#### ANNEX A

Title	Clause	Provision	Proposed Amendment	Rationale	Stakeholder Comment/Revision	Stakeholder Rationale
Constraint	4.3.1	The order of relaxing soft	The order of relaxing soft constraints shall	<ul> <li>To distinguish</li> </ul>		
Violation		constraints shall be set such that	be set such that constraints resulting in	among non-		
Coefficient – Order		constraints resulting in the lowest	the lowest reduction in the capability of	scheduled, priority		
of Constraint		reduction in the capability of the	the network, load or generating units shall	dispatch and must		
Violation		network, load or generating units	be allowed to occur first, as follows:	dispatch		
Coefficients		shall be allowed to occur first, as	<ul> <li>a. Tertiary<u>/Dispatchable</u> Reserve</li> </ul>	generation as		
		follows:	Requirement Constraint	these three (3)		
		a. Tertiary Reserve	<ul> <li>b. Primary <u>/Contingency</u> Reserve</li> </ul>	self-scheduled		
		Requirement Constraint	Requirement Constraint	generation		
		b. Primary Reserve	c. Nodal VoLL or Nodal Energy	categories have a		
		Requirement Constraint	Balance Constraint	set priority in		
		c. Nodal VoLL or Nodal	d. System Energy Balance	dispatch and		
		Energy Balance Constraint	Constraint	curtailment. The		
		d. System Energy Balance	e. Self-Scheduled Generation	order of CVCs		
		Constraint	Constraint <u>– Non-Scheduled</u>	associated with		
		e. Self-Scheduled Generation	<u>Generation</u>	these		
		Constraint	f. Self-Scheduled Generation	classifications are		
		f. Thermal Contingency	Constraint <u>– Priority Dispatch</u>	arranged in line		
		Constraint – Transformer	<u>Generation</u>	with WESM Rules		
		g. Thermal Contingency	g. Self-Scheduled Generation	provision on the		
		Constraint – Line	Constraint <u>– Must Dispatch</u>	hierarchy for		
		h. Thermal Contingency	<u>Generation</u>	dispatch target		
		Constraint – Branch Group	<u>h.</u> f. Thermal Contingency Constraint	curtailment (WESM		
		i. Secondary Reserve	<ul> <li>Transformer</li> </ul>	Rules Clause		
		Requirement Constraint	<u>i.</u> g. Thermal Contingency	3.6.1.8).		
		j. Thermal Base Case	Constraint – Line			
		Constraint – Transformer	<ol> <li><u>h.</u> Thermal Contingency</li> </ol>	<ul> <li>To reflect</li> </ul>		
		k. Thermal Base Case	Constraint – Branch Group	classification of		
		Constraint – Line	<u>k.</u> iSecondary/Regulating Reserve	ancillary services		
		I. Thermal Base Case	Requirement Constraint	based on the DOE		
		Constraint – Branch Group	I. j. Thermal Base Case Constraint –	issuances		
			Transformer			

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Title	Clause	Provision	Proposed Amendment	Rationale	Stakeholder Comment/Revision	Stakeholder Rationale
			m. k. Thermal Base Case Constraint			
			– Line			
			n. I. Thermal Base Case Constraint –			
			Branch Group			
Constraint	4.3.4	(refer to Annex succeeding table at	(refer to Annex succeeding table at page	The CVC table is		
Violation		page 4 – 7 )	4 – 7 )	proposed to be		
Coefficient – Order				revised to reflect the		
of Constraint				suggested changes		
Violation				in CVC hierarchy		
Coefficients				(Sec 4.3.1). The		
				corresponding		
				coefficients for each		
				soft constraint are		
				also recommended to		
				be updated to reflect		
				the change in CVC		
				order. The values of		
				the CVCs whose		
				rankings moved up		
				were also revised		
				based on		
				recommendations		
				during the		
				certification audit and		
				observations during		
				the conduct of		
				parallel operations		
				program. In general,		
				values of the CVCs		
				should be set such		
				that the sum of the		
				values of possible		
				CVC combinations		
				will not be equal to a		

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Title	Clause	Provision	Proposed Amendment	Rationale	Stakeholder Comment/Revision	Stakeholder Rationale
				higher single CVC value. For example, since there are CVCs set at 800,000 and 1,600,000, there should be no CVC set at 2,400,000 (800,000 + 1,600,000); otherwise, the MDOM may choose to violate the higher CVC instead of the two lower CVCs, which is the expected		
Automatic Pricing Re-Run Parameters	5.3.1	(refer to succeeding table page 7 to 10)	(refer to succeeding table page 7 to 10)	The Automatic Pricing Re-Run Parameters are proposed to be revised to reflect the suggested changes in CVC table (Sec 4.3.4).		

		Provision			Prop	osed Amenc	Iment	Stakeholder Comment/Revision	Stakeholder Rationale
4.3.4 The coefficien constrain the corre Order	e following table prov nts, which is reflective nts established in Sec esponding action by the Constraint Violation Coefficient Name Tertiary Reserve	vides the constr e of the order of ction 4.3.1 of th he System Ope CVC 100.000	raint violation of relaxing soft nis Market Manual, and erator. SO Action None	4.3.4 Th coefficie constra Manual Operato Order	ne following tab ents, which is re ints established , and the corres or: Constraint Violation Coefficient				
	Requirement Constraint	100,000		1	Name Tertiary/ <b>Disp</b>	100 000	None		
2	Primary Reserve Requirement Constraint	200,000	None		atchable Reserve Requirement	100,000			
3	Nodal VoLL or Nodal Energy Balance Constraint	800,000	Re-dispatch generation and/or drop load as necessary.	2	Constraint Primary <u>/Con</u> tingency Reserve	200,000	None		
4	System Energy Balance Constraint	1,300,000	For over-generation, identify generating units to be shut down to eliminate excess capacity. For under-generation, identify must run units	3	Requirement Constraint Nodal VoLL or Nodal Energy Balance Constraint	800,000	Re-dispatch generation and/or drop load as necessary.		
			that can be dispatched or drop load as necessary.	4	System Energy Balance Constraint	1,300,000	For over- generation, identify		
5	Self-Scheduled Generation Constraint	1,400,000	The projected output or schedule of loading level of the relevant				units to be shut down to eliminate		

		Provision			Prop	osed Ameno	Stakeholder Comment/Revision	Stakeholder Rationale	
6	Thermal Contingency Constraint –	1,500,000	generating unit(s) shall be curtailed. Re-dispatch generation and/or drop load as				excess capacity. For under- generation, identify		
7	Thermal Contingency Constraint – Line	1,500,000	– necessary.				must-run units that can be		
8	Thermal Contingency Constraint – Branch Group	2,000,000					or drop load as necessary.		
9	Secondary Reserve Requirement Constraint	3,500,000	Re-dispatch generation and/or drop load as necessary.	5	Self- Scheduled Generation Constraint <u>–</u>	1,400,000	The projected output or schedule of		
10	Thermal Base Case Constraint – Transformer	4,000,000	Re-dispatch generation and/or drop load as		Scheduled Generation		loading level of the relevant		
11	Thermal Base Case Constraint – Line	4,000,000	necessary.				<u>non-</u> <u>scheduled</u> generating		
12	Thermal Base Case Constraint	4,500,000	_				unit(s) shall be curtailed.		
L			1	<u>6</u>	<u>Self-</u> <u>Scheduled</u> <u>Generation</u> <u>Constraint</u> <u>– Priority</u>	<u>1,500,000</u>	The projected output <del>or</del> <del>schedule of</del> <del>loading</del> <del>level</del> of the		

Provision		Prop	osed Amend	ment	Stakeholder Comment/Revision	Stakeholder Rationale
	7         6 8         7 9         8 10	Dispatch Generation Self- Scheduled Generation Constraint - Must Dispatch Generation Constraint - Must Dispatch Generation	1,600,000 1,500,000 2,500,000 2,500,000 2,000,000 3,000,000	relevant priority dispatch generating unit(s) shall be curtailed. The projected output <del>or</del> schedule of loading level of the relevant <u>must</u> dispatch generating unit(s) shall be curtailed. Re-dispatch generation and/or drop load as necessary.	Comment/Revision	Rationale
		Group				

		Р	rovision					I	Propose	ed Amenc		Stakeholder Comment/Revision	Stakeholder Rationale		
							9 <u>11</u>	Secondar egulating Reserve Requirem Constrain	y <u>/R 3</u> , I <u>5,</u> ent t	<del>500,000</del> <b>600,000</b>	Re- ger and load	-dispatch neration d/or drop d as cessary.			
							<del>10</del> <u>12</u>	Thermal Base Cas Constrain Transform	e <u>4,</u> t – ner	<del>000,000</del> <b>000,000</b>	Re- ger and	-dispatch neration d/or drop			
							44 <u>13</u>	Thermal Base Cas Constrain Line	e <u>4</u> , t –	<del>000,000</del> <b>000,000</b>	nec	cessary.			
							<del>12</del> <u>14</u>	Thermal Base Cas Constrair Branch Group	se <u>6,</u> nt –	<del>500,000</del> <b>500,000</b>					
5.3.1 T constra provide	he correspon aint violation o ed in Table 2	iding const coefficients below:	raint relax during pr	ation f	formulas foi e-runs shal	r the I be as	5.3.1 T the cor shall be	he correspondent	onding onding of ation content of a tion content	constraint efficients o ble 2 belo	relax during w:	ation form g pricing r	nulas for e-runs		
Order	Constraint Violation Coefficient Name	CVC	Violation Variable Value	Delta	Constraint Relaxation during Pricing Re-Run	Re-run Price	Order	Constraint Violation Coefficien t Name	CVC	Violation Variable Value	Del ta	Constrai nt Relaxati on during	Re-run Price		
1	Tertiary Reserve Requirement Constraint	100,000	x	0.1	x + delta	EDP AND RP	1	Tertiary <u>/D</u> ispatcha	100,00 0	x	0.1	Pricing Re-Run x + delta	EDP AND RP		
2	Primary Reserve	200,000	x	0.1	x + delta	EDP AND RP		<u>ble</u> Reserve							

		Pı	rovision				Proposed Amendment							Stakeholder Comment/Revision	Stakeholder Rationale
3	Requirement Constraint Nodal Energy Balance Constraint	800,000	x	0.1	x + delta	EDP AND RP	2	Requirem ent Constraint Primary/ <u>C</u> <u>ontingen</u> cv	200,00 0	x	0.1	x + delta	EDP AND RP		
4	System Energy Balance Constraint	1,300,000	x	0	delta	Excess Price for over- generation Shortage Price for under-	3	Reserve Requirem ent Constraint Nodal Energy Balance	800,00 0	x	0.1	x + delta	EDP AND RP		
5	Self- Scheduled Generation Constraint	1,400,000	x	0.1	x + delta	generation EDP AND RP	4	System Energy Balance Constraint	1,300,0 00	X	0	delta	Excess Price for over- generati		
6	Thermal Contingency Constraint – Transformer	1,500,000	Х	0.1	x + delta	EDP AND RP							on Shortag e Price for		
7	Thermal Contingency Constraint – Line	1,500,000	x	0.1	x + delta	EDP AND RP	5	Self-	1.400.0	X	0.1	x + delta	under- generati on EDP		
8	Thermal Contingency Constraint – Branch Group	2,000,000	x	0.1	x + delta	EDP AND RP		Schedule d Generatio n Constraint	00				AND RP		
9	Secondary Reserve Requirement Constraint	3,500,000	x	0.1	x + delta	EDP AND RP		<u>– Non-</u> <u>Schedule</u> <u>d</u> <u>Generati</u> <u>on</u>							

		Pr	ovision						Propose	d Ameno	Stakeholder Comment/Revision	Stakeholder Rationale			
10	Thermal Base Case Constraint – Transformer	4,000,000	х	0.1	x + delta	EDP AND RP	<u>6</u>	<u>Self-</u> <u>Schedule</u> <u>d</u> <u>Generati</u>	<u>1,500,0</u> <u>00</u>	<u>x</u>	<u>0.1</u>	<u>X +</u> delta	EDP AND RP		
11	Thermal Base Case Constraint – Line	4,000,000	Х	0.1	x + delta	EDP AND RP		<u>on</u> <u>Constrai</u> <u>nt – <del>Non-</del> Priority</u>							
12	Thermal Base Case Constraint –	4,500,000	х	0.1	x + delta	EDP AND RP		<u>Dispatch</u> <u>Generati</u> <u>on</u>							
	Branch Group						<u>7</u>	<u>Self-</u> <u>Schedule</u>	<u>1,600,0</u> <u>00</u>	x	<u>0.1</u>	<u>x +</u> delta	EDP AND RP		
								<u>Generati</u> <u>On</u> <u>Constrai</u> <u>nt – Must</u> <u>Dispatch</u> <u>Generati</u> <u>On</u>							
							ି <del>8</del>	Thermal Contingen cy Constraint – Transform er	1,500,0 00 2,500,0 00	x	0.1	x + delta	EDP AND RP		
							7 <u>9</u>	Thermal Contingen cy Constraint – Line	1,500,0 00 2,500,0 00	x	0.1	x + delta	EDP AND RP		
							8 <u>10</u>	Thermal Contingen cy Constraint	2,000,0 00 <u>3,000,0</u> <u>00</u>	x	0.1	x + delta	EDP AND RP		

		Proposed	d Amen	Stakeholder Comment/Revision	Stakeholder Rationale			
	– Branch Group							
9 <u>11</u>	Secondar y <u>/Regulat</u> ing Reserve Requirem ent Constraint	3,500,0 00 5,600,0 00	x	0.1	x + delta	EDP AND RP		
40 <u>12</u>	Thermal Base Case Constraint – Transform er	4,000,0 00 6,000,0 00	x	0.1	x + delta	EDP AND RP		
11 <u>13</u>	Thermal Base Case Constraint – Line	4,000,0 00 <u>6,000,0</u> <u>00</u>	х	0.1	x + delta	EDP AND RP		
42 <u>14</u>	Thermal Base Case Constraint – Branch Group	4,500,0 00 6,500,0 00	x	0.1	x + delta	EDP AND RP		