

# **Power**

SUBSCRIPTION >



**☆RIM POWER INTELLIGENCE DAILY** 

★No.2560 Mar 1 2024

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--TOKYO, 16:00 JST Mar 1 2024<Assessment Closing Time>

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#### OReport on adherence to PRA principles

Rim Intelligence uploaded the report of the governance, processes and controls relating to the adherence to the PRA principles outlined by International Organization of Securities Commissions (IOSCO) based on reasonable assurance on Dec 20, 2023. All of the daily reports of Rim Intelligence are subject to the principles. Please visit the following website for perusal. <Reports>

Bunker Oil, Crude/Condensate, Asia Products (Products), LPG, Lorry Rack, Japan Products, Petrochemicals, LNG, Power

https://www.rim-intelligence.co.jp/contents/info/pramenuEng4/

#### **©RECX-22** index

RECX-22 index for Friday was 170.83, down 0.22 points from the previous day.

-----Introduction of Rim reports-----

Please access the URL below for a lineup of Rim reports. You can view sample reports as well as detailed explanations on the contents:

https://eng.rim-intelligence.co.jp/report/

Lineup:

Bunker Oil Crude/Condensate Products

LPG Petrochemicals Polyolefins Biomass (Weekly)
LNG Power Daily Data Rim Data File

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<b>O</b> POWER Market	◎ POWER Market										
ORim Index Day-Ahead Prices											
Mar 2 2024		East Japan		DOD		West Japa:	n	DOD			
24 hours	9.03	-	10.03	-1.25	10.21	-	11.21	+1.16			
Day Time	8.92	-	9.92	-1.70	10.00	-	11.00	+1.14			
Peak Time	6.54	-	7.54	-1.48	5.74	-	6.74	-0.53			
Night Time	9.18	-	10.18	-0.61	10.51	-	11.51	+1.20			
Yen/kWh	•						•				

\*Day Time 08:00-22:00, Peak Time 13:00-16:00, Night Time 0:00-08:00 & 22:00-24:00

ORim Index Forward Pr	ices				
Month	24 hours	DOD	Month	24 hours	DOD
Apr-24	14.19	+0.07	Dec-24	14.80	+0.07
May-24	13.85	+0.07	Jan-25	14.74	+0.05
Jun-24	13.69	+0.06	Feb-25	14.69	+0.06
Jul-24	14.71	+0.05	Mar-25	13.55	+0.05
Aug-24	14.59	+0.05	Apr-25	13.50	+0.05
Sep-24	14.16	+0.06	May-25	13.42	+0.05
Oct-24	13.78	+0.08	Jun-25	13.42	+0.05
Nov-24	13.81	+0.07			

Yen/kWh

\*Nationwide prices based on power generation costs reflecting Rim's estimated spot prices of fuel including Coal, LNG, Crude Oil and C-Fuel and JCC. Marginal costs (fuel costs) are calculated by multiplying the ratio of each fuel used at thermal units of nine leading power utilities by the above power generation costs. Marginal costs are adjusted by the alpha factor calculated based on the historical patterns of marginal costs and spot prices.

ORim Index F	orward Prices	24 hours	Tokyo area an	d Kansai	area				
Month	Tokyo area	DoD	Kansai area	DoD	Month	Tokyo area	DoD	Kansai area	DoD
Apr-24	14.81	+0.09	14.35	+0.05	Dec-24	15.57	+0.08	14.93	+0.06
May-24	14.32	+0.09	14.01	+0.07	Jan-25	15.51	+0.07	14.87	+0.06
Jun-24	14.31	+0.07	13.88	+0.06	Feb-25	15.44	+0.08	14.79	+0.06
Jul-24	15.26	+0.05	14.93	+0.04	Mar-25	14.31	+0.08	13.67	+0.05
Aug-24	15.33	+0.07	14.92	+0.05	Apr-25	14.14	+0.07	13.54	+0.05
Sep-24	15.07	+0.08	14.53	+0.05	May-25	14.00	+0.07	13.42	+0.05
Oct-24	15.06	+0.09	14.39	+0.07	Jun-25	14.21	+0.07	13.45	+0.05
Nov-24	14.66	+0.09	14.06	+0.07					

Yen/kWh

\*Tokyo area and Kansai area prices based on power generation costs reflecting Rim's estimated spot prices of fuel including Coal, LNG, Crude Oil and C-Fuel and JCC. Marginal costs (fuel costs) are calculated by multiplying the ratio of each fuel used at thermal units of nine leading power utilities by the above power generation costs. Marginal costs are adjusted by the alpha factor calculated based on the historical patterns of marginal costs and spot prices.

O JEPX System Prices				
Day	Mar-2-2024		DOD	WOW
24 hours Average	Yen/kWh	9.89	-0.50	+1.08
Day Time Average	Yen/kWh	9.77	-0.87	+1.70
Peak Time Average	Yen/kWh	6.57	-1.62	+1.03
Total Traded Volumes	kWh	681,981,100	-8,692,750	+28,828,600

\*Data are obtained from the JEPX website. Prices are for reference only and not Rim's assessments.

Day Time= 8:00-22:00, Peak Time=13:00-16:00, Average=Simple Average



O Estir	nated Monthl	ly Prices-2	4 hours Ave	rage (Nati	onwide)				Unit: \	en/kWh
	Apr-24	DOD	May-24	DOD	Jun-24	DOD	Jul-24	DOD	Aug-24	DOD
A	8.25	+0.04	8.23	+0.04	9.03	+0.05	9.90	+0.05	11.00	-0.10
С	11.76	+0.49	11.83	-0.01	12.56	-0.01	13.60	-0.02	14.30	-0.01
D	8.06	+0.31	8.06	+0.32	8.85	+0.37	9.80	+0.16	11.16	+0.10
E	9.54	-0.79	9.80	-0.56	9.99	-0.75	10.50	-1.30	10.44	-1.20
G	9.60	0.00	9.47	0.00	10.27	0.00	12.34	0.00	13.83	0.00
Ave.	9.13	-0.25	9.17	-0.17	9.76	-0.24	10.91	-0.42	12.00	-0.19
	Sep-24	DOD	Oct-24	DOD	Nov-24	DOD	Dec-24	DOD	Jan-25	DOD
A	10.15	-0.09	9.48	+0.15	10.18	+0.15	12.48	+0.15	12.95	+0.02
С	12.58	0.00	12.30	-0.01	13.29	-0.01	13.81	0.00	13.99	-0.01
D	10.04	+0.21	9.40	+0.12	10.06	+0.09	12.12	+0.05	12.69	+0.06
E	10.58	-0.88	10.89	-1.01	11.85	-0.98	12.72	-0.89	13.03	-0.87
G	12.00	0.00	10.26	0.00	11.38	0.00	13.31	0.00	13.78	0.00
Ave.	10.91	-0.32	10.21	-0.29	11.14	-0.27	12.84	-0.24	13.25	-0.29
	Feb-25	DOD	Mar-25	DOD	Apr-25	DOD	May-25	DOD	Jun-25	DOD
A	12.05	+0.02	9.60	+0.06	7.91	+0.03	7.56	+0.03	8.26	+0.03
С	11.75	0.00	11.68	-0.85	10.97	+0.65	11.38	-0.01	12.52	-0.01
D	11.76	+0.22	9.55	+0.26	8.27	+0.17	8.00	+0.13	8.69	+0.07
E	12.35	-0.78	11.58	-0.68	10.94	-0.75	10.68	-0.63	11.03	-0.73
G	12.48	0.00	11.10	0.00	9.74	0.00	9.19	0.00	9.99	0.00
Ave.	12.05	-0.04	10.76	-0.21	9.65	+0.26	9.29	-0.17	9.90	-0.22

<sup>\*</sup>Prices are estimated by five retail electricity suppliers shown as A, C, D, E and G. Prices are not Rim's assessments. Ave. is the average excluding the highest and lowest prices.

OEstin	nated Monthl	y Prices-I	Day Time Avo	erage (Na	tionwide)				Unit:	Yen/kWh
	Apr-24	DOD	May-24	DOD	Jun-24	DOD	Jul-24	DOD	Aug-24	DOD
A	8.02	-0.02	8.18	-0.25	10.02	+0.05	12.08	-0.04	13.07	-0.19
С	11.58	+0.49	12.43	-0.01	13.94	-0.01	16.01	-0.01	17.60	-0.01
D	7.91	+0.16	8.21	+0.26	9.75	+0.39	11.79	+0.44	13.21	+0.21
E	8.64	-0.72	9.39	-0.54	10.29	-0.79	11.56	-1.39	11.64	-1.28
G	9.82	0.00	9.77	0.00	11.46	0.00	14.72	0.00	16.18	0.00
Ave.	8.83	-0.24	9.12	-0.26	10.59	-0.25	12.86	-0.40	14.15	0.00
	Sep-24	DOD	Oct-24	DOD	Nov-24	DOD	Dec-24	DOD	Jan-25	DOD
A	11.56	-0.17	10.37	+0.17	11.11	+0.17	13.52	+0.16	14.46	+0.03
С	14.75	0.00	13.42	0.00	13.99	-0.01	14.92	-0.01	17.95	-0.01
D	11.48	+0.04	10.45	-0.05	11.22	-0.11	13.43	-0.18	14.22	+0.02
Е	11.31	-0.96	10.86	-1.03	11.66	-0.98	12.98	-0.91	13.21	-0.87
G	13.68	0.00	11.28	0.00	12.55	0.00	14.66	0.00	15.31	0.00
Ave.	12.24	-0.32	10.86	-0.36	11.81	-0.36	13.87	-0.18	14.66	+0.01
	Feb-25	DOD	Mar-25	DOD	Apr-25	DOD	May-25	DOD	Jun-25	DOD
A	13.20	+0.03	10.31	+0.07	8.70	+0.04	8.36	+0.04	9.29	+0.04
С	12.33	-0.01	11.51	-0.40	10.79	+0.65	11.98	-0.01	13.90	-0.01
D	12.95	+0.10	10.21	+0.16	8.89	+0.16	8.66	+0.12	9.74	+0.06
Е	12.20	-0.77	10.67	-0.63	9.95	-0.68	10.25	-0.61	11.39	+0.24
G	12.96	0.00	11.15	0.00	9.77	0.00	9.24	0.00	10.86	0.00
Ave.	12.75	-0.18	10.71	-0.19	9.54	-0.01	9.38	-0.17	10.66	+0.10

<sup>\*</sup>Average prices during 8:00-20:00 hours on weekdays. Prices are estimated by five retail electricity suppliers shown as A, C, D, E and G. Prices are not Rim's assessments. Ave. is the average excluding the highest and lowest prices.



#### <TOCOM Power Futures, Mar 1 2024>

<b>OTOCOM Pow</b>	er Futures Eas	st Japan Base	Load Power l	Day Time (8:4	5 <b>~</b> 15:15)		Unit: Ye	n/kWh
Month	Pv Close	Open	High	Low	Settle	DOD	Volume	Close
Mar-2024	9.12	-	-	-	9.29	+0.17	-	9.29
Apr-2024	8.89	-	-	-	9.01	+0.12	-	9.01
May-2024	8.97	-	-	-	9.09	+0.12	-	9.09
Jun-2024	9.97	-	-	-	10.06	+0.09	-	10.06
Jul-2024	10.46	-	-	-	10.54	+0.08	-	10.54
Aug-2024	12.42	-	-	-	12.29	-0.13	-	12.29
Sep-2024	10.93	-	-	-	10.83	-0.10	-	10.83
Oct-2024	10.53	-	-	-	10.63	+0.10	-	10.63
Nov-2024	11.29	-	-	-	11.41	+0.12	-	11.41
Dec-2024	13.25	-	-	-	13.36	+0.11	-	13.36
Jan-2025	13.67	-	-	-	13.62	-0.05	-	13.62
Feb-2025	12.62	-	-	-	12.64	+0.02	-	12.64
Mar-2025	10.42	-	-	-	10.40	-0.02	-	10.40
Apr-2025	9.18	-	-	-	9.18	0.00	-	9.18
May-2025	8.95	-	-	-	8.95	0.00	-	8.95
Jun-2025	9.69	-	-	-	9.70	+0.01	-	9.70
Jul-2025	10.76	-	-	-	10.77	+0.01	-	10.77
Aug-2025	12.69	-	-	-	12.64	-0.05	-	12.64
Sep-2025	10.90	-	-	-	10.86	-0.04	-	10.86
Oct-2025	9.50	-	-	-	9.51	+0.01	-	9.51
Nov-2025	10.52	-	-	-	10.55	+0.03	-	10.55
Dec-2025	12.78	-	-	-	12.80	+0.02	-	12.80
Jan-2026	13.56	-	-	-	13.52	-0.04	-	13.52
Feb-2026	13.01	-	-	-	12.92	-0.09	-	12.92
Total							-	

OTOCOM Pow	ver Futures We	est Japan Bas	e Load Power	Day Time (8:	45~15:15 <u>)</u>		Unit: Ye	en/kWh
Month	Pv Close	Open	High	Low	Settle	DOD	Volume	Close
Mar-2024	8.05	-	-	-	8.06	+0.01	-	8.06
Apr-2024	7.22	-	-	-	7.25	+0.03	-	7.25
May-2024	7.14	-	-	-	7.19	+0.05	-	7.19
Jun-2024	7.73	-	-	-	7.79	+0.06	-	7.79
Jul-2024	9.14	-	-	-	9.21	+0.07	-	9.21
Aug-2024	9.90	-	-	-	9.91	+0.01	-	9.91
Sep-2024	9.14	-	-	-	9.15	+0.01	-	9.15
Oct-2024	8.27	-	-	-	8.41	+0.14	-	8.41
Nov-2024	8.83	-	-	-	8.99	+0.16	-	8.99
Dec-2024	10.99	-	-	_	11.15	+0.16	-	11.15
Jan-2025	11.71	-	-	-	12.04	+0.33	-	12.04
Feb-2025	10.90	-	-	-	11.14	+0.24	-	11.14
Mar-2025	8.67	-	-	-	8.90	+0.23	-	8.90
Apr-2025	7.36	-	-	-	7.40	+0.04	-	7.40
May-2025	7.04	-	-	-	7.08	+0.04	-	7.08
Jun-2025	7.69	-	-	-	7.74	+0.05	-	7.74
Jul-2025	9.13	-	-	-	9.17	+0.04	-	9.17
Aug-2025	10.76	-	-	-	10.80	+0.04	-	10.80
Sep-2025	9.06	-	-	-	9.07	+0.01	-	9.07
Oct-2025	7.54	-	-	-	7.59	+0.05	-	7.59
Nov-2025	8.62	-	-	-	8.68	+0.06	-	8.68
Dec-2025	10.95	-	-	-	11.03	+0.08	-	11.03
Jan-2026	12.05	-	-	-	12.13	+0.08	-	12.13
Feb-2026	11.41	-	-	-	11.49	+0.08	-	11.49
Total							-	<u> </u>



<b>OTOCOM Pow</b>	er Futures Ea	st Japan DT I	oad Power D	ay Time (8:45	~15:15)		Unit: Yen/kWh	
Month	Pv Close	Open	High	Low	Settle	DOD	Volume	Close
Mar-2024	9.03	-	-	-	9.19	+0.16	-	9.19
Apr-2024	8.71	-	-	-	8.83	+0.12	-	8.83
May-2024	9.02	-	-	-	9.10	+0.08	-	9.10
Jun-2024	10.35	-	-	-	10.49	+0.14	-	10.49
Jul-2024	12.60	-	-	-	12.60	0.00	-	12.60
Aug-2024	14.49	-	-	-	14.29	-0.20	-	14.29
Sep-2024	12.70	-	-	-	12.53	-0.17	-	12.53
Oct-2024	11.57	-	-	-	11.60	+0.03	-	11.60
Nov-2024	12.52	-	-	-	12.57	+0.05	-	12.57
Dec-2024	14.65	-	-	-	14.69	+0.04	-	14.69
Jan-2025	15.02	-	-	-	15.04	+0.02	-	15.04
Feb-2025	13.68	-	-	-	13.75	+0.07	-	13.75
Mar-2025	10.89	-	-	-	10.97	+0.08	-	10.97
Apr-2025	9.96	-	-	-	9.99	+0.03	-	9.99
May-2025	9.69	-	-	-	9.73	+0.04	-	9.73
Jun-2025	10.80	-	-	-	10.85	+0.05	-	10.85
Jul-2025	12.57	-	-	-	12.61	+0.04	-	12.61
Aug-2025	14.67	-	-	-	14.67	0.00	-	14.67
Sep-2025	12.31	-	-	-	12.32	+0.01	-	12.32
Oct-2025	10.64	-	-	-	10.66	+0.02	-	10.66
Nov-2025	11.84	-	-	-	11.86	+0.02	-	11.86
Dec-2025	14.26	-	-	-	14.26	0.00	-	14.26
Jan-2026	15.02	-	-	-	15.07	+0.05	-	15.07
Feb-2026	14.21	-	-	-	14.22	+0.01	-	14.22
Total							-	

OTOCOM Pow	er Futures W	est Japan DT	Load Power I	Day Time (8:4	5 <b>~</b> 15:15)		Unit: Ye	n/kWh
Month	Pv Close	Open	High	Low	Settle	DOD	Volume	Close
Mar-2024	7.92	-	-	-	7.95	+0.03	-	7.95
Apr-2024	7.11	-	-	-	7.10	-0.01	-	7.10
May-2024	7.40	-	-	-	7.30	-0.10	-	7.30
Jun-2024	9.15	-	-	-	9.24	+0.09	-	9.24
Jul-2024	10.98	-	-	-	11.05	+0.07	-	11.05
Aug-2024	11.92	-	-	-	11.93	+0.01	-	11.93
Sep-2024	10.25	-	-	-	10.25	0.00	-	10.25
Oct-2024	9.32	-	-	-	9.44	+0.12	-	9.44
Nov-2024	9.91	-	-	-	10.05	+0.14	-	10.05
Dec-2024	12.21	-	-	-	12.34	+0.13	-	12.34
Jan-2025	13.41	-	-	-	13.60	+0.19	-	13.60
Feb-2025	12.21	-	-	-	12.45	+0.24	-	12.45
Mar-2025	9.53	-	-	-	9.76	+0.23	-	9.76
Apr-2025	7.81	-	-	-	7.85	+0.04	-	7.85
May-2025	7.62	-	-	-	7.66	+0.04	-	7.66
Jun-2025	8.68	-	-	-	8.73	+0.05	-	8.73
Jul-2025	10.26	-	-	-	10.31	+0.05	-	10.31
Aug-2025	12.15	-	-	-	12.19	+0.04	-	12.19
Sep-2025	9.75	-	-	-	9.78	+0.03	-	9.78
Oct-2025	8.07	-	-	-	8.10	+0.03	-	8.10
Nov-2025	9.38	-	-	-	9.42	+0.04	-	9.42
Dec-2025	12.20	-	-	-	12.25	+0.05	-	12.25
Jan-2026	13.24	-	-	-	13.30	+0.06	-	13.30
Feb-2026	12.42	-	-	-	12.48	+0.06	-	12.48
Total							-	

### <EEX Japanese Power Futures-Tokyo, Feb 29 2024 >

∘EEX Japanese	Power Futures To	okyo Baseload-Da	ay	∘EEX Japanese	Power Futures T	okyo Peakload-D	ay
Name	Settlement Price	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
29/02/2024	10.31	-	10	29/02/2024	10.43	-	0
01/03/2024	10.78	480	20	01/03/2024	11.09	-	0
02/03/2024	9.06	-	0	02/03/2024	-	-	0
03/03/2024	8.72	-	0	03/03/2024	-	-	0
04/03/2024	10.05	-	0	04/03/2024	-	-	0
05/03/2024	9.99	-	0	05/03/2024	-	-	0
06/03/2024	10.13	-	0	06/03/2024	-	-	0
∘EEX Japanese	Power Futures T	okyo Baseload-W	eekend	○EEX Japanese	Power Futures T	okyo Peakload-W	eekend
Name	Settlement Price	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
WkEnd 02/03	8.89	-	0	WkEnd 09/03	-	-	0
∘EEX Japanese	Power Futures T	okyo Baseload-W	eek	○EEX Japanese	Power Futures T	okyo Peakload-W	eek eek
Name	Settlement Price	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
Week 9/24	9.84	-	5	Week 9/24	10.25	-	0
Week 10/24	9.84	-	5	Week 10/24	9.78	-	0
Week 11/24	9.44	-	0	Week 11/24	8.92	-	0
Week 12/24	8.76	-	0	Week 12/24	7.86	-	0
Week 13/24	9.65	-	0	Week 13/24	9.45	-	0
∘EEX Japanese	Power Futures To	okyo Baseload-M	onth	∘EEX Japanese	Power Futures T	okyo Peakload-M	onth
Name	Settlement Price	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
Mar-24	9.43	2,232	1,254	Mar-24	9.16	-	241
Apr-24	9.13	-	200	Apr-24	8.95	-	52
May-24	9.22	-	141	May-24	9.23	-	26
Jun-24	10.14	-	78	Jun-24	10.68	2,640	72
Jul-24	10.69	26,040	35	Jul-24	12.97	-	11
Aug-24	12.08	-	2	Aug-24	14.12	-	0
Sep-24	10.82	-	0	Sep-24	12.46	-	1
Oct-24	10.81	-	5	Oct-24	11.73	-	1
Nov-24	11.50	-	5	Nov-24	-	-	0
∘EEX Japanese	Power Futures T	okyo Baseload-Qı	uarter	∘EEX Japanese	Power Futures T	okyo Peakload-Q	uarter
Name	<b>Settlement Price</b>	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
2/24	9.49	-	270	2/24	9.60	-	24
3/24	11.20	2,208	443	3/24	13.20	2,232	436
4/24	11.95	19,872	158	4/24	12.98	-	10
1/25	12.15	-	123	1/25	13.11	-	59
∘EEX Japanese	Power Futures To	okyo Baseload-Se	ason	∘EEX Japanese	Power Futures T	okyo Peakload-Se	eason
Name	<b>Settlement Price</b>	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
Sum-24	10.35	131,760	866	Sum-24	11.40	-	170
Win-24	12.05	39,312	947	Win-24	13.04	-	168
Sum-25	10.36	-	50	Sum-25	-	-	0
Win-25	11.35	-	50	Win-25	-	_	0

Settlement Price: Yen/kWh, Volume: MWh, Open Interest: MW

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#### < EEX Japanese Power Futures-Kansai, Feb 29 2024>

∘EEX Japanese	Power Futures K	ansai Baseload-W	Veek	<b>EEX Japanese</b>	Power Futures K	ansai Peakload-V	Veek
Name	Settlement Price	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
Week 9/24	8.76	-	10	Week 9/24	8.48	-	0
Week 10/24	8.72	-	0	Week 10/24	9.20	-	0
Week 11/24	8.59	-	0	Week 11/24	8.64	-	0
Week 12/24	8.68	-	2	Week 12/24	8.66	-	0
Week 13/24	8.31	-	2	Week 13/24	7.91	1	0
○EEX Japanese	Power Futures K	ansai Baseload-M	Ionth	<b>©EEX Japanese</b>	Power Futures K	ansai Peakload-N	Ionth
Name	Settlement Price	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
Mar-24	8.57	-	311	Mar-24	8.63	-	106
Apr-24	7.28	-	66	Apr-24	7.14	-	10
May-24	7.31	-	24	May-24	7.47	-	4
Jun-24	7.91	-	23	Jun-24	9.39	-	24
Jul-24	9.51	-	6	Jul-24	11.43	-	0
Aug-24	9.68	-	12	Aug-24	11.87	-	0
Sep-24	9.26	-	9	Sep-24	10.19	-	1
Oct-24	8.53	-	12	Oct-24	9.59	-	16
∘EEX Japanese	Power Futures K	ansai Baseload-Q	uarter	<b>©EEX Japanese</b>	Power Futures K	ansai Peakload-Q	Quarter
Name	<b>Settlement Price</b>	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
2/24	7.50	8,736	70	2/24	7.98	-	3
3/24	9.49	-	81	3/24	11.20	-	48
4/24	9.63	-	11	4/24	10.71	-	42
1/25	10.78	-	2	1/25	12.00	-	25
∘EEX Japanese	Power Futures K	ansai Baseload-S	eason	<b>EEX Japanese</b>	Power Futures K	ansai Peakload-S	eason
Name	Settlement Price	Volume Trade	Open Interest	Name	Settlement Price	Volume Trade	Open Interest
Sum-24	8.50	4,392	118	Sum-24	9.59	-	17
Win-24	10.20	4,368	119	Win-24	11.32	-	20

Settlement Price: Yen/kWh, Volume: MWh, Open Interest: MW

#### **Market Summary**

#### **O**Summary

### <Day-ahead delivery Mar 2>

#### West Japan marks Yen 18 level, outperforms East

Rim Index for Day-ahead delivery slid in East Japan, but turned higher in West Japan. For Mar 2 delivery, the 24-hour average weakened by Yen 1.25 from Mar 1 to Yen 9.53 in East Japan, but strengthened by Yen 1.16 to Yen 10.71 in West Japan. The East-West spread was at Yen 1.18 in favor of the West, flipping into a reverse pattern from a gap of Yen 1.23 in favor of the East for Mar 1 delivery.

By time zone, the day time average stumbled by Yen 1.70 from Mar 1 to Yen 9.42 in East Japan, but ascended by Yen 1.14 to Yen 10.50 in West Japan. The peak time average retreated by Yen 1.48 to Yen 7.04 in East Japan and by Yen 0.53 to Yen 6.24 in West Japan. The night time average slumped by Yen 0.61 to Yen 9.68 in East Japan, but advanced by Yen 1.20 to Yen 11.01 in West Japan.

Meanwhile, the 24-hour average, and the intraday high and low in prices by area for Mar 2 delivery were shown in the below table.

	Hokkaido	DoD	Tohoku	DoD	Tokyo	DoD
	9.06	-1.72	9.04	-1.74	9.73	-1.05
	Chubu	DoD	Hokuriku	DoD	Kansai	DoD
24 hours	10.95	+0.53	10.98	+0.99	10.98	+1.35
Average	Chugoku	DoD	Shikoku	DoD	Kyushu	DoD
	10.98	+1.35	10.98	+1.35	9.57	+1.68
	10.90	+1.55	10.50	11.55	7.57	11.00
	System P	DoD	10.50	11.55	7.51	11.00

Area	Hokkaido	Tohoku	Tokyo	Chubu	Hokuriku
High Price	12.87	12.84	15.20	18.66	18.66
Low Price	3.12	3.12	4.65	4.65	6.44
Area	Kansai	Chugoku	Shikoku	Kyushu	System P
High Price	18.66	18.66	18.66	18.66	15.20
Low Price	6.44	6.44	6.44	0.01	4.81

XUnit : Yen∤kWh

For delivery on Mar 2, spot prices in East Japan posted a typical pattern for weekends amid slowing demand for high and extra-high voltage power from offices, factories and schools on Saturday. On the other hand, West Japan extended gains mainly in evening hours onward. The strength could have mirrored the temperature trends as well as

maintenance shutdowns of mega coal-fired power plants.

The weather on Mar 2 was forecast to be mostly sunny mainly on the Pacific Ocean side. Clouds would cover the Japan Sea side with snow or rain expected especially from Hokuriku to North Japan. But solar power supply would be generally expected in both East Japan and West Japan. Meanwhile, the highest temperature on Mar 2 was forecast to drop from Mar 1 widely across Japan to around 10 degrees in Kanto and further west. Especially, the day's high would fall to mid-winter levels of 6 degrees in Matsue in Shimane prefecture and 7 degrees in Fukuoka, so that heating demand was likely to pick up. Mirroring such weather conditions and temperature trends, spot prices lacked upward momentum in midday (08:00-16:00 hours), but chased upside from 16:00 hours onward led by West Japan.

In the JEPX auction, volumes of offers for Mar 2 delivery were 1,117.27 mil kWh, up 7.5% from Mar 1. Meanwhile, volumes of bids increased by 0.8% to 895.76 mil kWh. Offers outstripped bids in 38 windows.

During 08:00-16:00 hours, spot prices softened in four areas from Hokkaido to Chubu. Especially, three areas in East Japan declined steeply. Hokkaido and Tohoku failed to maintain double digits in any of midday windows as price decoupling newly took place during the time zone. On the other hand, five areas from Hokuriku to Kyushu headed north. Especially, Kyushu accelerated the rally after escaping from Yen 0.01 in more windows than Mar 1. Still, Kyushu was glued to Yen 0.01 in six windows during 12:00-15:00 hours, leaving the midday average depressed compared with other areas. Elsewhere, price decoupling between Tokyo and Chubu occurred in four windows during the time zone, pegging West Japan above East Japan during the decoupling.



Furthermore, the Chubu-Kansai border witnessed decoupling in one window. As a result, Kansai outperformed Chubu, posting a different price movement from the past patterns.

	Hokkaido	DoD	Tohoku	DoD	Tokyo	DoD
	6.96	-3.06	6.96	-3.05	7.30	-2.71
08:00-16:00	Chubu	DoD	Hokuriku	DoD	Kansai	DoD
Average	7.61	-0.94	7.72	+0.23	7.72	+0.23
	Chugoku	DoD	Shikoku	DoD	Kyushu	DoD
	7.72	+0.23	7.72	+0.23	3.49	+1.22

During 16:00-22:00 hours, spot prices tumbled in Hokkaido and Tohoku. The weakness came as the Tohoku-Tokyo decoupling occurred throughout evening windows. On the contrary, seven areas from Tokyo to Kyushu gained ground. Especially, six areas in West Japan stretched rises. West Japan rose sharply from Mar 1 to mark the Yen 16 level in a series of windows, hitting the intraday high of Yen 18.66 in one window during 17:30-18:00 hours. A source at a power producer and supplier said, "The Yen 18 level looks a bit overdone for weekends. The strength may have come from thermal units or weather conditions, but we are at a loss without any clear clues."

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	Hokkaido	DoD	Tohoku	DoD	Tokyo	DoD
	10.74	-1.86	10.93	-1.67	13.01	+0.41
16:00-22:00	Chubu	DoD	Hokuriku	DoD	Kansai	DoD
Average	15.28	+2.33	15.28	+2.63	15.28	+2.63
	Chugoku	DoD	Shikoku	DoD	Kyushu	DoD
	15.28	+2.63	15.28	+2.63	15.28	+2.63

XUnit ∶Yen/kWh

Night time prices moved in an opposite direction between East Japan and West Japan. Three areas in East Japan turned lower, but six areas in West Japan climbed up. The contrast reflected the fluctuation in price decoupling.

	Hokkaido	DoD	Tohoku	DoD	Tokyo	DoD
	9.73	-0.56	9.55	-0.74	9.72	-0.57
Night Time	Chubu	DoD	Hokuriku	DoD	Kansai	DoD
Average	11.01	+0.61	11.01	+0.61	11.01	+1.49
	Chugoku	DoD	Shikoku	DoD	Kyushu	DoD
	11.01	+1.49	11.01	+1.49	11.01	+1.49

XUnit : Yen/kWh

For Mar 2 delivery, price decoupling occurred at five cross-area interconnections as follows. Price decoupling for 1.5 hours (3 windows) between Hokkaido and Tohoku, up 1 window from Mar 1. Price decoupling for 10 hours (20 windows) between Tohoku and Tokyo after no decoupling for Mar 1 delivery. Price decoupling for 16 hours (32 windows) between Tokyo and Chubu, up 12 windows from Mar 1. Price decoupling only for 0.5

hour (1 window) between Chubu and Kansai. Price decoupling for 6 hours (12 windows) between Chugoku and Kyushu, down 2 windows from Mar 1. (For further details on price decoupling, please refer to the tables in "JEPX Day-Ahead Spot Data" and graphs in "JEPX Day-Ahead Spot Price Charts" as shown below.

In relation to thermal power plants, a total of 10 units would be sent off line on Mar 2, including four units with a combined capacity of 1,694.6MW in East Japan and six units with a combined capacity of 3,198MW in West Japan. Meanwhile, five units would be restarted on Mar 2, including two units with a combined capacity of 630.6MW in East Japan and three units with a combined capacity of 1,520.5MW in West Japan.

Meanwhile, one thermal unit in West Japan was scheduled to enter output controls on Mar 2. (For details, please refer to the below section of "Thermal Power Plant Situation".)

Citing the price trends for next week, a source at a power producer and supplier said, "The overall prices will remain almost stable from the current range. Spot prices can be choppy amid unstable weather conditions at the turn of the seasons, at a time when an increasing number of thermal units suspended operation. Such a situation was clearly reflected in West Japan for Mar 2 delivery. Despite that, I believe spot prices will have limited upside potential.

#### Genkai No3 reactor returns to normal Feb 29

Kyushu EPC announced on Feb 29 that it sent back to normal operation the 1,180MW No3 PWR (Pressurized Water Reactor) at its Genkai nuclear power station in Saga prefecture on the same day after passing the comprehensive load performance test as the final phase of regular maintenance that started on Nov 10, 2023. After resuming power generation on Feb 2, the reactor was under controlled operation to check performance of key facilities.

Temperatures forecast to drop across Japan Mar 2

According to the weather forecast released by the Japan Meteorological Agency at 11:00 hours on Mar 1, the highest temperature in major cities in East Japan on Mar 2 would be at 10 degrees in Tokyo, 6 degrees lower than Mar 1, 5 degrees in Sendai, down 5 degrees, and minus 3 degrees in Sapporo, down 5 degrees. In West Japan, the day's high was forecast to be at 9 degrees in Osaka, down 4 degrees, 8 degrees in Nagoya, down 5 degrees, and 7 degrees in Fukuoka, down 3 degrees. The lowest temperature on Mar 2 was forecast to be at 3 degrees in Tokyo, 2 degrees lower than Mar 1, minus 1 degree in Sendai, down 5 degrees, minus 7 degrees in Sapporo, down 3 degrees, 2 degrees in Osaka and Nagoya, both down 5 degrees, and 3 degrees in Fukuoka, down 5 degrees.

Meanwhile, the weather in major cities on Mar 2 was forecast to be partly cloudy with sunshine in Tokyo, cloudy in Sendai, cloudy mixed with snow

in Sapporo, partly cloudy with sunshine in Osaka and Nagoya, and cloudy in Fukuoka.

According to the weekly forecast for Mar 2-8 by the Japan Meteorological Agency, the weather during the period would be as follows.

Across North Japan as well as the Japan Sea side from East Japan to West Japan, the weather was forecast to be cloudy, rainy or snowy mostly during the week.

On the Pacific Ocean side in East Japan, the weather would be sunny or cloudy on Mar 4, but turn rainy or snowy on Mar 5-6. Clouds were expected to loom on Mar 7-8.

On the Pacific Ocean side in West Japan, the weather was forecast to be cloudy or rainy during Mar 4-6. A clear sky would be widely witnessed on Mar 7-8.

#### **OThermal Power Plant Situation**

#### JERA restarts Higashi Ohgishima No2 unit Mar 1

JERA sent back on line the 1,000MW No2 unit at its Higashi Ohgishima LNG-fired power station in Tokyo on Mar 1. The unit entered a planned shutdown since 22:00 hours on Feb 28 for a glitch at the boiler related facility, with a restart originally planned on Mar 2.

On Mar 2, a total of 10 units would be shut down as mentioned in Market Commentary, including four units with a combined capacity of 1,694.6MW in East Japan and six units with a combined capacity of 3,198MW in West Japan. Among suspended units, two units would enter regular maintenance including Chugoku EPC's 1,000MW No1 unit at its Misumi coal-fired power station and Kyushu EPC's Reihoku coal-fired power station. The Reihoku No2 unit was scheduled to return

from the maintenance on Jul 4, following by a restart of the Misumi No1 unit planned on Jul 23. Meanwhile, five units would be sent back in service on Mar 2, including two units with a combined capacity of 630.6MW in East Japan and three units with a combined capacity of 1,520.5MW in West Japan.

#### Thermal units to enter output controls

J-POWER was poised to curtail output at the 1,050MW No2 unit at its Tachibanawan coal-fired power station in Shikoku starting Mar 2 for the AH (Air Heater) cleansing. The unit would return to operation on Mar 3.

Shutdown and restart plans between Mar 3 and Mar 5 were shown in the below table.



Company	lants:Operation 1	Area	Fuel	Unit	Output(kW)	Outage	Period	Restart	Update	Remarks
Shutdown					1.1.					
	Hirono	Tokyo	Oil	No.2	600,000	Planned	02-Mar-24 19:00	04-Mar-24	1-Mar-24 11:40	Suspension due to testing of other units
JERA Company	Futtsu	Tokyo	Gas	No.4-3	507,000	Planned	02-Mar-24 0:00	04-Mar-24	15-Feb-24 13:18	Turbine-related equipment
	Yokohama	Tokyo	Gas	No.8-4	377,000	Planned	02-Mar-24 0:00	03-Mar-24	8-Feb-24 16:04	Turbine-related equipment
	Kawagoe	Chubu	Gas	No.4-5	243,000	Planned	02-Mar-24 6:30	02-Mar-24	26-Feb-24 16:22	Boiler-related equipment
Chugoku Electric Power Company	Misumi	Chugoku	Coal	No.1	1,000,000	Planned	02-Mar-24 0:00	23-Jul-24	14-Feb-24 13:19	Periodic Inspection
Kyusyu Electric Power Company	Reihoku	Kyusyu	Coal	No.2	700,000	Planned	02-Mar-24 0:00	04-Jul-24	9-Mar-23 15:09	Periodic self- inspection
J-POWER	Tachibanawan	Shikoku	Coal	No.2	1,050,000	Output reduction	02-Mar-24 0:25	03-Mar-24	20-Feb-24 13:19	"Our control number: TWA-23- 110 Maximum suppression: 525,000? Minimum suppression amoun: 525,000? AH Flush"
East Japan Railway Company	Kawasaki	Tokyo	Gas	No.4	210,600	Planned	02-Mar-24 0:00	02-Mar-24	20-Feb-24 14:25	Fire Fighting Equipment Inspection
Kobelco Power Kobe Company	Kobe	Kansai	Coal	No.2	700,000	Planned	02-Mar-24 1:00	04-Mar-24	22-Mar-23 13:20	Repair stop
Senboku Natural Gas	Control or Dollate	V	G.	No.3	277,500	Planned	02-Mar-24 8:00	02-Mar-24	17-Jan-24 13:11	GT ancillary equipment
Power Generation	Senboku-Daiichi	Kansai	Gas	No.4	277,500	Planned	02-Mar-24 8:00	03-Mar-24	10-Jan-24 16:54	System-related
Restart	-				•		•	·	•	
	Kashima	Tokyo	Gas	No.7-2	420,000	Planned	01-Mar-24 22:00	02-Mar-24	1-Mar-24 13:09	GT-related facilities
ERA Company	Kawagoe	Chubu	Gas	No.4-5	243,000	Planned	02-Mar-24 6:30	02-Mar-24	26-Feb-24 16:22	Boiler-related equipment
	Hekinan	Chubu	Gas	No.5	1,000,000	Planned	09-Feb-24 10:00	02-Mar-24	22-Feb-24 15:44	Boiler-related equipment
East Japan Railway Company	Kawasaki	Tokyo	Gas	No.4	210,600	Planned	02-Mar-24 0:00	02-Mar-24	20-Feb-24 14:25	Fire Fighting Equipment Inspection
Senboku Natural Gas Power Generation	Senboku-Daiichi	Kansai	Gas	No.3	277,500	Planned	02-Mar-24 8:00	02-Mar-24	17-Jan-24 13:11	GT ancillary equipment

Thermal Power Plants:Operation forecast Mar 3

Company	Plant	Area	Fuel	Unit	Output(kW)	Outage	Period	Restart	Update	Remarks
Shutdown										
JERA Company	Hirono	Tokyo	Coal	No.6	600,000	Output reduction	03-Mar-24 8:00	03-Mar-24	2-Feb-24 11:53	Unit Characterization Verification Test Average reduction 420,000 kW Maximum degradation: 420,000kW Minimum reduction 420,000 kW
	Futtsu	Tokyo	Gas	No.1-7	165,000	Planned	03-Mar-24 0:00	03-Mar-24	8-Feb-24 16:04	Inspection of electrical equipment
Chugoku Electric Power	Yanai	Chugoku	Gas	No.2-1	198,000	Planned	03-Mar-24 7:00	03-Mar-24	14-Feb-24 13:53	Fire extinguishing equipment inspection
Company			Chugoku	Gas	No.2-2	198,000	Planned	03-Mar-24 7:00	03-Mar-24	14-Feb-24 13:54
Restart										
	Hirono	Tokyo	Coal	No.6	600,000	Output reduction	03-Mar-24 8:00	03-Mar-24	2-Feb-24 11:53	Unit Characterization Verification Test Average reduction 420,000 kW Maximum degradation: 420,000kW Minimum reduction 420,000 kW



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ı										
JERA Company	Futtsu	Tokyo	Gas	No.1-7	165,000	Planned	03-Mar-24 0:00	03-Mar-24	8-Feb-24 16:04	Inspection of electrical equipment
	Chiba	Tokyo	Gas	No.2-3	360,000	Planned	01-Mar-24 0:00	03-Mar-24	8-Feb-24 14:37	Electrical equipment
	Cinoa	Tokyo	Gas	No.2-4	360,000	Planned	01-Mar-24 0:00	03-Mar-24	8-Feb-24 14:39	Electrical equipment
	Yokohama	Tokyo	Gas	No.8-4	377,000	Planned	02-Mar-24 0:00	03-Mar-24	8-Feb-24 16:04	Turbine-related equipment
Chugoku Electric Power	Vanai	Chugoku	Gas	No.2-1	198,000	Planned	03-Mar-24 7:00	03-Mar-24	14-Feb-24 13:53	Fire extinguishing equipment inspection
Company	Yanai	Chugoku	Gas	No.2-2	198,000	Planned	03-Mar-24 7:00	03-Mar-24	14-Feb-24 13:54	Fire extinguishing equipment inspection
Kyusyu Electric Power Company	Karita	Kyusyu	Coal	New No.1	360,000	Planned	01-Mar-24 9:00	03-Mar-24	8-Feb-24 13:16	Systematic work
J-POWER	Tachibanawan	Shikoku	Coal	No.2	1,050,000	Output reduction	02-Mar-24 0:25	03-Mar-24	20-Feb-24 13:19	Our control number: TWA-23- 110 Maximum suppression: 525,000? Minimum suppression amount: 525,000? AH Flush
	Senboku-Daiichi	Kansai	Gas	No.3	277,500	Planned	02-Mar-24 8:00	03-Mar-24	10-Jan-24 16:53	System-related
Senboku Natural Gas	Sendoku-Danchi	Nansai	Gas	No.4	277,500	Planned	02-Mar-24 8:00	03-Mar-24	10-Jan-24 16:54	System-related
Power Generation	Senboku-Daini	Vancai	Kansai Gas	No.1	277,000	Planned	01-Mar-24 8:00	03-Mar-24	10-Jan-24 13:46	System-related
	Sensoku-Daini	Kansal		No.2	277,000	Planned	01-Mar-24 8:00	03-Mar-24	10-Jan-24 13:48	System-related

Thermal Power Plants:Operation forecast Mar 4

Thermal Power Pi	Plant		Fuel	Unit	Out and MA	0.1	Period	Restart	TT- data	Remarks
Company	Plant	Area	ruei	Unit	Output(kW)	Outage	Period	Kestart	Update	Kemarks
Shutdown										
Kansai Electric Power Company	Nanko	Kansai	Gas	No.3	600,000	Planned	04-Mar-24 11:30	04-Mar-24	29-Jan-24 19:31	Generator work
Kyusyu Electric Power Company	Shin-Oita	Kyusyu	Gas	No.1-6	120,000	Planned	04-Mar-24 0:00	04-Jun-24	9-Mar-23 15:32	For periodic voluntary inspections
Syunan Power Company	Tokuyama-Higashi	Chugoku	Coal	No.3	300,000	Unplanned	04-Mar-24 11:00	08-Mar-24	01-Mar-24 16:05	For biomass burner open inspection
Nippon Steel	Kashima	Tokyo	Coal	-	475,000	Planned	04-Mar-24 3:40	02-Jul-24	26-Feb-24 10:33	For periodic voluntary inspections
Restart										
JERA Company	Hirono	Tokyo	Oil	No.2	600,000	Planned	02-Mar-24 19:00	04-Mar-24	1-Mar-24 11:40	Suspension due to testing of other units
	Futtsu	Tokyo	Gas	No.4-3	507,000	Planned	02-Mar-24 0:00	04-Mar-24	15-Feb-24 13:18	Turbine-related equipment
Kansai Electric Power Company	Nanko	Kansai	Gas	No.3	600,000	Planned	04-Mar-24 11:30	04-Mar-24	29-Jan-24 19:31	Generator work
Kobelco Power Kobe-Daini Co.,Ltd.	Kobe	Kansai	Coal	No.2	700,000	Planned	02-Mar-24 1:00	04-Mar-24	22-Mar-23 13:20	Repair stop

Thermal Power Plants:Operation forecast Mar 5

Company	Plant	Area	Fuel	Unit	Output(kW)	Outage	Period	Restart	Update	Remarks	
Shutdown							•			•	
JERA Company	Chita	Chubu	Gas	No.5	700,000	Planned	05-Mar-24 0:00	25-May-24	15-Nov-23 13:43	Regular maintenance	
Restart											
None											

#### **OForward Prices (Fuel Price Trends)**

#### Forward prices rally as LNG, coal strengthen

Rim Index for forward prices stretched a rally on Mar 1. As for fuel price trends before yen conversion on Feb 29, Rim's DES Northeast Asia LNG prices and FOB Newcastle Australia thermal coal prices gained ground, and forward prices also followed suit. Meanwhile, Rim's JCC (Japan Crude Cocktail) forecast and C-Fuel prices in Asia eased back, paring the gain in forward prices.

On Feb 29, Dubai paper swaps, a criterion used to forecast the JCC, fell back by \$0.12-0.24 from Feb 28. Dubai paper swaps stood in the low \$81 level per barrel for April 2024, the mid \$80 level for May

2024, and the high \$71 level for June 2025. On Feb 29, the NYMEX WTI contract for April 2024 ended at \$78.26, extending slides by \$0.28 from Feb 28. The Chicago Purchasing Managers' Index (PMI) in February fell, contrary to market forecasts. The PMI fell below the 50 mark that separates contraction to growth for a third straight month. The PMI index indicated a slowdown in the economy, raising worries over shrinking oil demand and spurring sell-offs in crude futures.

In the international crude oil market as of 17:00 hours Tokyo time on Mar 1, the NYMEX WTI contract for April 2024 traded at \$78.46 while the ICE Brent contract for May 2024 hovered at \$82.20.

The DES Northeast Asia LNG market gained further ground on Feb 29. LNG prices advanced to the high \$8 level per mmBtu for prompt April, May and June 2024 arrival. A sustained rally in European natural gas prices jacked up the LNG market in Northeast Asia. Meanwhile, oversupply sentiment in Northeast Asia was apparently alleviated by a series of spot buying led by Chinese players amid perceptions the recent declines made LNG prices attractive.

In the thermal coal market on Feb 29, FOB Newcastle prices ended at \$132.25 per ton for the April 2024 contract, up \$1.50 from Feb 28. The May 2024 contract settled up \$2.10 at \$132.10 while the June 2025 contract was \$0.65 higher at \$128.70.

Fuel prices on a yen-converted basis were calculated as follows. Crude prices (JCC + petroleum and coal tax) pulled back to Yen 81,310 for the front month of April 2024, down Yen 570 from Feb 29. Compared to the front month, prices for June 2024 were Yen 370 higher, but prices for June 2025 were Yen 7,560 lower. For C-Fuel (import price + import tax + petroleum and coal tax), prices for April 2024 were Yen 880 lower at Yen 95,000. Compared to the front month, prices for June 2024 were Yen 2,920 lower and prices for June 2025 were Yen 11,720 lower. For LNG (mixture of JCC and DES Northeast Asia spot price + petroleum and coal tax), prices for April 2024 were Yen 640 higher at Yen 93,800. Compared to the front month, prices for June 2024 were Yen 4,650 lower and prices for June 2025 were Yen 5,240 lower. For coal (FOB Newcastle price + freight cost + petroleum and coal tax), prices for April 2024 were Yen 250 higher at Yen 22,950. Compared to the front month, prices for June 2024 were equal, but prices for June 2025 were Yen 540 lower.

#### **OTOCOM Power Futures Summary**

#### March kicks off with no deals, settlements rise

On the Tokyo Commodity Exchange (TOCOM) on Mar 1, no deals were confirmed in the day time (8:45-15:15 hours) and off-floor block sessions. TOCOM observed no transactions for a fourth straight day.

The settlement prices on Mar 1 mostly turned higher. The upward trends apparently mirrored a recent firmness in gas prices.

In day time (08:45-15:15 hours) trade as of 15:15 hours on Mar 1, bids and offers were shown in the below table. Base load attracted an increasing number of bids and offers in both East Japan and West Japan on Feb 29. But many of those bids and offers were withdrawn on Mar 1.



Contract	East	area	baselo	ad	West	area	Baselo	oad	East are	ea da	y time	load	West area day time load			
Months	Offer	lot	Bid	lot	Offer	lot	Bid	lot	Offer	lot	Bid	lot	Offer	lot	Bid	lot
Mar-24	10.10	10	8.60	20	-	-	-	-	-	-	-	-	-	-	-	,
Apr-24	9.30	5	8.50	15	7.60	10	7.00	5	9.20	20	8.25	5	7.20	5	6.60	5
May-24	9.30	5	8.50	10	7.50	10	6.90	5	9.10	20	8.40	5	-	-	-	-
Jun-24	-	-	9.50	10	-	-	-	-	-	-	-	-	-	-	-	-
Jul-24	-	-	10.00	2	-	-	-	-	-	-	-	-	-	-	-	-
Aug-24	12.90	10	10.80	10	-	-	-	-	-	-	-	-	-	-	-	-
Sep-24	-	-	9.78	10	-	-	-	-	-	-	-	-	-	-	-	-

UnitYen/kWh. lot:100kWh

#### **OEEX Power Futures Summary**

#### February renews record high transaction volumes

On the OTC trading platform for power futures launched by the European Energy Exchange (EEX), a combined 41MW was transacted in Tokyo and Kansai after 17:00 hours on Feb 29. In Tokyo, base load changed hands in 3MW for March 2024. The price was at Yen 9.40. Meanwhile, peak load (08:00-20:00 hours on weekdays) fetched Yen 10.65 in 5MW for June 2024.

For the third quarter (July-September) 2024, base load and peak load were traded in 1MW and 3MW, respectively. The prices were at Yen 11.20 for base load and Yen 13.20 for peak load. Meanwhile, base load was priced at Yen 11.85 in 2MW for the fourth quarter (October-December) 2024.

Elsewhere, base load observed transactions in 18MW and 3MW, respectively, for Summer (April-September) and Winter (October-March) 2024. The prices were at Yen 10.35 for Summer and Yen 12.05 for Winter.

In Kansai, base load changed hands in 1MW each for Summer and Winter 2024. The prices were at Yen 8.50 for Summer and Yen 10.20 for Winter. Meanwhile, base load fetched Yen 7.50 in a combined 4MW for the second quarter (April-June) 2024.

Including those deals, the monthly transaction volumes in February expanded by 19.6% from the

previous month to 6,684GWh, renewing the monthly record for a third straight month. The combined trade volumes in January and February totaled 12,270GWh and already achieved 67% of the annual transaction volume of 18,299GWh in 2023.

In the trade on Mar 1, a combined 223MW was transacted in Tokyo as of 17:00 hours. For daily contracts, base load was traded in 25MW for delivery on Mar 2, 2024. The price was at Yen 9.90, up Yen 0.17 from the 24-hour average in Tokyo at Yen 9.73 settled in the day-ahead spot market on JEPX. In addition, base load witnessed deals in 20MW each for delivery on Mar 4, Mar 5 and Mar 6, 2024. The price was at Yen 10.35 for all of those dates.

For the 10th week (Mar 3-10) and the 11th week (Mar 11-17) 2024, base load changed hands in 5MW and 20MW, respectively. The prices were at Yen 9.95 for the 10th week and Yen 9.70-9.80 for the 11th week. Meanwhile, base load was priced at Yen 9.40 in a combined 43MW for March 2024.

For the third quarter 2024, base load and peak load were transacted in 15MW and 45MW, respectively. The prices were at Yen 11.15 for base load and Yen 13.20 for peak load. Elsewhere, peak load was traded in 5MW each for Summer and Winter 2024. The prices were at Yen 11.54 for Summer and Yen 13.28 for Winter.





Trade Date	Area	Item	Delivery	Price	Lot	Volume
Feb 29	Tokyo	base load	Mar-24	9.40	3	2,232
Feb 29	Tokyo	peak load	Jun-24	10.65	5	1,200
Feb 29	Tokyo	base load	3Q-24 (Jul-Sep)	11.20	1	2,208
Feb 29	Tokyo	base load	4Q-24 (Oct-Dec)	11.85	2	4,416
Feb 29	Tokyo	peak load	3Q-24 (Jul-Sep)	13.20	3	2,232
Feb 29	Tokyo	base load	Sum-24 (Apr-Sep)	10.35	2	8,784
Feb 29	Tokyo	base load	Sum-24 (Apr-Sep)	10.35	1	4,392
Feb 29	Tokyo	base load	Sum-24 (Apr-Sep)	10.35	15	65,880
Feb 29	Tokyo	base load	Win-24 (Oct-Mar)	12.05	2	8,736
Feb 29	Tokyo	base load	Win-24 (Oct-Mar)	12.05	1	4,368
Feb 29	Kansai	base load	2Q-24 (Apr-Jun)	7.50	2	4,368
Feb 29	Kansai	base load	2Q-24 (Apr-Jun)	7.50	2	4,368
Feb 29	Kansai	base load	Sum-24 (Apr-Sep)	8.50	1	4,392
Feb 29	Kansai	base load	Win-24 (Oct-Mar)	10.20	1	4,368
Mar 1	Tokyo	base load	2/Mar-24	9.90	25	600
Mar 1	Tokyo	base load	4/Mar-24	10.35	20	480
Mar 1	Tokyo	base load	5/Mar-24	10.35	20	480
Mar 1	Tokyo	base load	6/Mar-24	10.35	20	480
Mar 1	Tokyo	base load	10W-24 Mar 4-10	9.95	5	840
Mar 1	Tokyo	base load	11W-24 Mar 11-17	9.80	10	1,680
Mar 1	Tokyo	base load	11W-24 Mar 11-17	9.70	10	1,680
Mar 1	Tokyo	base load	Mar-24	9.40	2	1,488
Mar 1	Tokyo	base load	Mar-24	9.40	5	3,720
Mar 1	Tokyo	base load	Mar-24	9.40	5	3,720
Mar 1	Tokyo	base load	Mar-24	9.40	2	1,488

#### \_\_ RIM INTELLIGENCE

Power



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Mar 1	Tokyo	base load	Mar-24	9.40	10	7,440
Mar 1	Tokyo	base load	Mar-24	9.40	6	4,464
Mar 1	Tokyo	base load	Mar-24	9.40	4	2,976
Mar 1	Tokyo	base load	Mar-24	9.40	2	1,488
Mar 1	Tokyo	base load	Mar-24	9.40	2	1,488
Mar 1	Tokyo	base load	Mar-24	9.40	5	3,720
Mar 1	Tokyo	base load	3Q-24 (Jul-Sep)	11.15	3	6,624
Mar 1	Tokyo	base load	3Q-24 (Jul-Sep)	11.15	12	26,496
Mar 1	Tokyo	peak load	3Q-24 (Jul-Sep)	13.20	9	6,696
Mar 1	Tokyo	peak load	3Q-24 (Jul-Sep)	13.20	36	26,784
Mar 1	Tokyo	peak load	Sum-24 (Apr-Sep)	11.54	5	7,440
Mar 1	Tokyo	peak load	Win-24 (Oct-Mar)	13.28	5	7,200

Price: Yen/kWh, Lot: MW, Volume: MWh

#### ○JEPX Day-Ahead Spot Data ○Sell/Buy

Mar 2 delivery	24 hours	DoD	Day Time	DoD	Peak Time	DoD	Night Time	DoD
Sell	1,117,271,100	7.5%	735,198,400	11.6%	192,399,450	10.4%	382,072,700	0.3%
Buy	895,759,150	0.8%	545,860,250	-2.5%	110,140,700	-10.3%	349,898,900	6.4%

XUnit :kWh

#### **OTrade Volume**

Mar 2 delivery	24 hours	Day Time	Peak Time	Night time
Trade volumes	681,981,100	427,155,050	94,217,250	254,826,050
DoD	-1.3%	-2.5%	-6.0%	0.9%

**X**Unit : kWh

#### OEast Japan Average Prices(50Hz) and West Japan Average Prices(60Hz)

Mar 2 delivery	High	DoD	Low	DoD	Day Time	DoD	Peak Time	DoD	Night Time	DoD	0:00-8:00	DoD	22:00-24:00	DoD
East Japan	15.20	1.3%	3.12	-58.9%	9.42	-15.3%	7.04	-17.4%	9.68	-5.9%	9.70	-7.6%	9.63	1.9%
West Japan	18.66	24.4%	0.01	0.0%	10.50	12.2%	6.24	-7.8%	11.01	12.2%	10.95	12.1%	11.26	12.7%
Price spread (East-West)	-3.4	6	3.1	1	-1.08	3	0.80	)	-1.33	3	-1.25		-1.63	

XUnit ∶Yen/kWh

#### OPrice Divergence by Region

For Mar 2 delivery, price divergence occurred in five regions shown as below:

Tokyo-Chubu (Frequency Converter)

Hokkaido-Tohoku (Hokkaido-Honshu Line)

Tohoku-Tokyo (Soma-Futaba Line)

Chubu-Kansai (Mie-Higashi Omi Line)

Chugoku-Kyushu (Kanmon Line)

Mar 2 Delivery(Frequency Converter:Tokyo(50Hz)-Chubu(60Hz))

Xven/kWh

Mar 2 Deliver	Tar 2 Delivery(Frequency Converter:Tokyo(50Hz)-Chubu(60Hz))									
Time	System	Tokyo	Chubu	Price spread	Price spread	with System				
Time	Prices	TUKYU	Chubu	(Tokyo-Chubu)	(Tokyo-S)	(Chubu-S)				
0:30~1:00	9.54	9.53	9.82	-0.29	-0.01	0.28				
1:00~1:30	9.50	9.18	9.88	-0.70	-0.32	0.38				
1:30~2:00	9.50	9.17	9.86	-0.69	-0.33	0.36				
2:00~2:30	9.73	9.18	10.37	-1.19	-0.55	0.64				
2:30~3:00	9.92	9.18	10.59	-1.41	-0.74	0.67				
3:00~3:30	10.00	9.00	11.58	-2.58	-1.00	1.58				
3:30~4:30	10.00	9.03	12.00	-2.97	-0.97	2.00				
4:00~4:30	9.91	9.00	10.52	-1.52	-0.91	0.61				
4:30~5:00	9.69	9.32	10.37	-1.05	-0.37	0.68				
5:00~5:30	9.91	9.91	10.37	-0.46	0.00	0.46				
6:00~6:30	10.80	10.80	11.29	-0.49	0.00	0.49				
6:30~7:00	11.70	11.00	14.40	-3.40	-0.70	2.70				
7:00~7:30	10.75	10.93	12.56	-1.63	0.18	1.81				
7:30~8:00	10.00	10.46	11.25	-0.79	0.46	1.25				
12:00~12:30	5.00	4.81	6.44	-1.63	-0.19	1.44				
12:30~13:00	4.81	4.65	6.50	-1.85	-0.16	1.69				
13:00~13:30	5.00	6.00	6.79	-0.79	1.00	1.79				
15:30~16:00	7.99	8.12	8.85	-0.73	0.13	0.86				
17:00~17:30	11.70	11.07	15.00	-3.93	-0.63	3.30				
17:30~18:00	15.20	12.25	18.66	-6.41	-2.95	3.46				
18:00~18:30	15.20	12.27	18.31	-6.04	-2.93	3.11				
18:30~19:00	15.20	15.20	16.15	-0.95	0.00	0.95				
19:00~19:30	15.00	15.20	16.15	-0.95	0.20	1.15				
19:30~20:00	15.00	15.20	16.15	-0.95	0.20	1.15				
20:00~20:30	15.00	15.20	16.04	-0.84	0.20	1.04				
20:30~21:00	15.00	15.20	18.00	-2.80	0.20	3.00				
21:00~21:30	15.00	14.50	16.15	-1.65	-0.50	1.15				
21:30~22:00	11.50	10.69	13.44	-2.75	-0.81	1.94				
22:00~22:30	11.00	10.55	14.11	-3.56	-0.45	3.11				
22:30~23:00	10.00	9.40	10.67	-1.27	-0.60	0.67				
23:00~23:30	9.91	9.34	10.45	-1.11	-0.57	0.54				
23:30~24:00	9.09	8.99	9.82	-0.83	-0.10	0.73				

#### Mar 2 Delivery(Hokkaido-Honshu Line:Hokkaido-Tohoku)

Xyen/kWh

Time	System Prices	Hokkaido	Tohoku	Price spread (Hokkaido-Tohoku)	Price spread (Hokkaido-S)	with System (Tohoku-S)
16:00~16:30	8.47	8.45	8.50	-0.05	-0.02	0.03
20:30~21:00	15.00	8.45	10.78	-2.33	-6.55	-4.22
23:00~23:30	9.91	12.87	9.34	3.53	2.96	-0.57



#### Mar 2 Delivery(Soma-Futaba Line:Tohoku-Tokyo)

Xyen/kWh

6:30~7:00 11.70 10.85 11.00 7:00~7:30 10.75 9.34 10.93	e spread ku-Tokyo) -0.15 -1.59	Price spread (Tohoku-S) -0.85 -1.41	(Tokyo-S) -0.70
Prices     (Toho       6:30~7:00     11.70     10.85     11.00       7:00~7:30     10.75     9.34     10.93	-0.15 -1.59	-0.85	` , ,
<b>7:00~7:30</b> 10.75 9.34 10.93	-1.59		-0.70
		-1.41	
1000 010 1016	4.00		0.18
<b>7:30~8:00</b> 10.00 9.19 10.46	-1.27	-0.81	0.46
<b>8:00~8:30</b> 9.92 9.33 10.27	-0.94	-0.59	0.35
<b>8:30~9:00</b> 9.61 9.13 10.14	-1.01	-0.48	0.53
<b>9:00~9:30</b> 9.25 9.06 9.52	-0.46	-0.19	0.27
<b>13:00~13:30</b> 5.00 3.12 6.00	-2.88	-1.88	1.00
<b>16:00~16:30</b> 8.47 8.50 8.81	-0.31	0.03	0.34
<b>16:30~17:00</b> 9.92 9.58 10.55	-0.97	-0.34	0.63
<b>17:00~17:30</b> 11.70 10.83 11.07	-0.24	-0.87	-0.63
<b>17:30~18:00</b> 15.20 11.34 12.25	-0.91	-3.86	-2.95
<b>18:00~18:30</b> 15.20 11.72 12.27	-0.55	-3.48	-2.93
<b>18:30~19:00</b> 15.20 12.84 15.20	-2.36	-2.36	0.00
<b>19:00~19:30</b> 15.00 11.17 15.20	-4.03	-3.83	0.20
<b>19:30~20:00</b> 15.00 11.36 15.20	-3.84	-3.64	0.20
<b>20:00~20:30</b> 15.00 11.62 15.20	-3.58	-3.38	0.20
<b>20:30~21:00</b> 15.00 10.78 15.20	-4.42	-4.22	0.20
<b>21:00~21:30</b> 15.00 10.97 14.50	-3.53	-4.03	-0.50
<b>21:30~22:00</b> 11.50 10.50 10.69	-0.19	-1.00	-0.81
<b>22:00~22:30</b> 11.00 10.33 10.55	-0.22	-0.67	-0.45

#### Mar 2 Delivery(Mie-Higashi Omi Line:Chubu-Kansai)

Xyen/kWh

Time	System Prices	Chubu	Kansai	Price spread (Chubu-Kansai)	Price spread (Chubu-S)	with System (Kansai-S)
11:30~12:00	5.17	4.65	6.44	-1.79	-0.52	1.27

#### Mar 2 Delivery(Kanmon Line: Chugoku-Kyushu)

Xyen/kWh

Time	System	Chugolau	Vzvachu	Price spread	Price spread	with System
Time	Prices	Chugoku	Kyushu	(Chugoku-Kyushu)	(Chugoku-S)	(Kyushu-S)
8:30~9:00	9.61	10.14	9.49	0.65	0.53	-0.12
10:30~11:00	6.75	7.21	4.00	3.21	0.46	-2.75
11:00~11:30	5.47	6.44	1.00	5.44	0.97	-4.47
11:30~12:00	5.17	6.44	0.09	6.35	1.27	-5.08
12:00~12:30	5.00	6.44	0.01	6.43	1.44	-4.99
12:30~13:00	4.81	6.50	0.01	6.49	1.69	-4.80
13:00~13:30	5.00	6.79	0.01	6.78	1.79	-4.99
13:30~14:00	6.01	6.79	0.01	6.78	0.78	-6.00
14:00~14:30	5.68	7.00	0.01	6.99	1.32	-5.67
14:30~15:00	7.24	7.50	0.01	7.49	0.26	-7.23
15:00~15:30	7.52	7.68	0.02	7.66	0.16	-7.50
15:30~16:00	7.99	8.85	5.47	3.38	0.86	-2.52

#### **©JEPX Day-Ahead Spot Price Charts**

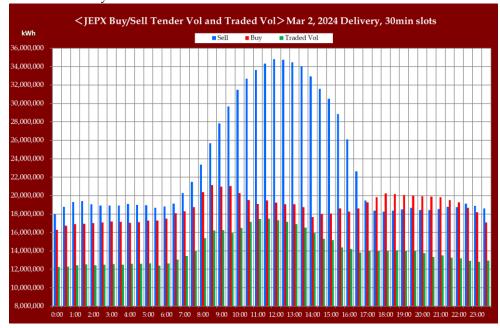
#### OTraded Volumes and Prices (Mar 2 delivery)

Price decoupling for 1.5 hours (3 windows) between Hokkaido and Tohoku (Hokkaido-Honshu Line)
Price decoupling for 10 hours (20 windows) between Tohoku and Tokyo (Soma-Futaba Line)
Price decoupling for 16 hours (31 windows) between Tokyo and Chubu (Frequency Converter)
Price divergence for 0.5 hours (1 window) between Chubu and Kansai (Mie-Higashi Omi Line)
Price decoupling for 6 hours (12 windows) between Chugoku and Kyushu (Kanmon Line)
Traded volumes: 681.98 mil kWh, Actual highest price: Yen 18.66 (West Japan), Actual lowest price: Yen 0.01 (Kyushu)



#### OSell/Buy Tenders and Traded Prices (Mar 2 delivery)

Total offered volumes via sell tenders: 1,117.27 mil kWh Total bid volumes via buy tenders: 895.75 mil kWh







#### **©**9 Area Power Data and Chart

O9 Area Peak Capacity and Rim 24 hours Average Prices

### 2-Mar 2024 Supply and Demand forecast

Area	Supply Capacity	Peak demand	Reserve rate	Usage	Peak demand time	Temperature forecast(Low/High)
Hokkaido	522	456	14.5%	87.4%	04:00~05:00	-7.0 / -3.0
Tohoku	1,256	1,130	11.2%	90.0%	18:00~19:00	-1.0 / 5.0
Tokyo	4,207	3,701	13.7%	88.0%	18:00~19:00	3.0 / 10.0
East Japan total	l 5,985	5,287	13.2%	88.3%	-	-1.6 / 4.0
Chubu	1,831	1,587	15.4%	86.7%	19:00~20:00	2.0 / 8.0
Hokuriku	453	395	14.7%	87.2%	09:00~10:00	-1.0 / 6.0
Kansai	2,049	1,910	7.3%	93.2%	09:00~10:00	2.0 / 9.0
Chugoku	832	767	8.5%	92.2%	18:00~19:00	2.0 / 9.0
Shikoku	384	341	12.6%	88.8%	18:00~19:00	2.0 / 9.0
Kyushu	1,308	1,201	8.9%	91.8%	18:00~19:00	3.0 / 7.0
West Japan tota	a 6,857	6,201	10.6%	90.4%	-	1.6 / 8.0
9 Area total	12,842	11,488	11.8%	89.5%	-	0.5 / 6.6

Unit:10MW, Temperature °C

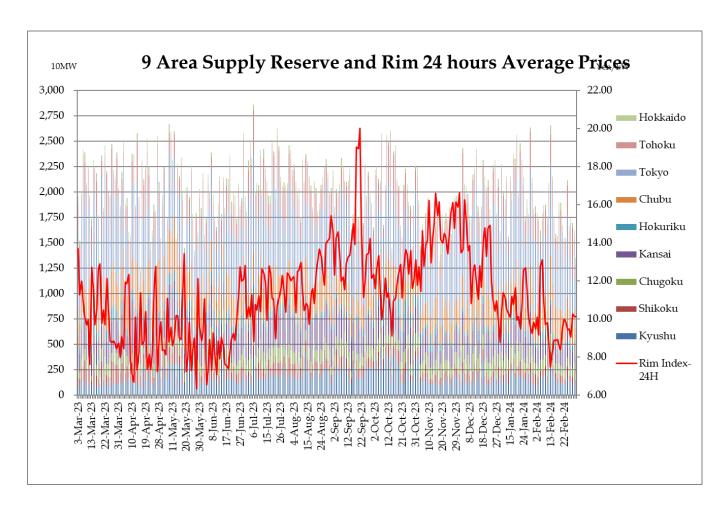
02.2 / 08.6

Temperature Area(Sapporo, Sendai, Tokyo, Nagoya, Toyama, Osaka, Hroshima, Takamatsu, Fukuoka)

2-Mar-24, Suppy Reserve Forecast

<b>X</b> ∐nit ·	10MW,DoD
A CHIL.	101111 1,000

	Total	Hokkaido	Tohoku	Tokyo	Chubu	Hokuriku	Kansai	Chugoku	Shikoku	Kyushu
Suppy Reserve	1,354(- <mark>265</mark> )	66(+11)	126(- <mark>51</mark> )	506( <b>-13</b> )	244( <del>-75</del> )	58(+11)	139( <del>-39</del> )	65( <del>-34</del> )	43( <del>-8</del> )	107(-67)





#### **©Latest Status of Thermal Power Stations**

#### OOperation Updates as of Mar 1

C	Dlast	A	Final	Unit	Outenut/IdA/	Outers	Dowland	Doobout	Undaka	Domanica					
Company Hokkaido Electric	Plant	Area	Fuel	Unit	Output(kW)	Outage	Period	Restart	Update	Remarks					
Power Company	Ishikariwan-Shinko	Hokkaido	Gas	No.1	569,400	Planned	12-Mar-24 0:00	04-Apr-24	1-Mar-24 10:23	Turbine Equipment Inspection					
	Hirono	Tokyo	Oil	No.2	600,000	Planned	02-Mar-24 19:00	04-Mar-24	1-Mar-24 11:40	Suspension due to testing of other units					
	Kashima	Tokyo	Gas	No.7-2	420,000	Planned	01-Mar-24 5:00	01-Mar-24	1-Mar-24 08:09	Gas turbine-related equipment					
ERA Company	Kasiiina	Tokyo	Gas	No.7-2	420,000	Planned	01-Mar-24 22:00	02-Mar-24	1-Mar-24 13:09	GT-related facilities					
	Higashi-Ohgishima	Tokyo	Gas	No.2	1,000,000	Planned	28-Feb-24 22:00	01-Mar-24	1-Mar-24 12:36	Boiler-related equipment					
	Nishi-Nagoya	Chubu	Gas	No.7-1	1,188,200	Output reduction	08-Mar-24 23:00	09-Mar-24	29-Feb-24 16:23	Turbine-related equipment					
Kansai Electric Power Company	Himeji-Daiichi	Kansai	Gas	No.6	713,000	Output reduction	11-Mar-24 0:00	13-Mar-24	1-Mar-24 10:53	Generator work Maximum reduction: 495,000 kW Minimum degradation: 495,000 kW					
Facilities related to m Kashima Joint Power	ajor power companies		_						T	Periodic Inspection and					
Company	Kashima	Tokyo	Gas	No.3	350,000	Planned	01-Mar-24 8:09	15-Jul-24	1-Mar-24 08:19	Maintenance					
etouchi Joint Power Company	Kurashiki	Chugoku	Coal	No.5	156,000	Planned	27-Feb-24 17:00	01-Mar-24	29-Feb-24 17:52	Equipment Inspection					
	lent power companies														
actitues of independ	lent power companies			No.1	413,000	Planned	01-May-24 7:00	03-Jun-24	29-Feb-24 17:30	Periodic Maintenance					
					413,000	Output reduction  Output reduction	01-Apr-24 8:00 02-Apr-24 8:00	01-Apr-24 02-Apr-24	1-Mar-24 11:36	Maximum drop: 215,000 kW Minimum degradation: 189,000 kW Average reduction: 205,000 kW Transmission line output suppression due to transmissio company reasons*					
					413,000	Output reduction	03-Apr-24 8:00	03-Apr-24	1-Mar-24 11:36	Ditto					
					413,000	Output reduction	04-Apr-24 8:00	04-Apr-24	1-Mar-24 11:37	Ditto					
					413,000	Output reduction	05-Apr-24 8:00	05-Apr-24	1-Mar-24 11:37	Ditto					
	Kawasaki Tokyo				413,000	Output reduction	06-Apr-24 8:00	06-Apr-24	1-Mar-24 11:38	Maximum reduction: 233,000 kW Minimum degradation: 186,000 kW Average reduction: 211,000 kW Transmission line output suppression due to transmissio company reasons*					
										413,000	Output reduction	07-Apr-24 8:00	07-Apr-24	1-Mar-24 11:40	"Maximum reduction: 247,000 kW Minimum degradation: 200,000 kW Average reduction: 222,000 kW Transmission line output suppression due to transmissio company reasons"
Kawasaki Natural Gas Power Generation		Tokyo	Gas	No.2	413,000	Output reduction	08-Apr-24 8:00	08-Apr-24	1-Mar-24 11:41	Maximum drop: 215,000 kW Minimum degradation: 189,000 kW Average reduction: 205,000 kW Transmission line output suppression due to transmissio company reasons"					
					413,000	Output reduction	09-Apr-24 8:00	09-Apr-24	1-Mar-24 11:42	Ditto					
					413,000	Output reduction	10-Apr-24 8:00	10-Apr-24	1-Mar-24 11:43	Ditto					
					413,000		11-Apr-24 8:00	11-Apr-24	1-Mar-24 11:44	Ditto					
					413,000	Output reduction	-	12-Apr-24	1-Mar-24 11:45	"Maximum reduction: 219,000 kW Minimum degradation: 193,000 kW Average reduction: 210,000 kW Transmission line output suppression due to transmission company reasons"					
					413,000	Output reduction	13-Apr-24 8:00	13-Apr-24	1-Mar-24 11:46	"Maximum reduction: 239,000 kW Minimum degradation: 190,000 kW Average reduction: 215,000 kW Transmission line output suppression due to transmissio company reasons"					
					413,000	Output reduction	14-Apr-24 8:00	14-Apr-24	1-Mar-24 11:47	"Maximum reduction: 251,000 kW Minimum reduction: 204,000 k Average reduction: 226,000 kW Transmission line output suppression due to transmissic company reasons"					
					413,000	Planned	15-Apr-24 7:00	22-May-24	29-Feb-24 17:21	Periodic Maintenance					

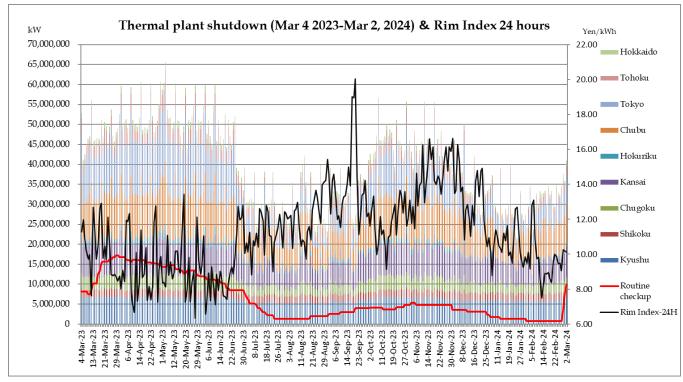


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					413,000	Planned	28-Jul-24 7:00	29-Jul-24	29-Feb-24 17:23	Periodic Maintenance
					413,000	Planned	01-Sep-24 7:00	02-Sep-24	29-Feb-24 17:24	Periodic Maintenance
					413,000	Planned	06-Oct-24 7:00	07-Oct-24	29-Feb-24 17:24	Periodic Maintenance
					413,000	Planned	10-Nov-24 7:00	11-Nov-24	29-Feb-24 17:25	Periodic Maintenance
					413,000	Planned	15-Dec-24 7:00	16-Dec-24	29-Feb-24 17:26	Periodic Maintenance
					413,000	Planned	19-Jan-25 7:00	20-Jan-25	29-Feb-24 17:27	Periodic Maintenance
					413,000	Planned	23-Feb-25 7:00	24-Feb-25	29-Feb-24 17:28	Periodic Maintenance
					413,000	Planned	30-Mar-25 7:00	31-Mar-25	29-Feb-24 17:29	Periodic Maintenance
Syunan Power Company	Tokuyama-Higashi	Chugoku	Coal	No.3	300,000	Unplanned	04-Mar-24 11:00	08-Mar-24	01-Mar-24 16:05	For biomass burner open inspection

Nine power utilities in Japan are expected to suspend thermal units with a combined capacity of 40.98 GW as of March 2 Saturday nearly 9.99 GW will be off line for planned maintenance while unplanned shutdowns account for a loss of the remaining 30.99 GW. In the corresponding point a year before, a combined 52.78 GW was idled as of March 4 2023, Saturday, including nearly 8.14 GW for planned maintenance and nearly 44.63 GW for unplanned suspensions.



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#### **Spark/Dark Spreads and Fuel Cost Netback**

**OSpark/Dark Spreads** 

Rim Index (yen/kWh Mar 2)									
24h	24h DT Peak Night								
10.12	9.96	6.64	10.35						

Fuel	thermal	Fuel Price	After tax	ter tax   Generation   cost		Spread (yen/kWh)			
	efficiency(%)	yen / ton·kl	yen/ton•kl	yen/kWh	24 hr	DT	Peak	Night	
	44.10			10.44	-0.32	-0.48	-3.80	-0.09	
LNG	50.00	67,959	69,819	9.21	+0.91	+0.75	-2.57	+1.14	
	59.00			7.80	+2.32	+2.16	-1.16	+2.54	
Coal	40.50	21,385	22,755	7.87	+2.25	+2.09	-1.23	+2.47	
Coar	45.00			7.08	+3.04	+2.88	-0.44	+3.26	
Imported CFO	38.40	94,031	94,031	21.40	-11.28	-11.44	-14.76	-11.05	
Domestic CFO									
0.3% sulfur	38.40	96,500	96,500	21.96	-11.84	-12.00	-15.32	-11.61	
3.0% sulfur	38.40	83,000	83,000	18.89	-8.77	-8.93	-12.25	-8.54	
Crude	38.40	77,820	80,620	19.18	-9.06	-9.22	-12.54	-8.84	

<sup>\*1</sup> Rim Index is the average of East Japan prices and West Japan prices.

Report. Crude Oil is a yen-based conversion from the CIF import price for Marxh 2024 delivery estimated by Rim. The exchange rate applied for the yen-based conversion is the TIS (Telegraphic Transfer Selling) Rate published by the MUFJ Bank.

<sup>\*2</sup> Thermal efficiency shown in BOLD is the average thermal efficiency for general electric utilities in the fiscal year 2013.

\*3 In the section of Fuel Price, LNG is a yen-based conversion from DES North East prices for first-half April 2024 delivery published in Rim LNG Report. Coal is a yen-based conversion from a sum of FOB Newcastle prices for March 2024 loading and freight rates. Imported CFO is a yen-based conversion from CFR Japan FO 0.3%S prices published in Rim Products Report.

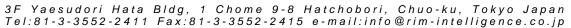
Domestic CFO is the average of East Japan prices and West Japan prices for March 2024 delivery published in Rim Japan Products

<sup>\*4</sup> Generation Cost is calculated based on power calorie, fuel calorie, thermal efficiency and fuel prices, and it is so-called marginal cost excluding facility utilization rates.

<sup>\*5</sup> Spread is calculated by deducting Generation Cost from Rim Index.

<sup>\*6</sup> The latest Petroleum and Coal Tax (Global Warming Tax) is applied. From Apr 1, 2016, the tax was increased by Yen 760/kl to Yen 2,800/kl for Crude/Refined Products. The tax for Gaseous Hydrocarbon was revised upward by Yen 780/ton to Yen 1,860/ton, while the tax for Coal was up Yen 670/ton at Yen 1.370/ton.





#### **OFuel Cost Netback**

Rim Index (Yen/kWh)※1	Delivery	24h	Day time	Peak time	Night time	Yen/\$ (Feb 29)%
	Mar-02	10.12	9.96	6.64	10.35	151.67

RIM Index		ndex	Thermal	Fuel	Fuel Cost Netback (DES, CIF)				Fuel Prices※4		
Fuel	(Yen/	kWh)	Efficiency **3	\$/mt	\$/mmBtu	\$/bbl	Yen/kl	Feb-29	Unit	Margin	
		10.12	44.10%	434.02	8.39				\$/mmBtu	-0.26	
	24h		50.00%	493.73	9.55				\$/mmBtu	0.90	
			59.00%	584.80	11.31				\$/mmBtu	2.66	
			44.10%	426.96	8.26				\$/mmBtu	-0.39	
	Day time	9.96	50.00%	485.73	9.39				\$/mmBtu	0.74	
LNG			59.00%	575.36	11.13			8.65	\$/mmBtu	2.48	
LING			44.10%	280.55	5.43			6.05	\$/mmBtu	-3.22	
	Peak time	6.64	50.00%	319.73	6.18				\$/mmBtu	-2.47	
			59.00%	379.49	7.34				\$/mmBtu	-1.31	
			44.10%	443.94	8.59				\$/mmBtu	-0.06	
	Night time	10.35	50.00%	504.98	9.77				\$/mmBtu	1.12	
			59.00%	598.08	11.57				\$/mmBtu	2.92	
	24h	10.12	40.50%	183.88	7.55				\$/mt	42.88	
	24n	10.12	45.00%	205.32	8.44				\$/mt	64.32	
	Day time	9.96	40.50%	180.83	7.43				\$/mt	39.83	
Coal		9.90	45.00%	201.93	8.30			141.00	\$/mt	60.93	
Coar	Peak time	6.64	40.50%	117.54	4.83			141.00	\$/mt	-23.46	
			45.00%	131.61	5.41				\$/mt	-9.39	
	Night time	10.35	40.50%	188.17	7.73				\$/mt	47.17	
	Might time	10.55	45.00%	210.08	8.63				\$/mt	69.08	
	24h	10.12	38.40%	281.57	7.00				\$/mt	-333.68	
mported CF0	Day time	9.96	38.40%	276.79	6.88			615.25	\$/mt	-338.46	
imported Civ	Peak time	6.64	38.40%	177.62	4.42			013.23	\$/mt	-437.63	
	Night time	10.35	38.40%	288.29	7.17				\$/mt	-326.96	
	24h	10.12	38.40%	270.06	7.02	41.65			\$/bbl	<b>-</b> 41.75	
Crude	Day time	9.96	38.40%	265.49	6.90	40.95		83.40	\$/bbl	-42.45	
Crude	Peak time	6.64	38.40%	170.65	4.44	26.32		03.40	\$/bbl	-57.08	
	Night time	10.35	38.40%	276.49	7.19	42.64			\$/bbl	-40.76	
Domestic	24h	10.12	38.40%				44,474		Yen/kl	-52,026	
CFO 0.3%	Day time	9.96	38.40%				43,771	96,500	Yen/kl	-52,729	
sulfur	Peak time	6.64	38.40%				29,181	70,000	Yen/kl	-67,319	
Sullui	Night time	10.35	38.40%				45,463		Yen/kl	-51,037	
Domestic	24h	10.12	38.40%				44,474		Yen/kl	-38,526	
CFO 3.0%	Day time	9.96	38.40%				43,771	83,000	Yen/kl	-39,229	
sulfur	Peak time	6.64	38.40%				29,181	00,000	Yen/kl	-53,819	
Sullui	Night time	10.35	38.40%				45,463		Yen/kl	-37,537	

<sup>\*1</sup> Rim Index is the average of East Japan prices and West Japan prices.

<sup>\*2</sup> The exchange rate applied for the yen-based conversion is the TTS (Telegraphic Transfer Selling) Rate published by the MUFJ Bank.

<sup>\*3</sup> Thermal efficiency shown in BOLD is the average thermal efficiency for general electric utilities in the fiscal year 2013.

\*4 In the section of Actual Fuel Cost, LNG is a yen-based conversion from DES North East prices for first-half April 2024

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Crude Oil is a yen-based conversion from the CIF import price for March 2024 delivery estimated by Rim. Domestic CFO is the
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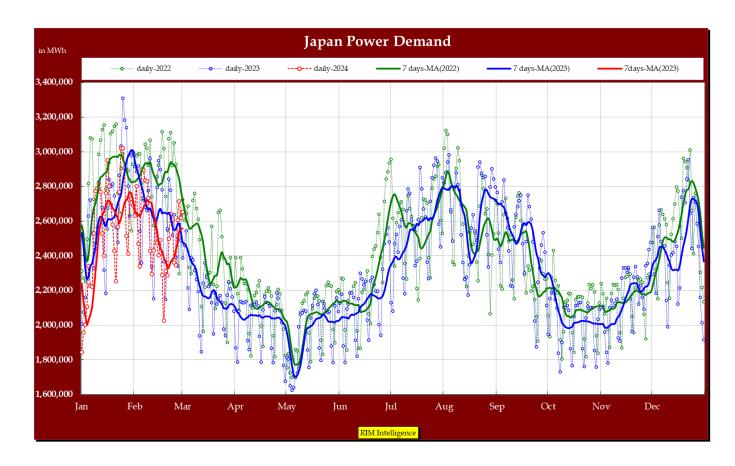
#### ©Japan Power Demand by Region OFeb 29 2024

X Power demand graphs every Friday

		Japan power	demand	l by region							
	Feb 29 2024										
Area	MW	on prev day	on year	MWh	on prev day	on year					
Hokkaido	4,550	0.6%	12.0%	100,674	-0.8%	10.0%					
Tohoku	11,135	-2.5%	-6.9%	243,798	-2.6%	-1.3%					
Tokyo	41,086	2.7%	10.4%	855,404	1.4%	10.4%					
Chubu	19,572	0.0%	1.9%	404,114	0.1%	4.4%					
Hokuriku	4,071	0.4%	4.7%	89,625	0.0%	4.8%					
Kansai	20,894	4.0%	2.8%	437,172	3.8%	5.6%					
Chugoku	8,354	2.5%	0.9%	181,589	5.5%	7.6%					
Shikoku	3,881	-0.4%	-0.7%	82,356	1.0%	0.8%					
Kyushu	12,046	2.5%	4.1%	257,970	1.2%	7.7%					
Total	125,588	1.7%	4.3%	2,652,702	1.3%	6.5%					

Unit:Maximum power demand in MW, daily demand in MWh

Total Japan Power Output										
Th	The totals from Feb 1 to 29 2024									
Area	output	year ago	on year							
Hokkaido	2,877,585	2872773	0.2%							
Tohoku	7,149,251	7,396,704	-3.3%							
Tokyo	23,953,345	23,492,107	2.0%							
Chubu	10,985,389	11,045,489	-0.5%							
Hokuriku	2,457,311	2,549,371	-3.6%							
Kansai	11,937,112	12,080,691	-1.2%							
Chugoku	4,921,049	4,973,689	-1.1%							
Shikoku	2,224,650	2,331,861	-4.6%							
Kyushu	7,005,043	6,861,578	2.1%							
Total	73,510,735	73,604,263	-0.1%							
Unit:MWh										



#### **©**Power Bid Results(Public Institutions)

#### **OBid Results**

\* Eco-friendy regulations

* Eco-friendy		Estimated	Contracted	Load		Average	Lowest offer
Area of user	* Eco	demand volumet (kwh)	power (kw)	factor (%)	Contract period	price (yen/kwh)	before tax (yen/kwh)
Tokyo	*	8,336,000	2,350	40.4	Feb/01/2024-Jan/31/2025	24.0	200,350,776
	*	1,420,000	568	28.5	Apr/01/2024-Mar/31/2025	23.5	33,390,185
	*	907,000	410	25.3	Apr/01/2024-Mar/31/2025	24.0	21,736,521
	*	373,800	145	29.4	Apr/01/2024-Mar/31/2025	23.7	8,843,961
	*	316,000	160	22.5	Apr/01/2024-Mar/31/2025	24.3	7,668,000
Hokkaido	*	209,200	81	29.5	Apr/01/2024-Mar/31/2025	38.6	8,072,286
TIORRAIGO	*	74,500	38	22.4	Apr/01/2024-Mar/31/2025	41.5	3,092,537
Tohoku	*	261,000	54	55.2	Apr/01/2024-Mar/31/2025	31.7	8,264,642
TOHOKU	*	216,600	110	22.5	Apr/01/2024-Mar/31/2025	37.5	8,128,774

#### **OMarket New**

#### **OBenchmark Crudes: Brent and WTI rise on strong stock market**

Benchmark Brent crude futures bounced back on Friday. The April Brent crude oil futures contract in after-hours trading at 15:30 Tokyo time was at \$82.27 per barrel (bbl), up 36cts from the closing price in the overseas market on the previous day. The April WTI contract in overnight NYMEX ACCESS trade was \$77.78 per bbl, up 33cts from the closing price on the previous day. Meanwhile, in the Dubai OTC market, the April cash Dubai price was at \$81.98 per bbl, up 19cts from the previous day.

The Brent and WTI crude oil rebounded since a jump in Japan's stock market stimulated buying in crude futures. In addition, negotiations were prolonged over a ceasefire between Israel and the Islamic militant group Hamas, generating worrise over tension in the Middle East.

Regarding the outlook for the front-month Brent crude contract, "the market will move within a narrow range" said a trader at a large commodity broker. Geopolitical tensions in the Middle East and a rise in the US stock market would support the crude oil market while there were concerns over shrinking crude oil demand due to monetary tightening policies worldwide, which weighed on the crude oil market. Thus, the upside of the WTI crude oil would be capped at slightly below \$80 while the upside of the Brent crude oil would be slightly below \$85, according to sources.



 $\Diamond$ 

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