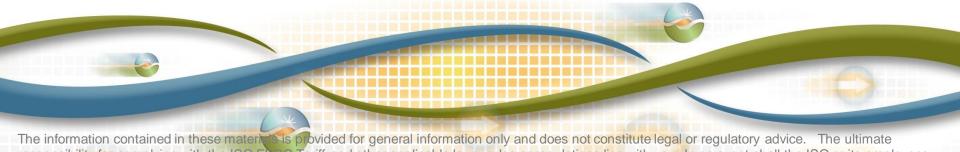


Energy Imbalance Market Year 1 Phase 2 Enhancements



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EIM YR1 PH2

The EIM Year 1 Enhancements initiative includes

- Proposed design changes to address FERC compliance
- Commitments made during the original stakeholder process
- And to address other issues identified during implementation.



The initiative has two phases

- The first phase addressed design changes implemented when NV Energy joined the EIM in October 2015
- The second phase is to address items that benefit from six months of operational experience with the EIM and items from phase 1 that required additional discussion.



EIM Year 1 Phase 2

Overview of EIM Year 1 Enhancement Phase 2 Policy Implementation

- EIM transfer limit congestion treatment
 - EIM transfer limit congestion revenue by intertie by BAA functionality
- Dynamic competitive assessment for market power mitigation of EIM transfer limits: (No system changes, Configuration in market, IFM/RTM, MPM)
- As with all internal constraints within the ISO and within the EIM BAA, EIM transfer limits continue to be tested for competitiveness when the constraint is binding.
- Use of e-tags to establish base schedule for import and exports (No system changes, BSAP data, BPM)





Overview of EIM Year 1 Enhancement Phase 2 Policy Implementation

- EIM entity submits base schedule must include the import/export between EIM BAAs for the e-tags reflect latest information, not limited to approve e-tags.
- Tariff authority will allow the EIM entity to permit the ISO to submit outage information the entity has entered into OMS to Peak RC



Overview EIM integration and market model refinements

EIM market implementation refinements:

- 1. Model scheduling constraints ISL/ITC for multiple ETSRs
- 2. Define and enforce ISL for EIM BAA intertie to facilitate EIM BAA import/export resources participating in EIM Fifteen Minute Market (FMM)
- Publish shadow prices of binding intertie constraints by type of constraints, include EIM Transfer Constraints, HVDC, ITC and other type constraints at OASIS



OASIS Base NSI example (sortable by T-75, 55, and 40 minute tests)

ATLAS	REFERENCE	REPORT DEF	INITION PRICE	ES TRANSMISSION	SYSTEM DEMAND ENERGY ANCILLARY SERVICES CONGESTION REVENUE RIGHTS PUBLIC BIDS
Date Fro	m:	31 To:	31	Market/Process: RTD	D 🗸 BAA ID: 🔽 Snapshot Indicator: 🔝 🖛 Apply Reset
Download XML Download CSV					
EIM BAA Base NSI					
X Market	🕈 Opr Date	Balancing	🛧 Opr Interval	Base Schedule	HE01 HE02 HE03 HE04 HE05 HE06 HE07 HE08 HE09 HE10 HE11 HE12 HE13 HE14 HE15 HE16 HE17 HE18 HE19 HE20 HE21 HE22 HE23 HE24 HE
	1 00.000	Authority Area ID	, op	Snapshot Indicator	
RTD			1	T40MIN	-62.63 91.00 196.13 193.88 190.50 174.25 227.63 221.50 150.50 10.38
RTD			2	T40MIN	-10.88 91.00 197.38 192.63 189.50 168.75 251.88 224.50 151.50 12.13
RTD			3	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			4	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			5	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			6	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			7	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			8	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			9	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			10	T40MIN	15.00 91.00 198.00 192.00 189.00 166.00 264.00 226.00 152.00 13.00
RTD			11	T40MIN	15.00 90.38 197.38 191.50 186.25 178.13 265.25 226.25 152.63 14.00
RTD			12	T40MIN	15.00 89.13 196.13 190.50 180.75 202.38 267.75 226.75 153.88



EIM YR1 PH2

Overview EIM integration and market model refinements

- 4. Publish resource GHG bid at OASIS public bids
- 5. Publish resource GHG bid Cap at CMRI
- 6. Publish base NSI for EIM BAA along with Base schedule test results at T-75, T-55 and T-40 at OASIS
- 7. Publish after-the-fact EIM interchange schedules for EIM entity at CMRI
- 8. Extract marginal loss contribution from MCC and Marginal Greenhouse gas cost and include in Marginal cost of losses.



EIM YR1 PH2

EIM entity shall submit base schedule of all available e-tags

 Include e-tags that reflect latest information, not limited to approved etags

In other words, the EIM entities must submit base schedules for <u>approved</u>, <u>pending</u>, and <u>adjusted</u> tags.

