

EIM-S Informational Meeting

02.16.2023



Agenda

GRID Modernization 

- Opening Remarks
- EIM-S schedule
- Revisit - Impact of Timing on Charge Codes
- Tags: Ghost vs EIMBASE vs Mirror
- Customer Portal
- Closing remarks

Opening Remarks

EIM-S schedule

EIM-S Schedule



Normal Cadence means two EIM Services Bills a month. In order to catch up BPA will need to begin sending out more than two months of bills each month.

Targeting around February 25th to publish Nov & Dec Initial (T+9B) and June Re-Calc (T+70B) EIM Detailed Data Files (DDFs) and EIM Services Bills (Initial and RECALC)

- November Initial – on course
- June RECALC – on course
- December Initial – possible delay

More schedule information planned for next customer informational meeting

EIM Services Bill Normal Cadence <i>(Initial 1-month and Recalc 4-months in arrears)</i>			Actual Published <i>(specific date found on Customer Portal)</i>		Billing Label <i>(part of the filename found on Customer Portal)</i>	
Publish Bills ~25th of each calendar month	Initial (T+9B) Market Month	Recalc (T+70B) Market Month	Initial (T+9B) Calendar Month	Recalc (T+70B) Calendar Month	Initial (T+9B) Billing Month	Recalc (T+70B) Billing Month
Jun-22	May-22		Jul-22		JUN22	
Jul-22	Jun-22		Sep-22		JUL22	
Aug-22	Jul-22		Sep-22		AUG22	
Sep-22	Aug-22	May-22	Nov-22	Jan-23	SEP22	DEC22
Oct-22	Sep-22	Jun-22	Nov-22	Feb-23	OCT22	JAN23
Nov-22	Oct-22	Jul-22	Jan-23		JAN23	
Dec-22	Nov-22	Aug-22	Feb-23		JAN23	
Jan-23	Dec-22	Sep-22	Feb-23			
Feb-23	Jan-23	Oct-22				
Mar-23	Feb-23	Nov-22				
Apr-23	Mar-23	Dec-22				
May-23	Apr-23	Jan-23				
Jun-23	May-23	Feb-23				

Bold Font = Planned Activity

EIM-S Schedule

GRID Modernization 

- Detailed Data Files
 - “Normal” cadence – distributed on a weekly basis with each subsequent file including an additional week’s worth of data until the last file representing the full month
 - Highest priority is reaching a “normal” cadence for EIM Services Bills
 - Hard to predict the timing at this point
 - Short-term goal – release detailed data files as soon as they are available
 - Mid-term goal – release detailed data files on every two week basis
 - Long-term goal – release detailed data files weekly

Impact of Timing on Charge Codes

Impact of Timing on Charge Codes

GRID Modernization 

- ~~• Customers will only be charged in one of the three charge codes in any 5 minute period: This statement was incorrect.~~
- Imbalance Energy may be a charge or a credit, dependent on how the FMM Schedule and Real-Time Schedule vary compared to the Base Schedule
 - Magnitude and direction of the schedule change from Base to FMM and FMM to RTD. (Assuming Positive Pricing)
- Examples over next few slides

Example 1:

GRID Modernization

- Base Schedule > FMM Schedule (decrease)
- FMM Schedule < Real-Time Schedule (increase)
- Meter < Real-Time Dispatch Schedule

Resource	Trade Date	Hour Ending	Interval	Uninstructed Imbalance Energy Quantity						Instructed Imbalance Energy (EIM CC 64750), FMM Instructed Imbalance Energy (EIM CC 64600), and Real-Time Instructed Imbalance Energy (EIM CC 64600)							
				Meter Read	Real-Time Expected Energy	Fifteen Minute Expected Energy	Standard Ramping Energy	Base Schedule - Tag	Uninstructed Imbalance Quantity	Real-Time Price	Customer RTD UIE Amount Allocation	FMM Instructed Imbalance Quantity	Fifteen Minute Price	Customer FMM IIE Amount Allocation	RTD Instructed Imbalance Quantity	Real-Time Price	Customer RTD IIE Amount Allocation
				MWh	MWh	MWh	MWh	MWh	K - L - M - N - O MWh	\$/MWh	IF J = 1 THEN 0, ELSE \$	M MWh	\$/MWh	IF H = 1 THEN 0, ELSE -1 * (S * T) \$	L MWh	\$/MWh	IF J = 1 THEN 0, ELSE -1 * (V * W) \$
EIM_1_EIMLONGNAME_G01	07/07/2022	18	17:05	1.79000	3.64690	-2.60000	0.00000	5.00000	-4.25690	\$96.93	\$412.63	-2.60000	\$89.33	\$232.27	3.64690	\$96.93	-\$353.50
EIM_1_EIMLONGNAME_G02	07/07/2022	18	17:10	1.76000	3.23650	-2.60000	0.00000	5.00000	-3.87650	\$88.07	\$341.42	-2.60000	\$89.33	\$232.27	3.23650	\$88.07	-\$285.05
					Base Schedule	5.00000	5.00000										
				Decrease	FMM Schedule	2.40000	-2.60000	FMM Expected Energy = delta between Base Schedule and FMM Schedule									
				Increase	RT Schedule	6.04690	3.64690	RT Expected Energy = delta between FMM Schedule and RT Schedule									
					Meter read	1.79000	1.79000										
					UIE		-4.2569										

Example 2:

GRID Modernization

- Base Schedule < FMM Schedule (increase)
- FMM Schedule > Real-Time Schedule (decrease)
- Meter < Real-Time Dispatch Schedule

Resource	Trade Date	Hour Ending	Interval	Uninstructed Imbalance Energy Quantity					Uninstructed Imbalance Energy (EIM CC 64750), FMM Instructed Imbalance Energy (EIM CC 64600), and Real-Time Instructed Imbalance Energy (EIM CC 64750)								
				Meter Read	Real-Time Expected Energy	Fifteen Minute Expected Energy	Standard Ramping Energy	Base Schedule - Tag	Uninstructed Imbalance Quantity	Real-Time Price	Customer RTD UIE Amount Allocation	FMM Instructed Imbalance Quantity	Fifteen Minute Price	Customer FMM IIE Amount Allocation	RTD Instructed Imbalance Quantity	Real-Time Price	Customer RTD IIE Amount Allocation
				MWh	MWh	MWh	MWh	MWh	MWh	\$/MWh	\$	MWh	\$/MWh	\$	MWh	\$/MWh	\$
EIM_1_EIMLONGNAME_G01	07/07/2022	18	17:05	1.79000	-2.60000	2.40000	0.00000	5.00000	-3.01000	\$96.93	IF J = 1 THEN 0, ELSE -1 * (P * Q)	M	IF H = 1 THEN 0, ELSE -1 * (S * T)	L	IF J = 1 THEN 0, ELSE -1 * (V * W)	\$252.03	
EIM_1_EIMLONGNAME_G02	07/07/2022	18	17:10	1.76000	-2.60000	2.40000	0.00000	5.00000	-3.04000	\$88.07						\$228.99	
								Base Sched	5.00000	5.00000							
								Increase	FMM Sched	7.40000	2.40000	FMM Expected Energy = delta between Base Schedule and FMM Schedule					
								Decrease	RT Schedu	4.80000	-2.60000	RT Expected Energy = delta between FMM Schedule and RT Schedule					
								Meter read	1.79000	1.79000							
								UIE		-3.0100							

Example 3:



- Base Schedule < FMM Schedule (increase)
- FMM Schedule < Real-Time Schedule (increase)
- Meter < Real-Time Dispatch Schedule

Resource	Trade Date	Hour Ending	Interval	Uninstructed Imbalance Energy Quantity					Imbalance Energy (EIM CC 64750), FMM Instructed Imbalance Energy (EIM CC 64600), and Real-Time Instructed Imbalance Energy (EIM CC 64600)								
				Meter Read	Real-Time Expected Energy	Fifteen Minute Expected Energy	Standard Ramping Energy	Base Schedule - Tag	Uninstructed Imbalance Quantity	Real-Time Price	Customer RTD UIE Amount Allocation	FMM Instructed Imbalance Quantity	Fifteen Minute Price	Customer FMM IIE Amount Allocation	RTD Instructed Imbalance Quantity	Real-Time Price	Customer RTD IIE Amount Allocation
				MWh	MWh	MWh	MWh	MWh	MWh	\$/MWh	\$	MWh	\$/MWh	\$	MWh	\$/MWh	\$
EIM_1_EIMLONGNAME_G01	07/07/2022	18	17:05	1.79000	0.60000	2.40000	0.00000	5.00000	-6.21000	\$96.93	IF J = 1 THEN 0, ELSE -1 * (P * Q)	M	\$89.33	IF H = 1 THEN 0, ELSE -1 * (S * T)	L	\$96.93	IF J = 1 THEN 0, ELSE -1 * (V * W)
EIM_1_EIMLONGNAME_G02	07/07/2022	18	17:10	1.76000	0.60000	2.40000	0.00000	5.00000	-6.24000	\$88.07			\$89.33		\$88.07		
								5.00000	5.00000								
						Increase	Base Schedule	5.00000	5.00000								
						Increase	FMM Schedule	7.40000	2.40000	FMM Expected Energy = delta between Base Schedule and FMM Schedule							
						Increase	RT Schedule	8.00000	0.60000	RT Expected Energy = delta between FMM Schedule and RT Schedule							
							Meter read	1.79000	1.79000								
							UIE		-6.2100								

Example 4:

GRID Modernization

- Base Schedule > FMM Schedule (decrease)
- FMM Schedule > Real-Time Schedule (decrease)
- Meter < Real-Time Dispatch Schedule

Resource	Trade Date	Hour Ending	Interval	Uninstructed Imbalance Energy Quantity					Instructed Imbalance Energy (EIM CC 64750), FMM Instructed Imbalance Energy (EIM CC 64600), and Real-Time Instructed Imbalance Energy (EIM CC 64500)										
				Meter Read	Real-Time Expected Energy	Fifteen Minute Expected Energy	Standard Ramping Energy	Base Schedule - Tag	Uninstructed Imbalance Quantity	Real-Time Price	Customer RTD UIE Amount Allocation	FMM Instructed Imbalance Quantity	Fifteen Minute Price	Customer FMM IIE Amount Allocation	RTD Instructed Imbalance Quantity	Real-Time Price	Customer RTD IIE Amount Allocation		
				MWh	MWh	MWh	MWh	MWh	MWh	\$/MWh	\$	MWh	\$/MWh	\$	MWh	\$/MWh	\$		
EIM_1_EIMLONGNAME_G01	07/07/2022	18	17:05	1.79000	-1.50000	-2.00000	0.00000	5.00000	0.29000	\$96.93	IF J = 1 THEN 0, ELSE -1 * (P * Q)	-2.00000	\$89.33	IF H = 1 THEN 0, ELSE -1 * (S * T)	\$178.67	-1.50000	\$96.93	IF J = 1 THEN 0, ELSE -1 * (V * W)	\$145.40
EIM_1_EIMLONGNAME_G02	07/07/2022	18	17:10	1.76000	-1.50000	-2.00000	0.00000	5.00000	0.26000	\$88.07		-2.00000	\$89.33		\$178.67	-1.50000	\$88.07		\$132.11
								Base Sched	5.00000										
								Decrease FMM Sche	3.00000										
								Decrease RT Schedu	1.50000										
								Meter read	1.79000										
								UIE		1.79000									
										0.2900									

Tags: Ghosts vs. EIMBASE vs. Mirrors

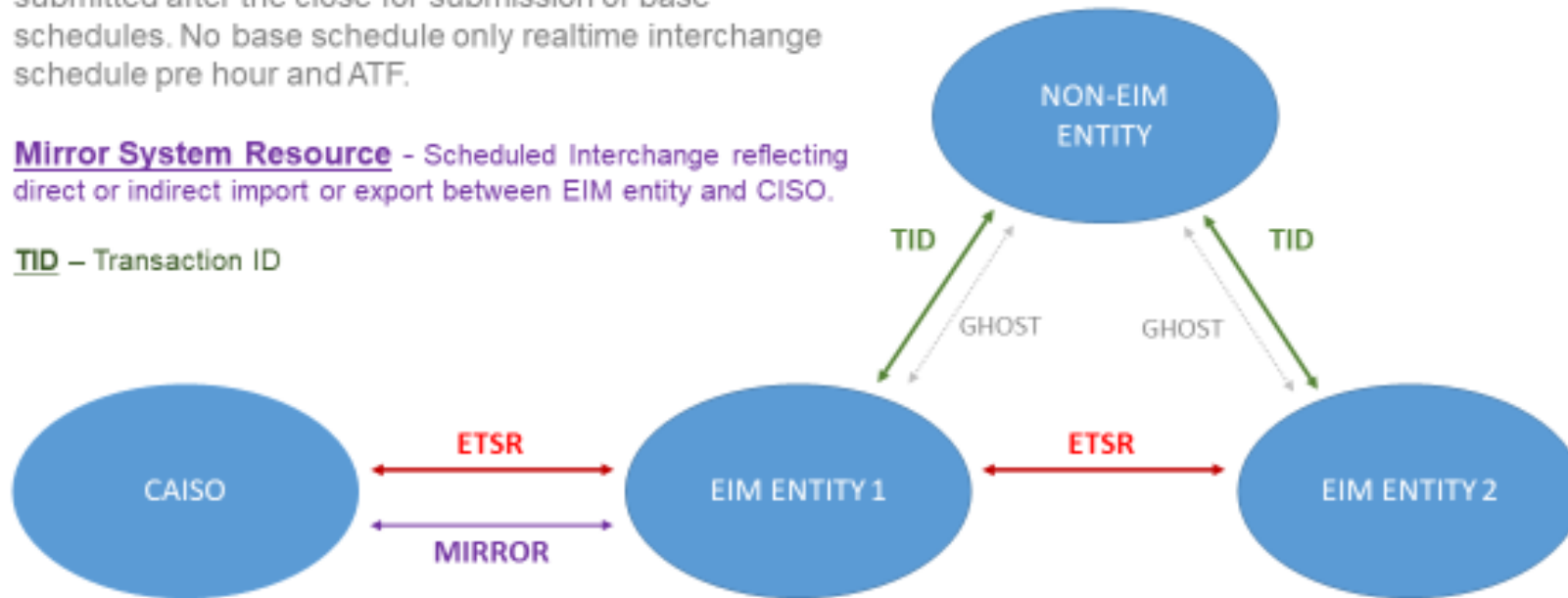
Ghosts vs. Mirrors

GRID Modernization

Ghost Intertie Resources – Ghost resources are utilized for EIM entity to Non-EIM Entity transactions that are submitted after the close for submission of base schedules. No base schedule only realtime interchange schedule pre hour and ATF.

Mirror System Resource - Scheduled Interchange reflecting direct or indirect import or export between EIM entity and CISO.

TID – Transaction ID



Ghosts vs. EIMBASE vs. Mirrors

A white arrow pointing to the right, containing the text "GRID Modernization" in blue.

- Ghosts
 - Late Transaction IDs (late is after T-57)
 - BPA Transmission Customers will always get the Transaction ID in their detailed data files, not the ghost
- ETSR – Energy Transfer System Resource is interchange between
 - EIMBASE is a type of ETSR
 - EIM BA and EIM BA OR
 - EIM BA and CAISO
- Mirrors – interchange between EIM BA and CAISO
 - Not all customers will see tags with MIRROR in them
 - Example tag name: TXCUST_BPAT_PRICEPT_E_F_MIRROR
 - TXCUST = Transmission Customer abbreviation
 - BPAT = EIM Entity in the diagram
 - PRICEPT is the price point
 - E = Export
 - F = Firm

Customer Portal

Customer Portal

GRID Modernization 

- Authorized users may sign up to receive an email from Customer Portal when a new EIM Services Bill is added
 - This feature is not yet available for Detailed Data Files and there is not currently an ETA when this will be an option
- Not all users are authorized users – must be able to access the Billing section of Customer Portal

Questions?

BPA Contacts for EIM



Topic / Question Area	Email and Phone	Email (cc)
EIM Services Bill (EESC)	EESCSettlements@bpa.gov or 503-230-EIM1	gridmod@bpa.gov and Power or Transmission Account Executive
Customer Billing		
Accts Payable/Receivable (Payment/Refund Questions)	ar@bpa.gov & acctspay@bpa.gov	
Metering	mdm@bpa.gov	
Customer Portal	customerportal@bpa.gov	
BPA Outage Office	Planned outages: bpaoutage@bpa.gov Unplanned: Contact BPA's Generation Dispatcher	
After-hours Outage	Contact BPA's Generation Dispatcher	N/A

Closing Remarks