

EIM-S Informational Meeting

03.09.2023



Agenda

GRID Modernization 

- Opening remarks
- EIM-S schedule
- December Initial EIM Services Bill Observations
 - December pricing and related events
 - December credits
- BPA contacts
- Closing remarks

Opening Remarks

Paying Bills

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

- All bills are due upon issuance per the due date listed on the bill
- Waivers and/or disputes are addressed after bill is paid in full
- If any credits/refunds are owed to customers they should not offset internally on their side - BPA will pay these Credits/Refunds per the due dates (ie. sequentially)
- If any Customer has a past due bill of any type, the credits/refunds will not be issued until past due bills are paid in full

EIM-S schedule

EIM-S Schedule



Reminder: Normal Cadence means at least 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 March 27th to publish Jan & Feb Initial (T+9B) and July Re-Calc (T+70B) EIM Detailed Data Files (DDFs) and EIM Services Bills (Initial and RECALC)

- January Initial– on track
- February Initial – on track
- July RECALC – on track
- August RECALC – stretch goal

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	① Initial (T+9B) Market Month	② Recalc (T+70B) Market Month	① Initial (T+9B) Calendar Month	② Recalc (T+70B) Calendar Month	① Initial (T+9B) Billing Month	② 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	~ 3/3/2023	OCT22	JAN23
Nov-22	Oct-22	Jul-22	Jan-23	Mar-23	NOV22	FEB23
Dec-22	Nov-22	Aug-22	~ 3/3/2023	Mar-23	JAN23	FEB23
Jan-23	Dec-22	Sep-22	~ 3/3/2023		JAN23	
Feb-23	Jan-23	Oct-22	Mar-23		FEB23	
Mar-23	Feb-23	Nov-22	Mar-23		FEB23	
Apr-23	Mar-23	Dec-22				
May-23	Apr-23	Jan-23				
Jun-23	May-23	Feb-23				

Bold Font = Planned Activity

December Initial EIM Services Bill Observations

Introduction

GRID Modernization 

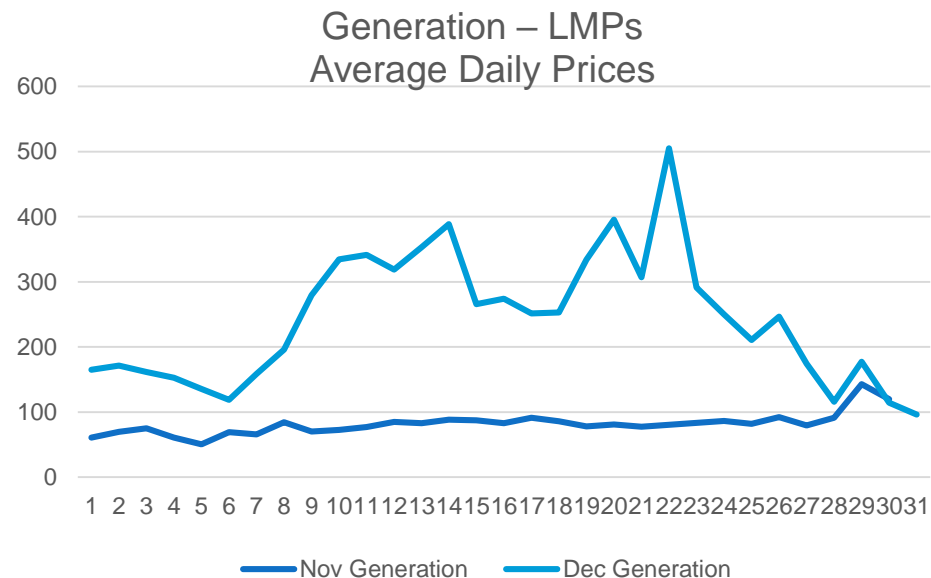
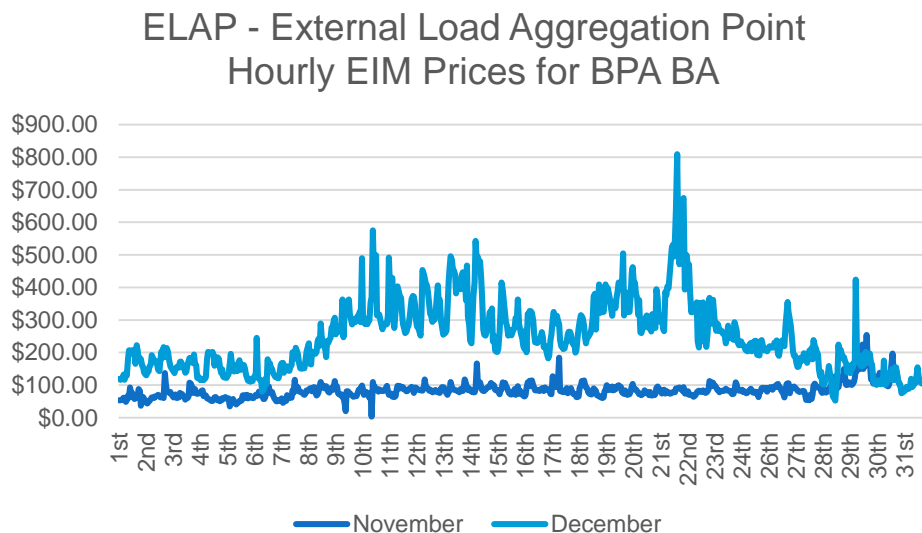
- BPA seeks to share observations on EIM Services Bills, particularly when:
 - They are meaningful in magnitude
 - They include a broad impact to the Transmission Customer base, or
 - They can be tied to missing, inaccurate or inconsistent data submissions and / or overall EIM events.
- December includes more of these events than we have observed in recent months.

December pricing and related events

December Initial – Macro View



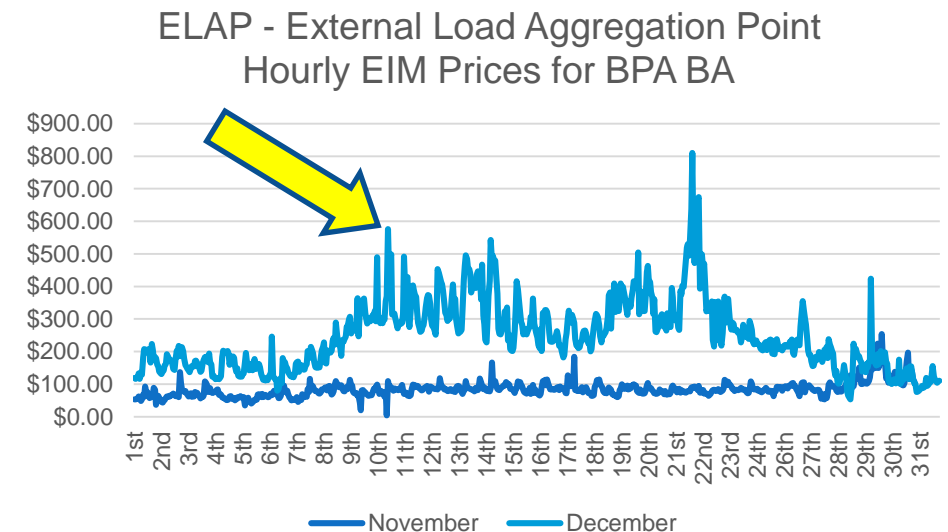
- Customers may see higher than normal charges/credits in their December Initial due to higher prices when compared to November



* Average Daily Prices were constructed by averaging LMPs by position across a day and then averaging across all positions

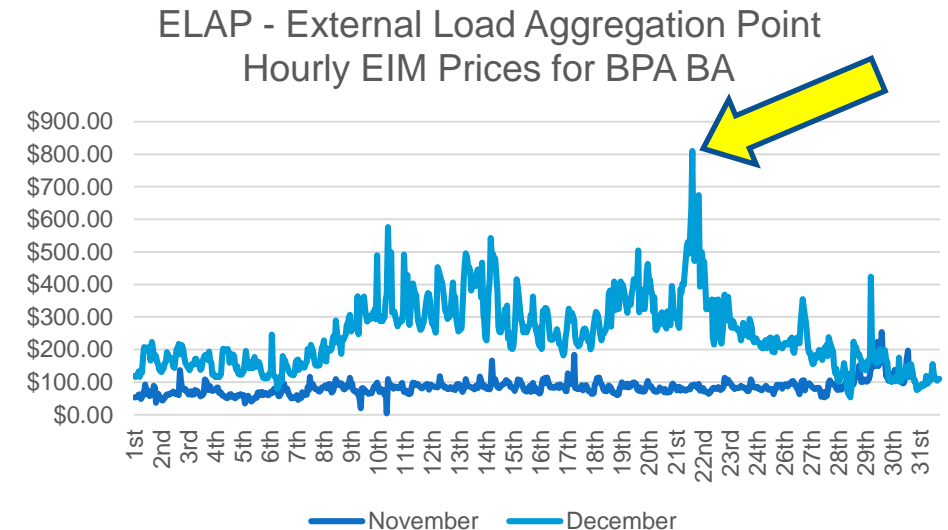
December Initial – Micro View, Dec 10th **GRID** Modernization

- A non-participating generator in the BPA BAA operated off of its schedule
- This behavior led to multiple EESC charges and credits being properly assessed by CAISO and paid by BPAT.
- However, recognizing that EESC settlement sub-allocations were implemented correctly, BPA is evaluating potential issues with three particular charge codes as billed by BPA on the Dec INITIAL EIM Services Bills to Transmission Customers because sub-allocation outcomes may not adhere to cost causation principles as intended:
 - CC 64750: Real-Time Uninstructed Imbalance Energy Settlement for Load
 - CC 64770: BA EIM Real-Time Imbalance Energy Offset
 - CC 6045: BA Over/under Scheduling Charge



December Initial – Micro View, Dec 22nd **GRID Modernization**

- Dedicated contingency resources were promoted into production at 00:00 on Dec 22nd to facilitate separation of contingency and ABC dispatches.
- Erroneous initial conditions began to be used by the market model:
 - Erroneous initial conditions were not observed in testing.
 - Even after quick action by BPA’s EESC Desk and the CAISO RTMO, multiple 15-minute intervals and 5-minute intervals during HE 01 reflected prices and dispatches informed by erroneous initial conditions.
 - This resulted in high prices, ABC deployments, and changes in EIM transfers for the BPA BAA.
- BPA is continuing to evaluate sub-allocation outcomes:
 - BPA has sought and CAISO has implemented price corrections for affected intervals.
 - While most were adjusted, EESC settlements reflect remaining volume impacts not adjusted in real-time.
 - High average prices on 12/22 are driven by intervals outside of those affected by this event.



December credits

Specific Event: December 18 & 19, 2022



GRID Modernization

- Charge Code 64770 – EIM Real Time Energy Imbalance Offset
 - December Initial EIM Services Bill may have a higher than average credit for some customers
 - The size of the credit was due to incomplete interchange data that affected the BA Load value submitted to CAISO
 - The actual value on the Recalc EIM Services Bill will be different and likely a much smaller credit or possibly a charge
 - This was caused by a small number of interchange meter points that did not have data by the T+7B deadline

December Summary

GRID Modernization 

- BPA is employing multiple tools available to it to assess and mitigate these episodes
 - Updating meter data for use on RECALC settlements
 - Implementing adjustments in real-time in concert with CAISO
 - Pursuing price corrections with the CAISO
 - Considering a one-time exception to BPA's EESC sub-allocation rules and procedures
 - Continuing to work with generators to enhance coordination of base schedules and actual operations

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

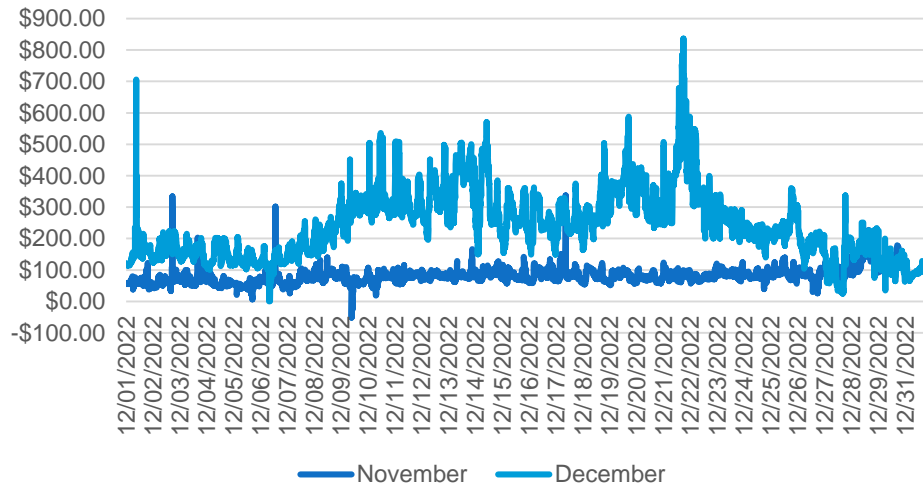
Appendix

EIM-S Schedule

GRID Modernization

- Additional price comparisons – November vs. December

5 min LMPs - One Position



Average Daily LMP - Interchange

