

INDEX

Article/Section Number	Sheet No.
ARTICLE 1 – GENERAL PROVISIONS	
1	DEFINITIONS 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	ACCESS TO THE ISO CONTROLLED GRID. 2
2.1	Open Access. 2
2.2	Eligibility of Customers for Direct Access or Wholesale Sales. 3
3	FACILITIES FINANCED BY LOCAL FURNISHING BONDS OR OTHER TAX-EXEMPT BONDS. 3
4	ROLES 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	RELATIONSHIP 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	COMMUNICATIONS.	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	SYSTEM OPERATIONS UNDER NORMAL AND EMERGENCY OPERATING 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	ANCILLARY 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	OUTAGES.	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	METERING.	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 SETTLEMENTS 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

12	CREDITWORTHINESS.	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
13	DISPUTE 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	FORCE 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	REGULATORY FILINGS.	282
16	EXISTING CONTRACTS.	282
	16.1 Existing Contracts for Transmission Service.	282
	16.2 ISO Administration of Existing Contracts for Transmission Service.	283
17	[Not Used]	301
18	[Not Used]	301
19	DEMAND FORECASTS.	301
	19.1 Scheduling Coordinator Demand Forecast Responsibilities.	301
	19.2 UDC Responsibilities.	304
20	CONFIDENTIALITY.	305
	20.1 ISO.	305
	20.2 Confidential Information.	305
	20.3 Other Parties.	306
	20.4 Disclosure.	306A
	20.5 Confidentiality.	308

21	SCHEDULE 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	MISCELLANEOUS.	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
	ARTICLE II – TRANSMISSION SERVICE	315
23	CATEGORIES OF TRANSMISSION CAPACITY.	315
24	TRANSMISSION EXPANSION.	316
	24.1 Determination of Need.	317
	24.2 Transmission Planning and Coordination.	319
	24.3 Studies to Determine Facilities to be Constructed.	320
	24.4 Operational Review.	321
	24.5 State and Local Approval and Property Rights.	321
	24.6 WECC and Regional Coordination.	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	INTERCONNECTION OF GENERATING UNITS AND GENERATING FACILITIES 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	TRANSMISSION 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
ARTICLE III – MARKET OPERATIONS		335
27	OVERVIEW OF MARKETS.	335
27.1	Congestion Management.	335
28	TRADES 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-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-TIME.	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 Used]	426

36	FIRM TRANSMISSION 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	ENFORCEMENT PROTOCOL.	438
	37.1 Objectives, Definitions, and Scope.	438
	37.2 Comply with Operating Orders.	439
	37.3 Submit Feasible Energy and Ancillary Service Bids and Schedules.	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
	ARTICLE IV – MARKET MONITORING AND MARKET POWER MITIGATION	458
38	MARKET 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	RULES 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
	ARTICLE V – RESOURCE ADEQUACY	463

40	RESOURCE ADEQUACY.	463
40.1	Must-Offer Obligations.	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 Cost 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	Procurement of RMR	477F
42	Assurance of Adequate Generation and Transmission to meet Applicable Operating and Planning Reserve	477F
42.1	Generation Planning Reserve Criteria	477F
43	Reliability Capacity Services Tariff	479
43.1	Designation	479
43.2	Local RCST Designations	479
43.3	System RCST Designations	479B
43.4	RCST Designations for Significant Events	479C
43.5	Obligations of a Resource Designated under the RCST	479D
43.6	RCST Report	479E
43.7	Payments to Resource under the RCST	479E
43.8	Allocation of RCST 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 & CAPABILITIES	761
APPENDIX K	ANCILLARY SERVICES REQUIREMENTS PROTOCOL	764
APPENDIX L	[NOT USED]	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	SCHEDULING COORDINATOR APPLICATION	986
APPENDIX U	STANDARD LARGE GENERATOR INTERCONNECTION PROCEDURES (LGIP)	993
APPENDIX V	STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA)	1065

APPENDIX W 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