

Electricity Supply-Demand Measures this Winter (Outline)

November 2, 2012

Electricity Supply-Demand Review Committee

Energy and Environment Council

1. Electricity Supply and Demand Outlook for this Winter

- (i) Under the assumption that this winter will be an extremely cold one, it is expected that **a reserve margin of 3%**, which is deemed necessary to respond to instantaneous fluctuations in demand, **can be secured in all service areas.**
- (ii) Also in the service areas of Hokkaido Electric Power Co., Inc. (HEPCO), a reserve margin of 5.8% is expected to be secured. However, due to the limits of HEPCO's ability of power interchange with other power utility companies, **special measures should be taken in preparation for the risk of power supply failure.**

Outlook for this winter (incorporating the actual decline this summer in the reasonably anticipated reduction in power consumption and presuming that this winter will be as severe as in FY2011)*

* For HEPCO service areas, as severe as the especially severe winter in FY2010

January

Supply capacity of Kyushu Electric Power Co., Inc. includes power interchange from other power utility companies (Chubu and Chugoku).

(10,000kW)	East 3	Hokkaido	Tohoku	Tokyo	Central/ West 6	Chubu	Kansai	Hokuriku	Chugoku	Shikoku	Kyushu	Total of 9 companies
Supply capacity	7,534	601	1,505	5,428	9,017	2,480	2,670	557	1,165	556	1,589	16,551
Peak demand	7,021	563	1,408	5,050	8,566	2,367	2,537	519	1,096	510	1,537	15,587
Supply – Demand (Reserve margin)	513 (7.3%)	38 (6.7%)	97 (6.9%)	378 (7.5%)	451 (5.3%)	113 (4.8%)	133 (5.2%)	38 (7.3%)	69 (6.3%)	46 (9.0%)	52 (3.4%)	964 (6.2%)

February

(10,000kW)	East 3	Hokkaido	Tohoku	Tokyo	Central/ West 6	Chubu	Kansai	Hokuriku	Chugoku	Shikoku	Kyushu	Total of 9 companies
Supply capacity	7,597	596	1,477	5,524	9,050	2,524	2,642	562	1,181	557	1,584	16,647
Peak demand	7,005	563	1,392	5,050	8,566	2,367	2,537	519	1,096	510	1,537	15,571
Supply – Demand (Reserve margin)	592 (8.5%)	33 (5.8%)	85 (6.1%)	474 (9.4%)	484 (5.7%)	157 (6.6%)	105 (4.1%)	43 (8.3%)	85 (7.7%)	47 (9.1%)	47 (3.1%)	1,076 (6.9%)

Risks of unexpected shutdowns of power plants in HEPCO service areas

Fiscal year	Largest shutdown	Annual average
FY2011	0.96 million kW	0.31 million kW
FY2010	1.37 million kW*	0.36 million kW

Fiscal year	Largest shutdown	Annual average
FY2009	1.32 million kW	0.27 million kW
FY2008	1.15 million kW	0.35 million kW
FY2007	1.28 million kW	0.38 million kW

*Maximum value in the last 15 years

2. Electricity Supply and Demand Measures for this Winter

- (i) General power conservation without concrete numerical targets is to be requested nationwide (excluding the service areas of Okinawa Electric Power Co., Inc.), and the government will present its reasonably anticipated reduction amount as the reference criteria for encouraging consumers to certainly save power consumption.
- (ii) For the service areas of HEPCO, multiplexed measures should be taken, **such as requesting power conservation with a numerical target (reduction of 7% or more), in order to prevent any power failures, including rolling blackouts.**

	Hokkaido	Tohoku	Tokyo	Chubu	Kansai	Hokuriku	Chugoku	Shikoku	Kyushu
Request for general power conservation (ensuring reasonably anticipated reduction)	Dec. 3 – Mar. 29 (9:00 – 21:00) (8:00 – 21:00 in the service areas of HEPCO and of Kyushu Electric Power Co., Inc.) * Due consideration should be given to vulnerable people, such as elderly people and those in earthquake-stricken areas.								
Reasonably anticipated reduction for this winter (compared to FY2010)	- 3.3%	- 2.2%	- 5.0%	- 2.8%	- 5.6%	- 3.4%	- 1.5%	- 5.2%	- 4.5%
(1) Request for power conservation with a numerical target (compared to FY2010)	-7% or more* Dec. 10 – Dec. 28 (16:00 – 21:00) Jan. 7 – Mar. 1 (8:00 – 21:00) Mar. 4 – Mar. 8 (16:00 – 21:00)								The above period excludes weekends, holidays, and year-end and new year holidays



*Due consideration should be given to vulnerable people, such as the elderly and those in earthquake-damaged areas, as well as to ensuring functions of lifelines, such as hospitals and railways. Furthermore, effects on production activities (including farming and tourism) should also be taken into consideration. A reduction of 7% or more will be requested when the power supply becomes tight.

In preparation for the possibility of power supply failure equal to or exceeding the largest-ever level

- (2) Program for Emergency Adjustments to Prevent Rolling Blackouts (Appendix) ➡ If a 0.33 million kW reduction of power demand can be ensured effectively, power supply-demand will be stable even in the event of power supply failure equal to the largest-ever level (-1.37 million kW).
- (3) Bidding for Negawatts during emergencies, etc. ➡ Response to any risks larger than the above

If any power failures, including **rolling blackouts** occur in Hokkaido during severe winter weather, it may pose a direct danger to the lives and safety of Hokkaido residents, and **any possibility of rolling blackouts may itself have a negative influence on tourism and other economic activities in Hokkaido.** Through taking the abovementioned **spectrum of measures**, full preparation should be made for power supply failure equal to or exceeding the largest-ever level in order to **prevent any power failures, including rolling blackouts.**

(Appendix) Program for Emergency Adjustments to Prevent Rolling Blackouts

- (i) If any **power failures, including rolling blackouts** occur in Hokkaido during severe winter weather, **it may pose a direct danger to the lives and safety of Hokkaido residents**, and any possibility of rolling blackouts may itself have a **negative influence on tourism and other economic activities in Hokkaido**.
- (ii) Therefore, **in preparation even for less frequent risks, the Program for Emergency Adjustments to Prevent Rolling Blackouts should be prepared in order to avoid power failures, including rolling blackouts**.
- (iii) The national government, the Hokkaido prefectural government, and HEPCO should request that large consumers in HEPCO service areas conclude contracts to join the Program for Emergency Adjustments to Prevent Rolling Blackouts.

Program content

1. Outline

In order to prevent rolling blackouts that may pose a danger to people's lives, HEPCO requests a significant reduction of demand by way of temporary suspension of production and economic activities or temporary closing of business, etc. in case of a less frequent emergency due to such causes as a large-scale shutdown of power plants.

2. Coverage

Large consumers (whose contract power consumption is 500kW or more for industry or business use)

*HEPCO will visit all relevant consumers (around 1,100) to ask for cooperation

3. Period

From December 10, 2012 to March 22, 2013 (all day)

4. Goal

To ensure that demand is reduced by at least 0.33 million kW on effective basis

Scheme

Request for cooperation from the national government, the prefectural government and HEPCO



Contract between cooperative companies and HEPCO

(In a less frequent emergency)

Power supply becomes tight (presuming the reserve margin of 1%)



HEPCO requests companies to reduce power demand

*Separately request general households, etc. to refrain from unnecessary power use



Companies reduce power demand



Discount of electricity rates