

RC West Settlements Working Group

Market Settlement Design and Configuration

July 30, 2019

CAISO public

Agenda

- Data Validation Status
- What Steps Should be Complete / In Progress
- 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	RC Initial Statement & Invoice
Publication Date	7/23 ¹	7/25	7/304
Publication Format ²	XML, CSV, PDF	XML, PDF	XML, PDF
Type of Customer	All RC customers	HANA customer ³	All RC customers

¹ RC Informational Statement not generated for RC customers (external to CAISO BA) who did not submit NEL/NG data
 ² 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).
 ³ CAISO BA customers must use TOP RCID (not SCID) to retrieve HANA statement & invoice
 ⁴ 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)



What Steps Should be Complete / In Progress

- 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
- Downloaded the HANA statement and invoice published on 7/25, validated the charges and submitted questions via CIDI
- Downloaded the RC Initial statement and invoice published on 7/30, validated the charge and submitted questions via CIDI



RC Services MRI-S UI Enhancements

- Replacement of the manual XML file upload for NEL / NG volumes
 - Approved and development is in progress
 - Development completion targeted for August
- 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 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

Questions









CAISO Public

Portal access to MRI-S User Interface

Direct URL to MRI-S -

https://portalmap.caiso.com/settlements/logon.do

- CAISO portal URL
 - <u>https://portalmap.caiso.com/MP</u>
 <u>P_files/MPPApps.html</u>
 - 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.

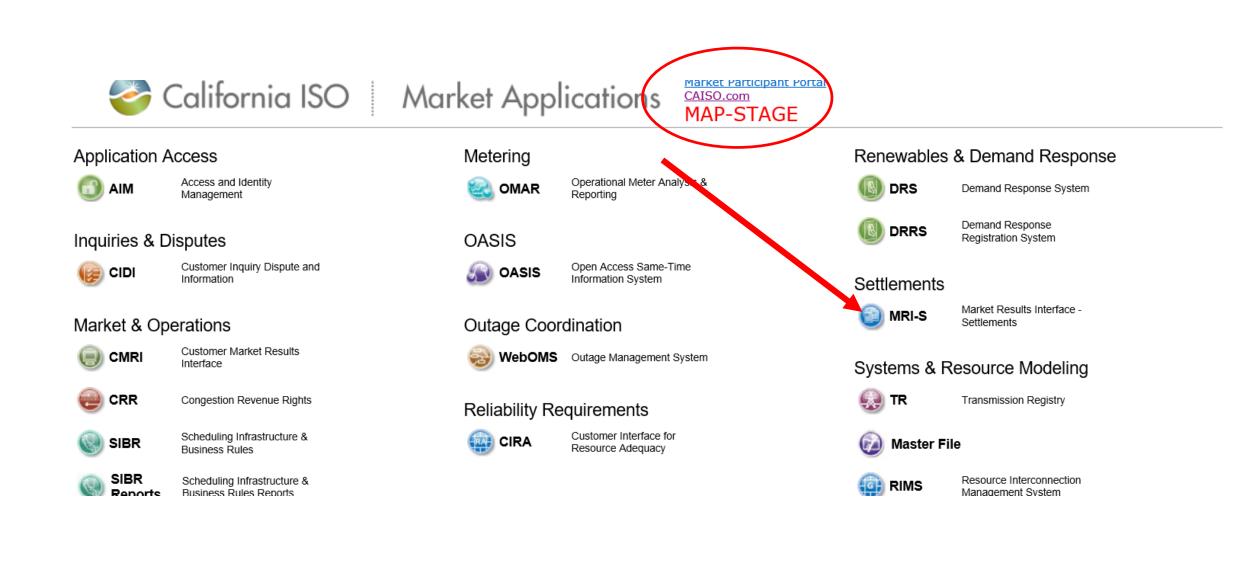
- RC West Portal URL
 - <u>https://rc.caiso.com/</u>
 - External to CAISO BAA
 customers navigate to: Apps >
 Map Stage > Market Results
 Interface Settlements (MRI-S)
 - If you can not access this link or do not see it you need to add this role to your access.





Prod		0101010	101
Stage	•		1.1
MAP Stage	Customer Market Results Interface (CMRI)	oordinator	1 0
System Statu			
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Western El	ectr Market Results Interface - Settlements (MRI-S)	ion operators,	
and RC We	st. Outage Management System (WebOMS)		1.0
	RC Base Schedule Aggregation Portal (RCBSAP)		1 0
	Resource Interconnection Management System (RIMS	S)	







Meeting Notes location

- URL Meeting Notes
 - <u>http://www.caiso.com/infor</u> <u>med/Pages/MeetingsEvent</u> <u>s/UserGroupsRecurringMe</u> <u>etings/Default.aspx</u>

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		2019 meetings Video -		ts Working Group - July 9, 2019			
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		-		ts Working Group - July 3, 2019			

Presentation - RC West Settlements Working Group - July 3, 2019

Presentation - RC West Settlements Working Group - June 19, 2019

7/09/2019 07:44

7/09/2019 07:44



Release Notes and Artifacts

- URL Release Notes
 - <u>http://www.caiso.com/infor</u> <u>med/Pages/MeetingsEvent</u> <u>s/UserGroupsRecurringMe</u> <u>etings/Default.aspx</u>
- XML Sample file URL
 - <u>http://www.caiso.com/Docu</u>
 <u>ments/NEL_NEZ.xml</u>



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                                                                                                          RULES
                                         Home > StayInformed > Release Planning
    About Us
                                         Release planning analyzes the impact of initiatives
   Stay Informed
                                         The release planning process assesses market initiative implementation impacts to determine
                                         target timeframes, project milestones and other resource considerations. It is a collaborative
     Board and Committees
                                         process between the ISO and market participants to optimize the costs and benefits of the
                                         implementation approach prior to committing resources.
      Clean, Green Grid
                                         Plans and schedules
                                         🔊 Market Simulation Plan - Fall 2019 Release
                                                                                    6/18/2019 08:08
     Regional Collaboration
                                         System Interface Change Summary 3/26/2019 08:56
     Energy Imbalance Market
                                         Release Schedule 7/12/2019 16:03
                                         ISO program and project management processes 
      Regional Solutions
                                               Annual Functional Release Lifecycle 2/08/2017 13:04
      Subscriptions and notifications
                                               California ISO Program Lifecycle Methodology Version 1.7
                                                                                                        5/20/2016 08:40
                                         Meetings
                                         Market performance and planning forum
                                         Release user group web conferences
                                         RC West settlements working group meetings
        Miscellaneous stakeholder
                                         2019 releases
                                         Starting with the fall 2019 release, all technical specifications and artifacts are available on the ISO Developer site
                                         Login permission is required to access the site.
                                         Independent 2019
     Release Planning
                                         Hetered subsystem load-following
        Stakeholder Symposium
        User Groups and Recurring
                                         Fall 2019
                                         Starting with the fall 2019 release, all technical specifications and artifacts are available on the ISO Developer site.
                                         Login permission is required to access the site.
        Meetings and Events
                                        (+) Commitment costs and default energy bid enhancements - implementation [2]
                                         (+) Draft settlements technical documentation [2]
                                         (+) Energy imbalance market enhancements 2019 [4]
      Recent Documents
                                         Energy storage and distributed energy resources phase 3 - implementation [3]
     Bulletins Reports and Studies
                                         (+) Local market power mitigation enhancements - implementation
                                         (+) Master file documents []
                                         (+) FERC order 841- energy storage resources
     Regulatory Filings and Orders
                                         (+) Real time market neutrality settlement - implementation [2]
                                        (+) Relia bility must-run and capacity procurement mechanism enhancements - implementation
   Market & Operations
                                        RC West release
```

RC West settlements working group

① Draft settlements technical documentation

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:
 - <u>https://portalmap.caiso.com/settlements/logon.do</u> to verify you have access
 - If you have certificate installation issues, contact the Service Desk
 - Email: <u>uaarequests@caiso.com</u>
 - 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:
 - <u>https://rc.caiso.com/</u> 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

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	and the particular of	01/01/2	020 12/31/2020	375.0000000	904	06/18/2019 10:09	500.0000000	903	06/18/2019 10:09

*<u>Net Energy for Load (NEL)</u> - 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.

*<u>Net Generation (NG)</u> - 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

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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



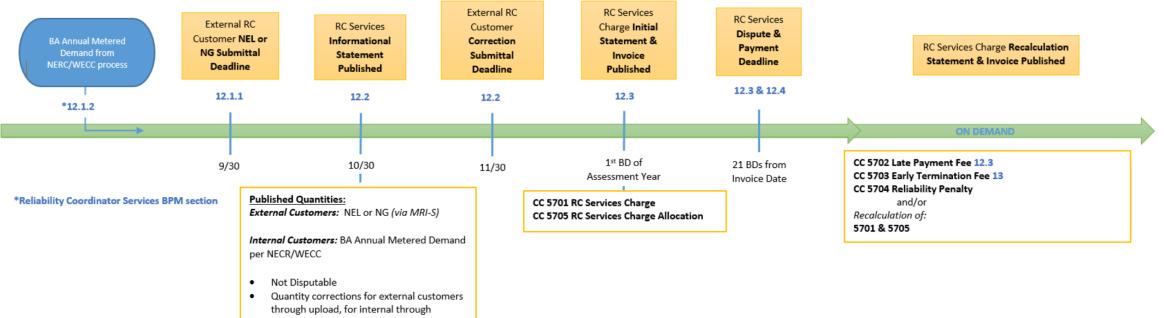
RC Services Informational Statement – How to Read the XML

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_INF0-5-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 seg="2" name="RSRC ID" val="XXXX NEZ"/> <Attribute seg="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 seg="2" name="RSRC ID" val="XXXX NEZ"/> <Attribute seg="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



NERC/WECC processing

 Upload TD Period = 1/1/service year to 1/31/service year

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

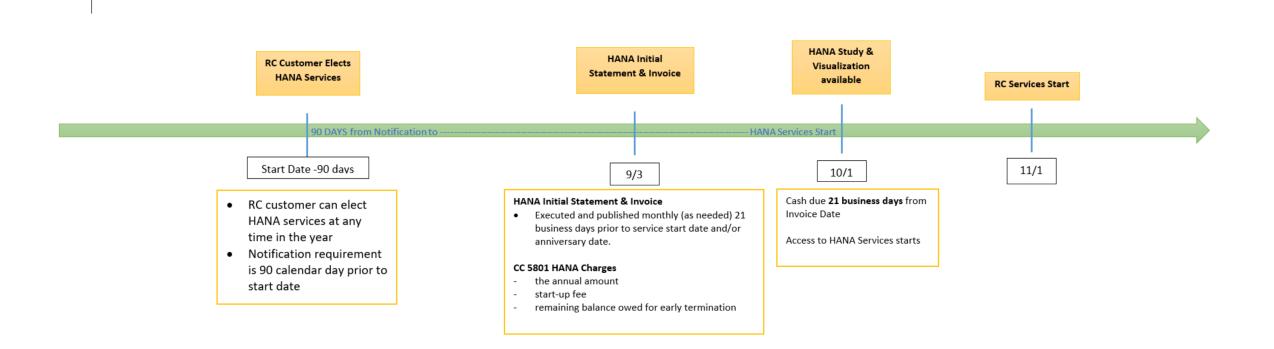
1/31/20**RC Customer** payment due date

» Federal entity payments are due monthly in 1/12 increments



HANA Services 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 12month 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: <u>uaarequests@caiso.com</u>
 - 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:
 - <u>https://rc.caiso.com/</u> Apps > Prod > Customer Inquiry, Dispute & Information (CIDI)
- Issues & Questions
 - Submit CIDI tickets online
 - <u>https://rc.caiso.com/</u> 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
 - o Comments: Communicate via comments as opposed to venturing out to email
- Weekly Webinar will address additional questions



Thank You

