

WESTERN

EIIM



2022

IMPLEMENTATION WORKSHOP

March 31, 2022

INTRODUCTION

Rachel Dibble

Acting Vice President of Bulk Marketing



Safety Moment: Exercising in Your Neighborhood

- Take an ID and cell phone with you, but stay alert by **not talking on the phone as you walk**
- **Let others know** where you're going and when you plan to be back
- Stick to **well-lit places** with other people around
- **Take a flashlight** and be sure you have **reflective material** on your jacket or walking shoes if you walk in the early morning or evening
- Put **lights** on the front and back of your bike



Choose a safe location

- Be sure **drivers can see you**, wear reflective vests/materials
- Always walk **facing oncoming traffic**
- Look for a **smooth, stable surface** alongside the road – stay on sidewalks when you can
- If the road has guardrails, see if there's a good walking space behind the barrier

Stay indoors if it feels safer

- Find local stores or malls large enough for you to walk around
- Walk up and down your stairs a few times in a row. Be sure the stairwell is well lit and has railings for safety
- At home, do the strength, balance, and flexibility exercises (Netflix and Amazon Prime have exercise video options)



Agenda

Time	Topic	Presenter
9 to 9:10 a.m.	Introductions	Rachel Dibble
9:10 to 9:15 a.m.	EIM Go-Live Update	Nita Zimmerman
9:15 to 9:25 a.m.	Grid Mod Mobilization	Mark Symonds
9:25 to 9:40 a.m.	Program Update	Elsa Chang and Mark Symonds
9:40 to 10:15 a.m.	Settlements	Rasa Keanini
10:15 to 10:30 a.m.	Break	
10:30 to 10:40 a.m.	Billing update	Misty Meyer
10:40 to 10:50 a.m.	Metering update	Malerie Ray and Mark Symonds
10:50 to 11:00 a.m.	Agency Enterprise Portal (AEP)	Maggie Rhodes
11:00 to 11:10 a.m.	Outage Management System (OMS)	Kara Perry
11:10 to 11:20 a.m.	Customer Engagement Update	Mark Symonds
11:20 to 12:00 p.m.	Open question and answer	

EIM GO-LIVE UPDATE

Nita Zimmerman

Chief Business Transformation Officer



GRID MODERNIZATION MOBILIZATION

Mark Symonds

Grid Modernization Director



Grid Modernization Mobilization Status

GRID Modernization

Updated: 03.29.2022

Projects denoted in purple will be discussed today

53%

30%

13%

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5%

- AGC Modernization
- Agency Enterprise Portal**
- Agency Metering System Replacement**
- Automated Operations Planning & Reliability Assessment
- BPA Network Model
- Customer Billing Center Replacement**
- Data Analytics
- EIM Bid & Base Scheduling
- EIM Program Management
- EIM Real Time Operations
- EIM Settlements Implementation**
- EIM Training Program
- EIM Testing Program
- Federal Data & Generation Dispatch Modernization
- Load & Renewable Forecasting
- Metering Review & Update
- Mission Critical IT – Infrastructure
- Outage Management System**
- Price & Dispatch Analysis (PRADA)
- Short Term Available Transfer Capability (ATC)
- Sub-Hourly Scheduling on the DC

- Agency Enterprise Portal Phase 2
- AMS MRU Device Event Reporting
- Power Operations Log Replacement
- Mission Critical IT – Re-Platforming
- Wildfire Risk Modeling

- Concurrent Losses
- Real Time Ops Modernization

- CTA Implementation
- EIM Settlements Scoping
- Energy Trading & Risk Management & MMS Expansion
- Marketing & Settlements System
- Mission Critical IT – Architecture
- Mission Critical IT – Integration
- Mission Critical IT – Service Management
- One BPA Outage
- Outage Tracking System
- Power Services Training
- RAS Automatic Arming
- Reliability Coordinator Decision, Planning & Execution

Identify

Define

Integrate

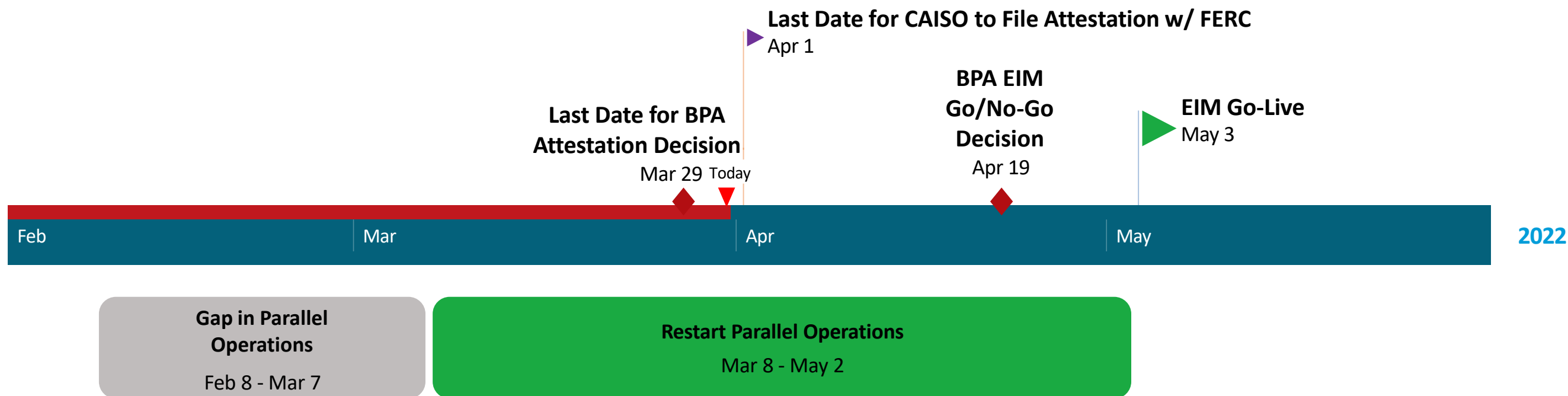
Deliver

Complete

EIM Go-Live Timeline

GRID Modernization

EIM Go-Live scheduled for May 3, 2022



EIM Participation Principles

GRID Modernization 

1

Bonneville's participation is consistent with its statutory, regulatory and contractual obligations.

2

Bonneville will maintain reliable delivery of power and transmission to its customers.

3

Bonneville's participation is discretionary and Bonneville retains its ability to effectively exit the market in the event participation is no longer consistent with these principles.

4

Bonneville's participation is consistent with a sound business rationale.

5

Bonneville's participation is consistent with the objectives of Bonneville's Strategic Plan.

6

Bonneville's evaluation of EIM participation includes transparent consideration of the commercial and operational impacts on its products and services.

EIM PROGRAM UPDATE

Elsa Chang, *EIM Program Manager*

Mark Symonds, *Grid Mod Director*



EIM Program Update

GRID Modernization 

- All project work is continuing full throttle
- Focused on mitigating remaining issues and risks (meter data, outage management, settlements sub-allocation, detail data file, billing & customer portal)
- Continuing refinement of cut-over plan for go-live
- Developed post go-live plan
- Completed BPA's internal readiness assessment
- Working on readiness certification documentation

Parallel Operations Progress

GRID Modernization 

- Parallel Ops activities and market participation being performed 24x7 and going well
- Operators carrying out roles effectively and gaining understanding of market
- EIM Transfer testing completed successfully with all adjacent EIM entities
- Testing of operating procedures and business scenarios progressing well (e.g. AGC integration, oversupply, contingency events, system fail over, following market DOT)
- Working with CAISO to resolve all critical issues

Next Steps

GRID Modernization 

- Complete testing activities
- Continue procedure refinements & staff operational readiness
- Complete BPA's last remaining outstanding Readiness Criteria
- Continue refining cut-over plan for May 3rd go-live
- Continue supporting customer engagement

EIM SETTLEMENTS

Rasa Keanini

EIM Settlements Product Owner



Software Progress Update

GRID Modernization 

- BPA and vendor are working to complete remaining elements of defect fixes and testing
- Sub-allocation system logic is the primary outstanding area
 - Still seeing discrepancies between CAISO settlement statement and sub-allocations
 - Some issues are related to configurations
 - Partnering with vendor to resolve issues as soon as they are identified
- Expect to have sub-allocations functionality and detailed data files delivered and tested before we go-live


EIM Services Bill: Charge Example

GRID Modernization

EXAMPLE

- Example of an EIM Services Bill created out of the PowerOptix Billing system
- Currently does not have sub-totals for the initial vs. recalc
- Charge example (Customer owes BPA)

U.S. Department of Energy



Bonneville POWER ADMINISTRATION

EIM SERVICES BILL

Customer Name	Bill ID:	MAR22-EIM01-XXXXX
ATTN: Back Office	Issue Date:	March 21, 2022
Address 1	Bill Period:	March 2022
City, ST ZipCode	Period Ending:	March 31, 2022

AMOUNT DUE TO:

Bonneville Power Administration	\$443,957.97
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EIM SERVICES BILL

Customer Name:	Customer Name	Bill Period:	2022-03
Bill ID:	MAR22-EIM01-XXXXX	Period Ending:	March 31, 2022
Issue Date:	March 21, 2022		

INITIAL: 2021-12

Charge Code	Description	Current Amount	Previous Amount	Net Amount
15	Prior 2112 Intentional Dev Pntly	\$348,329.80	\$0.00	\$348,329.80
6045	Prior 2112 Over/Under Sched Settle	\$1,956.10	\$0.00	\$1,956.10
6046	Prior 2112 Over/Under Sched Alloc	\$0.00	\$0.00	\$0.00
64600	Prior 2112 FMM IIE EIM Settlement	(\$59,559.44)	\$0.00	(\$59,559.44)
64700	Prior 2112 RT IIE EIM Settlement	\$110,688.31	\$0.00	\$110,688.31
64750	Prior 2112 RT UIE EIM Settlement	(\$9,859.66)	\$0.00	(\$9,859.66)
64770	Prior 2112 RT Imb Energy Offset EIM	\$59,300.75	\$0.00	\$59,300.75
6478	Prior 2112 RT Sys Imb Energy Offset	(\$311.92)	\$0.00	(\$311.92)
67740	Prior 2112 RT Congestion Offset	(\$6,585.97)	\$0.00	(\$6,585.97)
69850	Prior 2112 RT Marg Losses Offset	\$0.00	\$0.00	\$0.00

EIM Services Bill: Credit Example

GRID Modernization

EIM SERVICES BILL

Customer Name
 ATTN: Management
 Address 1
 City, ST ZipCode

Bill ID: FEB22-EIM01-XXXXX
 Issue Date: March 3, 2022
 Bill Period: February 2022
 Period Ending: February 28, 2022

AMOUNT DUE TO:

Customer Name	(\$1,435,261.98)
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Due Date: **March 23, 2022**

EIM SERVICES BILL

Customer Name:	Customer Name	Bill Period:	2022-02
Bill ID:	FEB22-EIM01-XXXXX	Period Ending:	February 28, 2022
Issue Date:	March 3, 2022		

INITIAL: 2021-12

Charge Code	Description	Current Amount	Previous Amount	Net Amount
6045	Prior 2112 Over/Under Sched Settle	\$53.25	\$0.00	\$53.25
6046	Prior 2112 Over/Under Sched Alloc	\$0.00	\$0.00	\$0.00
64600	Prior 2112 FMM IIE EIM Settlement	\$352.64	\$0.00	\$352.64
64700	Prior 2112 RT IIE EIM Settlement	\$0.00	\$0.00	\$0.00
64750	Prior 2112 RT UIE EIM Settlement	(\$2,500,047.70)	\$0.00	(\$2,500,047.70)
64770	Prior 2112 RT Imb Energy Offset EIM	\$582,167.75	\$0.00	\$582,167.75
6478	Prior 2112 RT Sys Imb Energy Offset	\$4,823.75	\$0.00	\$4,823.75
67740	Prior 2112 RT Congestion Offset	\$1,060,005.74	\$0.00	\$1,060,005.74
69850	Prior 2112 RT Marg Losses Offset	\$0.00	\$0.00	\$0.00

INITIAL: 2021-11

Detailed Data File Update

GRID Modernization 

- Each report will be a separate Excel file (XML workbook); customers will receive multiple Excel files that are included in a single zip file (per week)
- The vendor has recently completed the logic to populate data in the detailed data files, BPA is testing
- Final format is very close – want to make sure all Excel reports are populated correctly prior to finalizing format

BILLING UPDATE

Misty Meyer

Billing Product Owner



BILLING UPDATE

GRID Modernization 

Billing replacement project will go live with a phased approach, prioritizing EIM Services Allocation Bills

- EIM Allocations functionality is scheduled to go-live in the new billing system on 5/1/22
- Initial testing results of the EIM Allocations billing functionality, using test data from EIM Settlements, has had success rates of 95-99%
- Billing is dependent upon sub-allocations functionality being completed in the EIM Settlements system in order to produce an EIM Services Bill

METERING UPDATE

Malerie Ray, *Metering Product Owner*

Mark Symonds, *Grid Mod Director*



Metering Update

- New metering system is running without any known issues [back to normal]
- Processes related to EIM meter data timing are being refined to support the May 3rd EIM go-live

Metering Update

GRID Modernization 

Data integration

- There were data integration issues that resulted in random gaps in the meter data. The vendor has developed a fix that has prevented these gaps from occurring and we continue to refine this process
- Gaps will occur per the normal business due to communication issue. Contact mdm@bpa.gov with any data questions so the assigned data analyst can research and respond

Reporting

- Data remains fairly consistent across all reports, which now update hourly
- Known issue with some historical gaps in data back to 1/1/2013 which the vendor is researching and will fix wholesale once all gaps per year are identified

Change Data

- This functionality allows the metering system to recognize if data changes have been made and facilitates re-calculation of data used for metering and billing, and will impact EIM calculations
- This functionality is online as of February 26 and is working great keep advanced calculations automatically updated

T+7B Process Refinement

GRID Modernization 

- Bonneville is continuing to accelerate our meter data validation processes for quality meter data to meet the T+7B submission for the initial EIM settlement statement
- Bonneville has developed a stop gap measure to address possible data quality issues on the initial settlement statement by submitting NO meter data to CAISO for some or all EIM points for a defined duration of time
- Our intent is to avoid either not producing a sub-allocation statement for customers or producing one that would have significant deviation from future resettlement statements
- At the next EIM customer workshop, Bonneville will provide information on duration of time and estimated number of meter positions for which we intend to use this stop gap substitution process

T+7B Process Refinement

GRID Modernization 

- When no meter data is submitted for the initial T+7B submittal, it is standard practice for CAISO to substitute the null values with the Total Expected Energy - essentially substituting a schedule value where the actual meter value would normally be
- When this substitution occurs, it will result in limited or no settlement for uninstructed imbalance energy (UIE) and different ratios for sub-allocated EIM charges and credits on the initial settlement statement that will be trued up on the first recalculated settlement statement at T+70B
- It will also result in these substituted values appearing in customer's Weekly Detailed Data files. Customers will continue to be able to pull actual meter data from MDMR2

AGENCY ENTERPRISE PORTAL (AEP)

Maggie Rhodes
AEP Product Owner



Agency Enterprise Portal Update

GRID Modernization 

- EPP (BPA.gov) portion of the AEP project went live on February 25
- New Customer Portal (NCP) portion was held back due to the vendor making changes to the system that negatively impacted the transfer of large files
- The root cause of the issue has been identified and a fix has been deployed and is being tested in production
- NCP is using this time to also fix small functionality improvements prior to going live
- The NCP go-live date has not officially been decided but likely will be in the **second or third week of April 2022**
- Communications will be sent out ahead of time to prepare all users


Agency Enterprise Portal Update

GRID Modernization 

- The Training Sandbox remains available to all customers and BPA encourages users to continue to become familiar with the new site
- The Customer Portal Support team is available to help with user issues/questions while learning in the sandbox
 - Customerportal@bpa.gov
 - 503.230.5999

Agreements and Legacy System Status

GRID Modernization

- Customers that have not yet signed CP Agreements
 - Please reach out to your Account Executive or customerportal@bpa.gov to do so
 -  At go live, **accounts that have not signed up** for CP will not have access to New Customer Portal; this includes their users
- At Go-Live, Legacy Customer Portal (CP) will be available only for historical data
 - Legacy CP will not be updated (no user changes, no live data feeds, no metering reports, etc.)
 - Legacy CP will be retired in calendar year 2022

What's next

GRID Modernization 

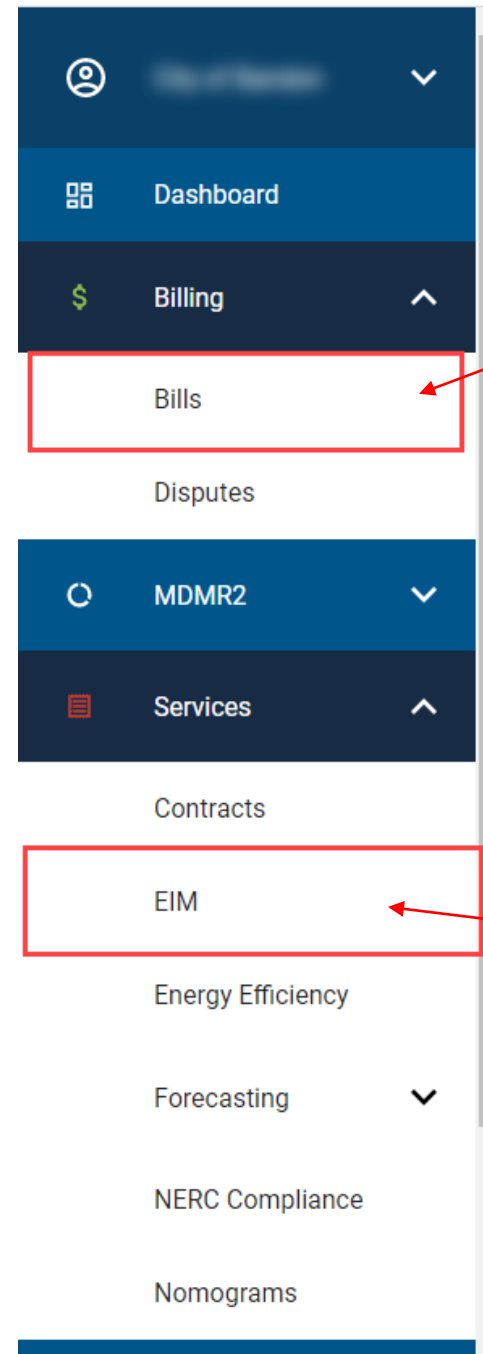
March

- Customers/users should continue to use sandbox as a training tool to become more familiar with the system. Direct any questions and issues to the Customer Portal Team.
- Watch for the announcement of the April Go-Live

May

- Post-training Follow-up Sessions scheduled for all users to address ongoing questions, issues, etc.

EIM on Customer Portal



EIM Bills will be available here (Once EIM Services bill is available)

Backup EIM settlement data will be here when BPA joins EIM

GRID Modernization 

Questions?

Contact: customerportal@bpa.gov

OUTAGE MANAGEMENT SYSTEM (OMS)

Kara Perry

OMS Project Manager



OMS Replacement Update

GRID Modernization 

- OMS replacement went live on March 8, 2022
- The team has been working with our vendor to resolve critical bugs and improve system performance, as well as to implement remaining functionality necessary for EIM Go-Live

CUSTOMER ENGAGEMENT UPDATE

Mark Symonds, *Grid Mod Director*



COMMENTS

Topic	Comment Summary	BPA Response
EIM Settlements	<p>While we understand the complexity of the many moving pieces BPA is responsible for, we would appreciate an updated timeline for EIM customer settlements development work, including:</p> <ul style="list-style-type: none"> • Release of a finalized sample detailed data file ahead of go-live. This is needed for customers to develop the capability to import into customer data systems and for customers to verify the accuracy of any formulas. • Release of a detailed data file containing customer-specific information based on parallel operations data ahead of go-live, if possible. This would help customers confirm our understanding of how EIM settlements will apply to our individual systems, and allow us to validate that correct data sources are being used as inputs. • Confirmation that detailed data files containing production EIM sub-allocation settlement info will be complete and available to customers ~2 weeks after go-live. • Release of a finalized sample detailed data file ahead of go-live. This is needed for customers to develop the capability to import into customer data systems and for customers to verify the accuracy of any formulas. 	<p>BPA understands and appreciates the need to provide this information to customers. BPA is working to get the finalized sample Detailed Data File released prior to go-live. Our vendor has started the work on populating the files. Until our vendor has completed this work, we cannot call the format final (as the vendor populates the file, elements may need to be changed). Additionally, BPA is working to schedule a settlements focused workshop for either the end of April or in early May soon after EIM Go-Live to provide this information and walk through it with customers.</p>

COMMENTS

Topic	Comment Summary	BPA Response
EIM Reporting	<p>Throughout the Implementation Workshops, including in comments following the November Workshop, we have requested that BPA engage in additional testing with customers. In a response posted on January 11, 2021, BPA stated that it is not in a position to offer customer testing at this time. With the delay, we reiterate our request that BPA provide customers with testing opportunities to verify that customer schedule and meter data is flowing correctly to BPA and CAISO systems, and that accurate imbalance MW and settlement amounts are flowing back from CAISO, through BPA, to the EIM sub-allocation detailed data statements that BPA will be providing to customers. We feel this is especially important in light of recent metering issues. Ideally this testing would allow BPA, customers, and/or CAISO to identify and resolve any discrepancies or other errors before BPA joins the EIM.</p>	<p>Unfortunately, BPA is not in a position to provide testing opportunities to customers within the current timeline. BPA is working to schedule an additional EIM Settlements-focused workshop that will help provide additional information for customers.</p>
	<p>In the January 11 response to customer comments, BPA stated that it is working with CAISO on processes and timelines to enable access to CMRI. We appreciate BPA's efforts on this item and request that BPA provide a progress update, including an expected date that access will be made available in order for customers to plan further development of validation systems.</p>	<p>BPA is working on the details to enable access to CMRI, working with the CAISO. We will bring those details forward as soon as we have them.</p>

Customer Engagement Plan

GRID Modernization 

- Outage management overview for small generator customers (please contact your Transmission Account Executive for more information)
- EIM Settlements Workshop (late April / early May):
Including New Customer Portal, Weekly Detailed Data File and EIM Services Bill

QUESTIONS?



COMMENTS

Please send your feedback to
techforum@bpa.gov
by April 14, 2022

**Thank you for participating in today's
workshop.**

**For more information,
visit www.bpa.gov/goto/eim.**

