

Shanghai Municipal Commission of Economy and Informatization Document

SMEITC (2020) No.14

The Control Scheme of Power Supply Reliability of Shanghai Grid (Trial)

To Shanghai Municipal Electric Power Company:

To thoroughly implement *The Implementation Scheme of Construction of World-class Doing Business Environment in Shanghai* and *Shanghai 2020 Action Plan of Benchmarking World Bank Group's Doing Business Indicators*, benchmark the world's highest standard and further raise power supply reliability of Shanghai grid, hereby compose the *The Control Scheme of Power Supply Reliability of Shanghai Grid (Trial)* and require full compliance.

Attachment: *The Control Scheme of Power Supply Reliability of Shanghai Grid (Trial)*

Shanghai Municipal Commission of Economy and Informatization
9th January, 2020

Attachment:

The Control Scheme of Power Supply Reliability of Shanghai Grid(Trial)

To guarantee power supply reliability and power service standard of the city, according to *The Assessment Method for Operation Efficiency and Service Quality of Shanghai Power Supply Enterprises (Trial)* jointly issued by East China Energy Regulatory Bureau of National Energy Administration of the People's Republic of China, Shanghai Municipal Development & Reform Commission and Shanghai Municipal Commission of Economy and Informatization, based upon power supply reliability, restoration time, power service, etc., hereby compose the **Control Scheme (Trial)** as the main basis for implementing corresponding rewards or punishments to Shanghai Municipal Electric Power Company (hereinafter referred to as SMEPC).

I. Control Scheme of Power Supply Reliability

1. This clause specifies control scheme, statistical method and reward/punishment criteria for power supply reliability of SMEPC.
2. The statistical methods for power supply reliability involved in this clause are in accordance with *The Regulations on Evaluation of Power Supply Reliability Part 1: General Requirements (DL/T836.1-2016)* (hereinafter referred to as *DL/T836.1-2016*) issued by the National Energy Administration of the People's Republic of China, simultaneously, in compliance with *IEEE Std 1366-2012 IEEE Guide for Electric Power Distribution Reliability Indices* issued by the Institute of Electrical and Electronics Engineers.
3. The index of power supply reliability involved in this clause are reviewed, confirmed and issued by national energy authorities.
4. This clause specifies reward/punishment criteria for annual Average Service Availability Index (ASAI Index) of SMEPC.

Table 1 Reward/punishment Criteria for ASAI in Shanghai

| Control Scheme Type | Index | Target | Reward/Punishment |
|--------------------------|---|-------------------------------|--|
| Power Supply Reliability | Average Service Availability Index (ASAI) | ASAI is higher than last year | Increase the permitted income by 1,000,000 RMB |
| | | ASAI is equal to last year | No Reward or Punishment |
| | | ASAI is lower than last year | Reduce the permitted income by 1,000,000 RMB |

5. The Average Service Availability Index (ASAI Index) has been calculated in accordance with **DL/T836.1-2016**. Detailed methods are as followed:

$$ASAI = \left(1 - \frac{\text{Average restoration time}}{\text{Time period under study}} \right) \times 100\%$$

Among these, the System Average Interruption Duration Index (SAIDI) is calculated through methods as followed:

$$SAIDI = \frac{\Sigma \text{Total number of customers interrupted} \times \text{Restoration time}}{\text{Total number of customers served}}$$

“Time period under study” is calculated as total hours per year.

6. While calculating ASAI Index, these followed situations of supply interruptions shall not be counted:

- 1) The interruption maintained less than 3 minutes.
- 2) The interruption is required by customer or is caused by inner reasons of customer's.
- 3) The interruption is recognized by the government regulator that it meets the definition of “Major event day” according to IEEE 1366-2012 standards.
- 4) The interruption is in accordance with the operation of municipal engineering.

II. Safeguard Measure for Optimizing Power Service

To improve power supply reliability of the city, SMEPC shall spare no efforts in promoting standard of power service towards a world-class “Getting Electricity” doing business environment.

1. SMEPC shall benchmark the world's highest standard and promulgate high-quality service commitment and safeguard measures to strictly carry out.
2. SMEPC shall keep investing in constructing the strong smart grid, continuously raise operation management level of the grid and improve the power supply reliability.
3. SMEPC shall expand the scope of live-line work, extend its coverage to more complex scenarios, enhance power outage management and continue lowering SAIDI and SAIFI.
4. SMEPC shall improve “Internet+” services, comprehensively promote “SGCC Online” and push forward construction of intelligent unmanned business halls to provide online service like online application and progress inquiry. Moreover, SMEPC shall compose relevant service rules which clarify scope and standard of online service and simplify documents of application, improving “Getting Electricity” convenience.

5. SMEPC shall integrate with the government's "GovPortals" platform, strengthen government-enterprise cooperation and data exchange. Besides, SMEPC shall optimize internal process, enhance deadline control, simplify procedures of getting electricity and continuously reduce time to get electricity.
6. SMEPC shall carry out comprehensive energy services and provide customers with "1+N" comprehensive energy solutions, minimizing customers' costs.
7. SMEPC shall strictly obey electricity tariffs and service policies formulated by the government, and timely publicize electricity tariff and service standard both online and offline, enhancing transparency of power service.