 California ISO Your Link to Power	OPERATING PROCEDURE	Procedure No.	T-137Z
		Version No.	2.0
		Effective Date	5/9/08
Effectiveness Factors – Serrano 500/220 kV AA Transformer Bank		Distribution Restriction: None	

The Effectiveness Factors given in Tables 1 are for 100 MW Increase or 100 MW Decrease. Because of this, depending on how the system adjusts, the Effectiveness Factors are only approximate and cannot be guaranteed.

For the most effective solution, Increasing and Decreasing should be done in pairs. Two separate solutions need to be run in the I-Z tool, one Increase solution and one Decrease solution. If this is done, then their Effectiveness Factors can be added together resulting in a more accurate number. It is recommended to try and match the best Increase option with the best Decrease option for maximum effectiveness.


Example: If you are mitigating for “Serrano AA Transformer(s)” then the best Increase option is Barre = 45 and the best Decrease option is Inland Empire = 20. The total effectiveness for “Serrano AA Transformer(s)” would be 40 + 20 = 60% effective.

Table 1. Effectiveness Factors

Transmission Facility	Effectiveness factors are for the MW change in the Serrano AA Transformer(s) for 100 MW increase in generation					
	Barre	Huntington Beach	Alamitos	Harbor / Long Beach / Center / El Segundo / Redondo	SDG&E	Inland Empire
Serrano AA Transformer(s)	-40	-35	-30	-20	-20	20

Table 2. Resources IDs

Generation Group	Resource Name	Resource ID
<i>Barre</i>	Barre Peaker	BARRE_6_PEAKE
<i>Huntington Beach</i>	Huntington Beach Gen Station Unit 1	HNTGBH_7_UNIT 1
	Huntington Beach Gen Station Unit 2	HNTGBH_7_UNIT 2
	Huntington Beach Gen Station Unit 3	HNTGBH_7_UNIT 3
	Huntington Beach Gen Station Unit 4	HNTGBH_7_UNIT 4
<i>Alamitos</i>	Alamitos Power Plant Unit 1	ALAMIT_7_UNIT 1
	Alamitos Power Plant Unit 2	ALAMIT_7_UNIT 2
	Alamitos Power Plant Unit 3	ALAMIT_7_UNIT 3
	Alamitos Power Plant Unit 4	ALAMIT_7_UNIT 4
	Alamitos Power Plant Unit 5	ALAMIT_7_UNIT 5
	Alamitos Power Plant Unit 6	ALAMIT_7_UNIT 6

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Generation Group	Resource Name	Resource ID
<i>Harbor</i>	Harbor Cogen Unit 2	HARBGN_7_UNIT 2
	Harbor Cogen Unit 3	HARBGN_7_UNIT 3
	Harbor Cogen Combined Cycle	HARBGN_7_UNITS
<i>Long Beach</i>	Long Beach Unit 1	HINSON_6_LBECH1
	Long Beach Unit 2	HINSON_6_LBECH2
	Long Beach Unit 3	HINSON_6_LBECH3
	Long Beach Unit 4	HINSON_6_LBECH4
<i>Center</i>	Center Peaker	CENTER_6_PEAKER
<i>El Segundo</i>	El Segundo Generating Station Unit 3	ELSEGN_7_UNIT 3
	El Segundo Generating Station Unit 4	ELSEGN_7_UNIT 4
<i>Redondo</i>	Redondo Generating Station Unit 5	REDOND_7_UNIT 5
	Redondo Generating Station Unit 6	REDOND_7_UNIT 6
	Redondo Generating Station Unit 7	REDOND_7_UNIT 7
	Redondo Generating Station Unit 8	REDOND_7_UNIT 8
<i>SDG&E</i>	Southbay Gas Turbine 1	SOBAY_7_GT1
	Southbay Unit 1	SOBAY_7_SY1
	Southbay Unit 2	SOBAY_7_SY2
	Southbay Unit 3	SOBAY_7_SY3
	Southbay Unit 4	SOBAY_7_SY4
	Encina Unit 1	ENCINA_7_EA1
	Encina Unit 2	ENCINA_7_EA2
	Encina Unit 3	ENCINA_7_EA3
	Encina Unit 4	ENCINA_7_EA4
	Encina Unit 5	ENCINA_7_EA5
	Encina Gas Turbine Unit 1	ENCINA_7_GT1
	Palomar Energy Center	PALOMR_2_PL1X3
<i>Inland Empire</i>	Inland Empire Energy Center Unit 1	INLDEM_5_UNIT 1
	Inland Empire Energy Center Unit 2	INLDEM_5_UNIT 2