

AESO ENERGY TRADING SYSTEM

Net Settlement Instructions

Updated September 2011

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Net Settlement Instructions

Introduction



Definitions

Definitions used in this manual:

“**forward market assets**”, also referred to as virtual assets, are unmetered assets used for trading purposes.

“**hour ending**” means the 60 minute period ending that hour. For example, HE 24 includes the time between 23:00 and 24:00. For pool price and dispatch purposes, the hour starts at hh:00:00 and ends hh:59:59 for hh+1.

“**net settlement instruction (NSI)**” means an electronic instruction:

- (i) to the ISO from two (2) counterparty pool participants; and
- (ii) containing transactional information including volumes, start and end times, and applicable pool assets, which enables the ISO to perform netting of metered energy for purposes of calculating power pool settlements.

“**settlement interval**” means a period beginning on the hour and ending sixty (60) minutes later and is the time increment for which:

- (i) the ISO financially settles energy amounts; and
- (ii) the load settlement system calculates distinct load estimates.

“**sink asset**” means a load, export volume or other power pool transaction represented by an ISO identifier that enables a pool participant to submit bids, operating constraints, ancillary service declarations and/or identify net settlement instruction MWh volumes bought from a seller to be settled in the power pool.

“**source asset**” means a generating asset, import volume, or other power pool transaction represented by an ISO identifier that enables a pool participant to submit offers, operating constraints, ancillary service declarations and/or identify net settlement instruction MWh volumes sold to a purchaser to be settled in the power pool.

Net Settlement Instructions



Overview

Registered pool participants buy and sell their electricity in the wholesale market and receive the hourly pool price per megawatt hour (MWh) traded. As an alternative to buying and selling at the wholesale market price, pool participants can enter into Net Settlement Instructions (NSIs).

NSIs allow buyers and sellers to enter directly into contracts with other pool participants for an agreed upon amount of power, at a negotiated price, over a specified period of time in the future. The AESO has no visibility of the contracted price; however the AESO must have visibility of the MW volumes sold for each NSI in order to net against the actual metered volumes. This allows the AESO to determine the amount of MWs settled financially through the AESO.

NSIs can be attractive to pool participants looking for stable pricing arrangements to hedge against the fluctuating hourly pool price. Entering into NSIs can also reduce the security that is required from pool participants since their exposure to the market is reduced.

The NSI data must be submitted no less than 20 minutes before the beginning of the settlement interval in which the NSI is to take effect, as per Division 103 of the [ISO Rules](#).

To cancel a NSI the timing is very important. If the NSI has yet to take effect, the AESO can reject the NSI upon notification. If you desire to cancel the NSI once the effective time has begun, a de-registering process must be completed before the NSI can be rejected. De-registering a NSI can take up to 3 business days. For more information on de-registration, please refer to Division 103 of the [ISO Rules](#).

Net Settlement Instructions

Create a Net Settlement Instruction



Setting the Stage

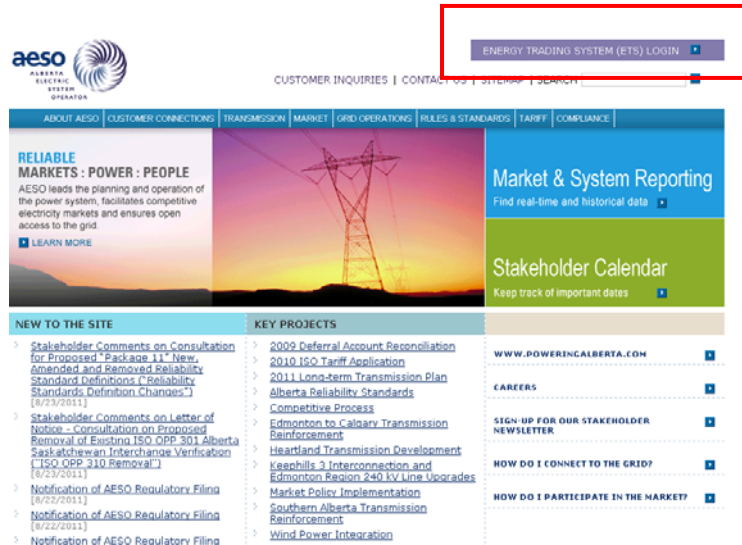
As an employee of Chinook you are responsible for submitting new NSIs in the Energy Trading System (ETS).



Steps

Step 1: Navigate to the NSI Section

- A. Through the [AESO website](#), logon to the system, click on the [ETS Login] icon on the top right corner of the screen.



- B. Select your certificate and click on the [OK] button.

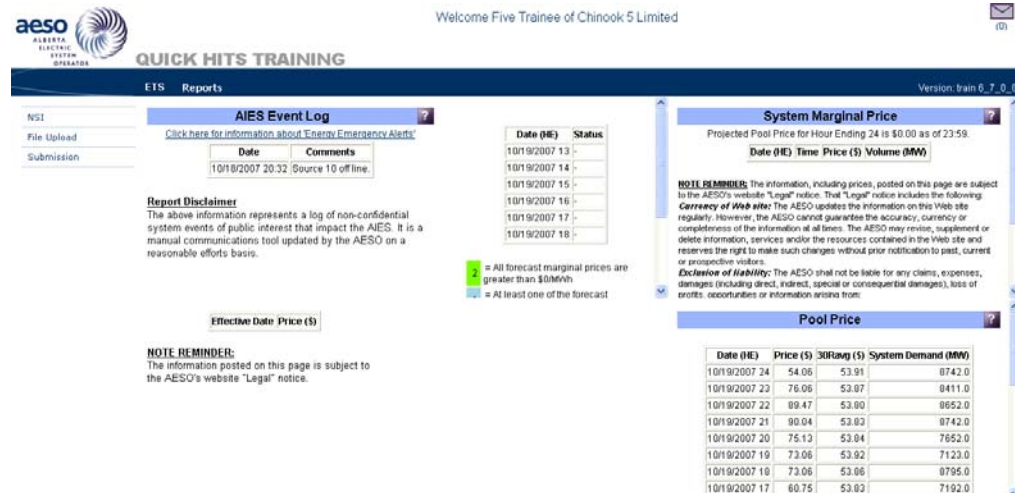
Select [OK] when prompted with “An application is requesting access to a Protected item”.

Select [Yes] when prompted by a “Security Alert – Do you want to proceed?”.

- C. Select the ETS menu.

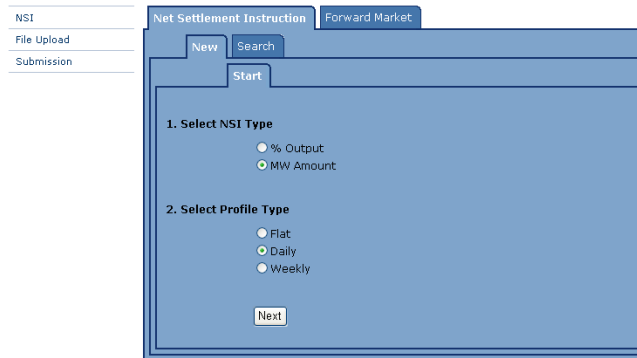
Net Settlement Instructions

Note: The left-hand side of the screen will populate with links that you have access to.



The screenshot shows the AESO website interface. On the left, there is a navigation menu with 'NSI' selected. The main content area is titled 'AIES Event Log' and includes a table with columns for 'Date (HE)' and 'Status'. Below the table is a 'Report Disclaimer' section. To the right, there is a 'System Marginal Price' section with a table showing 'Date (HE)', 'Time', 'Price (\$)', and 'Volume (MW)'. Below that is a 'Pool Price' section with a table showing 'Date (HE)', 'Price (\$)', '30Raw (\$)', and 'System Demand (MW)'.

D. Click on [NSI] from the list on the left.



The screenshot shows the 'Net Settlement Instruction' form. It has a 'New' button and a 'Search' button. Below these is a 'Start' button. The form contains two sections: '1. Select NSI Type' with radio buttons for '% Output' and 'MW Amount', and '2. Select Profile Type' with radio buttons for 'Flat', 'Daily', and 'Weekly'. A 'Next' button is located at the bottom of the form.

E. From the [Select NSI Type] list, choose a NSI Type.

⇒ *MW Amount*

F. From the [Select Profile Type] list, choose a Profile Type.

⇒ *Daily*

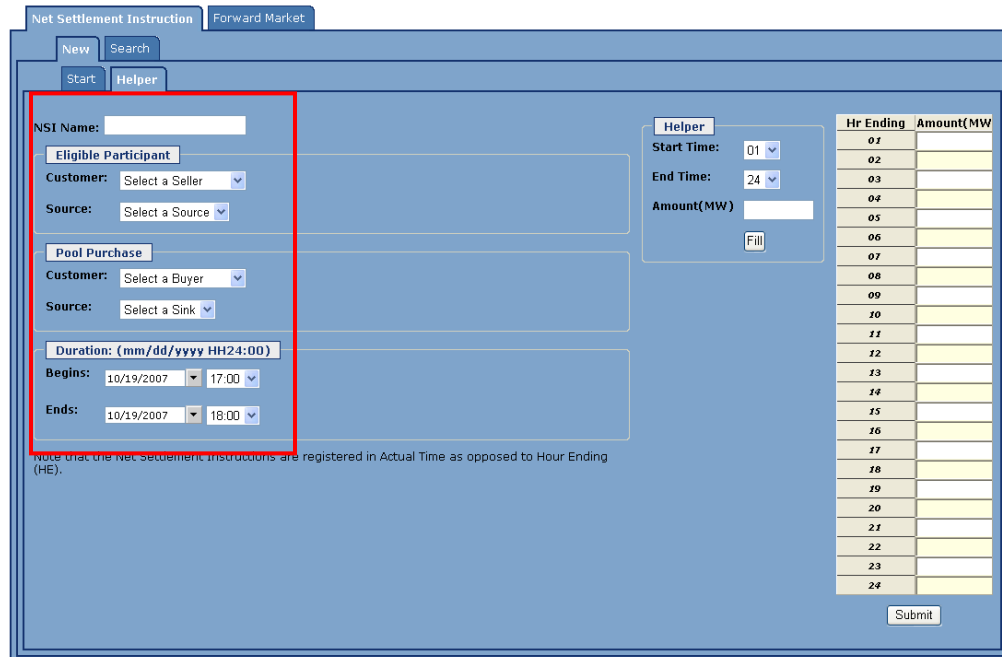
⇒ *Next*

Note: When selecting [Daily] or [Weekly], a grid will appear to input the MW values for either the day or entire week.

Net Settlement Instructions

2. Enter the NSI Data

A. Enter the required information in the [Helper] tab on the left.



Net Settlement Instruction Forward Market

New Search

Start Helper

NSI Name:

Eligible Participant

Customer:

Source:

Pool Purchase

Customer:

Source:

Duration: (mm/dd/yyyy HH24:00)

Begins:

Ends:

Note that the Net Settlement Instructions are registered in Actual Time as opposed to Hour Ending (HE).

Helper

Start Time:

End Time:

Amount(MW)

Fill

Hr Ending	Amount(MW)
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

Submit

B. Input NSI Name

⇒ ABC

Note: Any name can be used that will help identify the specific NSI.

C. Complete the Eligible Participant list box.

⇒ Customer: Company Name

⇒ Source: Asset Name

Note: This asset must be a source asset.

D. Complete the Pool Purchase list box.

⇒ Customer: Company Name

⇒ Source: Asset Name

Note: This asset must be a sink asset.

Net Settlement Instructions

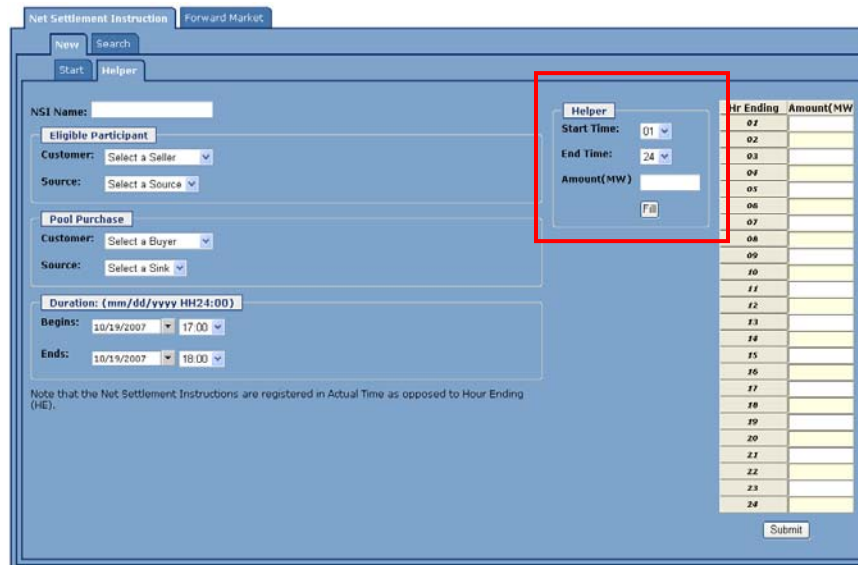
E. Enter the [Duration] of the NSI using the calendar pop up and time list.

⇒ *Begins: October 23, 2007 00:00*

⇒ *Ends: February 16, 2008 00:00*

Note: The [Begins] and [Ends] time fields represent the actual time as opposed to the Hour Ending (HE) columns in the [Helper] section to the right. For the above example, the NSI will begin at 12:00 a.m. on October 23, 2007 and end at 12:00 a.m. on February 16, 2008.

F. Enter the NSI MW values using the [Helper] fields on the right.



Hr Ending	Amount(MW)
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

G. Select the [Start Time]

⇒ *01*

H. Select the [End Time]

⇒ *24*

I. Enter the [Amount (MW)]

⇒ *10*

J. Click the [Fill] button to populate each cell.

Each selected HE cell will be populated; review the data entry for accuracy of the NSI.

Net Settlement Instructions

Note: Please ensure the [Begins] time aligns with the HE time in the [Helper] section. For example, HE 01 is the time between 12:00 a.m. - 12:59 a.m. Data can be entered directly into each cell or by utilizing the [Helper] fields.

- K. Select [Submit] once you have verified the information is correct.
- L. [Save] or [Print] the acknowledgement.

Note: The functionality for submitting NSIs in the ETS training environment is currently not available, therefore an acknowledgement in the training environment will not be populated and an error will appear.

However, once you have submitted in the production environment of the ETS, an acknowledgement screen will appear containing the validation results of the NSI submission. A NSI number associated with the NSI contract will be automatically generated. This number is used to later view the NSI contract. Save or print the acknowledgement for your records.

The NSI data must be submitted no less than 20 minutes before the beginning of the settlement interval in which the NSI is to take effect, as per Division 103 of the [ISO Rules](#).

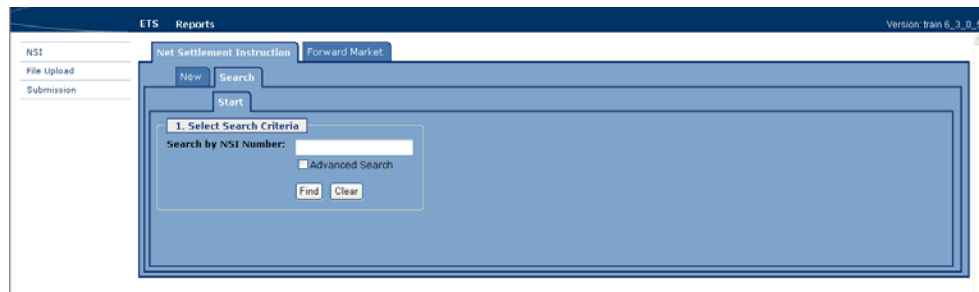
Net Settlement Instructions

View a Net Settlement Instruction



Steps

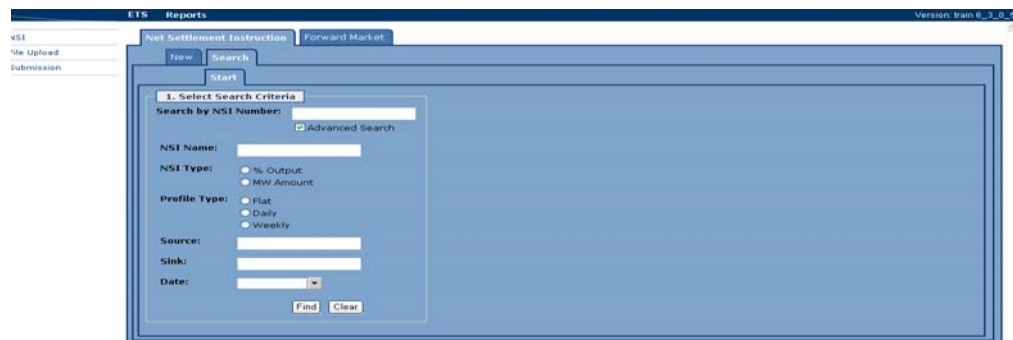
Step 1: View NSI with NSI Number



- A. From the NSI section, click on the [Search] tab.
- B. From [Select Search Criteria] enter the NSI number assigned.
 - ⇒ *NSI number*
 - ⇒ *Find*

Step 2: View NSI Using Advanced Search

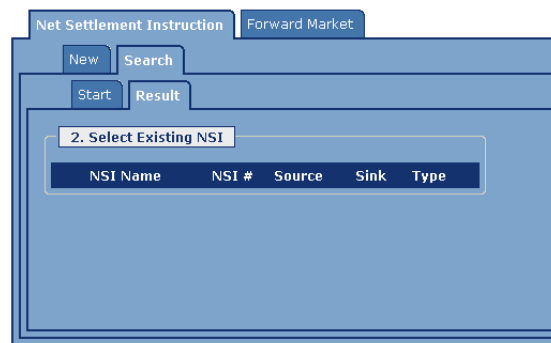
- A. From the Search tab click [Advanced Search] to broaden the search criteria.



- B. Enter one or multiple fields with NSI information you know.

Net Settlement Instructions

C. Click [Find].



D. A list of results that match the criteria will appear on the Results tab. Select the desired NSI.

Troubleshooting

I noticed an error in my MW values. How do I correct or cancel the NSI?

If the NSI has yet to take effect, the AESO can reject the NSI upon notification. If you discover the NSI error once the effective time has begun, a de-registering process must be completed before the NSI can be rejected. De-registering a NSI can take up to 3 business days. For more information on de-registration, please refer to Division 103 of the [ISO Rules](#).

I am attempting to set up a NSI between two forward market (virtual) assets, but my attempts have been unsuccessful.

Forward market assets, also referred to as virtual assets, are unmetered assets used for trading purposes. Either the source asset or the sink asset must be a metered asset when registering a NSI, as per Division 103 of the [ISO Rules](#). Therefore, in this case you must modify the NSI to include one metered asset before you can submit correctly.

I entered a begin date and time of October 24, 2007 at 01:00, but according to the NSI volume report there's no volumes reported for October 24, 2007 during HE 01.

The "Begin" and "End" times are measured in actual time as opposed to hour ending. For example, HE 01 is the time between 12:00 a.m. - 12:59 a.m., whereas 01:00 represents the actual start time. A 01:00 begin time coincides with the HE 02 MW volumes. The definition of "hour ending" can be found in the definition section of the ISO rules.

What companies can I approach regarding entering a NSI with?

The [AESO Pool Participant List](#) can be used as a resource to know all of the current participants in the Alberta market. Whether they are interested in entering a NSI is not within the AESO realm.

Net Settlement Instructions

What is the difference between a percent (%) and a MW amount NSI type?

When entering into a NSI there are two types to be familiar with. A percent type NSI indicates that no matter what is generated the predetermined percentage is what will be settled for. For example, if you generate 100 MW and your NSI is contracted for 40% then 40 MW will be settled through the NSI, 60% is settled as normal through the AESO.

A MW amount type NSI indicates that you will always settle that specific amount through the NSI settlement. For example, if your NSI is contracted for 50 MW and you generate 80 MW, then 50 MW are settled through the NSI, 30 MW are settled as normal through the AESO.

What is the difference between a flat, daily or weekly profile type?

When entering into a NSI there are three profile types to be familiar with. A flat NSI is one percentage or one amount that will carry through from the start date/time to end date/time of the NSI with no variations.

A daily NSI allows for variations of percentage or MW amount during each hour ending. This daily offer will repeat itself until the NSI is complete.

A weekly NSI allows for variations of percentage or MW amount during each hour ending for every day of the week. This weekly schedule will repeat itself until the end of the NSI.

Daily NSI Entry

Helper		Hr Ending	Output %
Start Time:	01	01	
End Time:	24	02	
Output %		03	
<input type="button" value="Fill"/>		04	
		05	
		06	
		07	
		08	
		09	
		10	
		11	
		12	
		13	
		14	
		15	
		16	
		17	
		18	
		19	
		20	
		21	
		22	
		23	
		24	
<input type="button" value="Submit"/>			

Weekly NSI Entry

Helper		Output %							
Start Time:	01	Hr Ending	Mon	Tue	Wed	Thu	Fri	Sat	Sun
End Time:	24	01							
Output %		02							
Select Day of Week	All Days	03							
<input type="button" value="Fill"/>		04							
		05							
		06							
		07							
		08							
		09							
		10							
		11							
		12							
		13							
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		17							
		18							
		19							
		20							
		21							
		22							
		23							
		24							
<input type="button" value="Submit"/>									

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Questions



Contact Information

For additional clarification or further questions, please call the AESO FirstCall at 1-888-588-AESO (2376), or email info@aeso.ca. The [Energy Market Participant Support](#) team would be happy to assist you further.