## **INDEX**

Article/Section Number Shee					
	ARTIC	ARTICLE 1 – GENERAL PROVISIONS			
	1	DEFIN	ITIONS AND INTERPRETATION.	1	
		1.1	The general provisions of this Article I shall apply to this ISO Tariff.	1	
		1.2	Definitions.	1	
		1.3	Rules of Interpretation.	1	
	2	ACCES	SS TO THE ISO CONTROLLED GRID.	2	
		2.1	Open Access.	2	
		2.2	Eligibility of Customers for Direct Access or Wholesale Sales.	3	
	3	FACILI BONDS	TIES FINANCED BY LOCAL FURNISHING BONDS OR OTHER TAX-EXEMPT S.	3	
	4	ROLES	S AND RESPONSIBILITIES.	4	
		4.1	[Not Used]	4	
		4.2	Market Participant Responsibilities.	4	
		4.3	Relationship Between ISO and Participating TOs.	5	
		4.4	Relationship Between ISO and UDCS.	6	
		4.5	Responsibilities of a Scheduling Coordinator.	10	
		4.6	Relationship Between ISO and Generators.	23	
		4.7	Relationship Between ISO and Participating Loads.	27A	
		4.8	Relationship Between ISO and Eligible Intermittent Resources and Between the ISO and Participating Intermittent Resources.	28	
		4.9	Metered Subsystems.	28	
	5	RELAT	TONSHIP BETWEEN ISO AND SUDCS	40	
		5.1	General Nature of Relationship Between ISO and SUDCs	40	
		5.2	Coordinating Maintenance Outages of SUDC Facilities	41	
		5.3	SUDC Responsibilities	41	
		5.4	System Emergencies	41	
		5.5	Load Reduction	42	
		5.6	System Emergency Reports: SUDC Obligations	42	
		5.7	Coordination of Expansion or Modifications to SUDC Facilities	42	
		5.8	Information Sharing	42	
		5.9	Installation of Equipment on and Rights of Access to SUDC Facilities	43	

6	COM	MUNICATIONS.	44
	6.1	Methods of Communications.	44
	6.2	Communications.	45
	6.3	Communication Protocols.	46
	6.4	Transmission System Information and Communications.	47
	6.5	Information to be Provided By Connected Entities to the ISO.	51
	6.6	Failure or Corruption of the WEnet.	51
	6.7	Confidentiality.	51
	6.8	Standards of Conduct.	51
	6.9	ISO Postings.	52
7		EM OPERATIONS UNDER NORMAL AND EMERGENCY RATING CONDITIONS.	53
	7.1	ISO Control Center Operations.	53
	7.2	Operating Reliability Criteria.	55
	7.3	Normal System Operations.	59
	7.4	Management of System Emergencies.	60
	7.5	Management of Overgeneration Conditions.	72
8	ANCI	LLARY SERVICES.	73
	8.1	Scope.	73
	8.2	Ancillary Services Standards.	74
	8.3	Procurement of Ancillary Services, Certification and Testing Requirements for Providers of Ancillary Services, and Time-frame For Contracting for Ancillary Services	82
	8.4	Technical Requirements for Providing Ancillary Services.	84
	8.5	The Bidding Process.	92
	8.6	Obligations for and Self-Provision of Ancillary Services.	113
	8.7	Scheduling of Units to Provide Ancillary Services.	117
	8.8	Black Start.	118
	8.9	[Not Used]	118
	8.10	Verification, Compliance Testing, and Audit of Ancillary Services.	118
	8.11	Settlements For Contracted Ancillary Services.	131
	8.12	Settlement for User Charges for Ancillary Services.	139
	8.13	Temporary Changes To Ancillary Services Penalties.	149
	8.14	Temporary Rule Limiting Adjustment Bids Applicable To Dispatchable Loads And Exports.	150

9	OUTA	GES.	150
	9.1	Coordination and Approval for Outages.	150
	9.2	Responsibility for Authorized Work on Facilities.	151
	9.3	Coordination of Outages and Maintenance.	151
	9.4	Outage Coordination For New Facilities.	165
	9.5	Records.	167
	9.6	Facility Owner.	168
10	METE	RING.	168
	10.1	Applicability.	168
	10.2.1	Responsibilities of ISO Metered Entities.	170
	10.3	Metering for Scheduling Coordinator Metered Entities.	187
11	ISO SE	ETTLEMENTS AND BILLING.	203
	11.2	Calculations of Settlements.	204
	11.3	Billing and Payment Process.	232
	11.4	General Principles for Production of Settlement Statements.	236
	11.5	Calculation in the Event of Lack of Meter Data for the Balancing of Market Accounts.	237
	11.6	Settlements Cycle.	237
	11.7	Confirmation and Validation.	240
	11.8	Payment Procedures.	245
	11.9	Invoices.	250
	11.10	Instructions for Payment.	251
	11.11	ISO's Responsibilities.	251
	11.12	Non-payment by a Scheduling Coordinator.	253
	11.13	[NOT USED]	255
	11.14	[NOT USED]	255
	11.15	Prohibition on Transfers	255
	11.16	Alternative Payment Procedures.	255
	11.17	[DELETED]	256
	11.18	Payment Errors.	256
	11.19	Defaults.	259
	11.20	Proceedings to Recover Overdue Amounts.	259
	11.21	Data Gathering and Storage.	260
	11.23	Communications.	261
	11.24	ISO Payments Calendar.	261

	11.25	[NOT USED]	263
	11.26	[NOT USED]	263
	11.27	[NOT USED]	263
	11.28	[NOT USED]	263
	11.29	[NOT USED]	263
	11.30	[NOT USED]	263
	11.31	Decline Charge for Hourly Pre-Dispatch Supplemental Energy	263A
12	CRED	ITWORTHINESS.	264
	12.1	Credit Requirements.	264
	12.2	Review of Creditworthiness.	265
	12.3	Post and Releases of Financial Security	266
	12.4	Calculation of Ongoing Financial Security Requirements	267
	12.5	ISO Enforcement Actions Regarding Under-Secured Market Participants	267B
	12.6	Credit Obligations Applicable to CRRs	267C
	12.7	Credit Requirements for Sales of Allocated CRRs	267F
13	DISPU	ITE RESOLUTION.	268
	13.1	Applicability.	268
	13.2	Negotiation and Mediation.	269
	13.3	Arbitration.	271
	13.4	Appeal of Award.	277
	13.5	Allocation of Awards Payable by or to the ISO.	279
14	FORC	E MAJEURE INDEMNIFICATION AND LIMITATIONS ON LIABILITY.	280
	14.1	Uncontrollable Forces.	280
	14.2	Market Participant's Indemnity.	281
	14.3	Limitation on Liability.	281
	14.4	Potomac Economics, Ltd. Limitation Of Liability.	281
15	REGU	LATORY FILINGS.	282
16	EXIST	ING CONTRACTS.	282
	16.1	Existing Contracts for Transmission Service.	282
	16.2 Servic	ISO Administration of Existing Contracts for Transmission e.	283
17	[NOT	USED]	301
18	[NOT	USED]	301
19	DEMA	ND FORECASTS.	301
	19.1	Scheduling Coordinator and Load-Serving Entity Demand	

SI	he	et	Ν	O	V

		Forecast Responsibilities.	301
	19.2	ISO Responsibilities.	304
20	CONF	IDENTIALITY.	305
	20.1	ISO.	305
	20.2	Confidential Information.	305
	20.3	Other Parties.	306
	20.4	Disclosure.	306A
	20.5	Confidentiality.	308
21	SCHE	DULE VALIDATION TOLERANCES.	308A
	21.1	Temporary Simplification of Schedule Validation Tolerances.	308A
	21.2	Application.	309
	21.3	Notices of Full-Scale Operations.	309
22	MISCE	ELLANEOUS.	309
	22.1	Audits.	309
	22.2	Assignment.	311
	22.3	Term and Termination.	312
	22.4	Notice.	312
	22.5	Waiver.	313
	22.6	Staffing and Training To Meet Obligations.	313
	22.7	Accounts and Reports.	313
	22.8	Applicable Law and Forum.	313
	22.9	Consistency with Federal Laws and Regulations.	314
	22.10	ISO Grid Operations Committee; Changes To ISO Protocols.	315
	22.11	ISO Protocol Amendment Process.	315
	22.13	Scheduling Responsibilities and Obligations.	315
ARTIC	CLE II – 1	TRANSMISSION SERVICE	315
23	CATE	GORIES OF TRANSMISSION CAPACITY.	315
24	TRAN	SMISSION EXPANSION.	316
	24.1	[NOT USED]	317
	24.2	[NOT USED]	319
	24.3	[NOT USED]	320
	24.4	[NOT USED]	321
	24.5	[NOT USED]	321
	24.6	[NOT USED]	322
	24.7	Cost Responsibility for Transmission Additions or Upgrades.	322

	24.8	Ownership of and Charges for Expansion Facilities.	324
	24.9	Expansion by "Local Furnishing" Participating TOs	324
25		CONNECTION OF GENERATING UNITS AND GENERATING ITIES TO THE ISO CONTROLLED GRID.	324
	25.1	Applicability.	324
	25.2	Interconnections to the Distribution System.	326
	25.3	Maintenance of Encumbrances.	326
26	TRAN	SMISSION RATES AND CHARGES.	326
	26.1	Access Charges.	326
	26.2	Tracking Account.	333
	26.3	Addition of New Facilities After ISO Implementation.	334
	26.4	Effect on Tax-Exempt Status.	334
	26.5	Transition Mechanism.	334
	26.6	Location Constrained Resource Interconnection Facilities	334A
ARTI	CLE III –	MARKET OPERATIONS	335
27	OVER	VIEW OF MARKETS.	335
	27.1	Congestion Management.	335
	27.2.1	Transmission Losses	352
28	TRAD	ES BETWEEN SCHEDULING COORDINATORS.	357
29	[NOT	USED]	357
30	BIDS	AND BID SUBMISSION.	357
	30.1	ISO Operations.	357
	30.2	Information to Be Submitted by Scheduling Coordinators to the ISO.	358
	30.3	The Scheduling Process.	367
	30.4	Verification of Information.	371
	30.5	[NOT USED]	379
	30.6	RMR.	379
31	DAY-A	AHEAD MARKET.	388
	31.1	Timing of Day-Ahead Scheduling.	388
32	[NOT	USED]	396
33	HOUR	AHEAD.	396
	33.1	Timing of Hour-Ahead Scheduling.	396
34	REAL-	тіме.	398
	34.1	Energy Bids.	398

	34.2	Supplemental Energy Bids.	401
	34.3	Real-Time Dispatch.	405
	34.4	Notification of Non-Compliance With A Dispatch Instruction.	421
	34.5	Dispatch Instructions for Generating Units and Curtailable Demand	421
	34.6	Response Required by Generators to ISO Dispatch Instructions.	422
	34.7	Qualifying Facilities.	422
	34.8	Failure to Conform to Dispatch Instructions.	423
	34.9	Pricing Imbalance Energy.	424
35	[NOT L	JSED]	426
36	FIRM T	RANSMISSION RIGHTS.	426
	36.1	General.	426
	36.2	Characteristics of Firm Transmission Rights.	426
	36.3	Maximum Number of Firm Transmission Rights.	428
	36.4	Issuance of Firm Transmission Rights by the ISO.	428
	36.5	Distribution of Auction Revenues Received by the ISO for Firm Transmission Rights.	433
	36.6	Distribution of Usage Charges to FTR Holders.	434
	36.7	Scheduling Priority of FTR Holders.	435
	36.8	Assignment of Firm Transmission Rights.	437
37	ENFO	RCEMENT PROTOCOL.	438
	37.1	Objectives, Definitions, and Scope.	438
	37.2	Comply with Operating Orders.	439
	37.3 Schedu	Submit Feasible Energy and Ancillary Service Bids and ules.	442
	37.4	Comply with Availability Reporting Requirements.	442
	37.5	Provide Factually Accurate Information.	444
	37.6	Provide Information Required by ISO Tariff.	445
	37.7	No Market Manipulation.	447
	37.8	Process for Investigation and Enforcement.	449
	37.9	Administration of Sanctions	451
	37.10	Miscellaneous.	455
ARTIC	LE IV –	MARKET MONITORING AND MARKET POWER MITIGATION	458
38	MARK	ET MONITORING.	458
	38.1	Objectives and Scope.	458
	38.2	Practices Subject to Scrutiny – General.	459

	38.3	Scrutiny of Participant Changes Potentially Affecting Market Structure	460
	38.4	Response Action by ISO.	460
39	RULE	S LIMITING CERTAIN ENERGY AND ANCILLARY SERVICE BIDS.	462
	39.1	Damage Control Bid Cap.	462
	39.2	Maximum Bid Level.	462
	39.3	Negative Decremental Energy Bids.	463
ARTI	CLE V –	RESOURCE ADEQUACY	463
40	RESO	URCE ADEQUACY.	463
	40.1	Applicability	463
	40.2	Submission of Annual and Monthly Resource Adequacy Plan.	463B
	40.3	Demand Forecasts.	463E
	40.4	Planning Reserve Margin.	463F
	40.5	Determination of Resource Adequacy Capacity.	463F
	40.6	Submission of Supply Plans.	463J
	40.7	FERC Must-Offer Obligations.	463T
	40.8	Recovery of Minimum Load Costs By FERC Must-Offer Generators.	466
	40.9	Criteria for Issuing Must-Offer Waivers.	470A
	40.10	Requirement of FERC Must-Offer Generators to File Heat Rate and Emissions Rate Data.	471
	40.11	Emissions Costs.	471
	40.12	Start-Up Costs.	474
	40.13	ISO Default Qualifying Capacity Criteria.	477
	40.14	Capacity Payments under the FERC Must-Offer Obligation	477D
	40.15	Must-Offer Reporting Requirement	477E
41	Procu	rement of RMR	477F
42		ance of Adequate Generation and Transmission to meet Applicable ting and Planning Reserve	477F
	42.1	Generation Planning Reserve Criteria	477F
43	Transi	tional Capacity Procurement Mechanism	479
	43.1	Designation	479
	43.2	Local TCPM Designations	479
	43.3	System TCPM Designations	479B

43.4	Designations for TCPM Significant Events	479C
43.5	Obligations of a Resource Designated under the TCPM	479D
43.6	TCPM Report	479E
43.7	Payments to Resource under the TCPM	479E.01
43.8	Allocation of TCPM Capacity Payment Costs	479G
APPENDIX A	MASTER DEFINITIONS SUPPLEMENT	480
APPENDIX B	PRO FORMA AGREEMENTS	539
B.1	Scheduling Coordinator Agreement	540
B.2	Participating Generator Agreement	545
B.3	Qualifying Facility Participating Generator Agreement	561
B.4	Participating Load Agreement	578
B.5	Dynamic Scheduling Agreement for Scheduling Coordinators	593
B.6	Meter Service Agreement for ISO Metered Entities	606
B.7	Meter Service Agreement for Scheduling Coordinators	623
B.8	Utility Distribution Company Operating Agreement	643
B.9	Dynamic Scheduling Host Control Area Operating Agreement	676
B.10	Small Utility Distribution Company Operating Agreement	692
APPENDIX C	ISO SCHEDULING PROCESS	716
APPENDIX D	BLACK START UNITS	720
APPENDIX E	VERIFICATION OF SUBMITTED DATA FOR ANCILLARY SERVICES	722
APPENDIX F	RATE SCHEDULES	725
APPENDIX G	MUST-RUN AGREEMENTS	756
APPENDIX H	METHODOLOGY FOR DEVELOPING THE WEIGHTED AVERAGE RATE FOR WHEELING SERVICE	757
APPENDIX I	ISO CONGESTION MANAGEMENT ZONES	759
APPENDIX J	END-USE METER STANDARDS AND CAPABILITIES	761
APPENDIX K	ANCILLARY SERVICES REQUIREMENTS PROTOCOL	764
APPENDIX L	METHODOLOGY TO ASSESS AVAILABLE TRANSFER CAPABILITY	785
APPENDIX M	TRANSMISSION RIGHTS/CURTAILMENT INSTRUCTIONS TEMPLATE	786
APPENDIX N	SETTLEMENTS AND BILLING	788
APPENDIX O	METERING	867
APPENDIX P	ISO DEPARTMENT OF MARKET ANALYSIS AND MARKET SURVEILLANCE COMMITTEE	957

APPENDIX Q	ELIGIBLE INTERMITTENT RESOURCES PROTOCOL	973
APPENDIX R	UDP AGGREGATION PROTOCOL (UDPAP)	980
APPENDIX S	STATION POWER PROTOCOL (SPP)	985
APPENDIX T	[NOT USED]	986
APPENDIX U	STANDARD LARGE GENERATOR INTERCONNECTION PROCEDURES (LGIP)	993
	STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA)	1065
	INTERCONNECTION PROCEDURES IN EFFECT PRIOR TO JULY 1, 1995 ("AMENDMENT 39 PROCEDURES")	1139
APPENDIX X	DYNAMIC SCHEDULING PROTOCOL (DSP)	1149
APPENDIX Y	SCHEDULING PROTOCOL (SP)	1157
APPENDIX Z	[NOT USED]	1171
APPENDIX AA	SMALL GENERATOR INTERCONNECTION PROCEDURES (SGIP)	1207
APPENIDX BB	ISO TARIFF (MRTU EARLY EFFECTIVE LANGUAGE)	1250
APPENDIX CC	RESOURCE ADEQUACY (MRTU EARLY EFFECTIVE LANGUAGE)	1365
APPENDIX DD	SMALL GENERATOR INTERCONNECTION AGREEMENT	1389
APPENDIX EE	TRANSMISSION EXPANSION AND PLANNING PROCESS	1423
APPENDIX FF	PROCEDURES FOR ADDRESSING PARALLEL FLOWS	1424
APPENDIX GG	LARGE GENERATOR INTERCONNECTION PROCEDURES (LGIP) FOR INTERCONNECITON REQUESTS IN A QUEUE CLUSTER WINDOW	1457
APPENDIX HH	LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA) FOR INTERCONNECITON REQUESTS IN A QUEUE CLUSTER WINDOW	1536