

NON-CONFIDENTIAL

1 **Request IR-33:**

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3 **Please provide the “hourly shape with a profile based on NS Power historical hourly wind**
4 **generation, fitted using the energy of an equivalent 50 MW wind farm” (CA IR-14(b)),**
5 **from 2014 (CA IR-20), with the assumed output for each hour.**

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7 Response IR-33:

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9 Please refer to **Attachment 1**, also provided electronically.

Table with 27 columns (Year, Month, Day, H1-H24) and 52 rows of data points.

Year	Month	Day	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
2014	12	15	43.53	42.35	26.22	24.31	19.30	9.30	6.60	6.01	7.46	7.94	8.73	9.64	13.57	15.50	14.05	13.47	10.12	8.31	7.70	6.01	5.13	4.49	4.66	4.00
2014	12	16	1.41	0.43	0.43	0.38	0.92	3.14	5.65	8.08	7.21	5.45	3.68	5.61	8.22	16.42	15.88	10.00	10.33	5.82	4.49	5.21	4.94	4.94	4.36	4.88
2014	12	17	5.39	8.15	10.71	11.98	10.51	5.99	6.07	6.99	12.33	11.23	9.29	11.21	10.88	13.53	7.26	4.19	1.80	0.13	0.31	1.22	1.73	4.23	14.78	31.20
2014	12	18	38.97	39.21	35.78	39.42	44.07	46.28	47.16	46.88	43.42	35.74	32.17	33.44	32.01	24.56	22.12	26.27	23.79	16.28	18.89	23.34	27.83	28.42	28.31	29.89
2014	12	19	38.79	45.27	47.67	50.00	45.06	41.21	37.72	34.98	33.05	33.82	33.14	34.15	37.01	39.04	39.93	25.11	14.12	10.38	6.37	5.65	3.05	2.28	2.06	2.37
2014	12	20	3.77	7.05	13.69	19.16	29.19	22.50	20.65	21.10	13.33	17.29	25.23	28.56	38.13	41.69	39.81	40.60	40.96	34.04	32.84	34.54	42.69	42.52	46.06	43.17
2014	12	21	39.27	45.22	40.84	43.01	44.47	44.12	42.46	31.81	15.19	15.14	16.36	19.28	31.75	36.10	39.33	46.19	43.73	38.71	42.26	43.59	46.13	41.88	26.66	38.34
2014	12	22	38.30	32.22	36.62	44.66	42.83	36.52	30.72	28.13	26.76	28.26	25.78	30.02	31.27	36.68	35.40	34.65	31.03	18.32	9.28	7.46	21.63	35.97	39.10	30.13
2014	12	23	26.98	25.89	27.12	22.34	13.93	3.89	2.12	0.84	0.00	0.00	0.92	3.66	3.94	12.66	13.42	4.88	5.79	12.04	11.36	14.88	8.01	9.47	10.59	8.06
2014	12	24	11.83	10.23	9.89	9.62	11.46	4.91	2.51	6.35	7.34	12.43	16.10	26.59	31.51	32.61	30.90	26.03	18.56	8.35	5.61	3.99	6.04	5.45	5.06	4.31
2014	12	25	3.05	2.28	5.86	14.41	12.62	9.46	7.51	7.55	7.51	9.14	8.90	9.28	11.14	13.95	8.43	7.00	7.84	6.16	4.91	4.49	4.94	5.83	6.51	7.49
2014	12	26	8.31	11.17	18.81	21.60	17.51	16.06	16.83	20.34	23.46	23.04	22.72	24.63	26.42	28.97	32.28	24.19	25.00	18.92	12.40	10.58	14.70	18.18	25.67	29.95
2014	12	27	29.49	31.33	39.67	36.97	36.86	41.30	44.60	39.49	21.98	8.14	5.61	5.10	5.88	6.39	5.53	5.19	7.00	3.41	3.14	2.22	2.40	3.85	9.28	23.88
2014	12	28	24.01	20.62	17.88	14.58	17.27	15.45	9.51	12.75	21.03	22.56	23.63	15.21	27.29	44.01	46.77	35.32	32.99	29.74	36.21	39.98	43.23	43.83	44.98	38.45
2014	12	29	7.95	16.34	19.60	16.93	13.63	7.12	5.75	4.88	3.94	3.89	5.39	4.72	4.94	5.10	6.78	7.16	7.49	11.06	14.47	16.39	18.28	26.87	29.32	20.92
2014	12	30	16.64	16.51	20.17	20.00	15.55	14.71	9.45	7.95	10.95	8.57	6.23	5.73	2.51	0.84	0.13	0.00	0.38	0.92	1.18	1.22	1.67	1.57	4.11	5.87
2014	12	31	11.83	10.23	9.89	9.62	11.45	4.91	2.51	6.35	7.34	12.44	16.11	26.62	31.54	32.58	30.93	26.05	18.54	8.35	5.61	3.99	6.04	5.45	5.06	4.31

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1 **Request IR-34:**

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3 **Please provide NS Power's estimate of class hourly loads for 2014, for each above-the-line**
4 **customer class for which NS Power has such data.**

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6 (a) **If NS Power has not constructed class load shapes for that period, please**
7 **provide the hourly load data for the customers metered hourly (without**
8 **identifying information) and from NS Power's load-research metering for**
9 **small-customer classes.**

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11 **Response IR-34:**

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13 Please refer to **Attachment 1**, provided electronically only, for NS Power's estimate of class
14 hourly loads for 2014, for each above-the-line customer class.

**CA IR-34 Attachment 1 has been provided electronically
only.**

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1 **Request IR-35:**

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3 **For the most recent 12-month period for which NS Power has such data, please provide its**
4 **estimate of hourly marginal energy costs, weighted by each of the following load or output**
5 **patterns:**

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7 (a) **Equally across all hours (i.e., total divided by 8760)**
8 (b) **Residential hourly load**
9 (c) **Small General hourly load**
10 (d) **General hourly load**
11 (e) **Large General hourly load**
12 (f) **Small Industrial hourly load**
13 (g) **Medium Industrial hourly load**
14 (h) **Large Industrial hourly load**
15 (i) **Total NS Power load (or above-the-line load, if that is readily available)**
16 (j) **Aggregate wind output on the NS Power system**
17 (k) **Aggregate run-of-river hydro output on the NS Power system**
18 (l) **Hourly expected solar output, if NS Power has any estimate of the hourly pattern of**
19 **output from Nova Scotia solar panels.**

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21 **Response IR-35:**

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	2014 hourly marginal cost weighted by	Cost in \$/MWh
(a)	Equally across all hours	46.6
(b)	Residential hourly load	51.7
(c)	Small General hourly load	49.7
(d)	General hourly load	49.1
(e)	Large General hourly load	47.8
(f)	Small Industrial hourly load	48.9

NSPI Renewable to Retail (NSUARB P-896/M06214)
NSPI Responses to Consumer Advocate Information Requests

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	2014 hourly marginal cost weighted by	Cost in \$/MWh
(g)	Medium Industrial hourly load	47.6
(h)	Large Industrial hourly load	46.4
(i)	Total NS Power load (or above-the-line load)	48.9
(j)	Aggregate wind output on the NS Power system	44.4
(k)	Aggregate run-of-river hydro output on the NS Power system. (Note that aggregate hourly run of river hydro system output for 2014 is not available. For 2014 the Tusket run of river system was used as a representative hourly run of river hourly shape.	47.3

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2 (l) NS Power has no estimate of the 2014 hourly output from Nova Scotia solar panels.