**CCS**

**24B**

**4.2.2.15 Manage Net Energy Metering Charges**

Creation Date: January 15, 2014

Last Updated: January 21, 2025

1. **Title, Subject, Last Updated Date, Reference Number**, **and** **Version** are marked by a Word Bookmark so that they can be easily reproduced in the header and footer of documents. When you change any of these values, be careful not to accidentally delete the bookmark. **You can make bookmarks visible by selecting Tools->Options…View and checking the Bookmarks option in the Show region.**
2. To add additional approval lines, press [Tab] from the last cell in the table above.



**Copyright © 2019, Oracle. All rights reserved.**

**This document is provided for information purposes only and the contents hereof are subject to change without notice.**

**This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied**

**in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any**

**liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document**

**may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission. Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.**

Contents

Brief Description 4

Business Process Model – Page 1 5

Detail Business Process Model Description 6

Test Assets related to the Current Process 16

Document Control 17

Attachments 18

New True-up Monitor for next True-Up Period 18

Cancel True-up Monitor 19

True-Up Adjustments 20

TUM in Reverse True-Up Status 23

1. To update the table of contents, put the cursor anywhere in the table and press [F9]. To change the number of levels displayed, select the menu option Insert‑>Index and Tables, make sure the Table of Contents tab is active, and change the Number of Levels to a new value.

## Brief Description

**Business Process: 4.2.2.15 CCS.Manage Net Energy Metering Charges**

**Process Type: Sub Process**

**Parent Process: 4.2.2 CCS.Manage Bill**

**Sibling Processes: 4.2.2.2 CCS.Manage Metered Charges, 3.3.8.1 CCS.Establish and Manage Net Energy Metering Service**

Customers in a distributed generation energy market may have renewable energy devices such as solar panels or wind turbines connected to their meters. The energy generated at this service point, as well as any energy used, could possibly be measured by a single meter, with the energy generated being netted against the energy used. This is called net energy metering (NEM). The meter records a positive number when customers use more energy than they generate, and a negative number when they generate more than they consume. These customers may owe a minimum charge each month.

This process describes how actual energy charges and generation credits are accrued until the account is adjusted at the end of a specified period, called the true up period. The true up process occurs during billing. CCS(CCB) evaluates the consumption charges and generation credits for the period and determines if the customer owes money to the utility or has a credit. The customer’s bills reflect charges / credits accordingly.

## Business Process Model – Page 1



## Detail Business Process Model Description

[**1.0**](#_Business_Process_Model_2) **Create Financial Transaction(s) Group: Generate Bill Segment**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) creates the financial details related to the Service Agreement’s Bill Segment. The Financial Transaction contains the financial effects of the Bill Segment on the Service Agreement’s current and payoff balances and on the General Ledger. This step is executed from online and batch processing.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-C0-GL - This bill segment financial transaction algorithm creates a financial transaction for a bill segment where:  - Payoff amount = bill amount  - Current amount = 0  - The general ledger is affected  This algorithm should be plugged-in on all bill segment types that do not affect a service agreement's current balance (e.g., prepaid with smart meter, net energy metered (NEM)). |
| C1-C0-NOGL This bill segment financial transaction algorithm creates a financial transaction for a bill segment where:  - Payoff amount = bill amount  - Current amount = 0  - The general ledger is not affected  This algorithm should be plugged-in on all bill segment types that do not affect a service agreement's current balance (e.g., prepaid with smart meter, net energy metered (NEM)).  This algorithm would be configured if the organization banked the credits on the NEM Sub SA. |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| SA Type |

[**1.1**](#_Business_Process_Model_2) **Evaluate True Up Monitor Status Group: FT Freeze Algorithm**

**Group: Cancel NEM Bill Segment**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) evaluates the status of the True Up Monitor (TUM) to determine if it has been trued up and determine if true up process must be reversed.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-RV-TRUP - This SA Type - FT Freeze algorithm transitions the true-up monitor to the Reverse True-Up state if a bill segment or bill segment cancellation is frozen and the true-up monitor linked to the Master SA’s Sub SA is in the Trued-Up state. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask - True Up Monitor Task - This business object defines the behavior of the true up monitor (TUM) used in net energy metering scenarios. Each true up period is covered by an SA relationship and sub-SA, which is associated with a specific TUM. At the end of the true up period, the TUM performs true up processing: bringing the sub-SA balance to zero and transferring any positive balance to the master SA for the customer to pay off. It also sets up the SA relationship, sub-SA and TUM for the next true up period. |
| C1-NEMTrueUpTaskType - This business object is used to maintain the various configuration options that are used by the true up monitor (TUM) BO's algorithms. It defines the length of the true up period as well as the adjustment types used during the true up process. For true up reversals, the adjustment cancel reason to use is also captured here. |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| SA Type |

[**1.2**](#_Business_Process_Model_2) **Update True Up Monitor to Reverse True Up Status Group: FT Freeze Algorithm**

**Group: Cancel NEM Bill Segment**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) transitions the True Up Monitor ([TUM) in Reverse True-Up Status](#_TUM_in_Reverse) when a Bill Segment or Bill Segment Cancellation FT is frozen for the NEM Sub SA and the current TUM state is Trued Up.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-RV-TRUP - This SA Type - FT Freeze algorithm transitions the true-up monitor to the Reverse True-Up state if a bill segment or bill segment cancellation is frozen and the true-up monitor linked to the Master SA’s Sub SA is in the Trued-Up state.. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| SA Type |

[**1.3**](#_Business_Process_Model_2) **Analyze Status of True Up Monitor(s) linked to Master SA Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) identifies and evaluates all True Up Monitors linked to Customer’s Master SA determine if any further actions are required depending on the current True Up Monitor status.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-TRN-TUM – This SA Type – Bill Completion algorithm transitions any true up monitors (TUM) in the Active or Reverse True Up states. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| SA Type |

[**1.4**](#_Business_Process_Model_2) **Evaluate Eligibility for True Up Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) evaluates if it time to perform the true up process. The True Up Monitor (TUM) is eligible for true up when the latest non-cancelled Bill Segment for the NEM Sub SA is a Closing Bill Segment or the minimum true up period has elapsed. The elapsed time period is calculated from the earliest Bill Segment Start Date to the latest Bill Segment End Date of the NEM Sub SA.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-TRU-ELIG – This Business Object - Monitor algorithm checks eligibility for True up. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

[**1.5**](#_Business_Process_Model_2) **Calculate Pay Off Balance on Sub SA Group: Create True Up Adjustment**

**Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) transitions the True Up Monitor (TUM) from Active status to Trued Up status, and initiates the true up process. The first step in the true up process is to calculate payoff balance on the NEM Sub SA.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-NEM-TRUUP – This Business Object - Enter Status algorithm performs the true up process. It first syncs the payoff and current balances of the sub-SA. Then it calculates the payoff balance of all the non-cancelled bill segments on the associated sub-SA and, if the balance is positive (the customer owes), creates a transfer adjustment from the sub-SA to the master SA for the amount of the payoff balance. If the payoff balance is negative (utility owes the customer), it creates an adjustment on the sub-SA to zero out the balance (the utility gets to keep the credit). The adjustment types to use for each of these adjustments are defined on the service task type. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| Adjustment Type |

[**1.6**](#_Business_Process_Model_2) **Sync Current and Payoff Amount on Sub SA Group: Create True Up Adjustment**

**Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) creates this [adjustment](#_True-Up_Adjustments) to sync the payoff and current amounts on the sub service agreement associated with the true up period

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-ADJT-CA - Payoff Amt = 0 / Current Amt = Adj Amount (no GL) |
| C1-NEM-TRUUP - NEM True Up - Create Adjustments |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates  Bills for accounts with an "open" Bill cycle. Online  Billing process creates a Bill for account when  requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| Adjustment Type |
| Service Task Type |

[**1.7**](#_Business_Process_Model_2) **Create Transfer Adjustment to Master SA Group: Create True Up Adjustment**

**Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

If the Payoff Balance on the NEM Sub SA is positive (the customer owes), a [Transfer Adjustment](#_True-Up_Adjustments) is created from the NEM Sub SA to the NEM Master SA for the amount of the Payoff Balance.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-NEM-TRUUP – This Business Object - Enter Status algorithm performs the true up process. It first syncs the payoff and current balances of the sub-SA. Then it calculates the payoff balance of all the non-cancelled bill segments on the associated sub-SA and, if the balance is positive (the customer owes), creates a transfer adjustment from the sub-SA to the master SA for the amount of the payoff balance. If the payoff balance is negative (utility owes the customer), it creates an adjustment on the sub-SA to zero out the balance (the utility gets to keep the credit). The adjustment types to use for each of these adjustments are defined on the service task type. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| Adjustment Type |

[**1.8**](#_Business_Process_Model_2) **Create Adjustment on Sub SA to Keep Credit Group: Create True Up Adjustment**

**Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

If the Payoff Balance is negative (utility owes the customer), a [Write Down Adjustment](#_True-Up_Adjustments) is created on the NEM Sub SA to zero out the Payoff and Current Balances (the utility gets to keep the credit).

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-NEM-TRUUP – This Business Object - Enter Status algorithm performs the true up process. It first syncs the payoff and current balances of the sub-SA. Then it calculates the payoff balance of all the non-cancelled bill segments on the associated sub-SA and, if the balance is positive (the customer owes), creates a transfer adjustment from the sub-SA to the master SA for the amount of the payoff balance. If the payoff balance is negative (utility owes the customer), it creates an adjustment on the sub-SA to zero out the balance (the utility gets to keep the credit). The adjustment types to use for each of these adjustments are defined on the service task type. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| Adjustment Type |

[**1.9**](#_Business_Process_Model_2) **Create, Activate New Sub SA and Establish Relationship with Master SA Group: Bill Completion**

**Group: Bill Customer**

**Group: New TUM for Next True-Up Period**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) creates a new NEM Sub SA and links it to Master SA.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-TUM-SARL – It creates a new SA relationship for the subsequent true up period. The parameter captures the SA Relationship Type used in creating the SA Relationship. The effective date of the new SA relationship is the same as the true up date of the previous period. This ensures that billing picks up the new sub-SA for the next bill period. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

[**2.0**](#_Business_Process_Model_2) **Create New True Up Monitor Group: Bill Completion**

**Group: Bill Customer**

**Group: New TUM for Next True-Up Period**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) creates a [new True Up Monitor for the next True Up period](#_New_True-up_Monitor).

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-SAT-TUM – This SA Type – SA Creation algorithm creates a true up monitor business object. This algorithm is plugged in on the NEM Sub SA Type.. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| SA Type |

[**2.1**](#_Business_Process_Model_2) **Evaluate Criteria for True Up Monitor Cancellation Group: Cancel True Up Monitor**

**Group: Bill Completion**

**Group: Bill Customer**

A**ctor/Role: CCS(CCB)**

**Description:**

CCS(CCB) evaluates if an active True Up Monitor (TUM) should be cancelled. A True Up Monitor is eligible for cancellation when the NEM Sub SA has been cancelled / deleted or the NEM Sub SA Stop Date is before the NEM SA Relationship Effective Date.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-CK-TUMCN - This Business Object – Monitor algorithm transitions the true up monitor (TUM) to the Cancelled state if its related sub SA has been cancelled or deleted or if the SA's stop date is before the relevant SA relationship's effective date. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

[**2.2**](#_Business_Process_Model_2) **Cancel True Up Monitor Group: Cancel True Up Monitor**

**Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

CCS(CCB) cancels the [NEM True Up Monitor (TUM) by transitioning it to Canceled state](#_Cancel_True-up_Monitor)

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-CK-TUMCN - This Business Object – Monitor algorithm transitions the true up monitor (TUM) to the Cancelled state if its related sub SA has been cancelled or deleted or if the SA's stop date is before the relevant SA relationship's effective date. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

[**2.3**](#_Business_Process_Model_2) **Cancel Adjustments Created For True Up Group: Bill Completion**

**Group: Bill Customer**

**Actor/Role: CCS(CCB)**

**Description:**

If True Up Monitor has been reversed and is currently in Reverse True Up State, CCS(CCB) cancels all frozen Adjustments created for True Up and populates with a cancellation reason.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| C1-RT-CNFZAD - This algorithm cancels all adjustments created as part of the true up process. The adjustments are stamped with the true up monitor's ID. The adjustment cancel reason is defined on the true up monitor's service task type. |

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| Adjustment Cancel Reason |

[**2.4**](#_Business_Process_Model_2) **Activate True Up Monitor Group: Bill Completion**

**Group: Bill Customer**

A**ctor/Role: CCS(CCB)**

**Description:**

CCS(CCB) transitions the NEM True Up Monitor to Active status.

**Business Object Exists Business Object**

|  |
| --- |
| C1-NEMTrueUpTask |
| C1-NEMTrueUpTaskType |

**Customizable process N Process Name:**

|  |
| --- |
| BILLING - The Bill cycle Batch processing creates Bills for accounts with an "open" Bill cycle. Online Billing process creates a Bill for account when requested by an Authorized User. |

## Test Assets related to the Current Process

| Testing Asset Sr.No | Testing Asset-Flows | No Of Data sets |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Document Control

**Change Record**

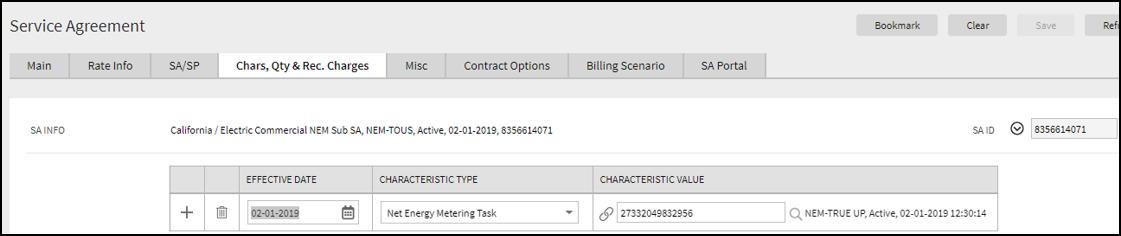
19

| Date | Author | Version | Change Reference |
| --- | --- | --- | --- |
|  |  |  |  |
| 12/20/2013 | May Wang | V 1.0 | Initial draft |
| 05/12/2014 | Caroline Prado | V2.1 | Draft , various updates |
| 05/28/2014 | Galina Polonsky |  | Reviewed, Approved |
| 08/30/17 | Joshua Piccott |  | Updated Document and Visio to v2.6 |
| 09/28/2018 | Debby Phelps |  | Updated Document and Visio |
| 10/23/2018 | Galina Polonsky |  | Reviewed, Approved |
| 6/3/2019 | Satya Kalavala |  | Updated format for v2.7 |
| 10/03/2024 | Kunal Nerkar |  | Updated Document and Visio for CCS 24B |
| 10/18/2024 | Line Prado |  | Reviewed |
| 12/17/2024 | Galina Polonsky |  | Reviewed, Approved |

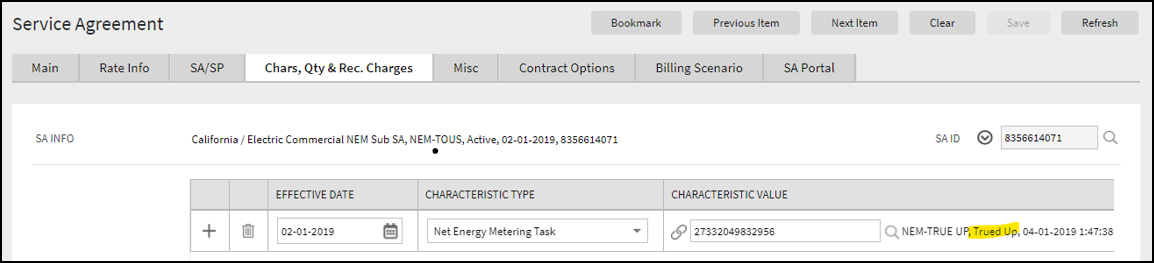
## Attachments

### New True-up Monitor for next True-Up Period

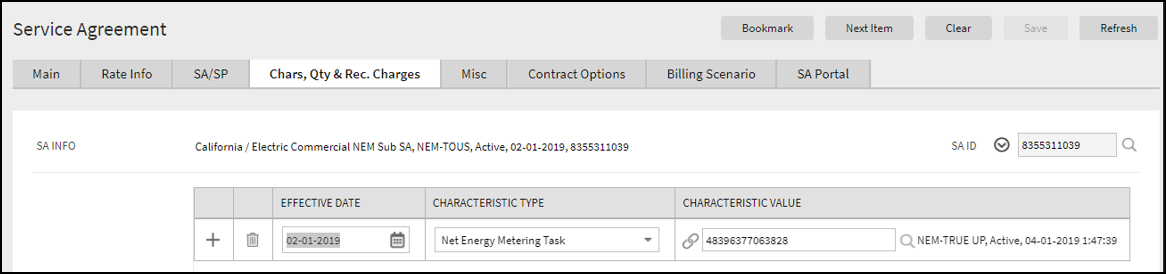
Current TUM in Active Status:



TUM in Trued-Up Status

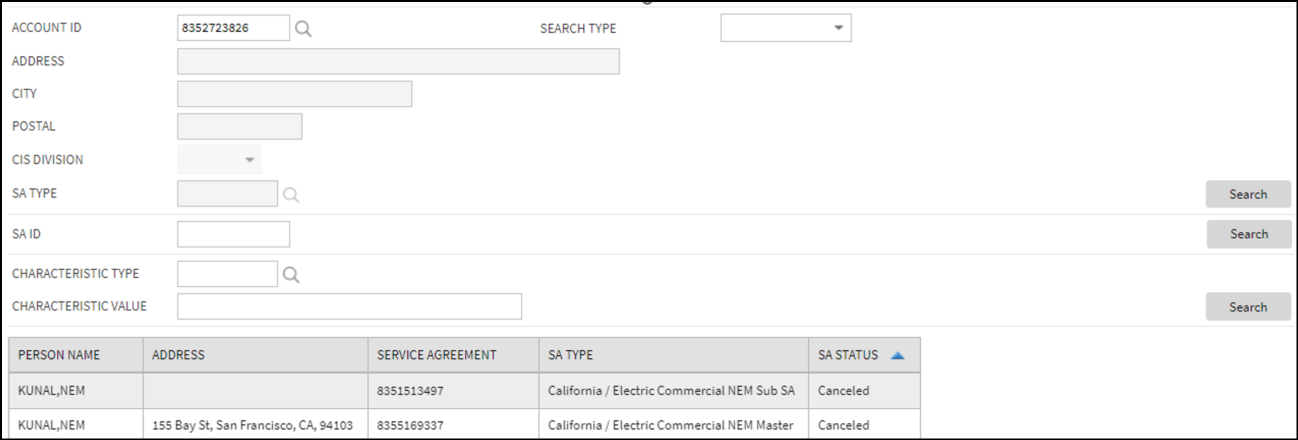


New TUM for next True-Up Period:

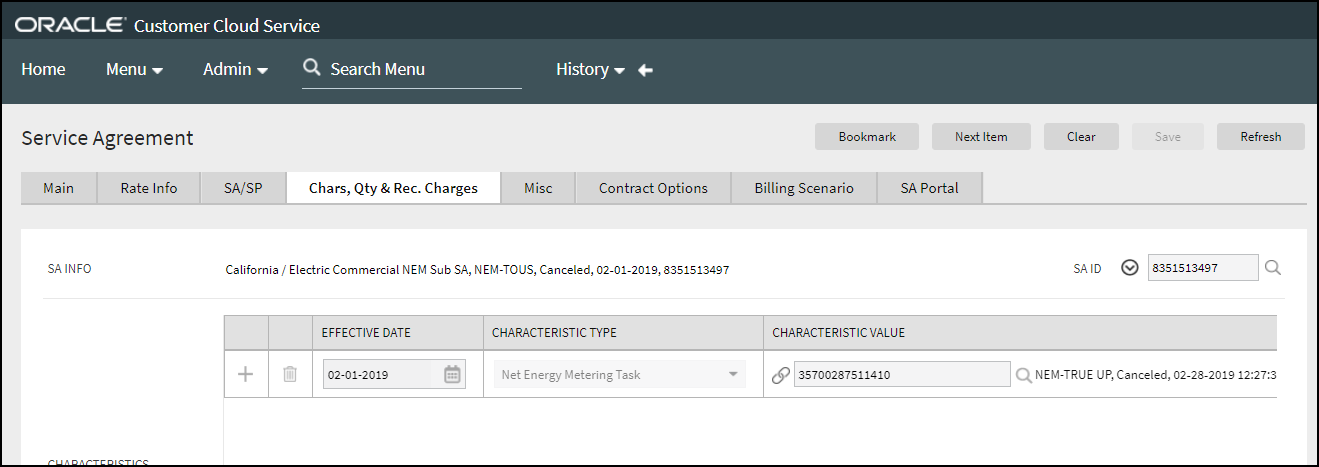


### Cancel True-up Monitor

Cancelled service

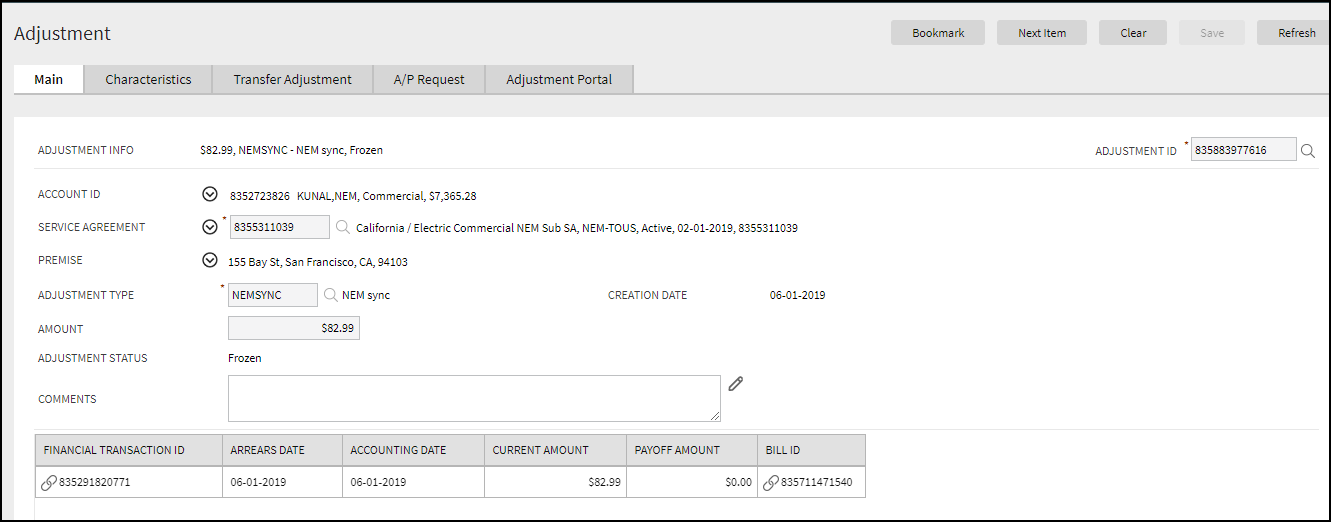


Cancelled TUM

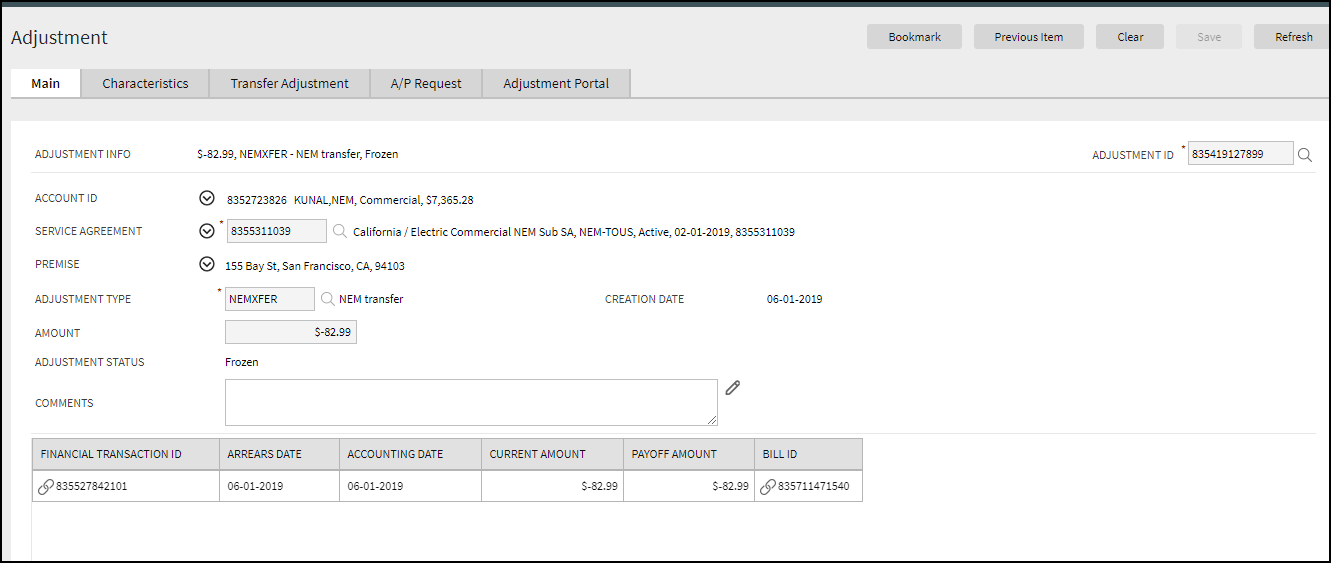


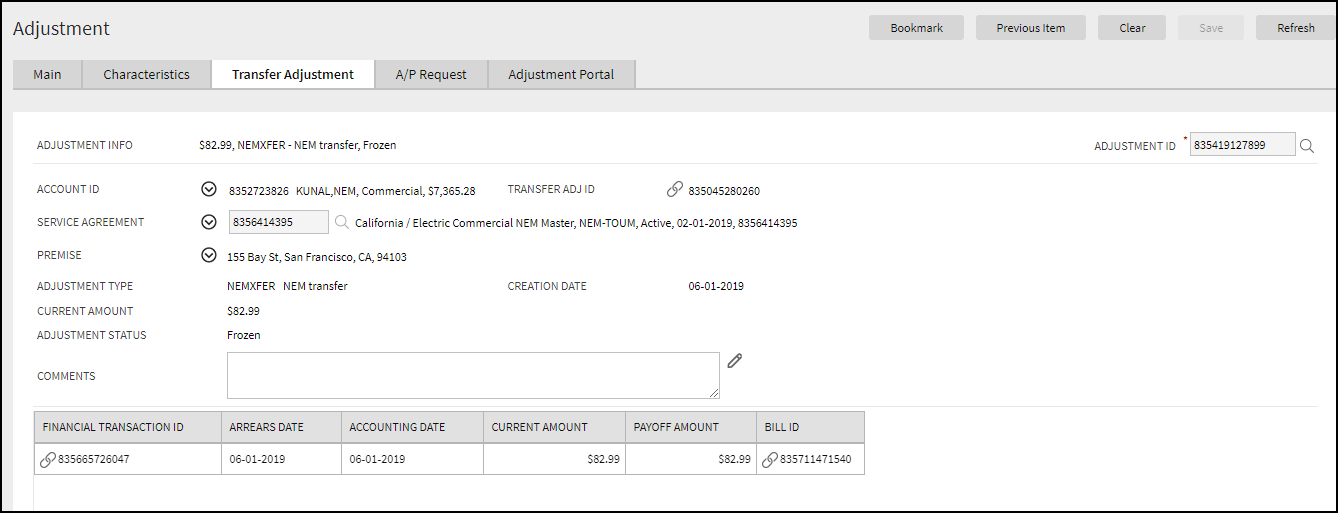
### True-Up Adjustments

Sync:

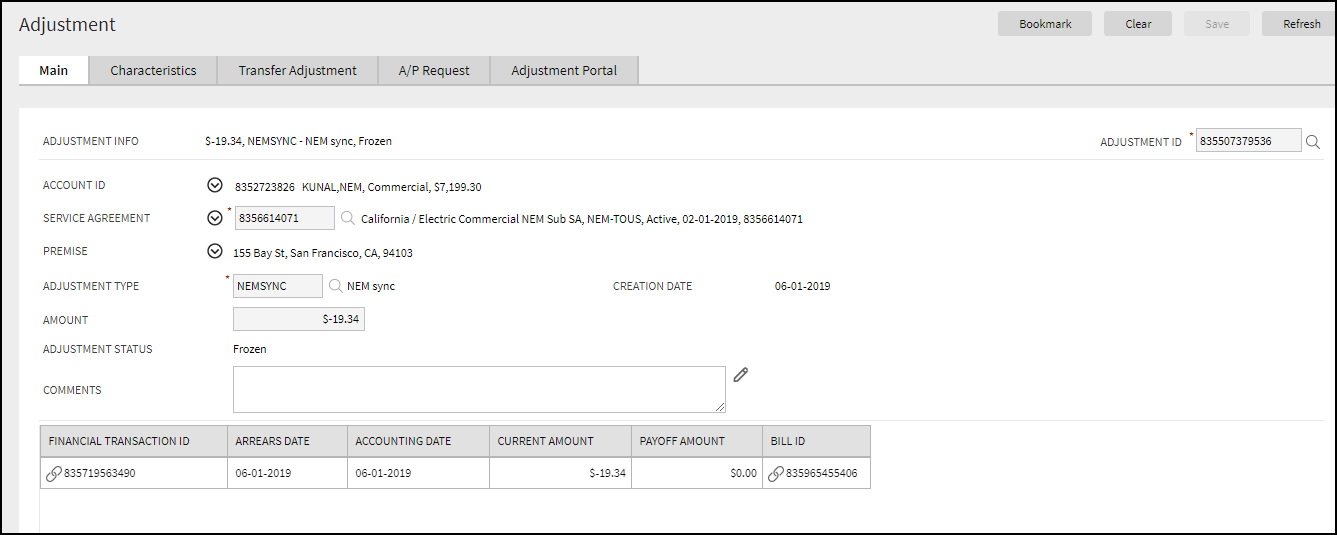


Transfer:

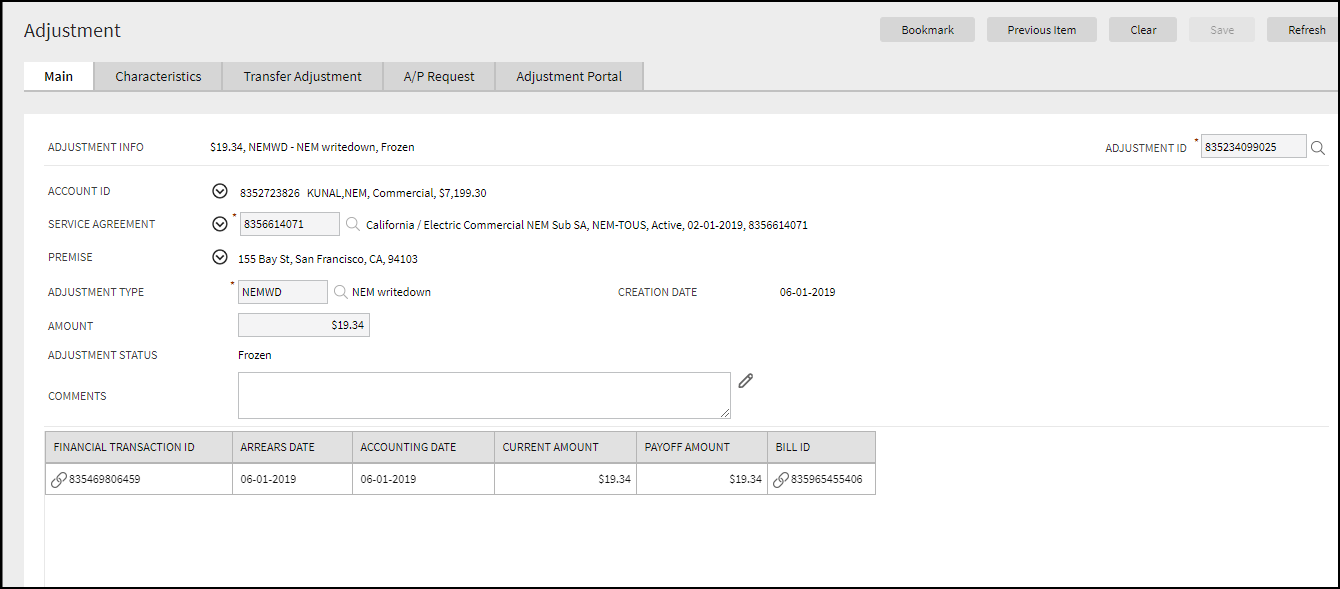




Sync adj:



Write Down Adj created:



### TUM in Reverse True-Up Status

Cancelling a frozen trued up bill:

