

## **Errata to Exhibit A of Direct Testimony of Douglas R. Brawley on IP-12 Value of Reserves Credit**

Explanation of Errata:

Delete all of Exhibit A as filed on January 21, 2011 (BP-12-E-PN-02-AT01) and replace with the following document (BP-12-E-PN-02-AT01-E01). The wrong document was inadvertently uploaded as Exhibit A to the testimony.

**EXHIBIT A**  
**BPA Contingency Reserves at Times of  
Alcoa Curtailments**

A	B	C	D	E	F	G	H	I	J
Curtailment Event No. <sup>1</sup>	Date	Event Start Time	Duration of Response (minutes)	Ave. of 105 Min. Response (aMW)	BPA CRO <sup>2</sup> (MW @ start/end)	BPA Available Non-Spinning Contingency Reserves Reported to NWPP RSG (MW @ start/end) <sup>3</sup>	Reserves Deployed by BPA (MW @ time) <sup>4</sup>	Reserves Obtained by BPA from NWPP RSG (Peak) <sup>5</sup>	PNGC Power Observed Hourly Mid-C Prices <sup>6</sup>
24	11/24/10 Wed	0843	104	43.1	895 @ 08:43 876 @ 10:27	2186 3309	647 @ 8:43 0 @ 9:37-10:49	0	\$58 HE 9 \$58 HE 10 \$59 HE 11
23	11/04/10 Thu	1000	105+	42.2	763 @ 10:00 757 @ 11:45	3475 3201	763 @ 10:00 0 @ 10:54-24:00	0	\$30 HE 11 \$30 HE 12
22	10/18/10 Mon	1139	100	40.4	711 @ 11:39 672 @ 13:19	2460 3034	569 @ 11:39 0 @ 11:42-19:19	0	\$35 HE 12 \$35 HE 13 \$35 HE 14
21	10/08/10 Fri	0945	22	44.7	628 @ 9:45 617 @ 10:07	3885 3728	0 @ 9:44-13:57	0	\$27 HE10 \$27 HE 11
20	09/01/10 Wed	1324	105+	39.1	775 @ 13:24 770 @ 15:09	6989 7082	554 @ 13:24 0 @ 13:58-24:00	0	\$33 HE 14 \$32 HE 15 \$32 HE 16
19	08/12/10	1356	105+	39.0	863 @ 13:56 857 @ 15:41	3926 4565	439 @ 13:56 0 @ 14:14-24:00	0	\$40 HE 14 \$42 HE 15 \$42 HE 16
18	07/24/10	1512	105+	42.1	793 @ 15:12 753 @ 16:57	3360 3721	755 @ 15:12 0 @ 16:00-24:00	339	\$44 HE 16 \$44 HE 17
17	07/23/10	1256	105+	43.9	784 @ 12:56 805 @ 14:41	3902 4142	403 @ 12:56 < 79 @ 13:00-13:24 478 @ 13:27 < 100 @ 13:29- 24:00	0	\$34 HE 13 \$34 HE 14 \$36 HE 15

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16	07/09/10	1012	105+	43.0	862 @ 10:12 897 @ 11:57	3301 2801	504 @ 10:12 < 10 @ 11:10-11:57	0	\$24 HE 11 \$28 HE 12
15	05/04/10	2054	0	0	708 @ 20:54	4471	263 @ 20:52	0	\$37 HE 21
14	05/04/10	0119	105+	40.0	480 @ 01:19 464 @ 03:04	9320 10263	200 @ 01:19 0 @ 02:00-09:11	0	\$29 HE 2 \$28 HE 3 \$28 HE 4
13	04/10/10	0318	105+	47.9	549 @ 03:18 579 @ 05:03	10295 9849	262 @ 03:18 0 @ 03:41-09:04	0	\$36 HE 4 \$36 HE 5 \$38 HE 6
12	04/07/10	1649	100	43.9	598 @ 16:49 598 @ 18:29	7662 8303	268 @ 16:49 < 200 @ 16:54- 17:00 0 @ 17:00-24:00	0	\$48 HE 17 \$48 HE 18 \$48 HE 19
11	03/16/10	0126	105+	47.0	475 @ 01:26 478 @ 03:11	9300 9276	346 @ 01:26 0 @ 01:48—03:21	0	\$33 HE 2 \$33 HE 3 \$33 HE 4
10	03/10/10	0020	105+	44.2	606 @ 00:20 563 @ 02:05	8383 9191	123 @ 00:20 0 @ 01:00-02:21	0	\$40 HE 1 \$40 HE 2 \$40 HE 3
9	03/06/10	1922	105+	42.0	652 @ 19:22 597 @ 21:07	7491 7785	660 @ 19:22 0 @ 20:00-24:00	0	\$40 HE 20 \$40 HE 21 \$40 HE 22
8	03/02/10	1516	105+	43.1	594 @ 15:16 666 @ 17:01	7533 5382	256 @ 15:16 0 @ 16:00-24:00	1	\$40 HE 16 \$40 HE 17 \$40 HE 18
7	02/25/10	1712	105+	41.8	676 @ 17:12 725 @ 18:57	6743 6340	261 @ 17:12 0 @ 18:00-20:16	0	\$40 HE 18 \$40 HE 19

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6	02/16/10	1616	105	38.5	633 @ 16:16 730 @ 18:01	7815 5064	661 @ 16:16 0 @ 17:00-17:37 < 3 @ 17:37-17:50 0 @ 17:50—24:00	58	\$38 HE 17 \$38 HE 18 \$38 HE 19
5	02/08/10	1204	105+	41.0	678 @ 12:04 657 @ 13:49	6342 6445	401 @ 12:04 0 @ 12:41-15:27	0	\$47 HE 13 \$47 HE 14
4	02/02/10	1037	105+	44.5	698 @ 10:37 645 @ 12:22	5278 6181	35 @ 10:37 < 2 @ 11:00-12:57	1	\$45 HE 11 \$45 HE 12 \$45 HE 13
3 (Test)	01/29/10	0210	105+	40.1	535 @ 02:10 536 @ 03:55	9232 9437	0 @ 00:00-24:00	0	\$42 HE 3 \$42 HE 4
2 (Test)	01/19/10	2010	105+	41.1	659 @ 20:10 599 @ 21:55	6176 8238	0 @ 20:10-20:34 30-126 @ 20:34-21:27 < 10 @ 21:27-24:00	0	\$46 HE 21 \$45 HE 22
1 (Test)	01/11/10	1440	84	34.0	671 @ 14:40 689 @ 16:04	5782	0 @ 14:40-24:00	0	\$46 HE 15 \$46 HE 16 \$47 HE 17

<sup>1</sup> Source: Data in Columns E are taken from a table in downloadable file, provided by BPA in response to PNGC data request PN-BPA-3.

<sup>2</sup> Source: Data showing BPA's calculated contingency reserve obligations at four second intervals provided by BPA to PNGC on disk in response to PNGC data request PN-BPA-3.

<sup>3</sup> Source: BPA reports daily to the NWPP RSG data pertaining to its reserves status. BPA responded to PNGC data request PN-BPA-3 with data on its reported available contingency reserves. BPA's response included data that was estimated; BPA stated that it did not retain historical reserves data reported to the RSG. BPA consented to the release by the NWPP to PNGC of data reported by BPA and archived by NWPP. Based

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on data reported every four seconds by BPA to NWPP RSG, including BPA's total reserves available and its spinning reserves, PNGC subtracted the spinning reserves values from the total reserves available values. The difference between those values is shown in Column G for the start and end times of the reported Alcoa curtailments, unless that values were not different (as for Curtailment Event No. 1.)

<sup>4</sup> Source: Data provided by email by BPA on January 20, 2011 in response to PNGC data request PN-BPA-3.

<sup>5</sup> See Note 4.

<sup>6</sup> Prices in the column are taken from records for those dates and hours prepared and retained in the ordinary course of business by PNGC Power staff.