RC West Settlements Working Group

IT Product Management/Market Settlement Design and Configuration

July 9, 2019

CAISO public

Agenda

- Overview of the MRI-S interface
  - UI screen shots

Appendix

- Overview of settlement process
- Overview of charge codes
- RC and HANA Services production timeline
- MAP Stage Access
- XML File Sample

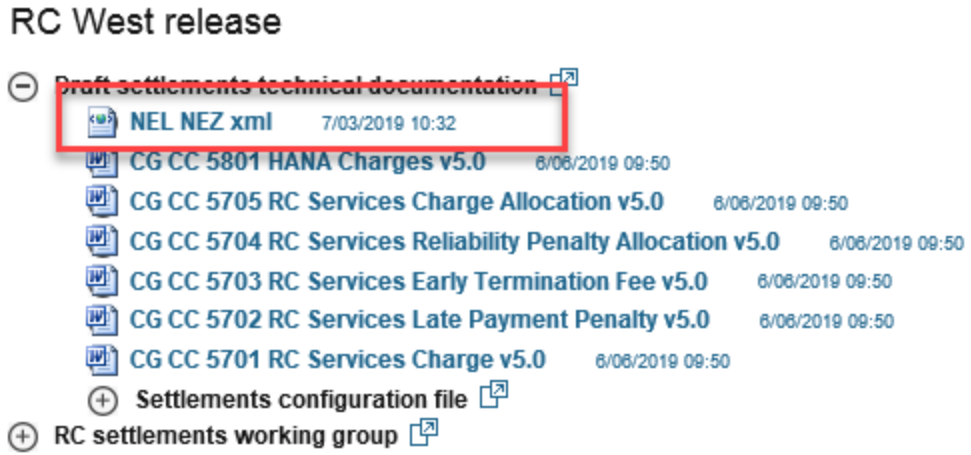
Settlements Data Validation – High Level Overview

- 7/9 – Map-stage opens, verify access and connectivity
  1. Start uploading 2018 NEL/NG volumes in MWh in MRI-S
  2. 7/10 – ISO to publish sample Informational Statement on MRI-S with mock up data
- 7/16 - NEL/NG data upload deadline
- RC Settlement Scenarios
  - 7/23 - RC West to publish informational statement which lists volumes provided in MRI-S for review prior to invoicing
  - 7/24 - 7/25 - RC customer timeline to review and validate volumes in Informational Statement and re-submit in MRI-S
  - 7/30 - RC West publish initial statement and invoice for RC charges
  - Week of 8/5 - RC West publish recalculation statement and invoice based on scenarios
- HANA Statement and Invoice
  - 7/25 - RC West publish HANA Services initial for validation
  - Week of 7/29 - Reserve for additional HANA Services scenarios

Application URL and XML File Location

- **Access to MRI-S portal**
  - Your User Access Administrator (UAA) should provide you MRI-S Map-stage environment access
    1) Follow instructions from your UAA to install certificate on local machine
    2) Verify certificate is installed correctly by navigating using your browser to:
       - https://portalmap.caiso.com/settlements/logon.do to verify you have access

- XML Template Location
- www.caiso.com > Stay Informed > Release Planning.
  - Under RC West release section



XML File Example

```
<?xml version="1.0" encoding="UTF-8" ?>
- <m:NetEnergyData xmlns:m="http://www.caiso.com/soa/NetEnergyData_v1.xsd#" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.caiso.com/soa/NetEnergyData_v1.xsd#
  http://flame1/mrtu/services/NetEnergyData/NetEnergyData_v1/20181001/NetEnergyData_v1.xsd">
  - <m:MessageHeader>
      <m:TimeDate>2001-12-17T09:30:47Z</m:TimeDate>
      <m:Source>String</m:Source>
      <m:Version>v20181001</m:Version>
    </m:MessageHeader>
  - <m:MessagePayload>
    - <m:NetEnergyZone>
        <m:mRID>NEZ</m:mRID>
      - <m:NetEnergy>
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            <m:unit>Wh</m:unit>
            <m:value>123456.7890</m:value>
          </m:netGeneration>
        - <m:tradePeriod>
            <m:end>2021-01-01T08:00:00Z</m:end>
            <m:start>2020-01-01T08:00:00Z</m:start>
          </m:tradePeriod>
        </m:NetEnergy>
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    </m:MessagePayload>
</m:NetEnergyData>
```
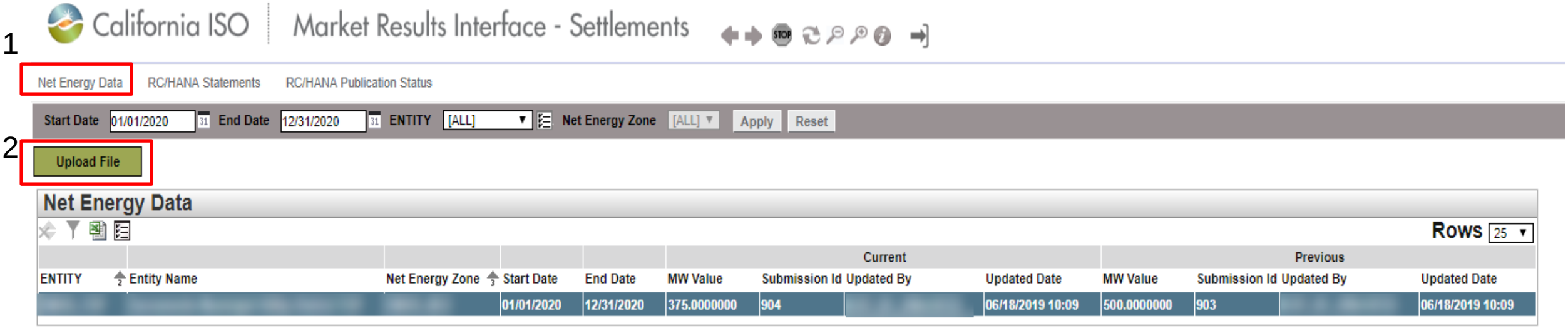

MRI-S UI

1


California ISO
Market Results Interface - Settlements
Net Energy Data
RC/HANA Statements
RC/HANA Publication Status
Start Date 01/01/2020
End Date 12/31/2020
ENTITY [ALL]
Net Energy Zone [ALL]
Apply
Reset

2

Upload File
Net Energy Data
Rows 25
Current
Previous
ENTITY
Entity Name
Net Energy Zone
Start Date
End Date
MW Value
Submission Id
Updated By
Updated Date
MW Value
Submission Id
Updated By
Updated Date
01/01/2020
12/31/2020
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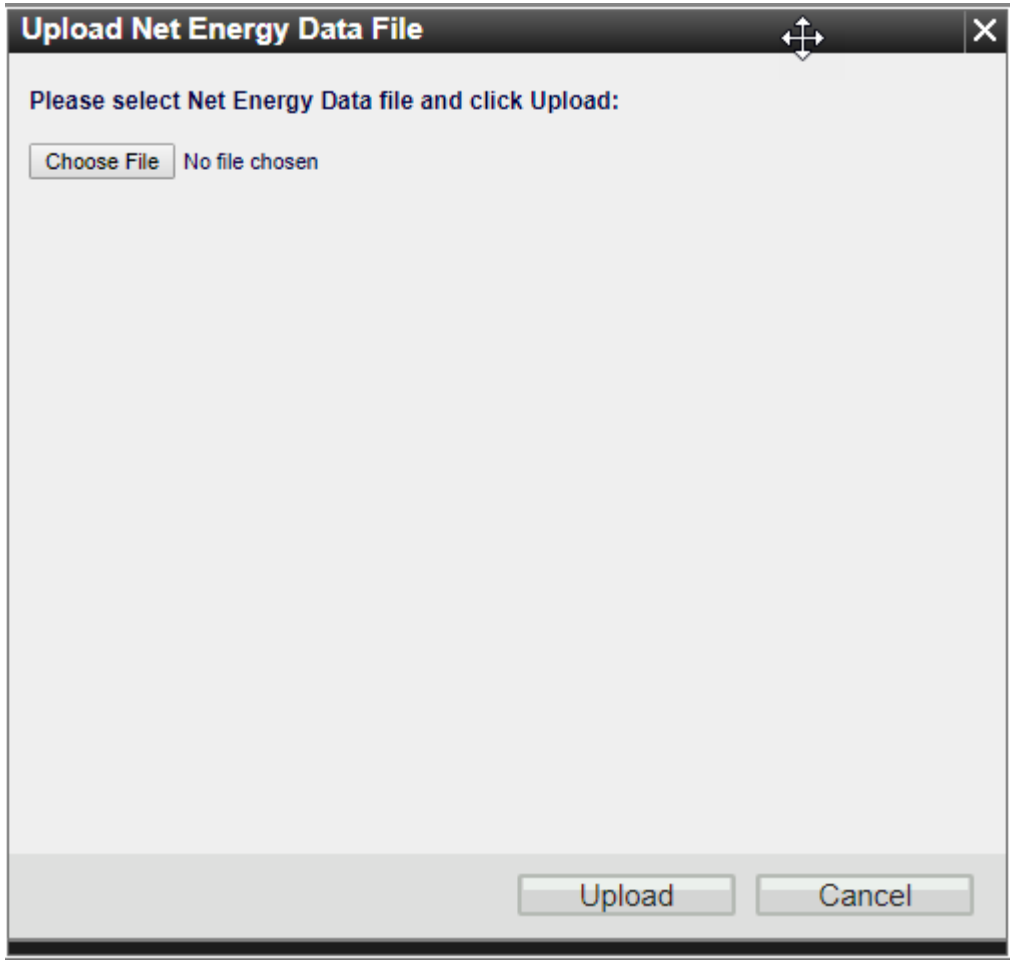
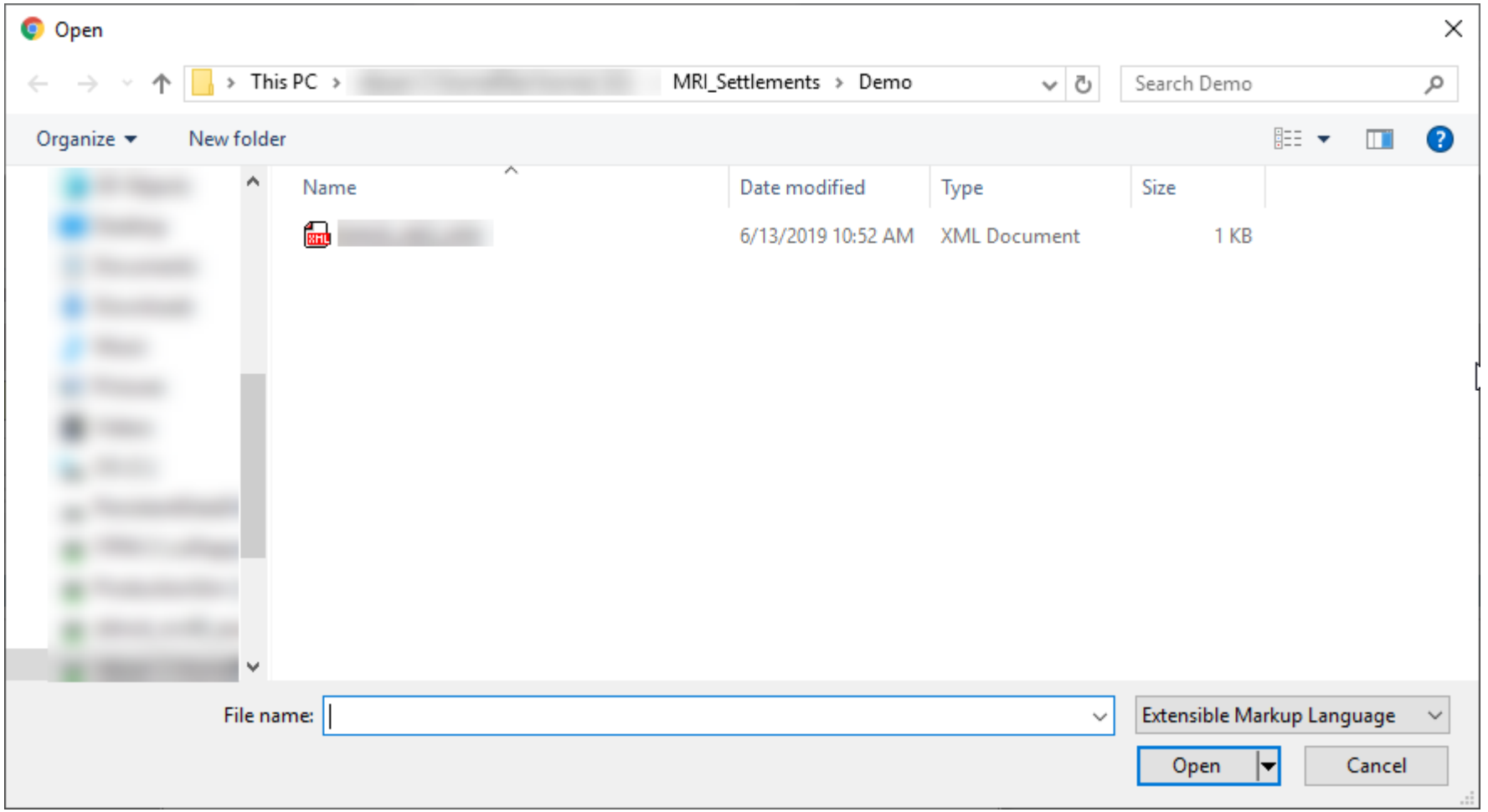
904
06/18/2019 10:09
500.0000000
903
06/18/2019 10:09

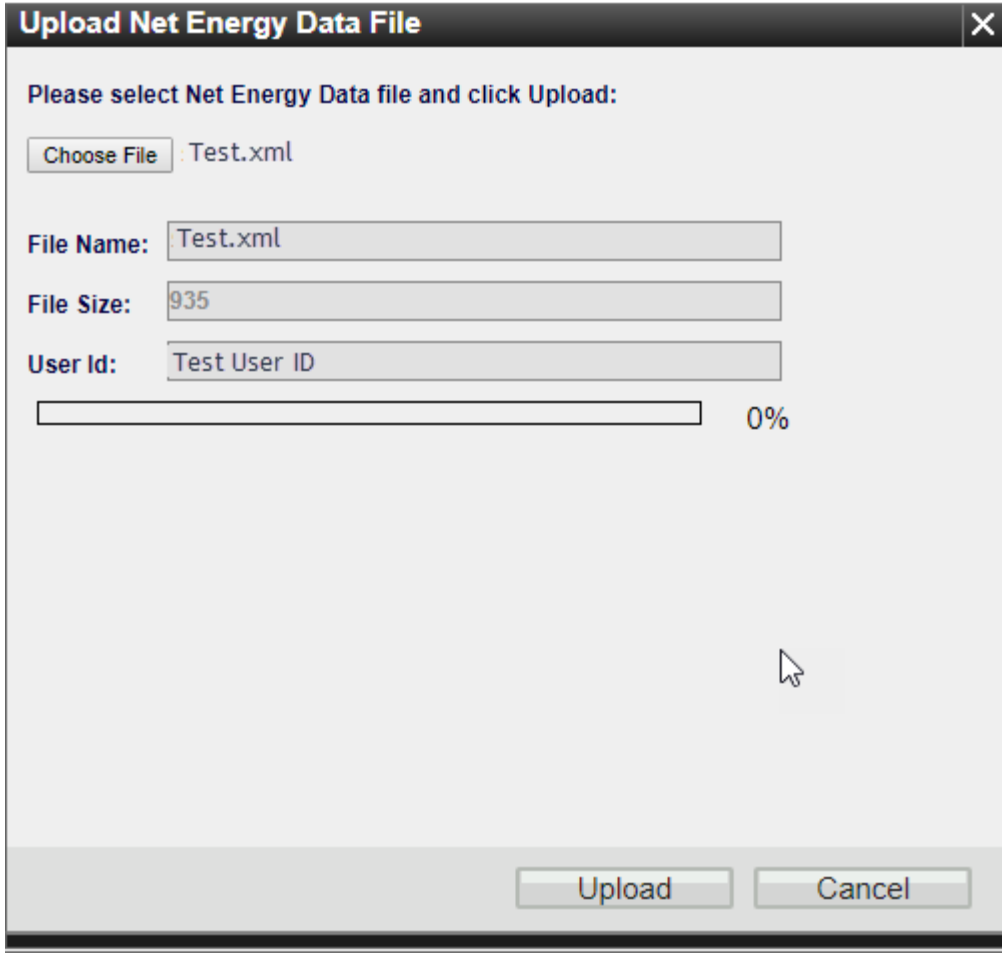
Net Energy Data



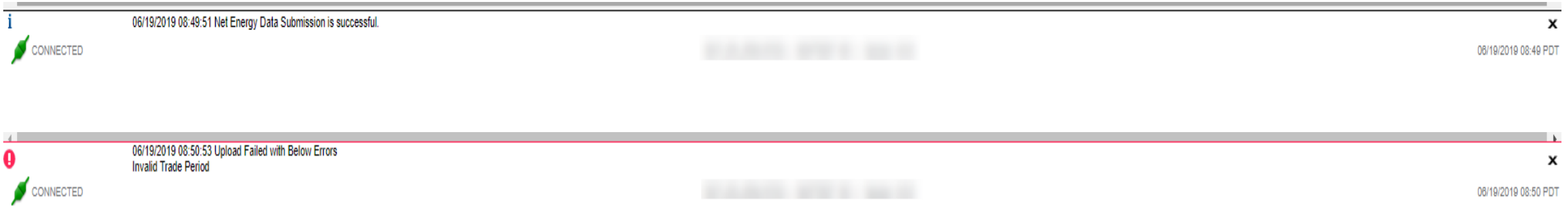
Net Energy Data



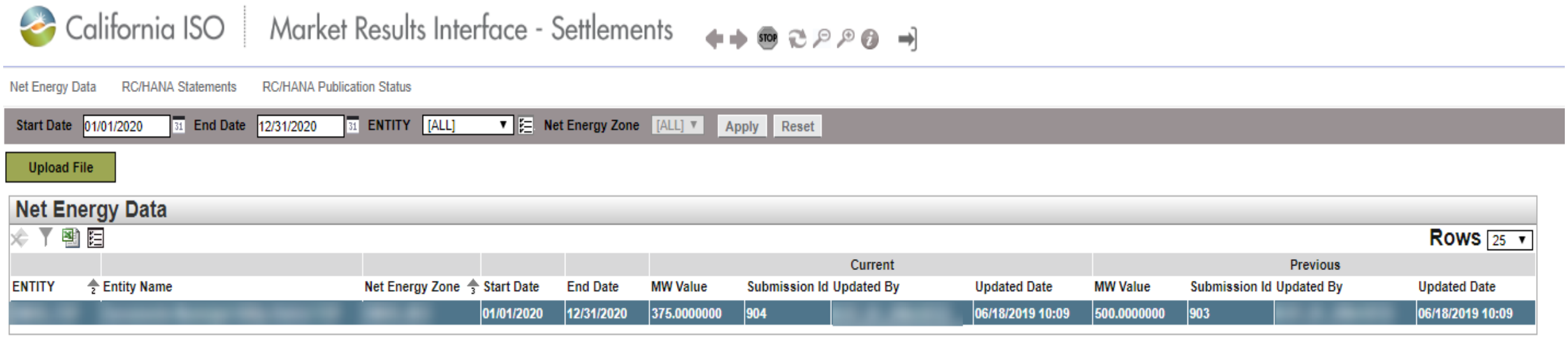
Net Energy Data



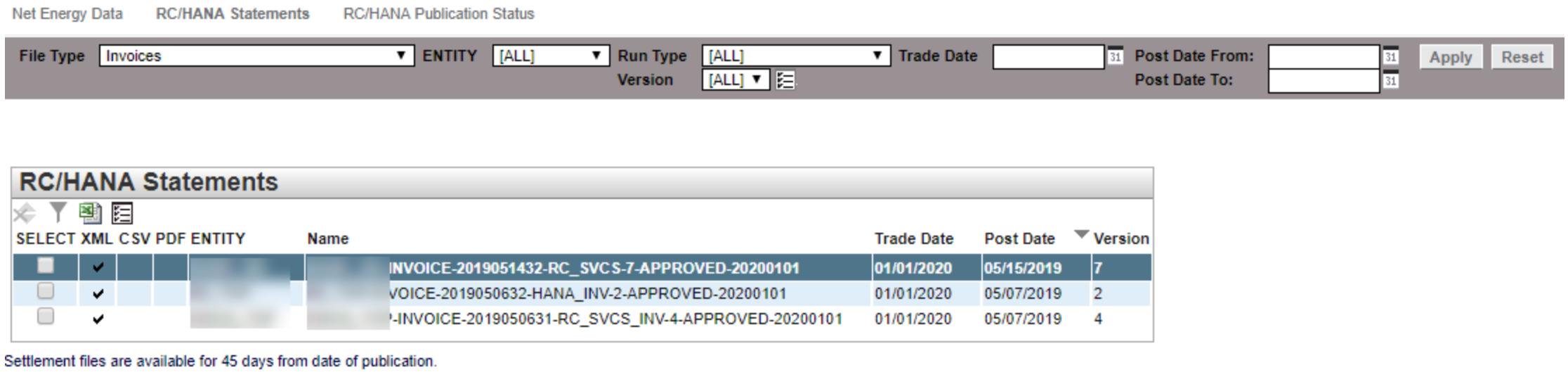
Net Energy Data



Settlement Data Validation



RC/HANA Statements



RC/HANA Publication Status

Net Energy Data RC/HANA Statements RC/HANA Publication Status

Trade Date Run Type [ALL] Post Date From: Apply Reset
Status [ALL] Post Date To:

RC/HANA Publication Status

Trade Date	Run Type	Run Number	Status	Version	Planned Post Date	Actual Post Date	Comments
01/01/2020			Published	1	05/06/2019	05/06/2019 13:39	
01/01/2020			Published	1	05/06/2019	05/06/2019 10:55	
01/01/2020			Published	2	05/06/2019	05/06/2019 13:25	
01/01/2020			Published	4	05/06/2019	05/08/2019 12:34	
01/01/2020			Published	2	05/07/2019	05/07/2019 10:58	
01/01/2020			Published	4	05/07/2019	05/07/2019 12:47	
01/01/2020			Published	2	05/07/2019	05/07/2019 12:45	
01/01/2020			Published	7	06/05/2019	06/05/2019 15:10	
01/01/2020			Published	7	05/15/2019	05/15/2019 11:25	
01/01/2020			Published	5	05/18/2019	05/18/2019 15:59	
01/01/2020			Published	6	05/28/2019	05/28/2019 11:03	
01/01/2020			Published	4	06/05/2019	06/05/2019 15:10	

Settlement publication status is available 2 business days prior to the planned post date and 45 calendar days after the actual post date.

MAP Stage URLs

- Doc Attach: https://wsmap.caiso.com/sst/stlmt/SubmitNetEnergyData_STLMTv1_DocAttach_AP
- Non-Doc Attach:
- https://wsmap.caiso.com/sst/stlmt/SubmitNetEnergyData_STLMTv1_AP

Data Validation Execution Details (7/919-8/7/19)

Monday	Tuesday	Wednesday	Thursday	Friday
8	9 Map Stage Environment Opens	10 ISO: Publish sample RC Info Stmt to test connectivity	11 RC Customers: Start MRI-S uploads	12
15	16 RC Customers: MRI-S upload Deadline	17	18	19
22	23 ISO: RC Info Stmt Publication	24 RC Customers: Review RC Info Stmt	25 RC Customers: Review Info Stmt & re-submit deadline ISO: Publish HANA Stmt and Invoice	26 RC Customers: HANA Stmt & Invoice Validation Start - Submit questions by 8/14
29	30 ISO: Publish RC Initial Stmt and Invoice	31 RC Customers: RC Initial Stmt & Invoice Validation Start - Submit questions by 8/14	1 ISO: Publish additional HANA scenario Stmt & Invoice	2 RC Customers: HANA additional scenario Stmt & Invoice Validation Start - Submit questions by 8/14
5	6 ISO: Publish RC Recalc Stmt & Invoice for LPP	7 RC Customers: RC Recalc Stmt & Invoice Validation Start - Submit questions by 8/14	8	9

Key Dates

RC Customers ACTION

ISO ACTION

HANA scenario

RC scenario

Settlement Statement & Invoice Publishing Notification

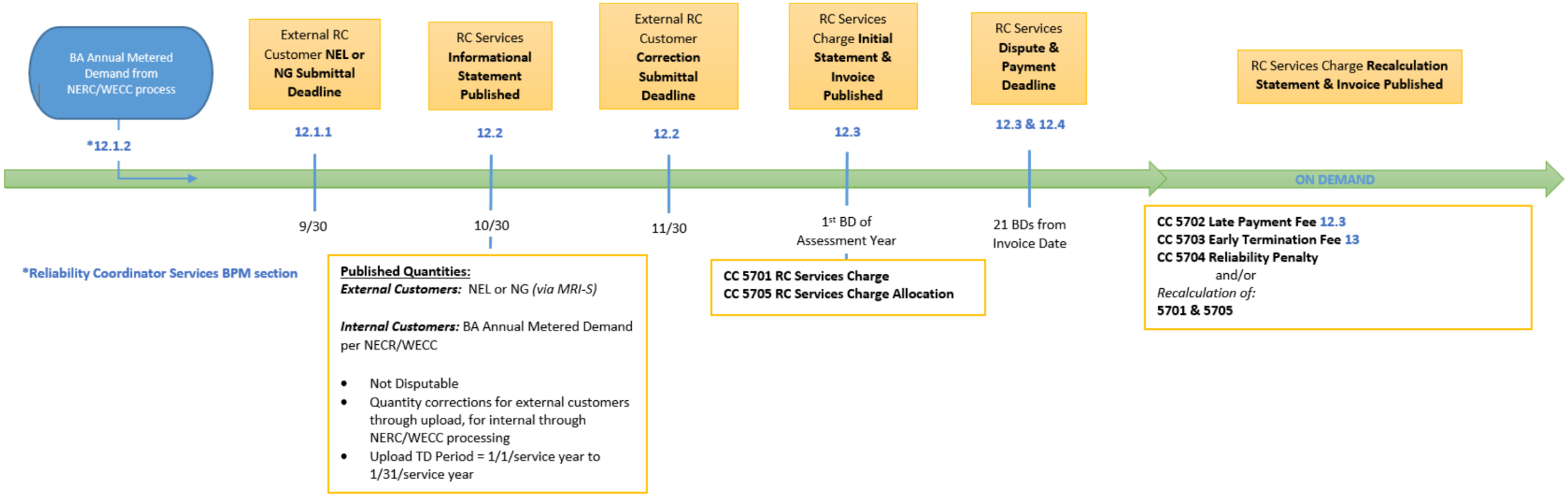
- Process during Data Validation
  - Notifications will go out once the Settlement statements / invoices are published
    - The first notification will be associated with the publication of the sample RC Informational Statement on 7/10/19
  - Notifications will be e-mailed to the RC Settlements Working Group contacts from:
    - CustomerService@caisocustomerservice.com
    - Notifications will contain the official CAISO logo
    - **Please ensure to whitelist this email address or watch the Spam folder**

- Process for Production
  - The notification process that will be used in Production is being developed and will be communicated at a later time

Questions

Appendix

RC Services Settlement Overview



Timeline Legend

YR 1 Example:
1 time manual PTB of 2019 assessment year charges
Submittal/Processing Deadlines = 2019
Assessment/Service Year = 2020
Base Data (MD, NEL, NG) = 2018

YR 2 Example:
Submittal/Processing Deadline = 2020
Assessment/Service Year = 2021
Base Data (MD, NEL, NG) = 2019

RC Services Production Timeline

9/30/19	**RC Customer** deadline to submit 2018 NEL/NG MWh in MRI-S
10/30/19	**RC West** releases Information Statement which lists volumes provided in MRI-S for review prior to invoicing
12/2/19	**RC Customer** deadline to validate volumes on Information Statement and re-submit if necessary
1/2/20	**RC West** bills for 2019 and 2020 RC Charges » The 2019 RC charges will be prorated and based on 2017 NEL/NG MWh » The 2020 RC charges will be based on 2018 NEL/NG MWh » Charges will be on one invoice available in MRI-S
1/31/20	**RC Customer** payment due date » Federal entity payments are due monthly in 1/12 increments

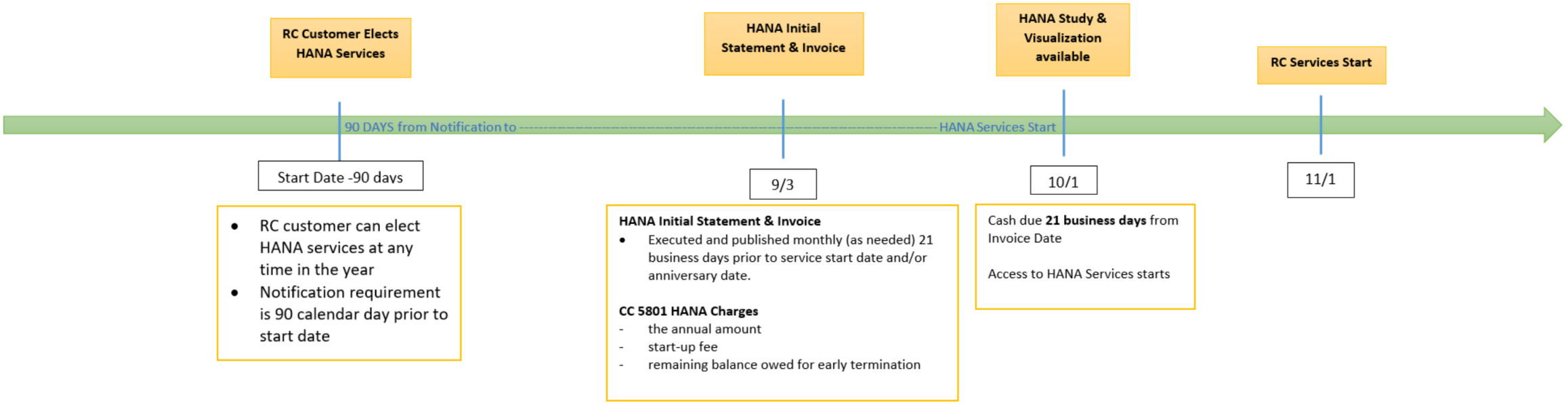
HANA Services Production Timeline

- HANA invoices go out 21 business days prior to Customer's official HANA start date.
  - Initial HANA services being offered 10/1/19 with shadow opportunity 09/01/19 – 09/30/19 (only)
  - Annual recurring invoices will be sent out 21 business days prior to RC Customer's anniversary date
  - Invoices will be available in MRI-S
  - Payments are due 21 business days from invoice date

- Supplemental invoices will go out during the year if RC Customer elects to purchase additional subscriptions.
  - Charges will be prorated to co-term to original anniversary date.

HANA Services Invoicing Overview

- 3-year initial commitment, 12 months written notice to exit on anniversary date
- HANA is a monthly invoice that assesses annual fees
- Statement & Invoice are published the same day
- Additional Initial statements and invoices published as needed



Charge Codes Overview – 5701 & 5705

- **5701 RC Services Charge**
  - Calculates annual RC Services charge to external customers (outside CAISO footprint)
    - Charged to BAs with Load, TOPs within BAAs (with or without load), gen-only BAAs
    - RC Charge = (RC Customer's submitted NEL or NG)* Annual RC Services Rate
      - If RC Customer does not submit data, Settlements will calculate the RC charge using the customer's default NEL or Installed Capacity value per contract

- **5705 RC Services Charge Allocation (replaces Peak CC 6496)**
  - Allocates annual RC Services charge to internal customers (entities within the CAISO BAA)
    - ISO passes through its share of the RC Charges to SCs within the CAISO BAA that serve load and to TOPs within the BAA
      - TOPs that have no NERC/WECC Metered Demand will receive the minimum charge ($5,000)
    - RC Charge = (entity's share of the total NERC/WECC Metered Demand for CAISO BAA) * Annual RC Services Rate
- Initial Statement & Invoice published on the first business day of each year
- Not disputable
- Payment is due within 21 business days of invoice date
- Federal entities may choose to make monthly payments of 1/12 of annual invoiced amount
- Invoice issued on 1/2/20 will include 2020 RC charges based on 2018 NEL/NG and prorated 2019 charges based on 2017 NEL/NG

Charge Codes Overview – Late Payment Penalty (5702) & Default (5701)

- **5702 Late Payment Penalty**
  - Late payment penalty will be assessed if payment for RC Services invoice is not received by the due date
  - One-time $1,000 charge will appear on supplemental RC Services statement & invoice (Recalc)
  - Federal entities opting for monthly payments of 1/12 of annual invoiced amount are subject to the late payment penalty for each instance of failing to pay by the due date
  - Due date is 21 business days from invoice date

- **5701 Default on RC Charges**
  - Unpaid amounts by defaulting customer will be re-allocated to all other customers in proportion to their original 5701 invoice amount (Recalc)
  - If defaulter pays back the amount in full or partially
    - Repayment amount will be reflected on the next Initial invoice (following year)

Charge Codes Overview – 5703 & 5704

- **5703 RC Services Early Termination Fee**
  - If RC Customer terminates services before the 18-month initial enrollment period or provides less than 12-month notice in subsequent years
  - One-time charge invoiced on supplemental invoice (Recalc)
  - Due date is 21 business days from invoice date

- **5704 RC Services Reliability Penalty Allocation**
  - Calculation accounts for any reliability-related penalties assessed by FERC, NERC, WECC against the CAISO

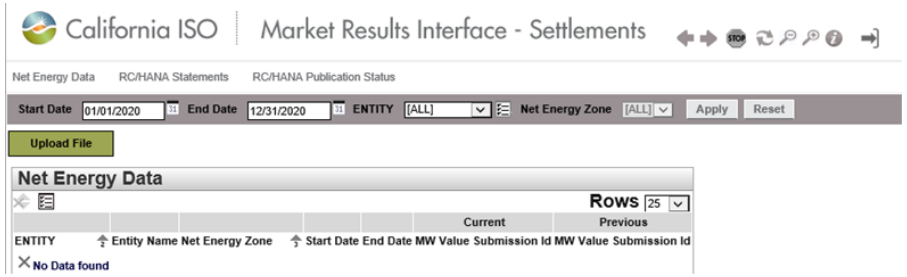
Charge Codes Overview – 5801

- **5801 HANA Charges**
  - The CAISO will offer web-based Hosted Advanced Network Applications (HANA) services to its RC Customers
  - Initial 3 year commitment, after which the RC Customer may take HANA services for additional one-year terms
  - The CAISO will charge RC Customers that elect HANA services
    - The annual cost for the ongoing software license fee
    - A one-time Set Up fee amortized over the initial 3-year minimum commitment period; and
    - Annual Administrative fee for CAISO support of the HANA services
  - RC Customer will be invoiced for HANA services 21 business days prior to when the services commence / anniversary date
  - Due date is 21 business days from invoice date
  - There is no Recalc for HANA
  - If RC Customer adds additional licenses mid-year, Settlements will publish supplemental statement and invoice
  - Early Termination Fee will be assessed if the RC Customer terminates the agreement before the expiration date

Settlement Data Validation – Map-stage Access & Connectivity

- Request access to Market Results Interface – Settlements (MRI-S) Map-stage and production portal
- **Access to MRI-S portal**
  - When: Complete before 7/9 Settlements conference call
  - Who: RC entities participating in Map-stage Data Validation and Production
  - What: Obtain RC CERT to access Map-stage portal
  - How: Your User Access Administrator (UAA) should provide you MRI-S Map-stage environment access
    1) Follow instructions from your UAA to install certificate on local machine
    2) Verify certificate is installed correctly by navigating using your browser to:
       - https://portalmap.caiso.com/settlements/logon.do to verify you have access
       - If you have certificate installation issues, contact the Service Desk
         - Email: uaarequests@caiso.com
         - Phone:
           - RC Services: 916.538.5722
           - Toll Free: 833.888.9378
       - If you do not have access, please submit a CIDI ticket by navigating to:
         - https://rc.caiso.com/ Apps > Prod > Customer Inquiry, Dispute & Information (CIDI)

- Successful log in screen:

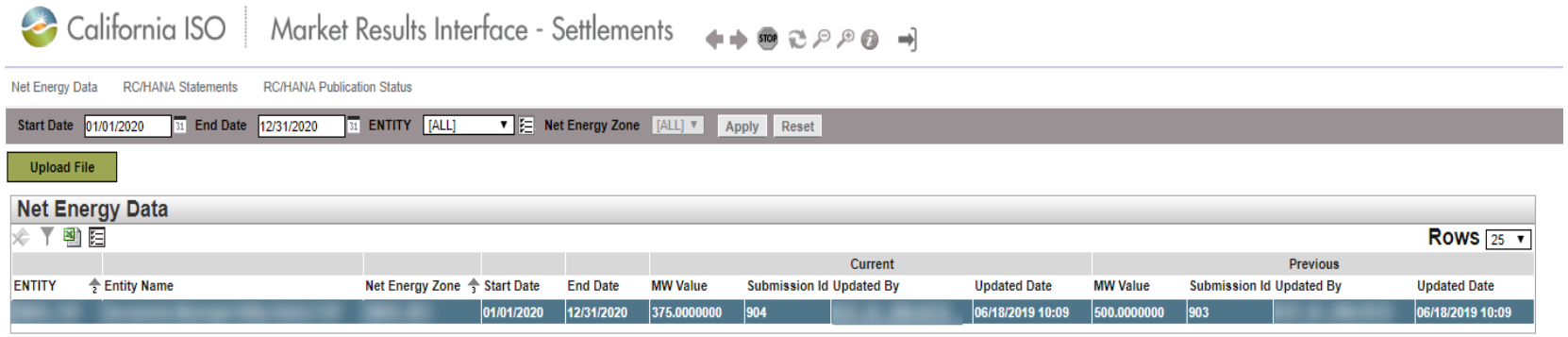


Settlement Data Validation – Upload NEL/NG Volumes in MRI-S

1. Upload 2018 NEL/NG* volumes in MWh (in MRI-S)

- When: 7/11/2019 – 7/16/2019
- Who: RC entities responsible for NEL/NG* yearly volume data during Map-stage Data Validation and Production
  - Direct bill TOPs with no NEL/NG are required to enter zero(s) for their volume submission
- What: Upload 2018 NEL/NG volumes
- How: Download sample XML file from
  1. http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx
     - RC West release > Draft settlements technical documentation > NEL_NEZ.xml

  2. <m:mRID>NEZ</m:mRID> Replace with your Net Energy Zone name (ex. CISO_NEZ)
     - If you do not know your Net Energy Zone name, please submit a CIDI ticket
  3. <m:value>123456.7890</m:value> (granularity up to 8 decimal places; single value for entire year)
  4. Save the file on local desktop
  5. Login to https://portalmap.caiso.com/settlements/logon.do and follow manual upload process



*Net Energy for Load (NEL) - Net Balancing Authority Area generation, plus energy received from other Balancing Authority Areas, less energy delivered to Balancing Authority Areas through interchange. It includes Balancing Authority Area losses but excludes energy required for storage at energy storage facilities. Net Energy for Load equals NERC/WECC Metered Demand for the CAISO Balancing Authority Area.

*Net Generation (NG) - Net power available from a Generating Facility to be fed into the power system at the high side of the Generating Facility transformer(s). Net generation is equal to gross generation minus the generator's internal power usage (station service).

Contact Information

- MRI-S Access Provision
  - Your User Access Administrator (UAA)
  - If you have certificate installation issues, contact the Service Desk
    - Email: uaarequests@caiso.com
    - Phone:
      - RC Services: 916.538.5722
      - Toll Free: 833.888.9378
  - If you do not have access, please submit a CIDI ticket by navigating to:
    - https://rc.caiso.com/ Apps > Prod > Customer Inquiry, Dispute & Information (CIDI)

- Issues & Questions
  - Submit CIDI tickets online
    - https://rc.caiso.com/ Apps > Prod > Customer Inquiry, Dispute & Information (CIDI)
    - Guidelines for CIDI ticket submission:
      - Case Record Type: Use “Reliability Coordinator Inquiry” – NOT “Inquiry Ticket”
      - SCID: Use your new RC ID (XXX_TOP_RC or XXX_BA_RC), not your other SCID(s)
      - Functional Environment: RC Integration – during integration testing and data validation (MAP Stage)
      - Description: Make it short but meaningful; for access issues include certificate information
      - Attachments: Add screen shots or other helpful information, when necessary
      - Comments: Communicate via comments as opposed to venturing out to email

- Weekly Webinar will address additional questions

Thank You