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)

Source: https://www.nextavenue.org/tips-exercise-safety-your-neighborhood/
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>9 to 9:10 a.m.</td>
<td>Introductions</td>
<td>Rachel Dibble</td>
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<tr>
<td>9:10 to 9:15 a.m.</td>
<td>EIM Go-Live Update</td>
<td>Nita Zimmerman</td>
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<tr>
<td>9:15 to 9:25 a.m.</td>
<td>Grid Mod Mobilization</td>
<td>Mark Symonds</td>
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<tr>
<td>9:25 to 9:40 a.m.</td>
<td>Program Update</td>
<td>Elsa Chang and Mark Symonds</td>
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<tr>
<td>9:40 to 10:15 a.m.</td>
<td>Settlements</td>
<td>Rasa Keanini</td>
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<td>10:15 to 10:30 a.m.</td>
<td>Break</td>
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<tr>
<td>10:30 to 10:40 a.m.</td>
<td>Billing update</td>
<td>Misty Meyer</td>
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<tr>
<td>10:40 to 10:50 a.m.</td>
<td>Metering update</td>
<td>Malerie Ray and Mark Symonds</td>
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<td>10:50 to 11:00 a.m.</td>
<td>Agency Enterprise Portal (AEP)</td>
<td>Maggie Rhodes</td>
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<td>11:00 to 11:10 a.m.</td>
<td>Outage Management System (OMS)</td>
<td>Kara Perry</td>
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<td>11:10 to 11:20 a.m.</td>
<td>Customer Engagement Update</td>
<td>Mark Symonds</td>
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<td>11:20 to 12:00 p.m.</td>
<td>Open question and answer</td>
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EIM GO-LIVE UPDATE

Nita Zimmerman
Chief Business Transformation Officer
GRID MODERNIZATION
MOBILIZATION

Mark Symonds
Grid Modernization Director
Grid Modernization Mobilization Status

Updated: 03.29.2022

Projects denoted in purple will be discussed today

- 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

Identify
Define
Integrate
Deliver
Complete

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

- 13%
- 53%

- 5%
- Concurrent Losses
- Real Time Ops Modernization

- 0%

- 30%
- 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
EIM Go-Live Timeline

EIM Go-Live scheduled for May 3, 2022
Bonneville’s participation is consistent with its statutory, regulatory and contractual obligations.

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

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.

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

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

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*
• 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

• 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

• 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

• 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

- 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)
# EIM Services Bill: Credit Example

## 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:**

<table>
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<tr>
<th>Customer Name</th>
<th>($1,435,261.98)</th>
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## EIM Services Bill

**Customer Name:**

<table>
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<tr>
<th>Customer Name</th>
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<th>Bill ID:</th>
<th>Issue Date:</th>
<th>Bill Period:</th>
<th>Period Ending:</th>
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<td>FEB22-EIM01-XXXXX</td>
<td>March 3, 2022</td>
<td>2022-02</td>
<td>February 28, 2022</td>
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### INITIAL: 2021-12

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<tr>
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<th>Description</th>
<th>Current Amount</th>
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<tr>
<td>6045</td>
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<tr>
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<td>64770</td>
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<td>67740</td>
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<td>68850</td>
<td>Prior 2112 RT Marg Losses Offset</td>
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### INITIAL: 2021-11

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Detailed Data File Update

- 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 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

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 recalculation 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

• 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.
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
• 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
• 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

• 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

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

Backup EIM settlement data will be here when BPA joins EIM

EIM on Customer Portal
Questions?

Contact: customerportal@bpa.gov
OUTAGE MANAGEMENT SYSTEM (OMS)

Kara Perry

OMS Project Manager
OMS Replacement Update

- 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*
<table>
<thead>
<tr>
<th>Topic</th>
<th>Comment Summary</th>
<th>BPA Response</th>
</tr>
</thead>
</table>
| EIM Settlements     | 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:  
• 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. | 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. |
<table>
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<th>BPA Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIM Reporting</td>
<td>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.</td>
<td>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.</td>
</tr>
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<td></td>
<td>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.</td>
<td>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.</td>
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Customer Engagement Plan

• 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?
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](http://www.bpa.gov/goto/eim).