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SCS<sub>j</sub> [ ]

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m j

j

$$SCS_j = \sum_{i=1}^m P_i U_{ij} W_{ij}$$

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n

m

j

j

TCSC

(m ≤ n) n

m

(P<sub>i</sub>) i

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TCSC

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m×n

U

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" " " " "

m

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i

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" " i

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SCS

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TCSC j SCS i

m×n :W

TCSC SCS TCSC

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TCSC TCSC  $\frac{P_{ij,cont.}}{P_{oj,nor.}}-1$  ( )

TCSC j  $P_{oj,nor.}$   $P_{ij,cont.}$  i

TCSC IEEE m×1 :P

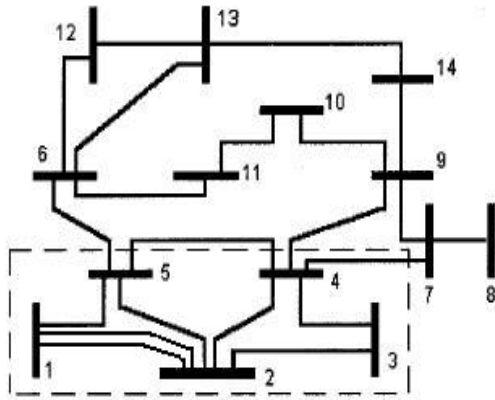
TCSC % TCSC  $P_{m \times 1} = [P_1, P_2, \dots, P_m]^T$  ( )

TCSC i  $P_i$  SCS

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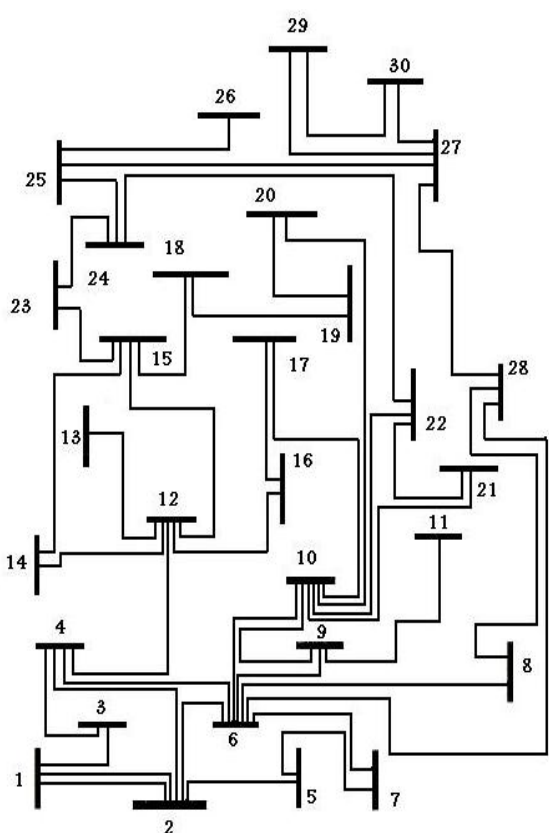
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$$L_j \leq L_{j,crit.}$$

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$$L_j = \left| \frac{\bar{S}_{j+}^*}{\bar{Y}_{jj} + |V_j|^2} \right| \quad (1)$$

IEEE

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$$\bar{S}_{j+} = \bar{S}_j + \bar{S}_{jcorr} \quad (2)$$

IEEE

$$\bar{S}_{jcorr} = \left( \sum_{i \in l} \frac{Z_{ji}^*}{Z_{jj}^*} \times \frac{\bar{S}_i}{\bar{V}_i} \right) \bar{V}_j \quad (3)$$

TCSC

- "i"  $\bar{V}_i$
- "j"  $\bar{V}_j$
- (j, j)  $\bar{Y}_{jj}$
- (i, j)  $\bar{Z}_{ij}$
- (j, j)  $\bar{Z}_{jj}$
- : L
- i  $\bar{S}_i$
- :  $L_j$
- j  $\bar{S}_j$
- :  $\bar{S}_{jcorr}$
- j

TCSC

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$L_{j,crit.}$

j

TCSC

P-

j

V

**IEEE**

		( )	(TCSC)	(TCSC)	$L_j$	$L_j$ (TCSC)	$L_j$ (TCSC)	TCSC	(MW)
		/	/	/	/	/	/		/
		/	/	/	/	/	/		/

**IEEE**

		( )	(TCSC)	(TCSC)	$L_j$	$L_j$ (TCSC)	$L_j$ (TCSC)	TCSC	(MW)
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MW

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- 1 - Load Shedding
  - 2 - Large scale
  - 3 - Thyristor Controlled Series Capacitor
  - 4 - Flexible AC Transmission System
  - 5 - Single Contingency Sensitivity
  - 6 - Single Contingency
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