

Preventing major power outage

Registration No.	Number 00317		
Registration Date	September 14, 2021	Registration Category	Category 2

Name (Model, etc.)	Documents relating to BSS (Block System Stabilizer) , wide-area protection system for power system
Location	Osaka-shi, Osaka
	Kansai Transmission and Distribution, Inc
Owner (Custodian)	Kansai Transmission and Distribution, Inc
Manufacturer (Company)	Mitsubishi Electric Corporation
Year Manufactured	Original data (around 1974), bound replica (2021)
Year first appeared	System operational from 1972
Reason For Selection	This collection of documents relates to the Block System Stabilizer (BSS) system and includes a 1974 manual for the Inagawa transmission network with performance specifications and maintenance procedures. There is also an internal 1988 document about the BSS system compatible with the crossed dual trunk line power system, where consideration was given to the need for an eastern power system at Shin-Ikoma substation and a western power system at Inagawa substation. The BSS system was designed to maintain power system stability in individual blocks that were used to coordinate power generation capacity with demand to minimize power outage. It uses a combination of highly advanced power system analysis, communication system and protection relays to monitor the status of the transmission network, including the operational status of power transmission lines and power flow. In the event of a fault, the BSS system isolates load from the power transmission network (depending on the scale of the fault) so as to prevent any wider impact. The BSS system is still in operation, with enhanced function and updated hardware and software due to the electric power system changes. The document collection provides important insights into key public infrastructure.
Registration Standard	2-A (Played a notable role in improving people's way of life and creating new ways of living.)

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Other useful information	