RC West Settlements Working Group

Market Settlement Design and Configuration

October 8, 2019

Agenda

- RC Services Production Timeline
- MRI-S Data Submission
- Transition to Settlements User Group Meeting
- RC West Portal Updates
- CAISO Website Updates
- Additional references

Appendix

- Production Certificate Request & Access
- 2019 Prorated RC Charges
- RC Services Rate
- RC Settlements CBT
- RC Services Payment Calendar
- MRI-S Access & Documents Location
- Steps to Download Statement
- RC Informational Statement – Navigating the CSV & XML files
- Overview of Settlement Process
- Overview of Charge Codes
- Contact Information

Production Timeline

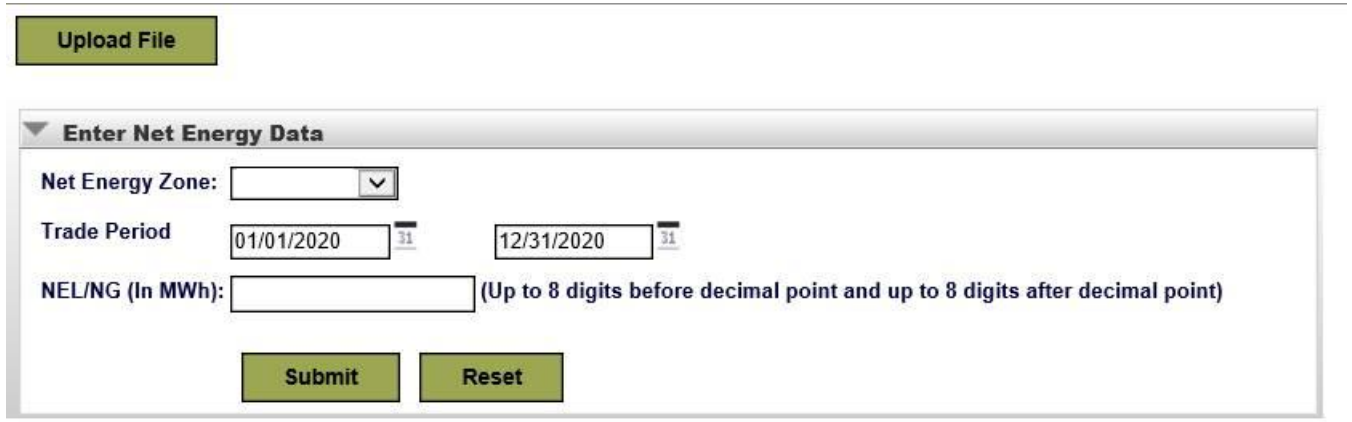
RC Services Production Timeline	
Key Dates	Action
10/30/19	RC West publishes RC Informational Statement which lists volumes provided in MRI-S for review prior to invoicing[1]
11/30/2019	RC Customer deadline to validate volumes on RC Informational Statement and re-submit if necessary[2]
1/2/2020	RC West publishes RC Services charges Statement & Invoice for 2019 and 2020 Charges[3]
1/31/2020	RC Customer payment due date for RC Services charges[4]

[1] RC Informational Statement not generated for RC customers who did not submit NEL / NG data.
[2] MRI-S will be available for submissions 11/1/19-11/30/19. Submitted data may be viewed in MRI-S at any time.
[3] Financially binding. 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. RC charges for customers who did not submit NEL / NG volumes by 11/30/19 will be calculated using the Default NEL or Installed Capacity value per their RCSA (RC Services Agreement). RC charges will be on one invoice.
[4] Federal entity payments are due monthly in 1/12 increments.

MRI-S 2018 NEL / NG Data Re-Submittal (Option 1 – User Interface)

Submit 2018 NEL/NG* volumes in MWh (in MRI-S Production)

- When: 11/1/19 – 11/30/19
- 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: Log in to https://portal.caiso.com/settlements/logon.do
  1. Choose the Net Energy Zone for your entity from the drop down menu
  2. Select the Trade Period of the bill year
  3. Type in the NEL / NG (In MWh)
  4. Click Submit



*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).

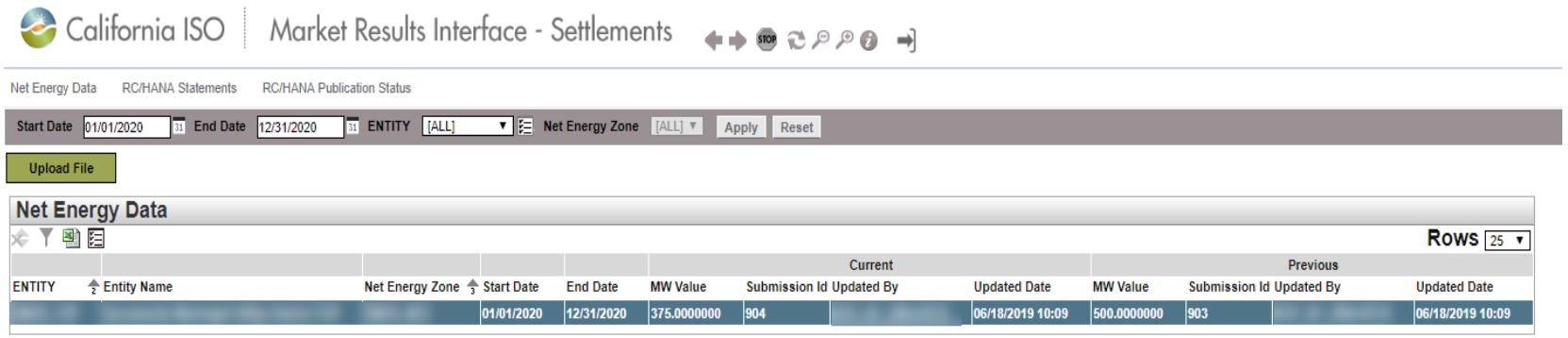
MRI-S 2018 NEL / NG Data Re-Submittal (Option 2 – XML Upload)

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

- When: 11/1/19 – 11/30/19
- 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://portal.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.

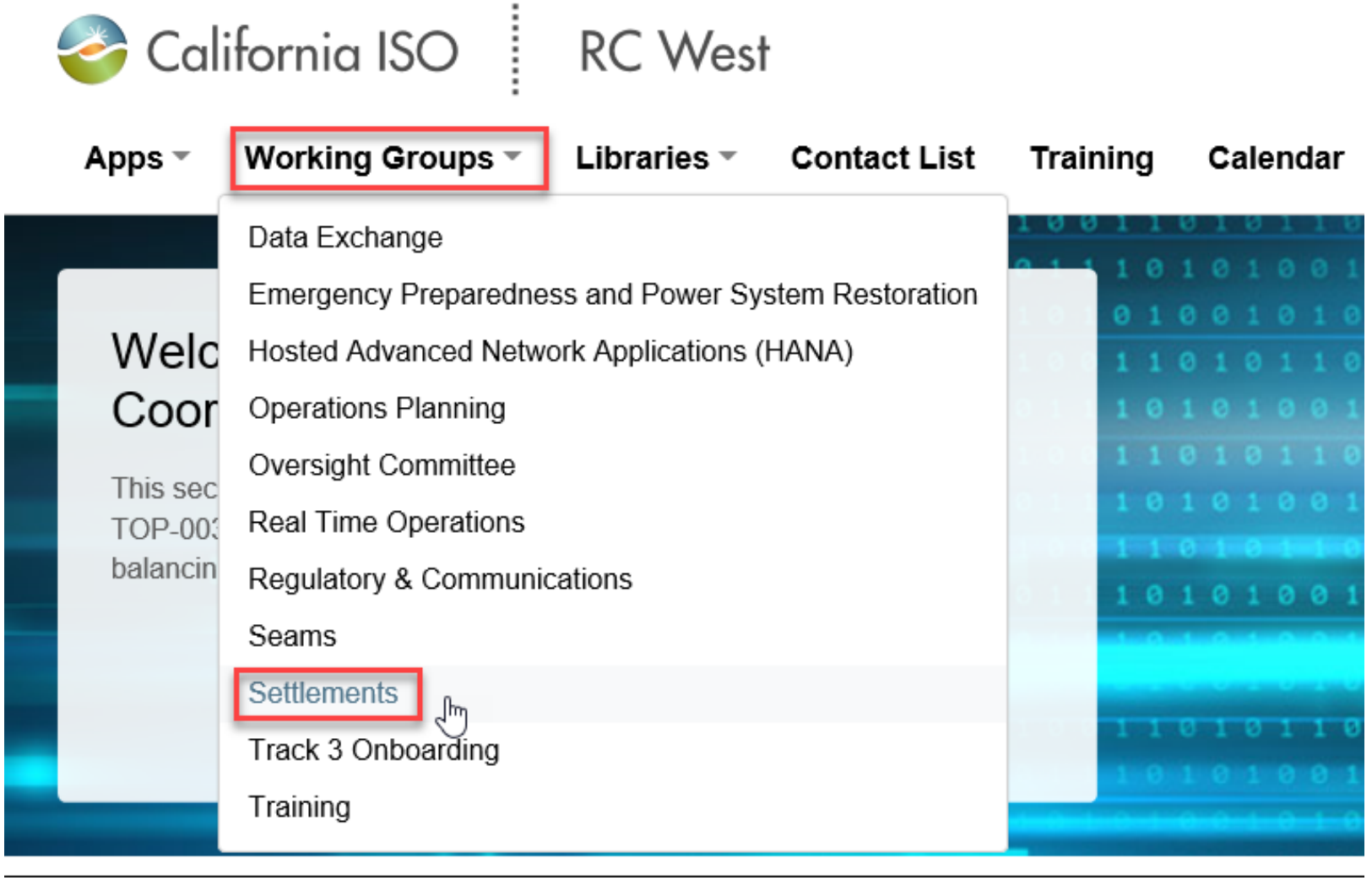
*Net Generation (NG) - Net power available from a Generating Facility to be fed into the power system at the high side of the Generating Facility transformer(s). Net generation is equal to gross generation minus the generator's internal power usage (station service).

Transition to Settlements User Group Meeting – Starting 10/16/19

- Move participation over to the Settlements User Group twice-monthly recurring meeting that includes all RC customers
  - Streamline communications regarding CAISO publications
  - Meeting structure will include a standing RC agenda, followed by Market topics
    - Agenda will be provided in advance on caiso.com, with email notification
      - Absent RC topics, no need to join the call
    - Dedicate the beginning portion of the meeting to RC specific topics
    - RC customers can drop off before Market topics are covered
  - Webinar meeting information will be posted on the RC West Portal site as well as on the Calendar of the caiso.com website

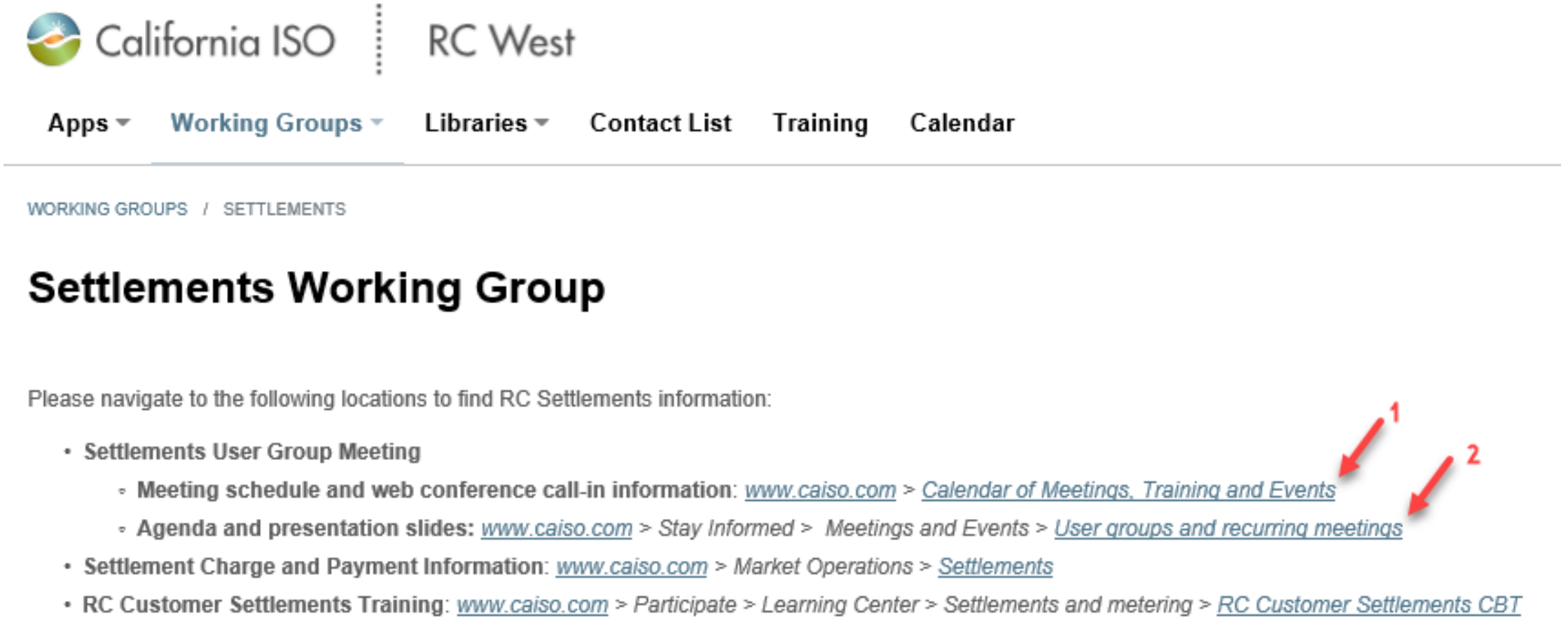
RC West Portal

https://rc.caiso.com/



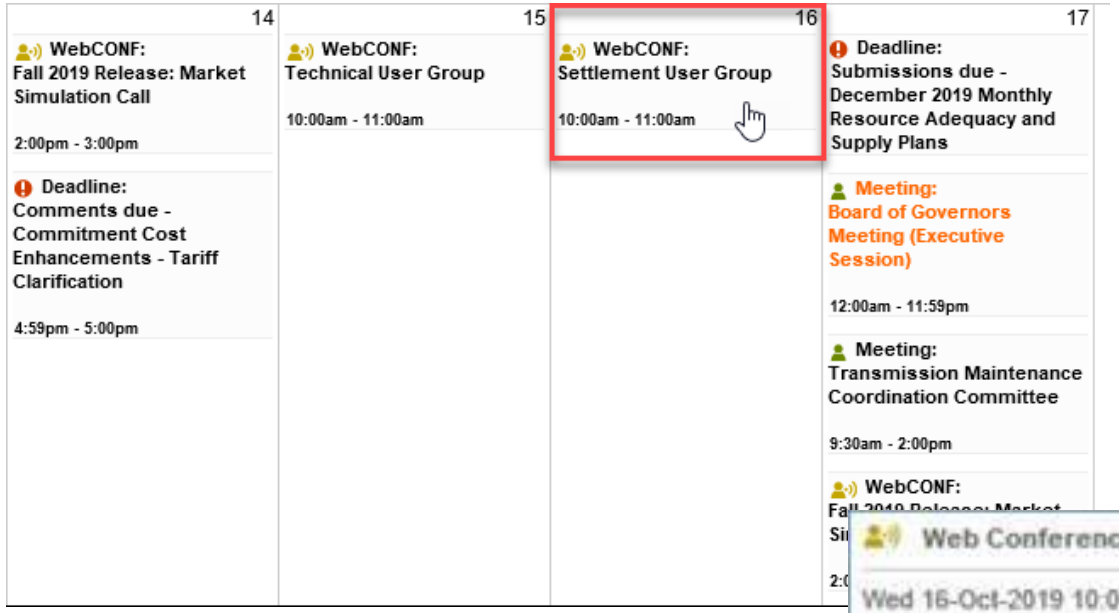
RC West Portal (Settlements Working Group)

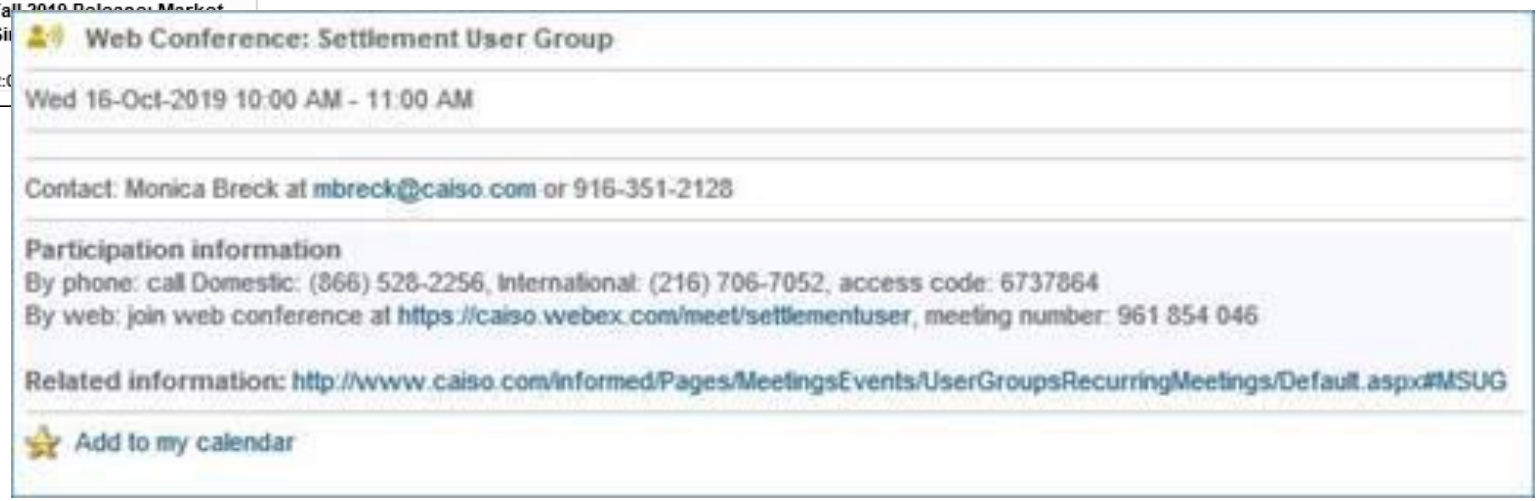
https://rc.caiso.com/wg/Settlements



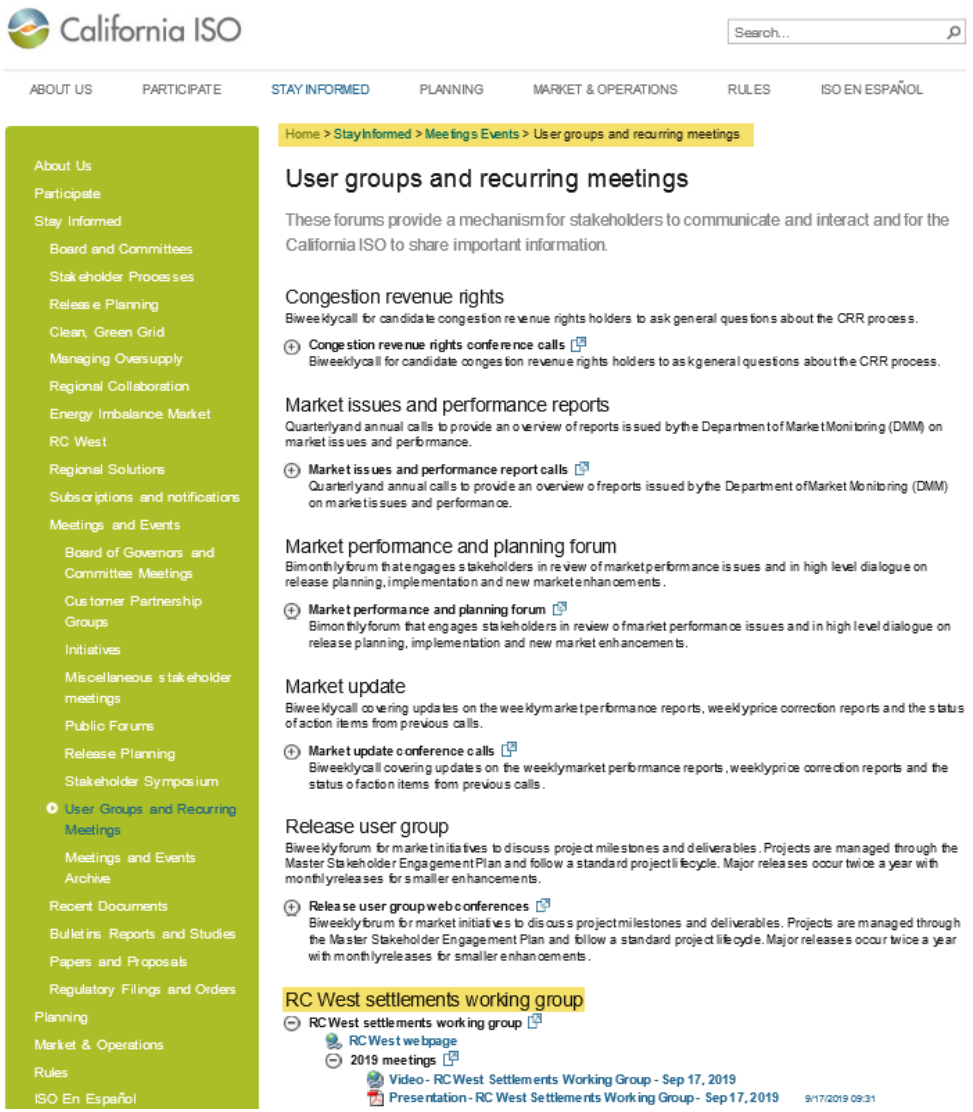
CAISO Calendar

Calendar of Meetings, Training and Events (1)

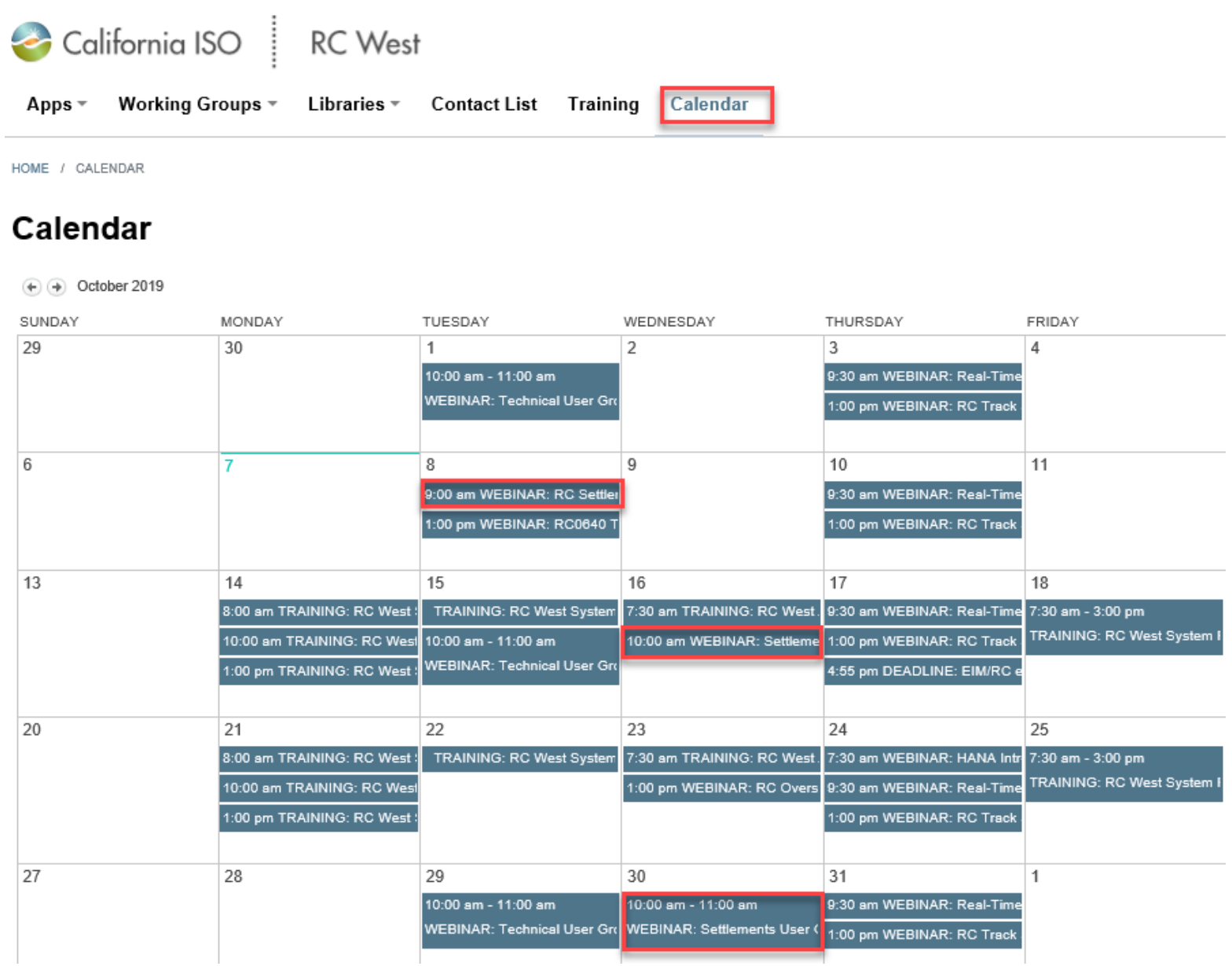




User Groups and Recurring Meetings (2)



RC West Portal (Calendar)



Additional Settlements Resources

- www.caiso.com
  - MARKET & OPERATIONS
    - Settlements
      - Process and requirements > Business Practice Manual for Settlements and Billing
        - Configurations Guides
          - CG CC 5701 RC Services Charge v5.0
          - CG CC 5702 RC Services Late Payment Penalty v5.0
          - CG CC 5703 RC Services Early Termination Fee v5.0
          - CG CC 5704 RC Services Reliability Penalty Allocation v5.0
          - CG CC 5705 RC Services Charge Allocation v5.0
          - CG CC 5801 HANA Charges v5.0

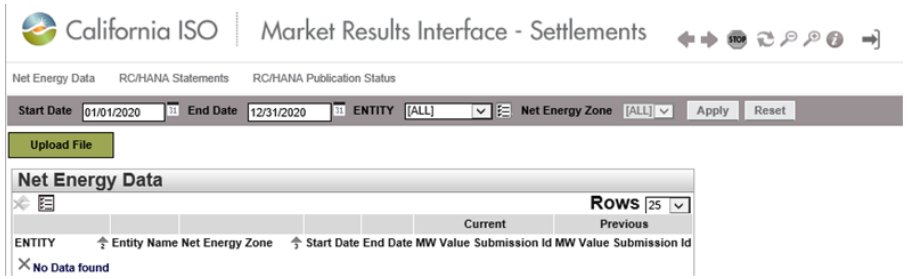
Questions

Appendix

Production Certificate Request and Access

- Request access to Market Results Interface – Settlements (MRI-S) Production Environment Portal
- **Access to MRI-S Production Environment Portal**
  - When: **Complete before 8/26**
  - Who: All (Internal CAISO BAA and External) RC entities participating in Production
  - What: Obtain Read/Write RC **Role** to access Production Portal
  - How: your **RC** User Access Administrator (UAA) should provide you MRI-S Production 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://portal.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:



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

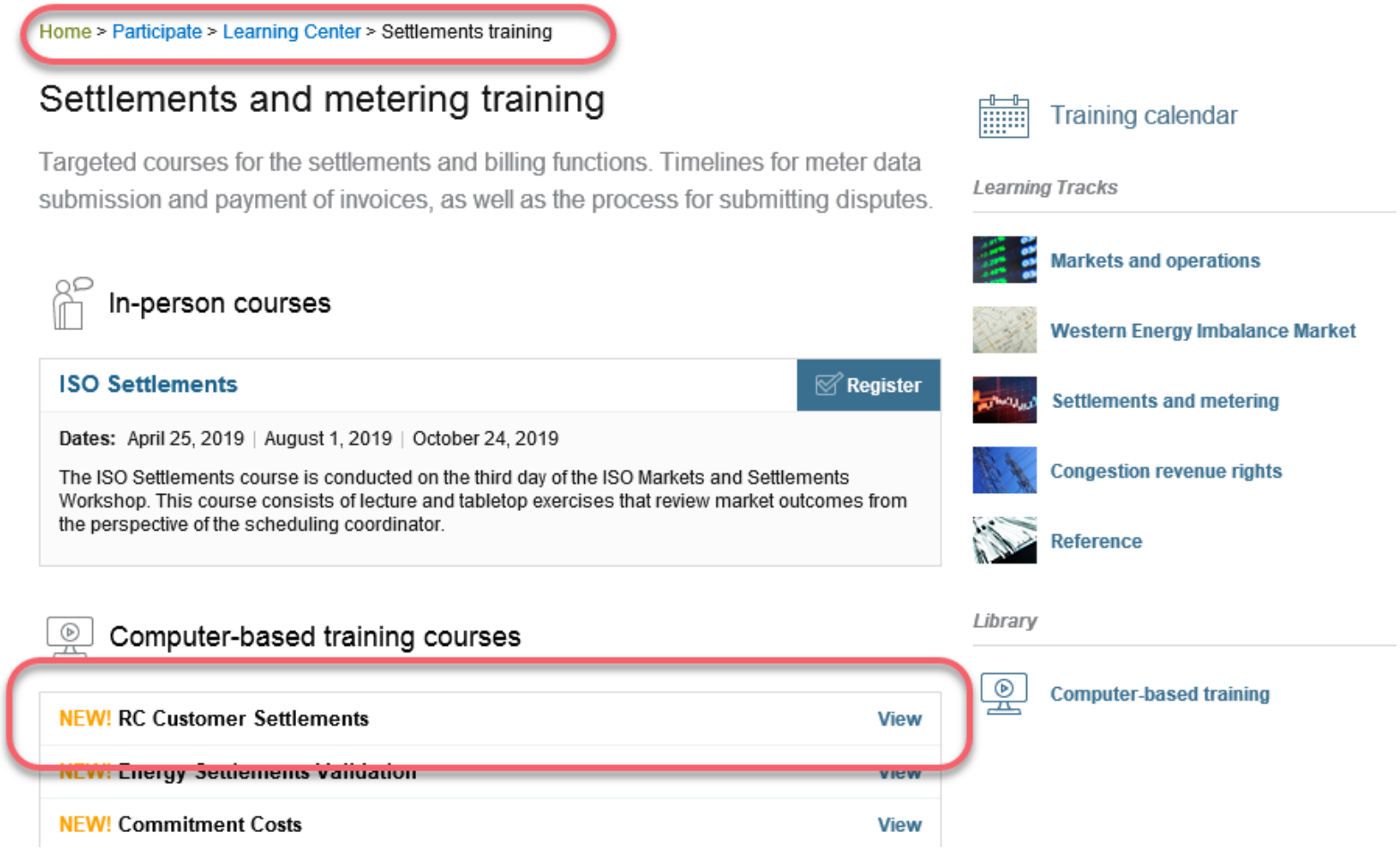
- Navigate to www.caiso.com
  - MARKET & OPERATIONS
    - Settlements
      - Grid management charge
        - » Open PDF “Grid Management Charge Rates for 2014-2019 Effective July 1, 2019”

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

RC Customer Settlements Training Module

Caiso.com

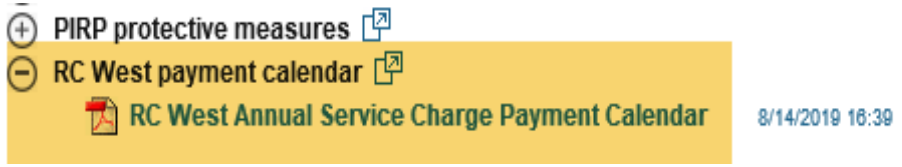


CAISO Public

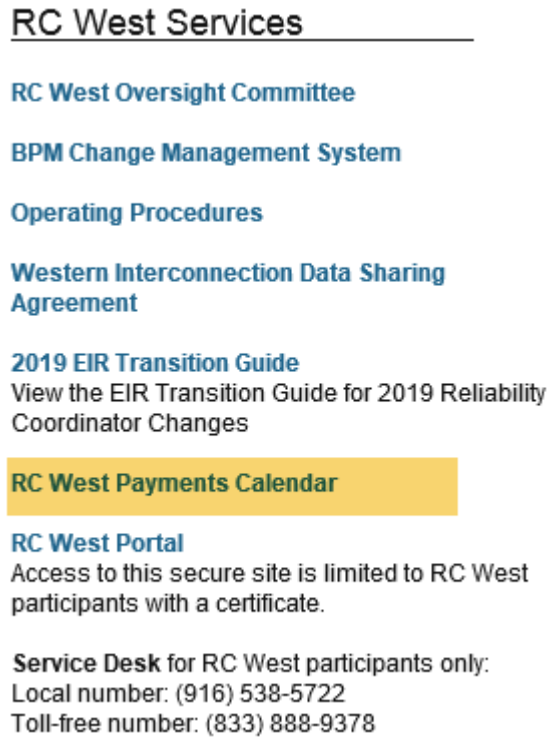
RC Services Payment Calendar

RC West Annual Service Charge Payment Calendar has been posted online in two locations:

1. Settlements page:



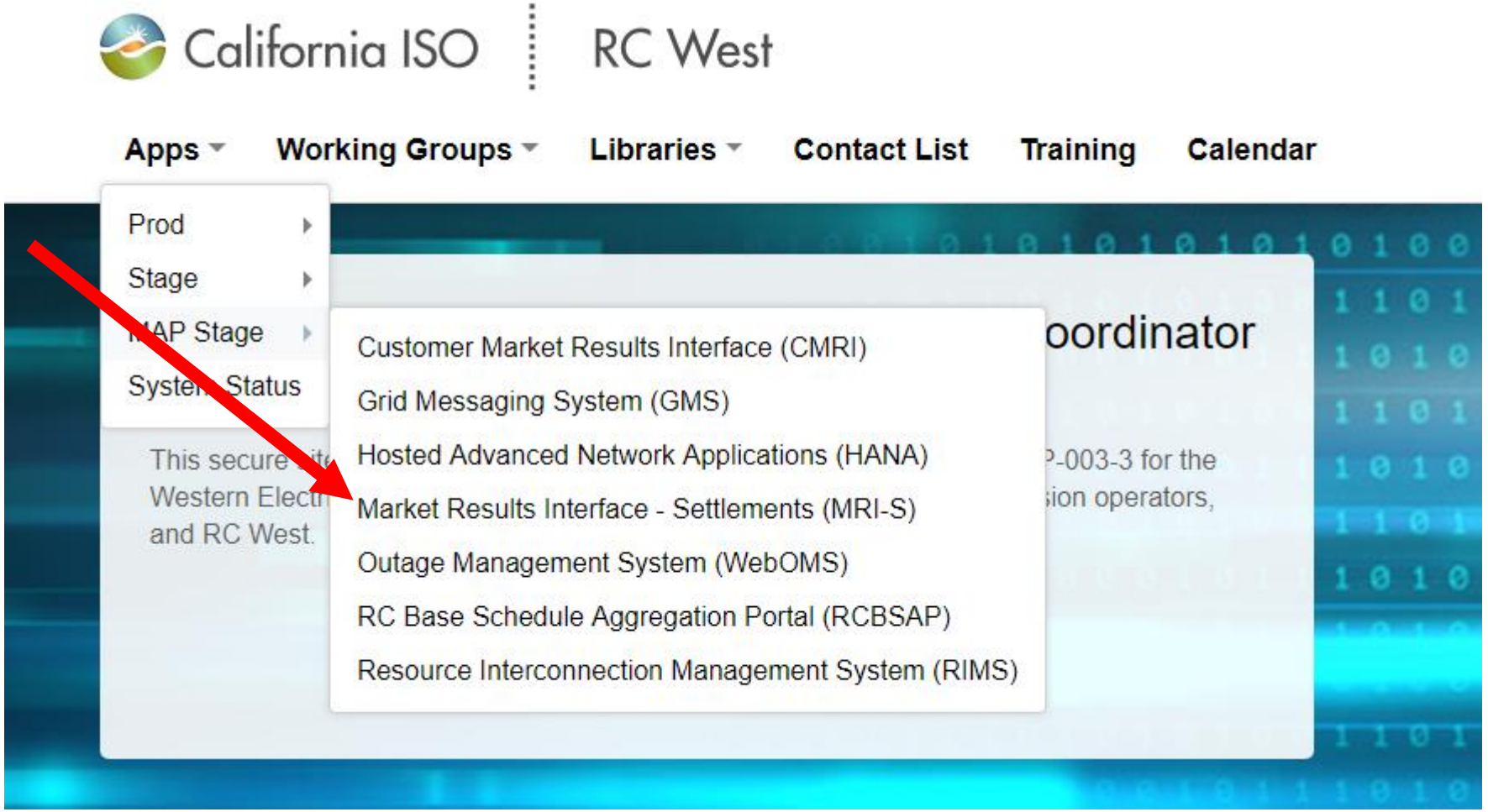
2. RC West page (right side):



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

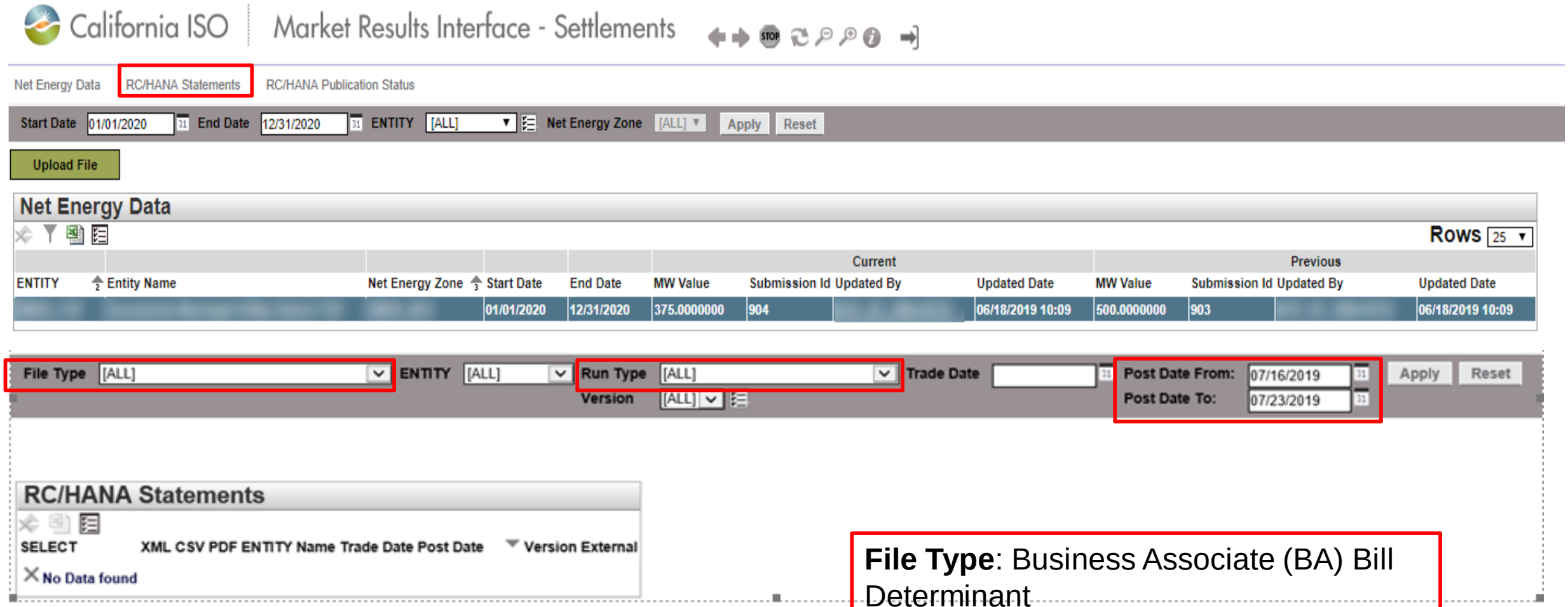
Master File

RIMS — Resource Interconnection Management System

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

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"/>
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</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>
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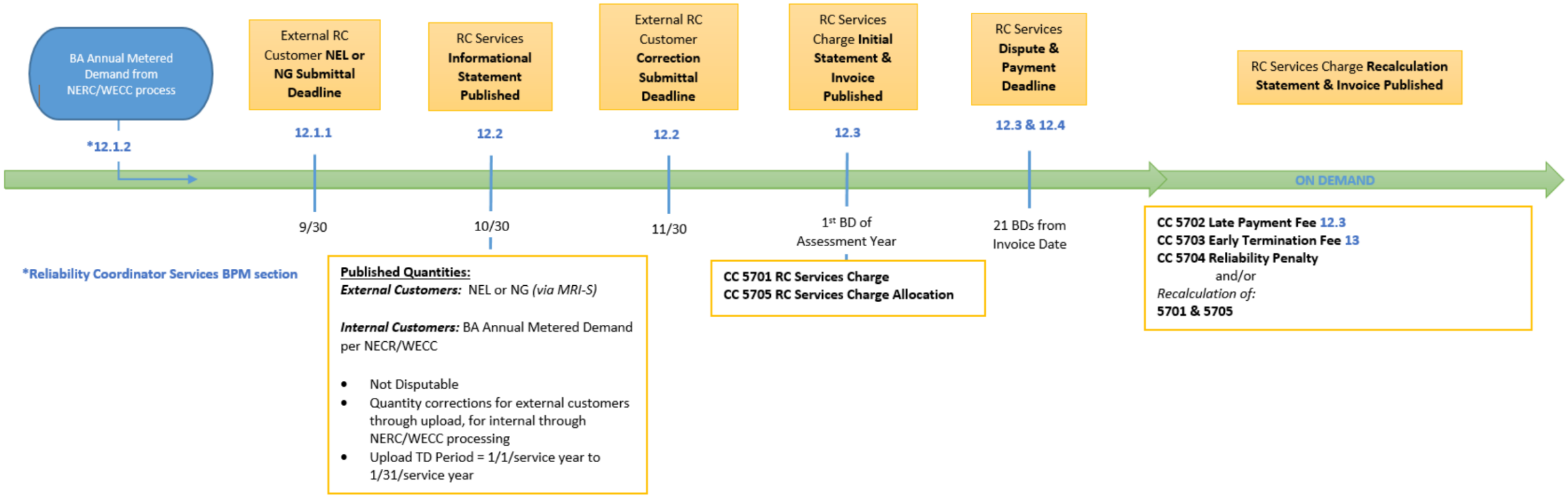
RC Services Settlement Overview



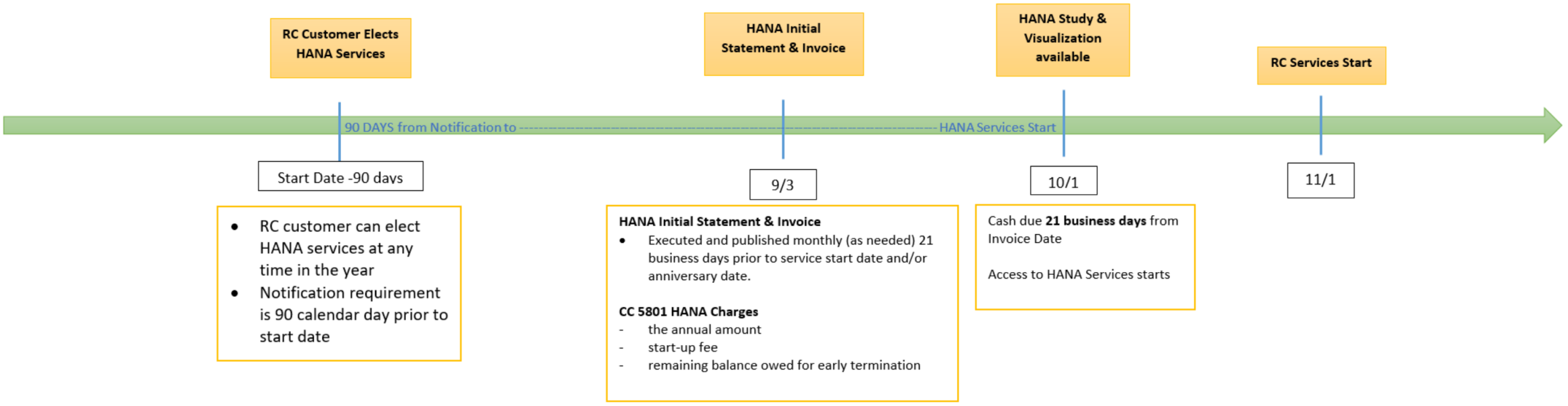
Timeline Legend

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

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 Charge Code 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 and annual recurring invoices will be sent 21 business days prior to the anniversary date
  - Due date is 21 business days from invoice date
  - There is no Recalc for HANA
  - CAISO will publish supplemental statements and invoices during the year if the RC Customer elects to purchase additional subscriptions
    - Charges will be prorated to co-term to original anniversary date
  - Early Termination Fee will be assessed if the RC Customer terminates the agreement before the expiration 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

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: Production**
      - 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

Thank You