

**Dispute Submittal Guide: No Pay and Regulation Non-Compliance****No Pay and Regulation Non-Compliance**

Charge Types 4141, 4142, 4144, 145, 146 and 1030

**Description**

This section of the Dispute Submittal Guide describes the information relevant to the A/S No Pay and Regulation Non-Compliance charge types. Specifically, charge types 4141, 4142, 4144, 145, 146 and 1030.

**Charge Types 4141, 4142 and 4144 – No Pay**

No Pay is the mechanism that rescinds payment for procured Ancillary Service (A/S) capacity, specifically Spin, Non Spin and Replacement Reserve capacity, when it is unavailable in real time. No Pay is in place to encourage resources to keep awarded A/S available for ISO dispatch, follow dispatch instructions and avoid uninstructed deviations.

Effective on Trade Date 10/1/2004, No Pay is settled in CT 4141 for Spinning Reserve, CT 4142 for Non Spinning Reserve and CT 4144 for Replacement Reserve capacity.

With the implementation of Extended SLIC and the Real Time Dispatch software on 10/1/2004, additional information on unit availability and ramp rate capability is available. The ISO uses this additional data to determine if the scheduled A/S is actually available for dispatch in real time and determines the following No Pay consequences:

For Participating Generators and Participating Loads:

- Undispatchable A/S Capacity due to unit limitations in P-Max and ramp rate
- Undelivered A/S Capacity due to failure to deliver Expected Energy from A/S instruction
- Unavailable A/S Capacity due to Uninstructed Deviations

For Static System Resources:

- Declined A/S Instruction

**CT 145 and 146 - Regulation Non-Compliance**

Regulation Non-Compliance used for Generating Units that are not meeting the requirements for Regulation. CT 145 is used to settle Regulation Up Non-Compliance and CT 146 is used to settle Regulation Down Non-Compliance. Payments are pro-rated to the extent the following criteria are not met:

- Unit must be on Automatic Generation Control (“AGC”)
- Unit must have sufficient Operating Range
- Unit must be operating within Regulating Range
- Unit must be able to received signals through Plant RIG

**Dispute Submittal Guide: No Pay and Regulation Non-Compliance**Charge Type 1030 - No Pay and Non-Compliance Allocation

The No Pay and Non-Compliance charge revenue is allocated to all SCs pro rata based on Metered Load and Real-Time Exports through CT 1030

## **1. Minimum Supplemental Information Required for Dispute Submittal**

In order to support its claim when submitting a dispute, the SC must identify what specific component(s) of the calculation it disagrees with, and provide an explanation of why the SC believes the ISO data is incorrect or the SC's suggested correction is correct. The SC needs to be very specific, and describe exactly why the dispute is being submitted within the Detailed Description field of the SDS ticket. In addition to this standard information required for all disputes, as discussed in Section 3 of the Dispute Submittal Guide, disputes in this charge type category should also include the following additional data elements/information:

- Whether the category that the SC is disputing is Undispatchable A/S, Undelivered A/S or Unavailable A/S
- Evidence in support of the SC's suggested correction, such as:
  - SLIC log numbers
  - Time derate was reported to the ISO (either by phone or through SLIC)

Discussion of Potential No Pay or Non-Compliance Disputes:Billable Quantity Disputes:

If a SC disagrees with its CT 4141 Billable Quantity, it will need to specify which BQ category it believes is in error, the Undispatchable, Undelivered or Unavailable A/S.

- If the SC disagrees with the Undispatchable portion of the BQ then an indication of which component of the Undispatchable BQ should be included. If the SC believes its Maximum Bid Availability is in error due to a derate, the SC should indicate what derates it had reported to the ISO and at what time and describe/demonstrate how it arrived at its value for the Maximum Bid Availability.
- If either the Expected Energy or Meter Data components are at issue, the disputes should not typically be submitted under the No Pay or Non-Compliance Charge Types. Rather, if the SC is actually disagreeing with the Expected Energy component, the dispute should be submitted under charge type 4401, where the Expected Energy was derived (see Instructed Imbalance Energy section of this guide). If the SC is disagreeing with its meter data, the SC should typically submit the dispute under charge type 4407, as that equation determined the delivered energy based on the meter data. In these instances, the SC should indicate that the No Pay or Non-Compliance charge was also impacted within Detailed Description field of the SDS ticket.

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## Price Disputes:

If a SC disagrees with the penalty price, it needs to identify what price it used in its calculations (i.e., OASIS). For No Pay, if a SC disagrees with the weighted average price, it needs to identify whether it disagrees with the DA MCP, HA MCP or if it is the DA or HA capacity it disagrees with.

## 2. Calculation Components

The below listed calculation components and the simplified equations provided in the next section are provided to aide SCs in understanding their Settlements charges. By determining the components identified below and plugging them into the simplified formulas in Section 3, a SC should be able to validate its charge, as well as identify where discrepancies exist between its data and the ISO data. If a SC is using a different value for a component, it should describe the difference in a dispute and demonstrate how the SC's value was derived. This explanation is necessary if the SC wishes to disprove the ISO data.

For CT 4141, 4142 and 4144 the components of the calculation are as follows:

## Price Components

- A/S Capacity for service in question
- MCP for service in question

## BQ Components

- Maximum Bid Capacity
- P-Max
- A/S Capacity Schedule
- H/A Final Schedules
- Operating Reserve Available
- Dispatch Operating Target (DOT) (from the Dispatch Interval prior to the Settlement Interval)
- Instructed Imbalance Energy (IIE) (from A/S Capacity)
- Expected Energy
- Meter Data

For CT 145 and CT 146 the components of the calculation are as follows:

## Price Component

- SC Regulation Price

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**BQ Components**

- H/A Final Schedule
- Scheduled Regulation Up
- Scheduled Regulation Down

For CT 1030 the components of the calculation are as follows:

**Price Components**

- Total No Pay or Non-Compliance Revenue
- Total Load and Exports

**BQ Component**

- SC Metered Load
- SC Real-Time Exports

### 3. Explanation of Charge Type Calculations

The below equations are simplified to aid the reader in understanding the various concepts, and are not intended to capture every potential scenario or nuance of each Charge Type algorithm. For the actual detailed calculations, refer to the ISO Settlement Charge Matrix and/or the Settlements Guide documents posted on the ISO Website.

#### **Charge Types 4141, 4142 and 4144 – No Pay**

**CT 4141 Total Charge = Price \* Billable Quantity, where;**

$$\text{Price} = \frac{(\text{DA Spin Capacity} * \text{DA MCP}) + (\text{HA Spin Capacity} * \text{HA MCP})}{\text{DA Spin Capacity} + \text{HA Spin Capacity}}$$

$$\text{Billable Quantity} = \text{Undispatchable Spin Capacity} + \text{Undelivered Spin Capacity} + \text{Unavailable Spin Capacity}$$

**CT 4142 – The same Price and Billable Quantity Equations apply for Non-Spin**

**CT 4144 - The same Price and Billable Quantity Equations apply for Replacement Reserve**

The calculations for each of the 3 No Pay categories are required to get to the total No Pay consequence

**Dispute Submittal Guide: No Pay and Regulation Non-Compliance**Calculations for Undispatchable A/S Capacity**Step 1**

Maximum Bid Availability =  $\min(\text{Derated P-Max}, \text{Maximum Bid Capacity})$

**Step 2**

Limited Replacement Capacity =  $\min(\text{Replacement Capacity Schedule}, \max(0, \text{Maximum Bid Availability} - \text{H/A Final Schedule} - \text{Spin Capacity Schedule} - \text{Non-Spin Capacity Schedule}))$

Limited Non-Spin Capacity =  $\min(\text{Non-Spin Capacity Schedule}, \max(0, \text{Maximum Bid Availability} - \text{H/A Final Schedule} - \text{Spin Capacity Schedule}))$

Limited Spin Capacity =  $\min(\text{Spin Capacity Schedule}, \max(0, \text{Maximum Bid Availability} - \text{H/A Final Schedule}))$

**Step 3**

Dispatched Non-Spin Capacity =  $\min(\text{Limited Non-Spin Capacity}, \max(0, \text{DOT} - (\text{Maximum Bid Availability} - \text{Limited Spin Capacity} - \text{Limited Non-Spin Capacity})))$

Dispatched Spin Capacity =  $\min(\text{Limited Spin Capacity}, \max(0, \text{DOT} - (\text{Maximum Bid Availability} - \text{Limited Spin Capacity})))$

**Step 4**

Undispatched Non-Spin Capacity =  $\text{Limited Non-Spin Capacity} - \text{Dispatched Non-Spin Capacity}$

Undispatched Spin Capacity =  $\text{Limited Spin Capacity} - \text{Dispatched Spin Capacity}$

**Step 5**

Undispatched Spin and Non Spin capacity may be further limited by the ramp rate capability as follows:

Ramp-Limited Non-Spin Capacity =  $\min(\text{Undispatched Non-Spin Capacity}, \text{Operating Reserve Available})$

Ramp-Limited Spin Capacity =  $\min(\text{Undispatched Spin Capacity}, \text{Operating Reserve Available} - \text{Ramp-Limited Non-Spin Capacity})$

**Step 6**

**Undispatchable Replacement Capacity** =  $(\text{Replacement Capacity Schedule} - \text{Limited Replacement Capacity})$

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**Undispatchable Non-Spin Capacity** = (Non-Spin Capacity Schedule – Dispatched Non-Spin Capacity – Ramp-Limited Non-Spin Capacity)

**Undispatchable Spin Capacity** = (Spin Capacity Schedule – Dispatched Spin Capacity – Ramp-Limited Spin Capacity)

Calculations for Undelivered A/S Capacity

The same calculation is applied to Spin, Non-Spin, and Replacement Reserve.

*If* (Delivered Spin IIE  $\geq$  (1 – Tolerance Factor)  $\times$  Settlement Interval Spin IIE)

*Then*

**Undelivered Spin Capacity** = 0

*If Not*

**Undelivered Spin Capacity** = max(0, Dispatchable Spin Capacity – Delivered Spin IIE)

*Where;*

Tolerance Factor = 10%

*and*

Dispatchable Replacement Capacity = Replacement Capacity Schedule – Undispatchable Replacement Capacity

*and*

Dispatchable Non-Spin Capacity = Non-Spin Capacity Schedule – Undispatchable Non-Spin Capacity

*and*

Dispatchable Spin Capacity = Spin Capacity Schedule – Undispatchable Spin Capacity

Calculations for Unavailable A/S Capacity

The Unavailable A/S Capacity is allocated to each of the A/S services from lowest to highest.

Unavailable A/S Capacity = max(0, min(Meter Data – Expected Energy, Meter Data – (Maximum Bid Availability – (Dispatchable A/S Capacity – Delivered A/S IIE))))

*Where;*

Dispatchable A/S Capacity = Dispatchable Spin Capacity + Dispatchable Non-Spin Capacity + Dispatchable Replacement Capacity

**Unavailable Replacement Capacity** = min(Unavailable A/S Capacity, max(0, Dispatchable Replacement Capacity – Delivered Replacement IIE))

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**Unavailable Non-Spin Capacity** = min(Unavailable A/S Capacity – Unavailable Replacement Capacity, max(0, Dispatchable Non-Spin Capacity – Delivered Non-Spin IIE))

**Unavailable Spin Capacity** = min(Unavailable A/S Capacity – Unavailable Replacement Capacity – Unavailable Non-Spin Capacity, max(0, Dispatchable Spin Capacity – Delivered Spin IIE))

Calculation for Declined A/S Instruction for Static System Resources

The same calculation is applied to Spin, Non-Spin, and Replacement Reserve.

*If* (Acknowledged Spin Instruction < Spin Instruction)

*Then*

Declined Spin Capacity = min(Dispatchable Spin Capacity, (Spin Capacity Schedule – Acknowledged Spin Instruction) / 6)

*If Not*

**Declined Spin Capacity** = 0

**Charge Type 145 - Regulation Up Non Compliance**

**Total Charge** = Price \* Billable Quantity, *where;*

**Price** = SC Regulation Price

**Billable Quantity** = Unavailable Regulation Up = Scheduled Regulation Up – Available Regulation Up

*Where;*

Available Regulation Up = Plant High Limit – Final HA Schedule

*and*

High Limit = Final H/A Schedule + Scheduled Regulation Up

**Charge Type 146 – Regulation Down Non-Compliance**

**Total Charge** = Price \* Billable Quantity, *where;*

**Price** = SC Regulation Price

**Billable Quantity** = Unavailable Regulation Down = Scheduled Regulation Down – Available Regulation Down

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Where;

Available Regulation Down = Final H/A Schedule - Plant Low Limit

and

Low Limit = Final H/A Schedule - Scheduled Regulation Down

**Charge Type 1030 – No Pay and Regulation Non-Compliance Cost Allocation**

**Total Charge = Price \* Billable Quantity, where;**

**Price** = Total No Pay or Non-Compliance Revenue / (Total Metered Load + Real-Time Exports)

**Billable Quantity** = SC Metered Load + SC Real-Time Export

**4. Validation Sources**

<b>CT 4141, 4142 and 4144 Validation Components</b>	
<b>CT Component</b>	<b>How/Where to Validate</b>
<b>Scheduled A/S</b>	<b>Schedule Templates</b> - Final A/S Service Schedules for Awarded A/S
<b>Operating Reserve Available</b>	<b>SI Workspace</b> – “After the Fact” Energy Accounting, ISO calculated trajectory (expected energy)
<b>Maximum Bid Capacity</b>	<b>SI Workspace</b> – “After the Fact” Energy Accounting, ISO calculated trajectory (expected energy)
<b>Expected Energy/IIE</b>	<b>HA Final Energy Schedule Templates</b> <b>ADS</b> <b>SI Workspace</b> – “After the Fact” Energy Accounting, ISO calculated trajectory (expected energy) <b>Settlement Statement Files</b> – Imbalance Energy and No Pay Settlement Detail Files
<b>Unit Availability</b>	P-MAX SLIC
<b>DOP/DOT</b>	<b>ADS</b> - Dispatches <b>SI Workspace</b> – “After the Fact” Energy Accounting, ISO calculated trajectory (expected energy)
<b>Delivered IIE</b>	<b>SI Workspace</b> – “After the Fact” Energy Accounting, ISO calculated trajectory (expected energy) <b>Settlement Statement Files</b> – Imbalance Energy and No Pay Settlement Detail Files <b>OMAR</b> – Meter Data
<b>A/S Capacity Prices</b>	<b>OASIS and/or PMI</b> – Hourly A/S Capacity Prices

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**Settlement Statement Files**

## CT 145 and 146 Validation Components

<b>CT Component</b>	<b>How/Where to Validate</b>
<b>A/S Capacity Prices</b>	<b>OASIS and/or PMI – Hourly A/S Capacity Prices Settlement Statement Files</b>
<b>Scheduled A/S</b>	<b>Schedule Templates - Final A/S Service Schedules for Awarded A/S</b>

## CT 1030 Validation Components

<b>CT Component</b>	<b>How/Where to Validate</b>
<b>Total No Pay or Non-Compliance Revenue</b>	<b>Settlement Statement Files - Settlement Detail Record</b>
<b>Total Load and Export</b>	<b>Settlement Statement Files - Settlement Detail Record</b>
<b>SC's Metered Load and Export</b>	<b>Settlement Statement Files - Settlement Detail Record</b>