47	\$	565.19	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/27	HE 8-9,11-12	140.441	\$	21.91	\$	3,076.68	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/27	HE 16,22	277.481	\$	25.07	\$	6,957.13	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/29	HE 6,8,11,16	51.168	\$	23.92	\$	1,223.92	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/30	HE 6-9	255.862	\$	23.45	\$	6,000.47	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
9/30	HE 17-19	44.583	\$	22.85	\$	1,018.87	Buy	Power	Real Time	MISO	Economic	\$	65.23	\$ -	\$ -
		12,403.663			\$	321,233.02					Economic Total				\$ -
9/1	HE 21-24	571.913	\$	28.41	\$	16,247.66	Buy	Power	Real Time	MISO	G1 - UO2 (15-09)	\$	65.23	\$ -	\$ -
		571.913			\$	16,247.66					G1 - UO2 (15-09) Total				\$ -
9/27	HE 15,17-21	1,048.661	\$	68.54	\$	71,876.95	Buy	Power	Real Time	MISO	G2 - UO1 (15-06)	\$	65.23	\$ 3.31	\$ 3,472.76
		1,048.661			\$	71,876.95					G2 - UO1 (15-06) Total				\$ 3,472.76 (
9/18	HE 14	155.798	\$	30.70	\$	4,783.34	Buy	Power	Real Time	MISO	G2 - UO4 (15-05)	\$	65.23	\$ -	\$ -
		155.798			\$	4,783.34					G2 - UO4 (15-05) Total				\$ -
9/2	HE 12	6.525	\$	111.33	\$	726.46	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	65.23	\$ 46.10	\$ 300.83
9/18	HE 7	7.454	\$	35.46	\$	264.34	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	65.23	\$ -	\$ -
9/25	HE 7,9-14,16-18	591.751	\$	27.06	\$	16,010.36	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	65.23	\$ -	\$ -
9/29	HE 7,9-10	60.982	\$	40.58	\$	2,474.80	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	65.23	\$ -	\$ -
		666.711			\$	19,475.95					To cover load and lack of gen Total				\$ 300.83
9/19	HE 16-20	1,727.749	\$	27.40	\$	47,333.37	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/20	HE 9,16,18-20	2,017.704	\$	29.30	\$	59,108.82	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/20	HE 1-8,10-15,21-24	6,347.958	\$	21.01	\$	133,381.94	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/21	HE 1-6	916.000	\$	19.19	\$	17,575.91	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/21	HE 8	18.200	\$	34.30	\$	624.20	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/21	HE 12-24	765.000	\$	30.34	\$	23,211.56	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/21	HE 9-10	84.330	\$	78.19	\$	6,593.53	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	65.23	\$ 12.96	\$ 1,092.68
9/21	HE 14-21	149.190	\$	30.28	\$	4,517.77	Buy	Power	Real Time	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/22	HE 1-6	726.000	\$	19.78	\$	14,361.65	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
9/22	HE 12-24	829.000	\$	33.06	\$	27,407.76	Buy	Power	Day Ahead	MISO	W1 - UO2 (15-08)	\$	65.23	\$ -	\$ -
		13,581.131			\$	334,116.50					W1 - UO2 (15-08) Total				\$ 1,092.68 (
		135,698.363			\$	4,429,861.92				84 11 2	Grand Total	3.19		W-174 (195)	\$ 8,427.75

Big Rivers Electric Corporation
Purchased Power Detail - Purchases Above Highest Cost Units
Total Costs Over Highest Cost Unit (Sub-totals by Reason for Purchase)
Oct-15

	(a)
Total Purchases Over Highest Cost Unit:	\$ 198,850.43
LESS: Purch. Over Highest Cost for F.O. > 6hrs. (Sum of (1)'s):	\$ 5,580.86
LESS: Purch. Over Highest Cost for Off-System Sales. (Sum of (2)'s):	\$ 140,092.00
LESS: Purch. Over Highest Cost for Domtar (Sum of (3)'s):	\$ 32,376.25
Purchases Above Highest Cost (for Form A Filing)	\$ 20,801.32

(a) Note: Costs associated with power purchases for forced outages greater than six hours, off-system sales, and back-up power sales to Domtar are already excluded from recoverable fuel expense in the FAC Fuel Cost Schedule of the monthly Form A filing. Accordingly, amounts related to these purchases are not included in the calculation of the purchases above highest cost units to be subtracted from recoverable fuel expense, as the entire costs of these purchases are already excluded from recovery through the FAC.

Date	HE	мwн	Price (\$/MWH)	Total Cost	Buy/Sell	Execution	DA/RT	СР	Reason for Purchase	Cost Pos	vised Highest t Unit Calc for t-Hearing DR (Item 3)	Cost Over Highest Cost Unit	100	otal Cost Over thest Cost Unit
10/1-10/	/31	-	\$ -	\$ 43,275.00	Buy	Power		HMPL	Available for System	\$	28.09	\$ -	\$	-
		•		\$ 43,275.00					Available for System Total				\$	
10/1-10/	/31	144,800.000	\$ 29.06	\$ 4,207,524.00	Buy	Power		IN Hub	Back-to-Back	\$	28.09	\$ 0.97	\$	140,092.00
		144,800.000		\$ 4,207,524.00					Back-to-Back Total				\$	140,092.00
10/1	HE 6-22	844.350	23.11	19,508.75	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/2	HE 6-20	499.402	\$ 24.77	\$ 12,370.39	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	2
10/3	HE 1-9	124.887	\$ 19.62	\$ 2,450.76	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/3	HE 12-13	32.143	\$ 25.13	\$ 807.62	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/3	HE 18-21	162.376	\$ 23.88	\$ 3,877.19	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/3	HE 24	5.098	\$ 23.07	\$ 117.63	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/4	HE 1	26.636	\$ 20.53	\$ 546.87	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	
10/4	HE 3-6	104.925	\$ 19.67	\$ 2,063.55	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/4	HE 9-24	801.063	\$ 25.18	\$ 20,166.84	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/5	HE 2-4	16.734	\$ 20.93	\$ 350.30	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/5	HE 6-23	614.415	\$ 30.57	\$ 18,780.58	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 2.48	\$	1,521.67
10/6	HE 3-4	67.023	\$ 21.57	\$ 1,445.50	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/6	HE 6-18	598.403	\$ 34.19	\$ 20,460.13	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 6.10	\$	3,650.99
10/6	HE 22-23	62.528	\$ 23.15	\$ 1,447.45	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	
10/7	HE 3-23	902.027	\$ 47.40	\$ 42,760.59	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 19.31	\$	17,422.64
10/8	HE 3-4	16.418	\$ 20.75	\$ 340.68	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	1.
10/9	HE 6-17	516.805	\$ 29.82	\$ 15,412.03	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 1.73	\$	894.97
10/9	HE 19-22	57.224	\$ 25.68	\$ 1,469.52	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/10	HE 7-23	881.763	\$ 24.40	\$ 21,511.89	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-
10/11	HE 9-10	55.794	\$ 21.70	\$ 1,210.59	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	
10/11	HE 13-23	487.008	\$ 22.30	\$ 10,862.20	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	14
10/12	HE 6-22	613.832	\$ 40.91	\$ 25,109.54	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 12.82	\$	7,867.01
10/13	HE 7-21	509.302	\$ 28.39	\$ 14,457.20	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 0.30	\$	150.91
10/14	HE 1	6.516	\$ 19.51	\$ 127.12	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	
10/14	HE 7	9.019	\$ 26.21	\$ 236.39	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$	-

Case No. 2016-00006

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 26 of 34

	T	F						т				Revise	d Highest		
									l			1000	it Calc for	Cost Over	
	THE SAME AND ADDRESS OF THE SA	And Plant and a	Pri						F				earing DR	Highest Cost	Total Cost Over
Date	HE	MWH	(\$/M		L	Total Cost	Buy/Sell	Execution	DA/RT	CP	Reason for Purchase	(Ite	em 3)	Unit	Highest Cost Unit
10/14	HE 20-22	159.251	\$	28.52		4,541.22	Buy	Power	Real Time	MISO	Domtar	\$		No.	\$ 67.87
10/14	HE 24	6.287	\$	19.61	100	123.28	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/15	HE 2-3	9.109	\$	16.40		149.40	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/15	HE 5-24	155.209	\$	23.40	100	3,631.57	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ - \$ -
10/16	HE 1-3 HE 5-20	20.499 114.736	\$	20.47	\$	419.69 2.990.90	Buy	Power	Real Time Real Time	MISO	Domtar	\$	28.09	\$ -	\$ - \$ -
10/16	HE 22-24	16.733	\$	23.96	198	400.90	Buy	Power	Real Time	MISO	Domtar Domtar	\$	28.09	\$ -	\$ - \$ -
10/17	HE 1-13		\$	24.23		1,276.42	Buy	Power	Real Time	MISO	Domtar	Ś	28.09	\$ -	\$ - \$ -
10/17	HE 19-23	20.656	\$	26.03	100	537.68	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/18	HE 1-24	96.376	Ś	25.11		2,419.69	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/19	HE 1-24	646.768	Ś	26.32		17,022.73	Buy	Power	Real Time	MISO	Domtar	Ś	28.09	\$ -	\$ -
10/20	HE 2-13	287.669	\$	25.33		7,286.99	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/20	HE 16-21	201.314	\$	27.72	1	5,579.79	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/20	HE 24	19.840	\$	23.89		473.98	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/21	HE 4	1.667	\$	23.24	1	38.73	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/21	HE 6-7	33.632	\$	43.24		1,454.22	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 15.15	\$ 509.50
10/21	HE 15-21	133.221	\$	26.55	\$	3,536.72	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/21	HE 24	6.528	\$	22.91	\$	149.57	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/22	HE 1-2	34.127	\$	21.04	\$	717.89	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/22	HE 7	14.453	\$	29.92	\$	432.40	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 1.83	\$ 26.42
10/22	HE 9-23	442.444	\$	27.46	\$	12,150.49	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/23	HE 4	4.537	\$	20.22	\$	91.74	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/23	HE 12-16	21.644	\$	22.98	\$	497.36	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/24	HE 6	4.116	\$	22.46	\$	92.45	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/24	HE 11-20	54.088	\$	29.64	\$	1,603.05	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 1.55	\$ 83.73
10/25	HE 5-7	11.182	\$	21.33	\$	238.47	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/25	HE 18-21	12.033	\$	37.50	\$	451.26	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ 9.41	\$ 113.26
10/26	HE 2	2.734	\$	18.62	\$	50.90	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/26	HE 5-22	63.104	\$	27.96	\$	1,764.11	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/26	HE 24	3.436	\$	21.30		73.18	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/27	HE 2-3	7.368	\$	19.05		140.39	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/27	HE 5-24	51.853	\$	28.41	100	1,472.95	Buy	Power	Real Time	MISO	Domtar	\$	28.09		\$ 16.39
10/28	HE 1-24	130.104	\$	27.03	\$	3,516.96	Buy	Power	Real Time	MISO	Domtar	\$	28.09		\$ -
10/29	HE 5-10	19.523	\$	25.45	1	496.88	Buy	Power	Real Time	MISO	Domtar	\$		4	\$ -
10/29	HE 13	0.972	\$	22.52		21.88	Buy	Power	Real Time	MISO	Domtar	\$	28.09		\$ -
10/29	HE 19-24	15.203	\$	25.34	100	385.22	Buy	Power	Real Time	MISO	Domtar	\$	28.09	\$ -	\$ -
10/30	HE 1	2.118	\$	22.29	\$	47.21	Buy	Power	Real Time	MISO	Domtar	\$	28.09	•	\$ -
10/30	HE 4-24		\$	29.19	100	1,347.00	Buy	Power	Real Time	MISO	Domtar	\$	28.09		\$ 50.89
10/31	HE 1-24	59.159	\$	22.29	\$	1,318.73	Buy	Power	Real Time	MISO	Domtar	\$	28.09		\$ -
10/1	UE 6 7 10 21	10,998.192	c	22.14	\$	316,835.30	D	Davis	Deel Time	MICO	Domtar Total	-	20.00		\$ 32,376.25 (3)
10/1	HE 6-7,10-21	372.097	\$	23.14	\$	8,609.22	Buy	Power	Real Time	MISO	Economic	\$			\$ -
10/2	HE 6-7,15-17	237.493	7	25.28 23.70		6,002.83	Buy	Power	Real Time	MISO	Economic	\$	- Commission		\$ -
10/3	HE 19-21	67.965	Þ	25.70	>	1,611.00	Buy	Power	Real Time	MISO	Economic	2	28.09	\$ -	\$ -

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 27 of 34

	Т			Т			T				Re	evised Highest		
	1										1000	st Unit Calc for	Cost Over	
Data	l us		Price (\$/MWH)	1	Tatal Cont	D/C - II	Evenution	DA (DT	СР	December 6 - December 1	Po	st-Hearing DR	Highest Cost	Total Cost Over
Date 10/5	HE 16,20-21	MWH 31.885	\$ 26.56		Total Cost	Buy/Sell	Execution	DA/RT		Reason for Purchase	_	(Item 3)	Unit	Highest Cost Unit
10/5	HE 6-12,14,18	255.006	\$ 26.30		846.72 6,654.45	Buy	Power	Real Time Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/7	HE 20-21		\$ 27.12		958.81	Buy	Power	Real Time	MISO	Economic Economic	\$	28.09	\$ -	\$ - \$ -
10/9	HE 7,11-13	66.507	\$ 26.26		1,746.71	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$
10/10	HE 7-8,10-23	462.200	\$ 24.54	20.	11,341.26	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/11	HE 9	2.560	\$ 21.57		55.22	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/11	HE 14-18,23	177571			6,408.22	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/12	HE 6-11		\$ 23.57		10,434.91	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/13	HE 9-11,20	186.691	100		4,636.29	Buy	Power	Real Time	MISO	Economic	Š	28.09	\$ -	\$ -
10/14	HE 7		\$ 26.20		198.40	Buy	Power	Real Time	MISO	Economic	5	28.09	s -	\$ -
10/14	HE 14-22		\$ 24.64	20	1,293.05	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/14	HE 24				344.16	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$	\$ -
10/15	HE 2	10.614			177.17	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$.	\$ -
10/16	HE 1-2	59.942			1,219.36	Buy	Power	Real Time	MISO	Economic	\$	28.09	s .	\$ -
10/16	HE 22-24	65.685	\$ 23.52	3 3	1,545.21	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/19	HE 1-5,8-9,11-18,20		1.4		30,448.15	Buy	Power	Real Time	MISO	Economic	\$	28.09	š -	\$ -
10/20	HE 20		\$ 25.97		82.11	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$.	\$ -
10/21	HE 21		\$ 26.29		53.18	Buy	Power	Real Time	MISO	Economic	\$	28.09	š -	\$ -
10/22	HE 18	21.892	\$ 26.45		578.97	Buy	Power	Real Time	MISO	Economic	Ś	28.09	š -	\$ -
10/23	HE 4		\$ 20.22		612.39	Buy	Power	Real Time	MISO	Economic	Ś	28.09	\$ -	\$ -
10/23	HE 12-14		\$ 24.23		433.22	Buy	Power	Real Time	MISO	Economic	5	28.09	\$ -	\$ -
10/24	HE 6	67.334	\$ 22.46	5	1,512.58	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/24	HE 11-16,20	59.848	\$ 24.80) \$	1,484.20	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/25	HE 5-7	200.118	\$ 21.19	\$	4,240.47	Buy	Power	Real Time	MISO	Economic	5	28.09	Š -	\$ -
10/25	HE 21	3.465	\$ 23.22	\$	80.45	Buy	Power	Real Time	MISO	Economic	\$	28.09	s -	\$ -
10/26	HE 2	13.120	\$ 18.62	\$	244.29	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/26	HE 5,7-18,20-22	543.282	\$ 26.03	\$	14,141.47	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	Š -
10/26	HE 24	1.569	\$ 21.29	\$	33.42	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/27	HE 2-3	9.499	\$ 19.17	\$	182.10	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/27	HE 5-7,10,12-17,20	620.935	\$ 24.75	\$	15,365.16	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/28	HE 5,10-12,16,19-2	684.771	\$ 22.71	\$	15,549.08	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/29	HE 5-10	206.970	\$ 25.16	\$	5,206.97	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/29	HE 19-24	129.138	\$ 25.35	\$	3,273.06	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/30	HE 1	36.240	\$ 22.29	\$	807.82	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/30	HE 4-5,12,14-17,18	479.508	\$ 22.61	\$	10,840.33	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
10/31	HE 1-7,9,11-24	1,331.429	\$ 21.01	. \$	27,975.32	Buy	Power	Real Time	MISO	Economic	\$	28.09	\$ -	\$ -
		8,357.225		\$	197,227.74					Economic Total				\$ -
10/7	HE 12-19	135.723	\$ 68.44	\$	9,288.83	Buy	Power	Real Time	MISO	G2-UO1 (15-07)	\$	28.09	\$ 40.35	\$ 5,476.37
10/7	HE 24	8.000	\$ 30.30	\$	242.39	Buy	Power	Day Ahead	MISO	G2-UO1 (15-07)	\$	28.09	\$ 2.21	
10/8	HE 1	3.000	\$ 57.03	\$	171.09	Buy	Power	Day Ahead	MISO	G2-UO1 (15-07)	\$	28.09	\$ 28.94	1170
		146.723		\$	9,702.31					G2-UO1 (15-07) Total				\$ 5,580.86 (1)
10/4	HE 9-10,12-16,18-2	1,801.657	\$ 24.70	\$	44,505.88	Buy	Power	Real Time	MISO	G2-UO4 (15-07)	\$	28.09	\$ -	\$ -
10/4	HE 11-17	320.902	\$ 31.10	\$	9,979.38	Buy	Power	Real Time	MISO	G2-UO4 (15-07)	\$	28.09	\$ 3.01	\$ 965.25

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 28 of 34

			Price								Co	evised Highest st Unit Calc for ost-Hearing DR	Cost Over Highest Cost	Total Cost Over
Date	HE	MWH	 \$/MWH)	L	Total Cost	Buy/Sell	Execution	DA/RT	CP	Reason for Purchase		(Item 3)	Unit	Highest Cost Unit
10/5	HE 15,17-19	39.354	\$ 32.33		1,272.28	Buy	Power	Real Time	MISO	G2-UO4 (15-07)	\$	28.09	\$ 4.24	\$ 166.83
10/5	HE 24	1.000	\$ 120.97	\$	120.97	Buy	Power	Day Ahead	MISO	G2-UO4 (15-07)	\$	28.09	\$ 92.88	\$ 92.88
10/6	HE 13,15-17	118.197	\$ 56.91	\$	6,726.03	Buy	Power	Real Time	MISO	G2-UO4 (15-07)	\$	28.09	\$ 28.82	\$ 3,405.88
10/7	HE 8-9	171.415	\$ 27.43	\$	4,702.46	Buy	Power	Real Time	MISO	G2-UO4 (15-07)	\$	28.09	\$ -	\$ -
10/7	HE 6-7	215.998	\$ 35.33	\$	7,631.88	Buy	Power	Real Time	MISO	G2-UO4 (15-07)	\$	28.09	\$ 7.24	\$ 1,564.51
		2,668.522		\$	74,938.88					G2-UO4 (15-07) Total				\$ 6,195.35
10/15	HE 5,7-14,16-18,20	1,058.947	\$ 21.57	\$	22,839.24	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	\$ -
10/15	HE 6,15,19	107.809	\$ 30.40	\$	3,277.79	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ 2.31	\$ 249.42
10/16	HE 5,7-8,11-20	359.231	\$ 24.62	\$	8,845.67	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	\$ -
10/16	HE 9-10	18.354	\$ 33.66	\$	617.74	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ 5.57	\$ 102.19
10/17	HE 1-12	340.301	\$ 24.36	\$	8,289.29	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	\$ -
10/17	HE 20-23	124.551	\$ 24.35	\$	3,032.97	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	\$ -
10/17	HE 19	25.532	\$ 34.51	\$	881.12	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ 6.42	\$ 163.92
10/18	HE 1-7,9-15,17-18,:	954.917	\$ 23.51	\$	22,448.89	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ -	\$ -
10/18	HE 8,19	95.654	\$ 36.22	\$	3,464.89	Buy	Power	Real Time	MISO	G2-UO4 (15-08)	\$	28.09	\$ 8.13	\$ 777.97
		3,085.297		\$	73,697.60					G2-UO4 (15-08) Total				\$ 1,293.50
10/27	HE 24	95.573	\$ 21.92	\$	2,094.96	Buy	Power	Real Time	MISO	H1-UO1 (15-09)	\$	28.09	\$ -	\$ -
10/28	HE 1-5,7-9	495.445	\$ 21.36	\$	10,580.50	Buy	Power	Real Time	MISO	H1-UO1 (15-09)	\$	28.09	\$ -	\$ -
10/28	HE 6	75.773	\$ 31.78	\$	2,408.05	Buy	Power	Real Time	MISO	H1-UO1 (15-09)	\$	28.09	\$ 3.69	\$ 279.60
		666.791		\$	15,083.52					H1-UO1 (15-09) Total				\$ 279.60
10/8	HE 24	11.000	\$ 31.48	\$	346.27	Buy	Power	Day Ahead	MISO	To cover load and lack of gen	\$	28.09	\$ 3.39	\$ 37.28
10/9	HE 6,10	34.670	\$ 29.31	\$	1,016.03	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 1.22	\$ 42.16
10/10	HE 9	25.200	\$ 32.26	\$	812.96	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 4.17	\$ 105.09
10/19	HE 6-7,10,19	161.213	\$ 39.91	\$	6,434.45	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 11.82	\$ 1,905.98
10/20	HE 6	17.371	\$ 28.15	\$	489.05	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 0.06	\$ 1.09
10/22	HE 16-17,19	31.815	\$ 28.47	\$	905.88	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 0.38	\$ 12.20
10/24	HE 17-19	29.551	\$ 38.00	\$	1,122.88	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 9.91	\$ 292.80
10/25	HE 20	26.364	\$ 48.33	\$	1,274.15	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 20.24	\$ 533.60
10/26	HE 6-8,19	157.652	\$ 36.18	\$	5,703.37	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 8.09	
10/27	HE 8-9,11,18-19	173.567	\$ 42.30	\$	7,342.01	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 14.21	the state of the s
10/28	HE 6,13-15,17-18,2	284.082	\$ 35.08	\$	9,965.15	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 6.99	
10/30	HE 6-11,13,18	496.505	\$ 36.72	\$	18,233.11	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 8.63	
10/31	HE 8,10	39.006	\$ 30.39	\$	1,185.33	Buy	Power	Real Time	MISO	To cover load and lack of gen	\$	28.09	\$ 2.30	
		1,487.995		\$	54,830.65					To cover load and lack of gen Total				\$ 13,032.87
14170		172,210.745		\$	4,993,115.00	STRUCT OF THE				Grand Total	X21X4			\$ 198,850.43

May 2015 Daily Natural Gas Prices - for Reid CT

Date	Estimated Daily Gas Price (\$/MCF)	
05/01/15	\$3.07	
05/02/15	\$3.03	Lowest Daily Gas Price
05/03/15	\$3.03	
05/04/15	\$3.14	
05/05/15	\$3.09	
05/06/15	\$3.12	
05/07/15	\$3.13	
05/08/15	\$3.14	
05/09/15	\$3.16	
05/10/15	\$3.23	
05/11/15	\$3.23	
05/12/15	\$3.23	
05/13/15	\$3.24	
05/14/15	\$3.25	
05/15/15	\$3.28	
05/16/15	\$3.33	
05/17/15	\$3.33	
05/18/15	\$3.44	
05/19/15	\$3.39	
05/20/15		Highest Daily Gas Price
05/21/15	\$3.42	g 3
05/22/15	\$3.37	
05/23/15	\$3.32	
05/24/15	\$3.32	
05/25/15	\$3.32	
05/26/15	\$3.27	
05/27/15	\$3.22	
05/28/15	\$3.22	
05/29/15	\$3.16	
05/30/15	\$3.06	
05/31/15	\$3.06	
Average	\$3.23	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 30 of 34

June 2015 Daily Natural Gas Prices - for Reid CT

Date	Estimated Daily Gas Price (\$/MCF)	
06/01/15	\$3.10	
06/02/15	\$3.11	
06/03/15	\$3.10	
06/04/15	\$3.08	
06/05/15	\$3.05	Lowest Daily Gas Price
06/06/15	\$3.05	
06/07/15	\$3.05	
06/08/15	\$3.11	
06/09/15	\$3.32	
06/10/15	\$3.41	
06/11/15	\$3.37	
06/12/15	\$3.26	
06/13/15	\$3.26	
06/14/15	\$3.26	
06/15/15	\$3.37	
06/16/15	\$3.42	
06/17/15	\$3.44	Highest Daily Gas Price
06/18/15	\$3.37	
06/19/15	\$3.37	
06/20/15	\$3.37	
06/21/15	\$3.37	
06/22/15	\$3.29	
06/23/15	\$3.32	
06/24/15	\$3.32	
06/25/15	\$3.30	
06/26/15	\$3.26	
06/27/15	\$3.26	
06/28/15	\$3.26	
06/29/15	\$3.26	
06/30/15	\$3.26	
Average	\$3.26	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3 Witness: Nicholas R. Castlen

Page 31 of 34

July 2015 Daily Natural Gas Prices - for Reid CT

Date	Estimated Daily Gas Price (\$/MCF)	
07/01/15	\$3.32	
07/02/15	\$3.49	Highest Daily Gas Price
07/03/15	\$3.43	
07/04/15	\$3.43	
07/05/15	\$3.43	
07/06/15	\$3.31	
07/07/15	\$3.26	
07/08/15	\$3.23	
07/09/15	\$3.21	
07/10/15	\$3.26	
07/11/15	\$3.16	Lowest Daily Gas Price
07/12/15	\$3.16	•
07/13/15	\$3.34	
07/14/15	\$3.48	
07/15/15	\$3.45	
07/16/15	\$3.44	
07/17/15	\$3.33	
07/18/15	\$3.23	
07/19/15	\$3.23	
07/20/15	\$3.37	
07/21/15	\$3.38	
07/22/15	\$3.42	
07/23/15	\$3.43	
07/24/15	\$3.35	
07/25/15	\$3.25	
07/26/15	\$3.25	
07/27/15	\$3.33	
07/28/15	\$3.42	
07/29/15	\$3.43	
07/30/15	\$3.37	
07/31/15	\$3.32	
Average	\$3.34	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 32 of 34

August 2015 Daily Natural Gas Prices - for Reid CT

	Estimated Daily Gas Price	
Date	(\$/MCF)	
08/01/15	\$3.22	
08/02/15	\$3.22	
08/03/15	\$3.32	
08/04/15	\$3.33	
08/05/15	\$3.37	
08/06/15	\$3.32	
08/07/15	\$3.33	
08/08/15	\$3.23	
08/09/15	\$3.23	
08/10/15	\$3.39	
08/11/15	\$3.37	
08/12/15	\$3.42	
08/13/15	\$3.44	Highest Daily Gas Price
08/14/15	\$3.37	
08/15/15	\$3.27	
08/16/15	\$3.27	
08/17/15	\$3.29	
08/18/15	\$3.26	
08/19/15	\$3.29	
08/20/15	\$3.23	
08/21/15	\$3.21	
08/22/15	\$3.11	
08/23/15	\$3.11	
08/24/15	\$3.15	
08/25/15	\$3.20	
08/26/15	\$3.24	
08/27/15	\$3.21	
08/28/15	\$3.18	
08/29/15	\$3.08	Lowest Daily Gas Price
08/30/15	\$3.08	•
08/31/15	\$3.18	
Average	\$3.26	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 33 of 34

September 2015 Daily Natural Gas Prices - for Reid CT

Date	Estimated Daily Gas Price (\$/MCF)	
09/01/15	\$3.23	
09/02/15	\$3.23	
09/03/15	\$3.18	
09/04/15	\$3.18	1
09/05/15	\$3.08	
09/06/15	\$3.08	
09/07/15	\$3.08	1
09/08/15	\$3.22	
09/09/15	- THE CO. A. C.	Highest Daily Gas Price
09/10/15	\$3.20	
09/11/15	\$3.16	
09/12/15	\$3.06	
09/13/15	\$3.06	
09/14/15	\$3.21	
09/15/15	\$3.21	
09/16/15	\$3.16	
09/17/15	\$3.14	
09/18/15	\$3.11	
09/19/15	\$3.01	
09/20/15	\$3.01	
09/21/15	\$3.06	
09/22/15	\$3.08	
09/23/15	\$3.08	
09/24/15	\$3.06	
09/25/15	\$3.02	
09/26/15	\$2.92	Lowest Daily Gas Price
09/27/15	\$2.92	
09/28/15	\$3.09	
09/29/15	\$3.01	
09/30/15	\$2.98	
Average	\$3.10	

Attachment for Response to Staff's Data Request from April 7, 2016 Hearing - Item 3

Witness: Nicholas R. Castlen

Page 34 of 34