2010 WHOLESALE POWER AND TRANSMISSION RATE ADJUSTMENT PROCEEDING

Errata to the Direct Testimony of Gerald G. Froese, Justin Sharp and Melissa A. Seymour Submitted on Behalf of Iberdrola Renewables, Inc.

WP-10-E-IR-01-E1 TR-10-E-IR-01-E1

1. On Page 3, lines 12-17, insert the following new attachments to the table of contents:

ATTACHMENT F – DATA REQUEST RESPONSE IR-BPA-1
ATTACHMENT G – DATA REQUEST RESPONSE IR-BPA-2
ATTACHMENT H – DATA REQUEST RESPONSE IR-BPA-9
ATTACHMENT I – DATA REQUEST RESPONSE IR-BPA-3
ATTACHMENT G – DATA REQUEST RESPONSE IR-BPA-7

- 2. On page 8, line 16, insert the words "attached as Attachment F" after "DR Response IR-BPA-01."
- 3. On page 11, line 10, delete the words "Curtailed to 350 MWh" and insert the words "Curtailed to 550 MWh."
- 4. On page 16, line 22, insert the words "attached as Attachment G" after "DR Response IR-BPA-2."
- 5. On page 29, line 23, insert the words "attached as Attachment H" after "DR Response IR-BPA-9."
- 6. On page 33, line 16, insert the words "attached as Attachment I" after "DR Response IR-BPA-3."
- 7. On page 34, line 15, insert the words "attached as Attachment J" after "DR Response IR-BPA-7."
- 8. On page 44, in the table beginning on line 3, delete the word "East" and insert the word "West." On the same line in that table, delete the word "West" and insert the word "East."
- 9. Insert a new attachment at pages 48-53, with the attached document labeled "Attachment F."

- 10. Insert a new attachment at page 54, with the attached document labeled "Attachment G."
- 11. Insert a new attachment at pages 55-56, with the attached document labeled "Attachment H."
- 12. Insert a new attachment at page 57, with the attached document labeled "Attachment I."
- 13. Insert a new attachment at page 58, with the attached document labeled "Attachment J."

DATE RECEIVED: Friday, February 27, 2009

DIRECTED TO: Bonneville Power Administration

REQUESTOR'S NAME: Lara Skidmore

AGENCY: Iberdrola Renewables

EXHIBIT: TR-10-E-BPA-07

PAGE(S): 7 LINE(S): 2-4

DATA REQUEST:

Please provide support for the statement "[i]n recent years, BPA-TS has observed large and persistent scheduling deviations from generation in the BPA Balancing Authority Area."

RESPONSE:

The statement referenced above is based on BPA staff's experience and judgment with variable generation in the BPA Balancing Authority Area. The attached file (IR-BPA-1_TR-10-#-07.xls) contains the BPA-TS analysis for the period October 2008 through January 2009 showing the potential amount of Intentional Deviation based on the proposed definition in the TR-10 Initial Proposal (see TR-10-E-BPA-02, p. 88). The "Intentional Deviation Summary" sheet depicts the amount of MWh that may be subject to the proposed definition of Intentional Deviation (see Id.), by generator, for each month. The summary sheet also includes a "Wind Fleet Imbalance Summary" which shows the maximum and average hourly combined deviation for all wind plants. The other tables contain data on the number of hours where BPA-TS observed schedule deviations that exceeded the greater of 15% of the schedule or 20 MW for specific months.

Intentional Deviation Summary

MW-hours potentially subject to ID

Station	Oct-08	Nov-08	Dec-08	Jan-09
1	1,254.2	1,126.5	1,166.4	686.0
2	3,811.8	6,049.1	4,620.5	4,103.5
3	0.0	0.0	0.0	0.0
4	203.3	105.9	0.0	174.8
5	1,015.4	700.2	602.6	1,027.4
6	0.0	0.0	0.0	0.0
7	615.8	419.6	935.6	608.0
8	4,771.3	4,931.4	5,424.1	6,961.2
9	411.9	252.0	0.0	696.5
10	209.6	104.4	0.0	88.8
11	156.8	127.0	1,232.5	250.3
12	5,408.4	5,395.5	4,461.0	4,804.2
13	418.8	854.1	2,175.2	1,016.3
Α	509.8	455.3	0.0	0.0
В	0.0	0.0	0.0	0.0
С	0.0	0.0	0.0	0.0
D	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0
F	0.0	0.0	0.0	0.0
Total	18,787.0	20,521.0	20,617.9	20,417.0

Wind Fleet Imbalance Summary

MWs

Max +	604.8	834.0	570.1	526.9
Max -	-450.3	-401.1	-778.2	-699.9
Avg +	33.5	42.8	38.0	30.9
Avg -	-30.5	-29.9	-37.9	-31.4
Overall Avg	3.0	13.0	0.2	-0.5

Note: Stations 1-13 are Wind Generators. A-F are Thermals.

Intentional Deviation Criteria

Negative deviation for 3 or more consecutive hours or positive deviations for 3 or more consecutive hours, if the deviation exceeds the greater of 15% of the schedule or 20 MW for each hour.

		Consecutive Hours with deviations greater than 15% or 20MW for January 2009																1	20 for Janu	MW Jary 200	9			
Count of Imba	alance																							
Station	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
1													3	14	35	638	36	14	3	1				
2										1	2	4	9	19	43	563	51	26	12	6	5	2	1	
3														1	9	724	10							
4													1	7	34	674	21	6	1					
5													4	13	35	652	26	8	4	2				
6															1	743								
7													2	5	25	661	34	12	5					
8	1	1	1	1	1	1	1	2	2	2	2	4	12	28	40	537	46	30	15	9	4	2	1	1
9													2	11	33	649	32	12	5					
10														3	10	718	8	4	1					
11													2	6	25	678	21	12						
12										1	3	7	13	26	47	567	42	20	10	5	2	1		
13													3	7	17	668	24	13	5	4	1	1	1	
A																742	1	1						
В															_	744								
C	1														2	741	1							
D																740	4							
E	ł															742	2							
		_,	_,	_,_	_,	_,_		_	_	_,_		- 45		440	7	742	7	450	0.4	07	40	_	_	
Grand Total	1	1	1	1	1	1	1	2	2	4	7	15	51	140	357	12923	360	158	61	27	12	6	3	1

			MW-Hours for consecutive deviations for January 2009															MW-I			ecutive		ions		
Station	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	Grand Total
1													97.3	162.9	106.8	0.0	87.9	105.8	85.6	39.7					686.0
2										49.0	78.4	181.9	444.3	562.3	390.9	0.0	519.7	735.4	579.9	272.3	207.0	54.4	28.1		4,103.5
3														0.0	0.0	0.0	0.0								0.0
4													40.6	23.5	26.4	0.0	36.4	27.2	20.7						174.8
5													163.1	127.3	181.6	0.0	162.8	169.4	170.7	52.5					1,027.4
6															0.0	0.0									0.0
7													56.6	88.0	67.1	0.0	116.6	130.2	149.5						608.0
8	86.6	101.3	69.0	82.0	74.5	89.9	81.0	195.0	187.7	174.8	134.1	205.7	764.5	953.1	620.9	0.0	744.8	931.5	736.6	394.9	186.0	88.7	33.0	25.6	
9													67.0	84.9	79.0	0.0	139.2	188.8	137.6						696.5
10														0.0	0.0	0.0	22.5	40.8	25.5						88.8
11													72.0	111.9	66.3	0.0	0.0	0.0							250.3
12										34.4	202.8	536.8	607.7	757.2	459.9	0.0	480.0	906.6	529.8	173.3	82.7	33.0			4,804.2
13													94.9	120.3	85.5	0.0	152.8	177.6	158.7	116.7	45.0	42.2	22.6		1,016.3
A																0.0	0.0	0.0							0.0
В															0.0	0.0	0.0								0.0
<u> </u>															0.0	0.0	0.0								0.0
D																0.0	0.0								0.0
E															0.0	0.0	0.0								0.0 0.0
F Grand Total	86.6	101.3	69.0	82.0	74.5	89.9	81.0	195.0	187.7	258.2	415.3	924.4	2 409 0	2,991.4				3,413.3	2 504 5	1 0/0 /	520.7	218.3	83.7	25.6	

Page 50 of 58 WP-10-E-IR-01 TR-10-E-IR-01 DIRECT TESTIMONY OF GERALD G. FROESE, JUSTIN SHARP AND MELISSA A. SEYMOUR

		Consecutive Hours with deviations greater than 15% or 20MW for December 2008																	Cor	nsecuti	ive Ho		ith dev				tnan i	5% 0	or ZUIVIN	N				
nt of Imba	lance																																	1
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1													5	6	11	36	629	38	14	4	1													
2											1_	1	3	7	28	66		64	37	19	11	3												-
3															2	11	721 656	10 30	8															
5														2	16	42 69	584	56	13	2	1	1												
6															10	2	739	2	1		-													-
7														3	6	23		24	9	4	3	1	1	1										-
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A		·													1	5	732	5	1		····													-
В																1	743																	-
С																	744																	
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ation 1 2 3 4 5 6		-16			-13 -	12 -11	for	Dece	embe -8	er 200	29.7 29.7 22.3 68.8	94.6 93.6 83.6 27.9	-4 128.7 166.1 435.9 72.0 371.6	-3 7 219.1 249.9 74.1 78.0 9 481.8	-2 1 177.8 9 395.9 0.0 0.1 122.4 0 92.6 3 483.7 0.0 2 36.6 5 1,018.2 3 316.7	-1 3 197 9 245 0 0 0 0 4 86 6 83 7 398 0 0 0 0 0 0 6 21 2 657 7 199	13353 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 115.9 0 850.6 0 0.0 0 0.0 0 59.4 0 0.0 0 138.5 0 767.7 0 0.0 0 0.0 0 99.5 0 346.2 0 185.0 0 0.0	2 155.8 1,060.8 0.0 47.9 170.8 1,109.0 0.0 0.0 155.9 454.9 287.8	3 137.7 893.4 81.7 132.9 908.5	4 34.0 509.8 74.2 106.1 390.0	55 124.1 56.2 58.7 164.8 35.0 39.4	49.3 77.7	25.5 69.7 5	onse cemb 8 9	per 200 9 10	08	12	13					Gra
ation 1 2 3 4 5 5 6 7 7 8 8 9 10 11 12 13 A B		-16			-13 -	12 -11	for	Dece	embe -8	er 200	29.7 29.7 22.3 68.8	94.6 93.6 83.6 27.9	-4 128.7 166.1 435.9 72.0 371.6	-3 7 219.1 249.9 74.1 78.0 9 481.8	-2 1 177.8 9 395.9 0.0 0.1 122.4 0 92.6 3 483.7 0.0 2 36.6 5 1,018.2 3 316.7	-1 3 197 9 245 0 0 1 86 6 83 7 398 7 398 7 398 7 199 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13353 0 4 0.0.0 7 0.0.0 0 0.0.0 0 0.0.0 1 0.0.0 0 0.0.0 1 0.0.0 0 0 0 0 0 0.0.0 0 0 0 0 0 0.0.0 0 0 0 0 0 0 0.0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 115.9 0 0.0 0 0.0 0 0.0 0 0.0 0 138.5 0 767.7 0 0.0 0 0 0 0.0 0 0 0.0 0 0 0 0.0 0 0 0 0	2 155.8 1,060.8 0.0 47.9 0.0 170.8 1,109.0 0.0 0.0 155.9 287.8 0.0	3 137.7 893.4 81.7 132.9 908.5	4 34.0 509.8 74.2 106.1 390.0	55 124.1 56.2 58.7 164.8 35.0 39.4	49.3 77.7	25.5 69.7 5	onse cemb 8 9	per 200 9 10	08	12	13					Gra
ation 1 2 3 4 4 5 6 7 7 8 9 110 111 112 113 A B B C		-16			-13 -	12 -11	for	Dece	embe -8	er 200	29.7 29.7 22.3 68.8	94.6 93.6 83.6 27.9	-4 128.7 166.1 435.9 72.0 371.6	-3 7 219.1 249.9 74.1 78.0 9 481.8	-2 1 177.8 9 395.9 0.0 0.0 1 122.4 0 92.6 3 483.7 0.0 2 36.6 5 1,018.2 3 316.7	-1 3 197 9 245 0 0 4 86 0 6 6 83 7 398 7 398 7 398 7 398 7 199 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13353 0 4 0.0.0 7 0.0.0 0 0.0.0 0 0.0.0 1 0.0.0 0 0.0.0 1 0.0.0 0 0 0 0 0 0.0.0 0 0 0 0 0 0.0.0 0 0 0 0 0 0 0.0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 115.9 0 850.6 0 0.0 0 0.0 0 0.0 0 59.4 0 767.7 0 0.0 0 0.0 0 99.5 0 346.2 0 185.0 0 0.0	2 155.8 1,060.8 0.0 47.9 0.0 170.8 1,109.0 0.0 0.0 155.9 287.8 0.0	3 137.7 893.4 81.7 132.9 908.5	4 34.0 509.8 74.2 106.1 390.0	55 124.1 56.2 58.7 164.8 35.0 39.4	49.3 77.7	25.5 69.7 5	onse cemb 8 9	per 200 9 10	08	12	13					Gra

					Cons	secutive			ations gre ember 200		n 15% or	20MW					
unt of Imba	alance																
Station	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9
1			1		3	13	43	602	33	17	6	3	1				
2			1	3	7	22	48	507	55	31	23	13	4	3	2	1	1
3			T			1	8	707	5							<u> </u>	[
4					1	7	35	642	28	8							
5			L	1	2	14	48	603	36	10	4	3				L	
6							1	720]							
7			<u> </u>		2	8	18	642	31	16	2	1	1				<u> </u>
8			<u> </u>	2	8	20	42	528	54	32	16	10	5	2	1	1	<u> </u>
9	**********		ļ	1	1	9	30	649	24	6	1					 	<u> </u>
10			ļ	<u></u>	1	2	10	704	4								ļ
11			ļ	1	1	5	20	672	16	6	<u> </u>					ļ	Ļ
12	1	1 1	1 1	5	14	37	69	490	59	28	9	6	1			 	↓
13			11_	1	1	6	14	647	28	13	6	2	1	11_		ļ	ļ
A			ļ	 -		1	4	712	2	1	1					ļ	ļ
В				 	.	1	1		2							 	ļ
Ü			ļ	 			2	715	3	1						ļ	ļ
D			ļ	 			<u>1</u>	719	1							ļ	ļ
E			 -	 -			2 3	718 715	3		<u>-</u>					 	
and Total	1	<u>.</u>	3	14	41	146	399	12409	385	169	68	38	13	6	3	2	<u> — </u>

	MW-Hours for consecutive deviations														Ì			
								for Nov	ember 2	800								
Station	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	Grand Total
1			i	i	147.7	74.0	73.2	0.0	199.4	285.1	234.7	87.4	25.0	i	İ		i	1,126.5
2]	24.8	80.7	337.5	294.7	245.8	0.0	1,220.3	1,424.5	1,259.4	587.8	182.5	140.2	117.7	76.1	57.0	6,049.1
3]]	[0.0	0.0	0.0	0.0		1	[[T	0.0
4		Ī	[[41.1	42.2	22.6	0.0	0.0	0.0	T	[[[Ţ	[T	105.9
5]		25.5	91.5	102.3	2.5	0.0	133.5	96.9	128.4	119.6]]	[700.2
6]	T]		T	0.0	0.0		T	T	T	T		T]	T	0.0
7			Ţ]	55.4	79.3	44.1	0.0	52.7	61.5	79.5	23.4	23.8		[I	419.6
8]		117.1	424.9	436.2	299.0	0.0	842.8	980.3	929.1	546.8	191.5	76.3	44.0	43.4	I	4,931.4
9]	L	50.0	31.3	58.9	33.3	0.0	33.5	20.6	24.4	<u> </u>	L	<u> </u>		<u> </u>	L	252.0
10]	38.9	35.0	30.5	0.0	0.0]						[104.4
11]		31.9	37.0	32.1	26.0	0.0	0.0	0.0		[T	127.0
12	132.9	129.9	169.0	304.1	1,130.6	1,332.5	585.3	0.0	519.5	478.5	399.7	187.4	26.1		[T	5,395.5
13]	23.4	25.0	23.3	36.0	47.5	0.0	181.4	246.2	168.2	53.3	25.0	24.8			Ĺ	854.1
Α]]		0.0	0.0	0.0	201.0	174.3	80.0]		455.3
В]				0.0	0.0	0.0	0.0	I]	[[]	T	0.0
С]]		[0.0	0.0	0.0	0.0		I	I]]	I	0.0
D]]		I	0.0	0.0	0.0	I		I]]	I	0.0
E		1		<u> </u>			0.0	0.0	0.0]		L]			<u> </u>	0.0
F							0.0	0.0	0.0									0.0
Grand Total	132.9	129.9	217.2	634.3	2,359.2	2,523.2	1,409.8	0.0	3,384.1	3,767.8	3,303.4	1,605.7	474.0	241.3	161.7	119.5	57.0	20,521.0

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								Cor	nsecuti	ve Hou		eviations October		than 1	5% or 20N	IW							
Count of Imba	lance	I									101	0010001											
Station	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9
1											5	11	33	634	41	10	6	3	1				
2					1	2	3	3	3	3	8	26	46	558	50	23	15	2	1				
3													7	728	8	1							
4											1	9	32	664	31	5	1	1					
5										1	5	16	50	616	42	11	3						
6														744									
7												5	26	663	31	11	5	2	1				
8									1	4	6	22	52	536	57	31	16	8	5	3	1	1	1
9											3	9	28	663	30	9	1	1					
10										1	2	6	14	707	11	3							
11												7	20	693	18	4	2						
12	1	1	1	1	1	1	1	2	3	11	14	31	58	525	52	25	13	2	1				
13												1	18	682	29	9	4	1					
Α											1	1	9	724	8	1							
В														744									
С													1	743									
D														742	1	1							
E														744									
F													2	740	2								
Grand Total	1	1	1	1	2	3	4	5	7	20	45	144	396	12850	411	144	66	20	9	3	1	1	1

										MW-	Hours fo	r consec	utive dev	/iations	i									1
											fo	r Octobe	r 2008											
Station	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	Grand Total
1											224.5	135.2	132.5	0.0	200.3	259.6	199.1	71.8	31.2					1,254.2
2					27.2	60.2	103.4	145.0	147.7	177.9	417.2	335.7	265.7	0.0	562.2	785.4	667.3	75.5	41.5					3,811.8
3													0.0	0.0	0.0	0.0								0.0
4											31.1	49.5	22.4	0.0	29.7	26.0	24.3	20.3						203.3
5										43.9	186.6	233.3	172.5	0.0	103.1	139.5	136.5							1,015.4
6												0.0	0.0	0.0	400.5	400.4	457.0	05.0	00.5					0.0
/									40.4	407.0	050.0	0.0	0.0	0.0	166.5	188.4	157.0	65.3	38.5	440.0	F0.0	F0 F	00.0	615.8
8									46.1	197.0	253.0	327.6	180.3	0.0	704.7	1,026.1 33.2	1,065.1 28.0	421.9	275.7	142.9	50.8	59.5	20.6	4,771.3
9 10										40.0	104.7	114.2 58.3	83.0	0.0	21.9 0.0		28.0	26.9						411.9
10										42.6	55.3	0.0	53.4 0.0	0.0	48.1	0.0 55.2	53.5							209.6 156.8
12	40.0	39.4	47.2	42.8	40.5	40.3	49.9	101.6	119.6	485.1	1,022.6	856.0	391.3	0.0	762.7	863.4	428.1	55.5	22.4					5,408.4
13	40.0	39.4	41.2	42.0	40.5	40.5	45.5	101.0	119.0	403.1	1,022.0	0.0	0.0	0.0	121.0	130.0	132.0	35.8	22.4					418.8
A											88.0	241.5	180.3	0.0	0.0	0.0	102.0	55.0						509.8
B											00.0	241.5	100.5	0.0	0.0	0.0								0.0
Č													0.0	0.0										0.0
Ď													0.0	0.0	0.0	0.0								0.0
Ē														0.0	0.0	0.0								0.0
F													0.0	0.0	0.0									0.0
Grand Total	40.0	39.4	47.2	42.8	67.7	100.5	153.3	246.6	313.4	946.5	2,383.0	2,351.3	1,481.3	0.0	2,720.2	3,506.8	2,890.9	773.0	409.3	142.9	50.8	59.5	20.6	18,787.0

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DATE RECEIVED: Friday, February 27, 2009

DIRECTED TO: Bonneville Power Administration

REQUESTOR'S NAME: Lara Skidmore

AGENCY: Iberdrola Renewables

EXHIBIT: TR-10-E-BPA-07

PAGE(S): 8 LINE(S): 14-15

DATA REQUEST:

Please provide evidence that the current 125% penalty rate for Intentional Deviations is not an effective price signal to incentivize good scheduling behavior.

RESPONSE:

BPA-TS proposes to increase the Intentional Deviation penalty rate from 125% to 150% of BPA's highest incremental cost that occurs during the day because positive or negative deviations that BPA determines to be excessive or persistent deviations (under the Intentional Deviation criteria, see TR-10-E-BPA-02, p. 88) should be subject to a rate that is higher than the normal rate charged for Deviation Band 3. Further, BPA-TS is concerned about large and persistent scheduling deviations that can adversely impact planning, scheduling, operations, and ultimately the reliability of the federal system. With growth of non-federal generators in the BPA Balancing Authority Area, BPA-TS foresees the potential for excessive or persistent scheduling deviations to result in adverse reliability impacts to the system; thus, the proposed penalty rate is designed to send an effective price signal to incentivize accurate scheduling behavior. TR-10-E-BPA-07, p. 7, lines 1-13 and p. 8, lines 9-15. BPA has no data that responds to this request.

DATE RECEIVED: Friday, February 27, 2009

DIRECTED TO: Bonneville Power Administration

REQUESTOR'S NAME: Lara Skidmore

AGENCY: Iberdrola Renewables

EXHIBIT: Overview of Wind Integration-Within-Hour Balancing Service Rate Proposal Testimony WP-10-E-BPA-22

PAGE(S): 23 LINE(S): 16-18

DATA REQUEST:

Please provide a complete list with associated timelines of the "steps BPA is taking to facilitate the integration of large amounts of wind generation into BPA's BAA."

RESPONSE:

The following initiatives and timelines are subject to change:

I. RESERVE REQUIREMENT CALCULATIONS	
 Rerun for new load forecast 	4/30/09
 Improve Scaling Component 	10/31/11
II. FCRPS WIND STUDIES	
 Scenario analysis 	5/29/09
 Model development 	5/29/09
III. ACE DIVERSITY INTERCHANGE	
 Benefits Analysis 	3/31/09
WECC Analysis	7/31/09
IV. CONNECTING VARIABLE GENERATING RESOURCES	S TO GRID
 Phase I requirements document 	3/16/09
 Phase II implementation 	10/1/09
V. WIND FORECASTING	
 Install 16 additional wind monitoring sites 	7/31/09
 Hour ahead wind forecast 	11/30/09
VI. DYNAMIC SCHEDULING	
 System Studies 	2/26/10
 Reservation & Scheduling design 	5/1/09 - 9/30/09
 Dispatch/Scheduling enhancement 	9/1/09 - 2/26/10
 Hourly ATC controls 	9/30/09

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Operator training	4/1/10 - 6/30/10
Test and Evaluate	2/1/10 - 5/31/10
Operate Pilot	6/1/10 - 10/31/11
Regional Implementation	10/31/11
VII. IMPLEMENT WI WITHIN-HOUR BALANCING SERVIC	CE RATE
 Fiscal Year 2010 Rate Period 	10/01/10
VIII. INTRA-HOUR SCHEDULING	
 Regional Implementation – Business Practices Joint Initiat IX. THIRD PARTY SUPPLY 	tive 10/31/11
 Negotiate with Projects 	7/31/09
 Pilot for Projects located in BPA Balancing Authority 	10/26/09 - 10/19/10
 Pilot for projects not located in BA 	10/1/10 - 9/30/11
Regional Implementation	10/31/11
X. DISPATCH & SCHEDULING SYSTEMS AND TOOLS	9/30/10
XI. WIND RELATED GRID STABILITY MITIGATION ACT	IONS
• 1200 MW sites	10/01/09
• 1200 MW Build/Operate	2/24/10
 Frequency responsive studies 	10/1/09
 Frequency responsive build/operate 	2/24/11
 Large-scale interconnection studies 	10/1/10
XII. I-TAP (Memorandum of Understanding offered by Joint Init	tiative) 8/28/09
(e.g., bulletin board to facilitate intra-hour transactions)	
XIII. LARGE STORAGE PROJECTS & NEW REGULATION F Ongoing	FOLLOWING
(e.g., Pump storage and other research and development)	

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DATE RECEIVED: Friday, February 27, 2009

DIRECTED TO: Bonneville Power Administration

REQUESTOR'S NAME: Lara Skidmore

AGENCY: Iberdrola Renewables

EXHIBIT: TR-10-E-BPA-07

PAGE(S): 18 LINE(S): 16

DATA REQUEST:

What would the proposed rate for Wind Integration – Within Hour Balancing Service be in \$/kW-mo. for 30 minute, 45 minute and 60 minute scheduling persistence?

RESPONSE:

Each of the Wind Integration – Within Hour Balancing Service rates below are estimates based upon the assumptions in the Initial Proposal (including the Operating Reserve forecast based on the current WECC standard for Operating Reserve). *See* Klippstein et al., WP-10-E-BPA-24, Section 4, pp. 12-15:

30 minute persistence scheduling yields a estimated rate of \$1.37/kW-mo

45 minute persistence scheduling yields a estimated rate of \$ 1.73/kW-mo

60 minute persistence scheduling yields a estimated rate of \$ 2.13/kW-mo

DATE RECEIVED: Friday, February 27, 2009

DIRECTED TO: Bonneville Power Administration

REQUESTOR'S NAME: Lara Skidmore

AGENCY: Iberdrola Renewables

EXHIBIT: Overview of Wind Integration-Within-Hour Balancing Service Rate Proposal

Testimony WP-10-E-BPA-22

PAGE(S): 13 LINE(S): 6-8

DATA REQUEST:

Please explain why BPA believes it needs additional authority to require wind generators to comply with BPA reliability and operational requirements.

RESPONSE:

BPA does not believe that it needs additional authority to require wind generators to comply with BPA reliability and operational requirements.