



# BPA Imbalance Activity Report

## November 2013

MWh of accumulated imbalance

\*Note: Imbalance is the opposite sign of SCE

### Generation Imbalance

	MWh	\$ thousand
wind		
over generation	(32,206)	\$ (854)
under generation	28,837	\$ 920
other		
over generation	(8,957)	\$ (344)
under generation	2,988	\$ 130
total		
over generation	(41,163)	\$ (1,198)
under generation	31,826	\$ 1,050
<b>total:</b>	<b>(9,337)</b>	<b>\$ (148)</b>

### Energy Imbalance

	MWh	\$ thousand
total		
over scheduling	(14,637)	\$ (427)
under scheduling	9,567	\$ 366
<b>total:</b>	<b>(5,070)</b>	<b>\$ (61)</b>

### Persistent Deviation

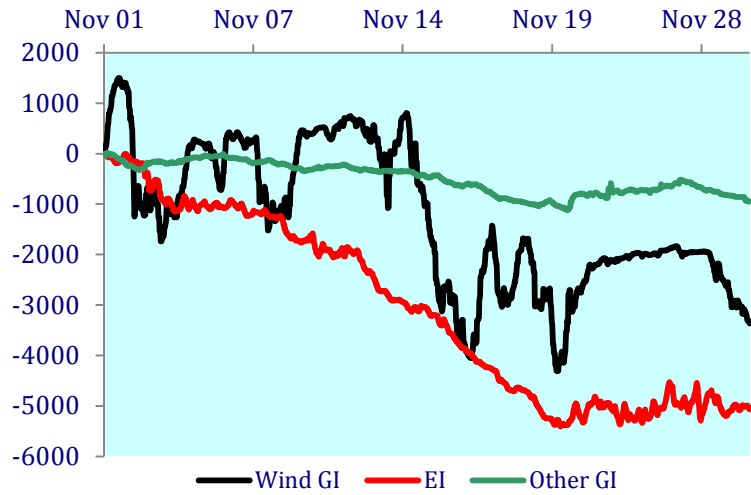
sec 1, 2	events	MWh*	hours*	\$ thousand**
Negative (generation greater than schedule)				
wind	15	620	11	\$ 14
other	0	0	0	\$ -
load	4	419	62	\$ 10
<b>total</b>	<b>19</b>	<b>1039</b>	<b>73</b>	<b>\$ 24</b>
Positive (generation less than schedule)				
wind	16	1139	15	\$ 84
other	0	0	0	\$ -
load	1	153	3	\$ 10
<b>total</b>	<b>17</b>	<b>1292</b>	<b>18</b>	<b>\$ 101</b>

\*exempt hours are excluded

\*\*charge estimate does not include GI and test projects

### Persistent Deviation events and waivers

	2012 Dec	2013 Jan	2013 Feb	2013 Mar	2013 April	2013 May	2013 Jun	2013 July	2013 Aug	2013 Sep	2013 Oct	2013 Nov
events												
total	52	35	35	26	30	50	30	60	34	41	37	37
MWh negative	-4655	-1904	-1487	-1011	-1526	-4880	-1495	-2480	-1943	-3297	-1278	-1039
MWh positive	2470	3130	1567	1393	2122	1372	1289	2867	1514	2095	1436	1292
waiver requests												
total	6	2			2	1						
MWh negative		-1037			-734	-286						
MWh positive	899	108			90							
granted waivers (full)												
total	3	2										
MWh negative	-261	-1037										
MWh positive		108										
granted waivers (partial)												
total												
MWh negative												
MWh positive												



### Persistent Deviation Events

	3-hour	6-hour	12-hour	24-hour	total
Negative (generation greater than schedule)					
wind	14	1	0	0	15
other	0	0	0	0	0
load	0	0	4	0	4
Positive (generation less than schedule) **					
wind	14	2	0	0	16
other	0	0	0	0	0
load	1	0	0	0	1

## Persistent Deviation events and waivers

	2011 Dec	2012 Jan	2012 Feb	2012 Mar	2012 Apr	2012 May	2012 Jun	2012 July	2012 Aug	2012 Sep	2012 Oct	2012 Nov
<b>events</b>												
total	14	14	24	26	40	45	41	46	49	25	47	31
MWh negative	-4539	-476	-1998	-1011	-3999	-2918	-3733	-1873	-2954	-1254	-2530	-3104
MWh positive	1526	855	1165	1393	3683	3378	2030	2559	1722	1345	2982	1073
<b>waiver requests</b>												
total	3		17		21	4		2		1	1	
MWh negative	-2171		-390		-1156					361	26	
MWh positive	296		3309		3341	1184		834				
<b>granted waivers (full)</b>												
total			17		19	2						
MWh negative			-390		-1156							
MWh positive			3309		3097	394						
<b>granted waivers (partial)</b>												
total								1				
MWh negative												
MWh positive								50				

## BPA Imbalance Activity Report reference guide

### Generation Imbalance

Imbalance = Estimated Generation - Actual Generation

over generation                      Estimated Generation < Actual Generation, negative value

under generation                      Estimated Generation > Actual Generation, positive value

### Energy Imbalance

Imbalance = Actual Load - Scheduled Load

over scheduling                      Actual Load < Scheduled Load, negative value

under scheduling                      Actual Load > Scheduled Load, positive value

### Persistent Deviation

Definition

section 1 & 2                      All hours or schedule periods in which either a negative or positive deviation exceeds both 15 % of schedule and 20 MW for three consecutive hours or more or both 7.5 % of schedule and 10 MW for six consecutive hours or more or both 1.5 % of schedule and 5 MW for twelve consecutive hours or more or both 1.5 % of schedule and 2 MW for twenty-four consecutive hours or more in the same directions.

section 3                      A pattern of either positive or negative deviation that occurs generally or at specific times of day.

Penalty

Negative                      No credit is given for negative deviation.

Positive                      For positive deviation, the charge is the greater of 125% of BPA's highest incremental cost that occurs during that day or 100 mills per kilowatt-hour.

*\*charge estimate excludes test projects*                      New projects in test mode (up to 90 days) are exempt from the Persistent Deviation Penalty charge. However, Persistent Deviation events are still tracked.

*\*\*charge estimate does not include GI*                      The Persistent Deviation section of this report shows the penalty component of the charge, i.e. \$100/MWh less GI rate