# RC West Settlements Working Group

Market Settlement Design and Configuration

August 6, 2019

CAISO public

# Agenda

- Data Validation Status
- 2019 Prorated Charges
- What Steps Should be Complete
- RC Services MRI-S UI Enhancements
- Data Validation Calendar

# Appendix

- MRI-S Access & Documents Location
- How-to Guide for Uploading NEL / NG Volumes
- Steps to Download Statement
- RC Informational Statement – Navigating the CSV & XML files
- Overview of Settlement Process
- RC and HANA Services Production Timelines
- Overview of Charge Codes
- Contact Information

# Data Validation Status

| | RC Informational Statement | HANA Statement & Invoice (Initial) | RC Statement & Invoice (Initial) |
|---|---|---|---|
| Publication Date | 7/23[1] | 7/25 | 7/30[2] |
| | | HANA Statement & Invoice (Additional Scenario) | RC Statement & Invoice (Recalc) |
| Publication Date | | 8/1[3] | 8/6[4] |
| Publication Format[5] | XML, CSV, PDF | XML, PDF | XML, PDF |
| Type of Customer | All RC customers | HANA customer[6] | All RC customers |

[1] RC Informational Statement not generated for RC customers (external to CAISO BA) who did not submit NEL / NG data
[2] RC charges for customers who did not submit NEL / NG volumes by 7/25 will be calculated using the Default NEL or Installed Capacity value per their RCSA (RC Services Agreement)
[3] One additional subscription purchase mid service year (testing scenario for HANA customers only)
[4] Late Payment Penalty (testing scenario for RC customers outside of the CAISO BA only)
[5] Customers internal to the CAISO BA will receive RC Services file formats based on existing file election. PDF format availability for RC Information Statement is targeted for production environment (10/30 publication).
[6] CAISO BA customers must use TOP RCID (not SCID) to retrieve HANA statement & invoice

# RC Charges Data Validation

## 2019 Prorated Charges

- **Charge One**
  - Rate is $0.0134/MWh
  - Effective for the period of 7/1/19 through 10/31/19
  - Rate applied against 1/3 (or 4 months) of default annual MWh volume submitted on RCSA*
  - Minimum Charge is 1/3 of $5K (or $1,667)
- **Charge Two**
  - Rate is $0.0273/MWh
  - Effective for the period of 11/1/19 through 12/31/19
  - Rate applied against 1/6 (or 2 months) of default annual MWh volume submitted on RCSA*
  - Minimum Charge is 1/6 of $5K (or $833)

## 2020 Charges

- Rate is $0.0300/MWh
- Effective for the period of 1/1/20 through 12/31/20
- Rate applied against MWh billing volumes submitted by customers
  - Volumes provided on information statement
- Minimum Charge is $5K

*Reliability Coordinator Service Agreement

# RC Services Rate Effective 7/1/19 – 10/31/19

- Navigate to www.caiso.com
  - MARKET & OPERATIONS
    - Settlements
      - Grid management charge
        - » Open PDF “Grid Management Charge Rates for 2014-2019 Effective July 1, 2019”

**2019 GMC Rates and Administrative Fees**

| Charge Code | Charge/ Fee Name | Rate effective 1/1/19 | Rate effective 5/1/19 | Rate effective 7/1/19 | Billing Units |
|---|---|---|---|---|---|
| GMC Rates and Administrative Fees | | | | | |
| 4560 | Market Services Charge | $ 0.1065 | $ 0.1065 | $ 0.1065 | MWh |
| 4561 | System Operations Charge | $ 0.2797 | $ 0.2797 | $ 0.2797 | MWh |
| 4562 | CRR Services Charge | $ 0.0050 | $ 0.0100 | $ 0.0100 | MWh |
| 4515 | Bid Segment Fee | $ 0.0050 | $ 0.0050 | $ 0.0050 | per bid segment |
| 4512 | Inter SC Trade Fee | $ 1.0000 | $ 1.0000 | $ 1.0000 | per Inter SC Trade |
| 4575 | SCID Monthly Fee | $ 1,000 | $ 1,000 | $ 1,000 | per month |
| 4563 | TOR Charge | $ 0.2400 | $ 0.2400 | $ 0.2400 | minimum of supply or demand TOR MWh |
| 4516 | CRR Bid Fee | $ 1.0000 | $ 1.0000 | $ 1.0000 | number of nominations and bids |
| Other Rates and Fees | | | | | |
| 4564 | EIM Market Services Charge | $ 0.0841 | $ 0.0841 | $ 0.0841 | MWh |
| 4564 | EIM System Operations Charge | $ 0.1091 | $ 0.1091 | $ 0.1091 | MWh |
| 701 | EIR Forecast Fee | $ 0.1000 | $ 0.1000 | $ 0.1000 | MWh |
| 5701 | RC Service Charge* | $ - | $ - | $ 0.0134 | MWh |

# What Steps Should be Complete

- Requested and received a certificate with an RC specific role to access MRI-S
- You should be able to log in to MRI-S UI Map Stage
- Downloaded the RC Informational Statement published on 7/23
  - Validated and re-submitted NEL / NG data by 7/25
- For HANA charges
  - Downloaded initial statement and invoice published on 7/25
  - Downloaded the additional scenario statement and invoice published on 8/1
  - Validated the charges and submitted questions via CIDI
- For RC charges
  - Downloaded the initial statement and invoice published on 7/30
  - Downloaded the recalc statement and invoice published on 8/6
  - Validated the charges and submitted questions via CIDI

# RC Services MRI-S UI Enhancements

- Bill Period Start and End dates reflecting service period are available on the RC recalc statement and invoice published on 8/6
- Replacement of the manual XML file upload for NEL / NG volumes
  - Approved and development is in progress
  - Development completion targeted for August
  - New UI available in Map Stage on 8/13
- PDF option available for statements and invoices starting with the 7/25 publication of the HANA Statement & Invoice and the 7/30 publication of the RC Initial Statement & Invoice
- RC Informational Settlement PDF file format option targeted for production environment (10/30 publication)

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

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

Map Stage environment will close 8/8 – 8/12 and re-open 8/13

- Download all of your statements and invoices prior to 8/8

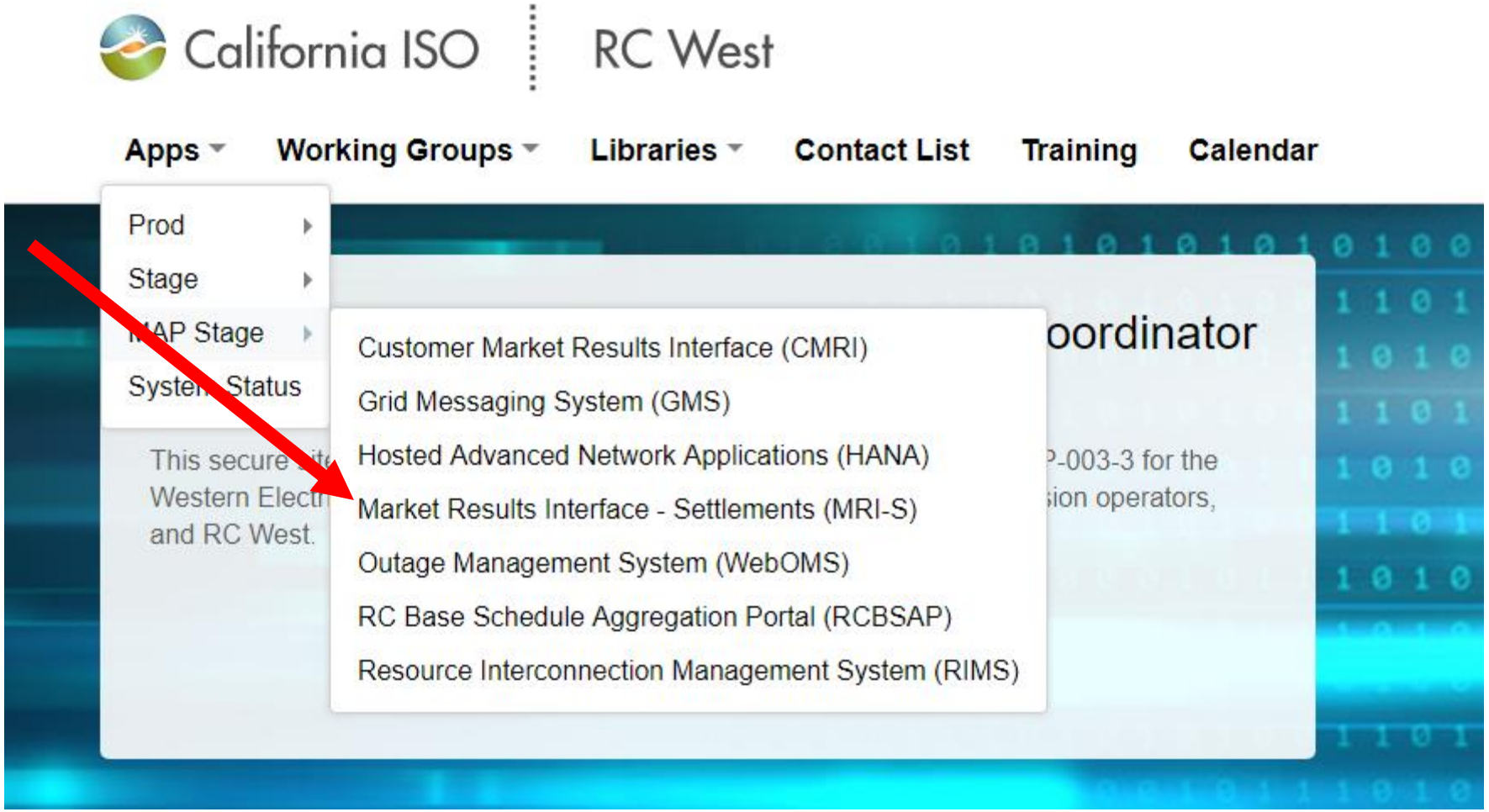
# Questions

# Appendix

# Portal access to MRI-S User Interface

Direct URL to MRI-S - https://portalmap.caiso.com/settlements/logon.do

- CAISO portal URL
  - https://portalmap.caiso.com/MPP_files/MPPApps.html
  - Internal ISO customers should see a new RC tab in MRI-S
    - If you do not see it you need to add this role to your access.
- RC West Portal URL
  - https://rc.caiso.com/
  - External to CAISO BAA customers navigate to: Apps > Map Stage > Market Results Interface – Settlements (MRI-S)
    - If you can not access this link or do not see it you need to add this role to your access.


California ISO
RC West
Apps
Working Groups
Libraries
Contact List
Training
Calendar
Prod
Stage
MAP Stage
System Status
Customer Market Results Interface (CMRI)
Grid Messaging System (GMS)
Hosted Advanced Network Applications (HANA)
Market Results Interface - Settlements (MRI-S)
Outage Management System (WebOMS)
RC Base Schedule Aggregation Portal (RCBSAP)
Resource Interconnection Management System (RIMS)
oordinator
-003-3 for the
ion operators,
and RC West.

# California ISO | Market Applications

Market Participant Portal
CAISO.com
MAP-STAGE

## Application Access

**AIM** — Access and Identity Management

## Inquiries & Disputes

**CIDI** — Customer Inquiry Dispute and Information

## Market & Operations

**CMRI** — Customer Market Results Interface

**CRR** — Congestion Revenue Rights

**SIBR** — Scheduling Infrastructure & Business Rules

**SIBR Reports** — Scheduling Infrastructure & Business Rules Reports

## Metering

**OMAR** — Operational Meter Analysis & Reporting

## OASIS

**OASIS** — Open Access Same-Time Information System

## Outage Coordination

**WebOMS** — Outage Management System

## Reliability Requirements

**CIRA** — Customer Interface for Resource Adequacy

## Renewables & Demand Response

**DRS** — Demand Response System

**DRRS** — Demand Response Registration System

## Settlements

**MRI-S** — Market Results Interface - Settlements

## Systems & Resource Modeling

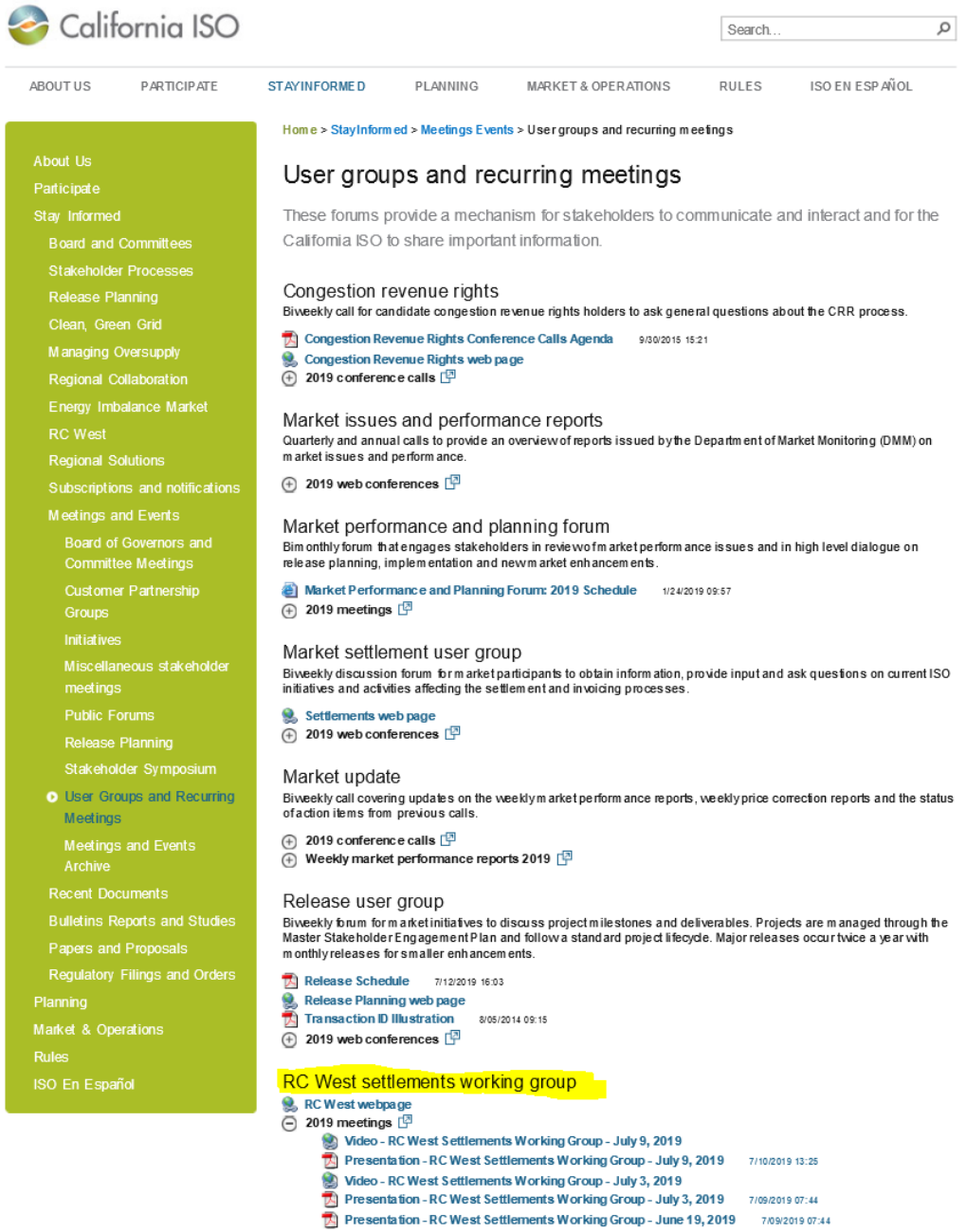
**TR** — Transmission Registry

**Master File**

**RIMS** — Resource Interconnection Management System

# Meeting Notes location

- URL – Meeting Notes
  - http://www.caiso.com/informed/Pages/MeetingsEvents/UserGroupsRecurringMeetings/Default.aspx



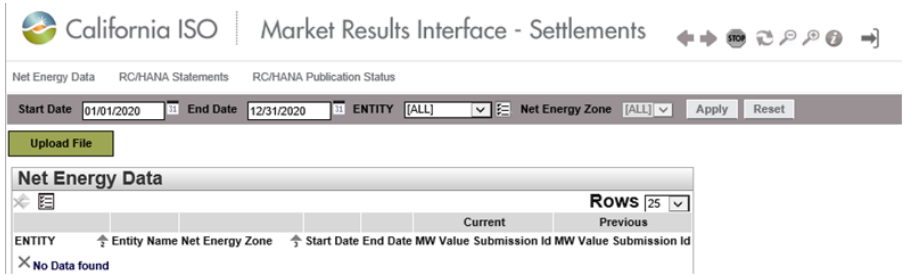
# Release Notes and Artifacts

- URL – Release Notes
  - http://www.caiso.com/informed/Pages/MeetingsEvents/UserGroupsRecurringMeetings/Default.aspx
- XML Sample file URL
  - http://www.caiso.com/Documents/NEL_NEZ.xml

# Certificate request and access – slide from 7/3

- Request access to Market Results Interface – Settlements (MRI-S) Map-stage portal
- **Access to MRI-S portal**
  - When: Complete before 7/9 Settlements conference call
  - Who: All (Internal CAISO BAA and External) RC entities participating in Map-stage Data Validation and Production
  - What: Obtain Read/Write RC **Role** to access Map-stage portal
  - How: your **RC** 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:



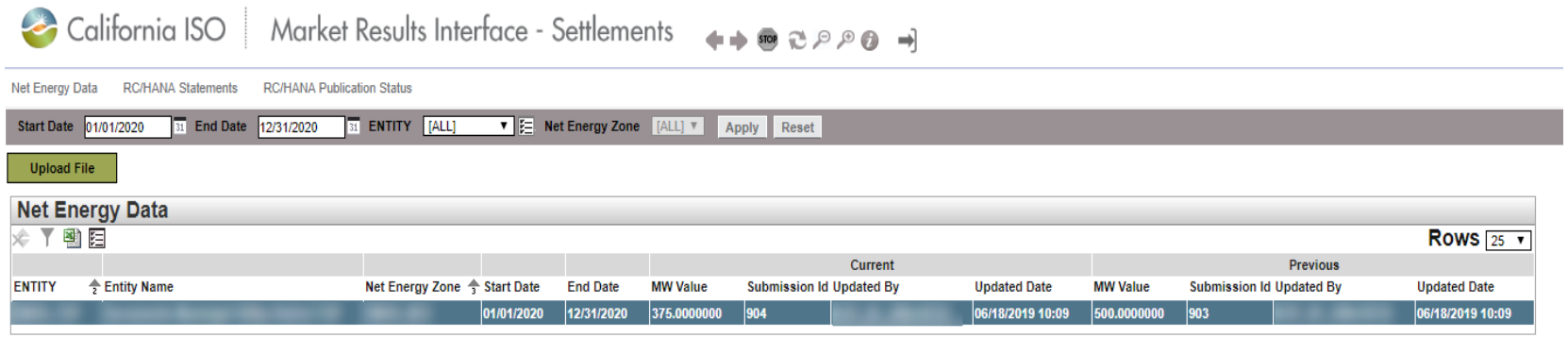
# Upload NEL/NG Volumes in MRI-S – slide from 7/3

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

- When: Due today
- Who: RC entities **external to CAISO BAA** 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

NEL_NEZ.xml

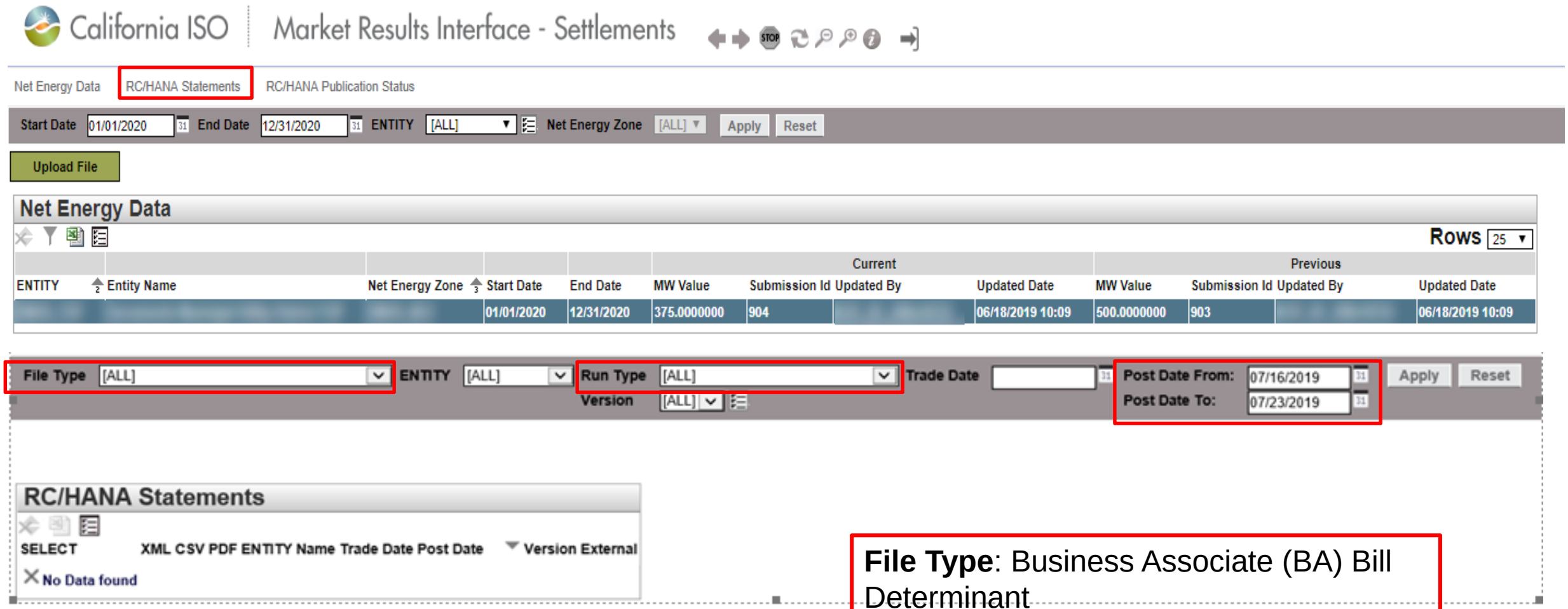
  2. <m:mRID>NEZ</m:mRID> Replace with your Net Energy Zone name (ex. CISO_NEZ)
     - If you do not know your Net Energy Zone name, please submit a CIDI ticket
  3. <m:value>123456.7890</m:value> (granularity up to 8 decimal places; single value for entire year)
  4. Save the file on local desktop
  5.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

# Steps to Download RC Informational Statement from MRI-S




**File Type**: Business Associate (BA) Bill Determinant
**Run Type**: RC Services Informational
**Post Dates**: Clear out both fields

# RC Services Informational Statement – How to Read the CSV

CSV File Format:

Scroll over to the right to find the NEL / NG volume under the “Data Val” column:

| FA | FB | FC | FD | FE | FF | FG |
|---|---|---|---|---|---|---|
| IndexA 26 Ref | IndexA 27 Ref | IndexA 28 Ref | IndexA 29 Ref | IndexA 30 Ref | Data Int | Data Val |
| | | | | | 2020-01-01T00:00:00-08:00 | 12345.678 |
| | | | | | 2020-01-01T00:00:00-08:00 | 12345.678 |
| | | | | | 2020-01-01T00:00:00-08:00 | 12345.678 |

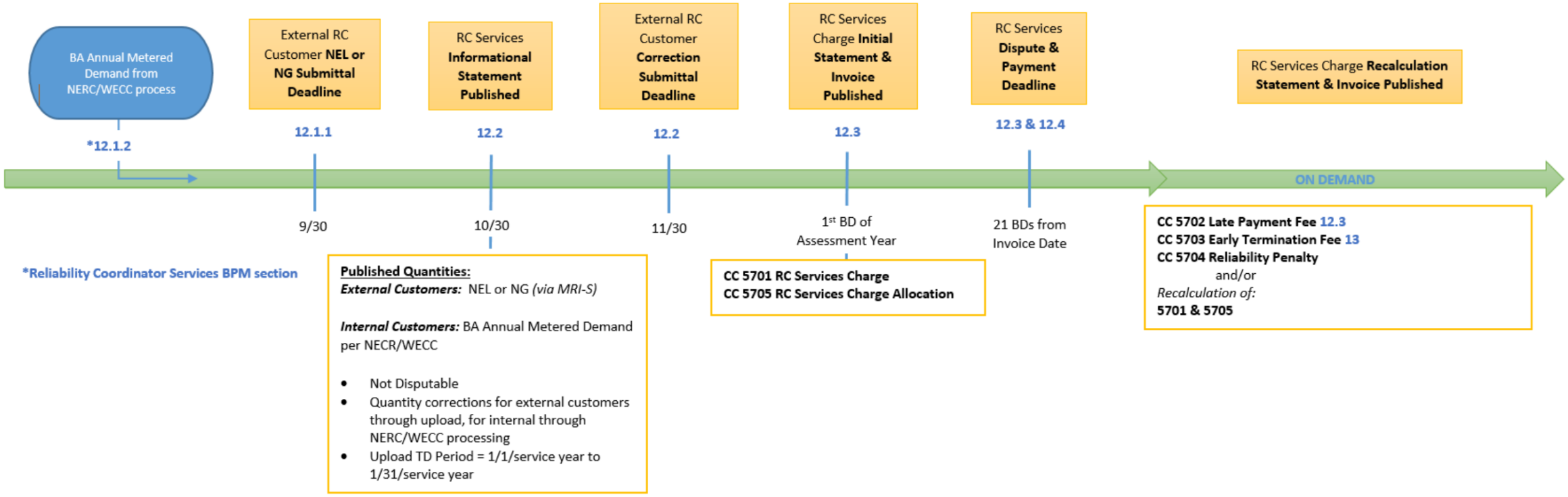
# RC Services Informational Statement – How to Read the XML

XML File Format: Open in Notepad and identify the field with your submitted NEL / NG value per below:

File Edit Format View Help

```
<?xml version="1.0" encoding="UTF-8"?>
<BillDeterminantData xmlns="http://www.caiso.com/soa/2007-03-12/BillDeterminantData.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
<MessageHeader>
<TimeDate>2019-07-19T16:18:33-07:00</TimeDate><Source>XXXX_BA-DETERMINANTS-2019071911-RC_SVCS_INFO-5-APPROVED-20200101.xml</Source>
</MessageHeader>
<MessagePayload>
<BillDeterminant name="BA_ANN_RC_SVCS_TOTAL_SUBMITD_NET@QUANTITY" mrid="1454771378" dataType="INTERMEDIATE" lastModified="2019-07-19T16:02:14-0
<Attribute seq="1" name="BA_ID" val="####"/>
<Attribute seq="2" name="RSRC_ID" val="XXXX_NEZ"/>
<Attribute seq="3" name="BAL_AUTHORITY_AREA" val="XXXX"/>
<Data int="2020-01-01T00:00:00-08:00" val="12345.678"/>
</BillDeterminant>
<BillDeterminant name="BA_ANN_RC_SVCS_SUBMITD_NE@QUANTITY" mrid="1454771427" dataType="INTERMEDIATE" lastModified="2019-07-19T16:02:14-07:00" s
<Attribute seq="1" name="BA_ID" val="####"/>
<Attribute seq="2" name="RSRC_ID" val="XXXX_NEZ"/>
<Attribute seq="3" name="BAL_AUTHORITY_AREA" val="XXXX"/>
<Data int="2020-01-01T00:00:00-08:00" val="12345.678"/>
</BillDeterminant>
<BillDeterminant name="BA_ANN_RC_SVCS_SUBMITD_NE_QTY" mrid="1409850333" dataType="PRIMARY" lastModified="2019-07-19T16:01:49-07:00" settlementV
<Attribute seq="1" name="BA_ID" val="####"/>
<Attribute seq="2" name="RSRC_ID" val="XXXX_NEZ"/>
<Attribute seq="3" name="BAL_AUTHORITY_AREA" val="XXXX"/>
<Data int="2020-01-01T00:00:00-08:00" val="12345.678"/>
</BillDeterminant>
</MessagePayload>
</BillDeterminantData>
```

# 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

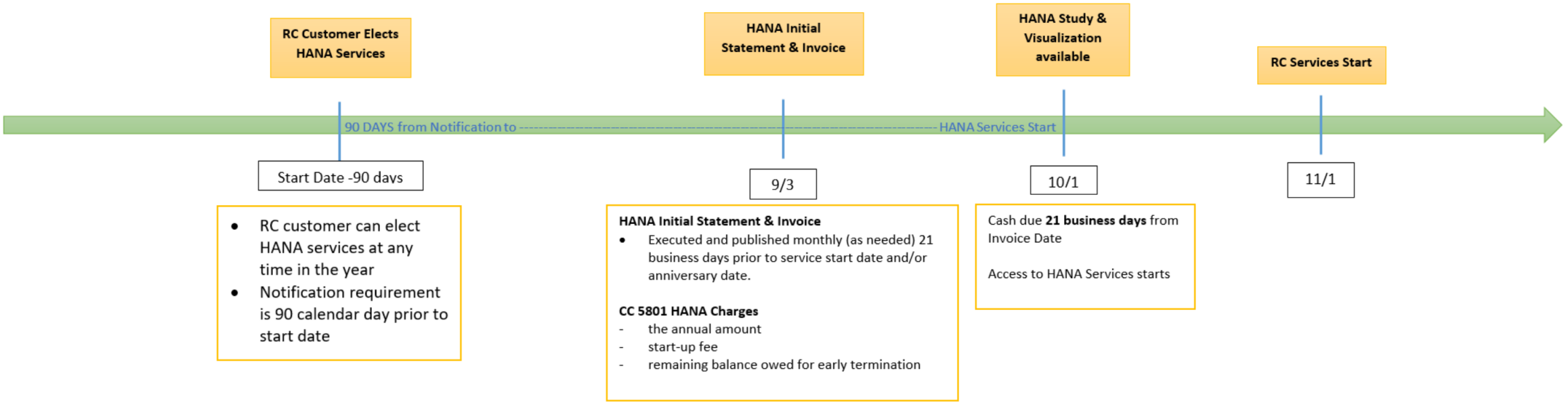
***YR 2 Example:***
Submittal/Processing Deadline = 2020
Assessment/Service Year = 2021
Base Data (MD, NEL, NG) = 2019

# 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<br>» The 2019 RC charges will be prorated and based on 2017 NEL/NG MWh<br>» The 2020 RC charges will be based on 2018 NEL/NG MWh<br>» Charges will be on one invoice available in MRI-S |
| 1/31/20 | **RC Customer** payment due date<br>» Federal entity payments are due monthly in 1/12 increments |

# 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



# 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.

# 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

# 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