Storage Netting at a Location

User Manual

Contents

Overview

Netting is the process of minimizing the amount of gas withdrawn from or injected into storage. It is applicable to both customer nominated/scheduled storage quantities and storage quantities scheduled as the result of storage balancing activity. Netting requires shippers to specify the contracts across a legal entity that it wants to net prior to the Final AM deadline, and it allows shippers to "net" storage injection and withdrawal activities at a storage location each gas day. The two transportation scenarios are depicted in figure 1 and figure 2.

<u>Injection and Withdrawal</u>

Figure 1 depicts gas being injected into and withdrawn from storage and is explained in the bulleted items below.

- ❑ K_{1050} is receiving 100 units of gas at Location 192 and is injecting it into Location 98 for K_{1006}.

- ❑ K_{1050} is receiving 100 units of gas at Location 388 and is injecting it into Location 98 for K_{1006}.

- ❑ K_{1006} is withdrawing 300 units of gas from storage at Location 98 for K_{1050} and is delivering it to Location 180. Thus, K_{1006} will be charged for two injection fees and one withdrawal fee.

### Figure 1. Injecting and Withdrawing Gas from Storage
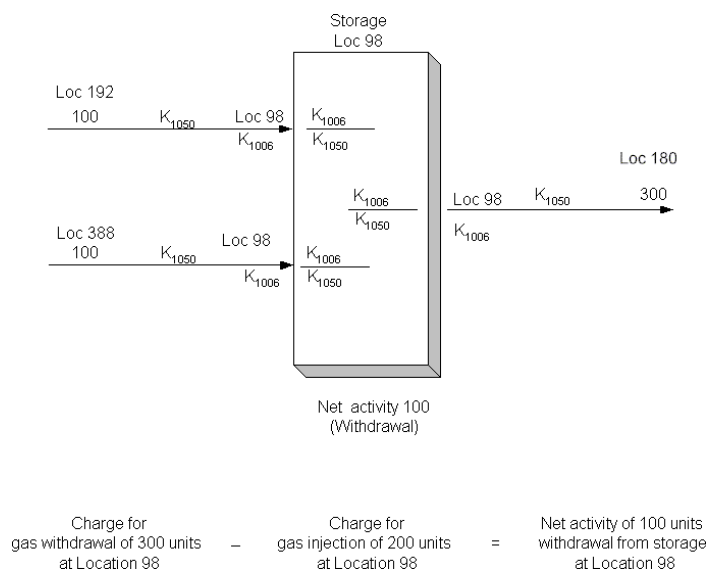
Storage Netting Transaction

Figure 2 depicts a netting transaction and is explained in the bulleted items below.

❑ K_{1050} at Locations 192 and 388 respectively receive 100 units of gas each.

❑ K_{1050} at Location 180 requires 300 units of gas.

❑ To avoid as many injection and withdrawal fees as possible, the gas received from Locations 192 and 388 (200 units collectively) is transported to Storage Location 98. These 200 units are delivered to K_{1050} at Storage Location 98 and transported directly to Location 180, thus bypassing storage transactions at Location 98.

❑ 100 units of gas are withdrawn from K_{1006} at Storage Location 98. This withdrawal completes the 300 unit-requirement for K_{1050} at Location 180. However, using this method of shipping, the shipper only has to pay a withdrawal fee for 100 units from storage vs. the injection and withdrawal fees depicted in figure 1.

Figure 2. Netting Gas to Bypass Storage
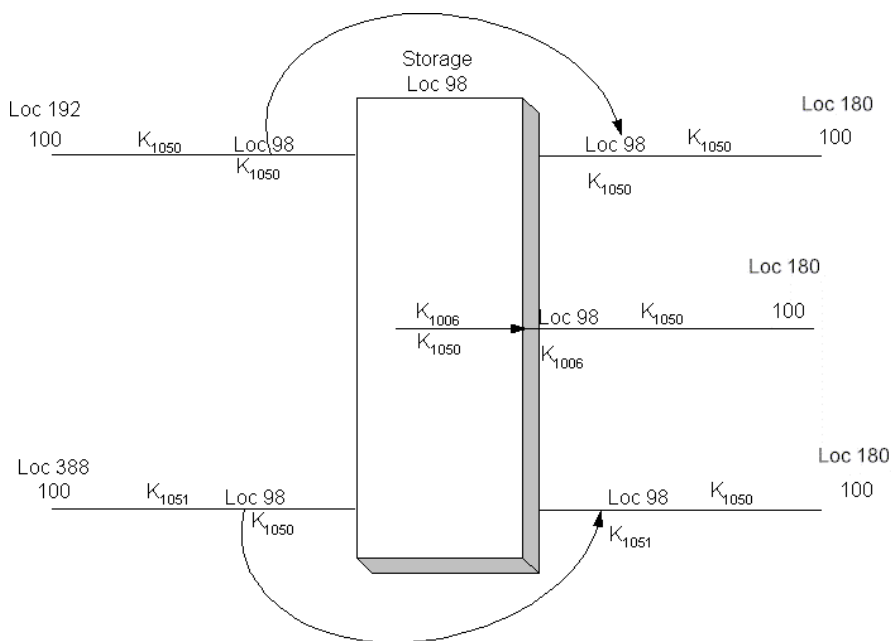
Netting includes both nominated and scheduled storage and storage balancing activity. Users must specify the storage contracts on which it wants the netting to occur. This is accomplished via grouping and ranking. Grouping is the process of collecting contracts by location. The highest numbered rank contract is netted out first. For example, K_{1050} in Table 1 will be netted before K_{1051}. K_{1050} will continue to receive gas until it reaches its 3000-unit capacity and then K_{1051} will receive the remainder.

Table 1. Grouping and Ranking

Location 180	K_{1050}	3000 units of gas storage capacity	Group 1	Rank 1
Location 180	K_{1051}	5000 units of gas storage capacity	Group 1	Rank 2

Storage Netting

There are two screens within the TMS application to view Storage Netting. The first, **Storage Netting Activity** allows the user to view netting activity that has occurred. The second, **Storage Netting Maintenance** allows the user to create and edit storage netting records. To find these screens click on the Storage menu tab to open the Storage drop down menu (Figure 3).

Figure 3. Storage Netting Screens
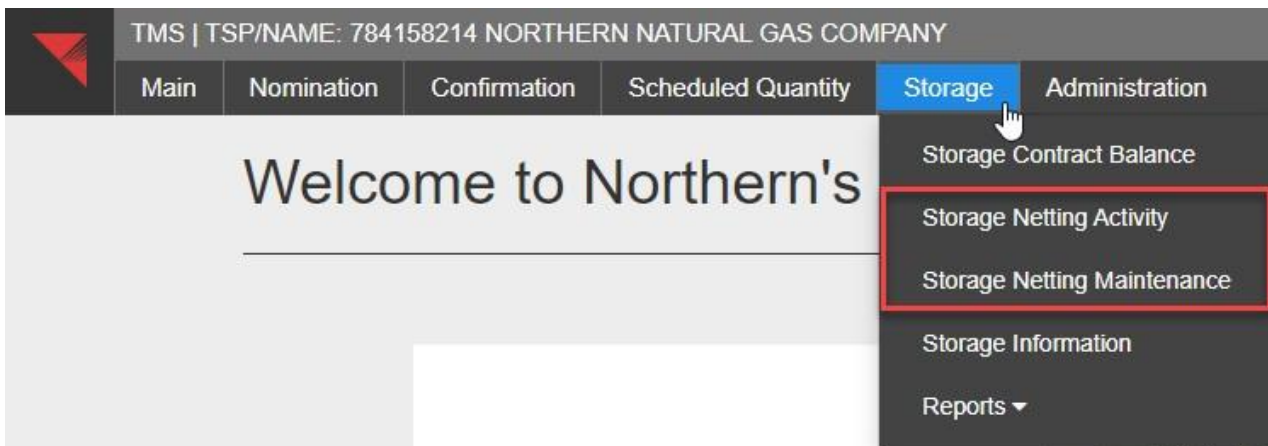
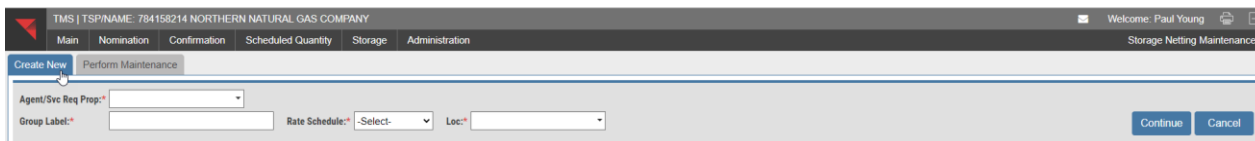### Storage Netting Maintenance

Create New

1. To create a storage netting group, select the *Create New* tab.
2. Enter values in the Agent/Svc Req Prop, Group Label (whatever you want the name to be), Rate Schedule (FDD or IDD), and Loc (storage location) fields then select

   [Continue] (Figure 4).

Figure 4. Storage Netting Maintenance Screen

3. The storage netting entry form will now open with an empty grid below (Figure 5).

Figure 5. Storage Netting Entry Form

4. Choose the storage contract you wish to net in the Svc Req K field. Enter the date range you wish to have the netting take place in the Netting Beg Date and Netting End Date fields. The rank will automatically populate. Once all the fields are filled select

   Add.

5. The record will populate within the grid highlighted in blue to indicate the record is un-submitted. If you wish to add more than one storage contract to the group, select

   Add New. Once done adding records to the group select **Submit**.

6. Upon submission the screen will return to its default state (Figure 4).

Perform Maintenance

1. To edit a storage netting group, select the Perform Maintenance tab (Figure 6).

Figure 6. Perform Maintenance Tab

2. Enter a value in the Agent/Svc Req Prop field and choose the group you want to edit in the Group Label field and select **Retrieve**.

3. The grid will populate active records for the retrieved group. If records do not populate in the grid uncheck the Show Active Records Only checkbox (Figure 7). This will populate all records within the group that are no longer active.

Figure 7. Perform Maintenance Grid
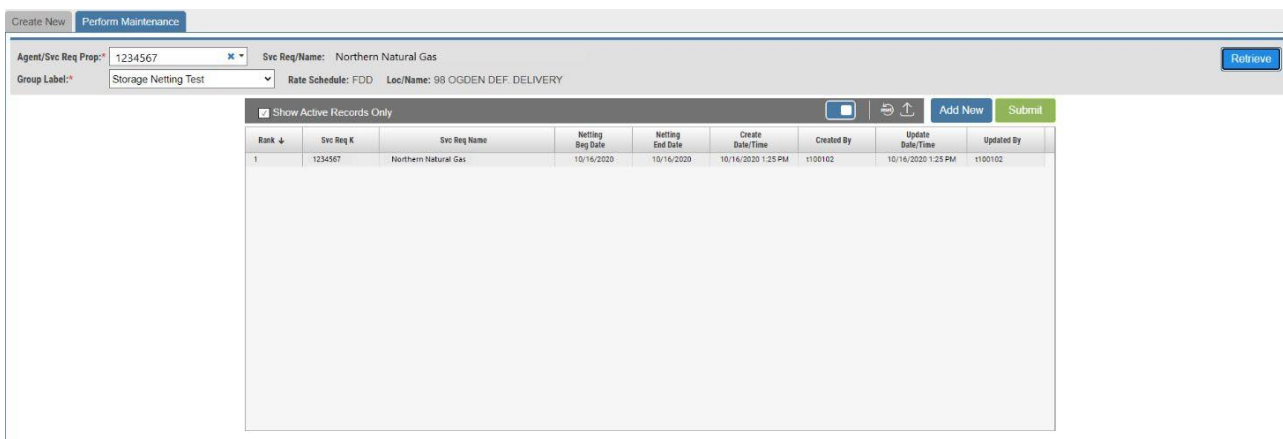
4. To edit a record within the group, select the line within the grid. The grid entry form will open and will provide the options to Add, Change, or Delete the record. (Figure 8).

Figure 8. Grid Entry Form
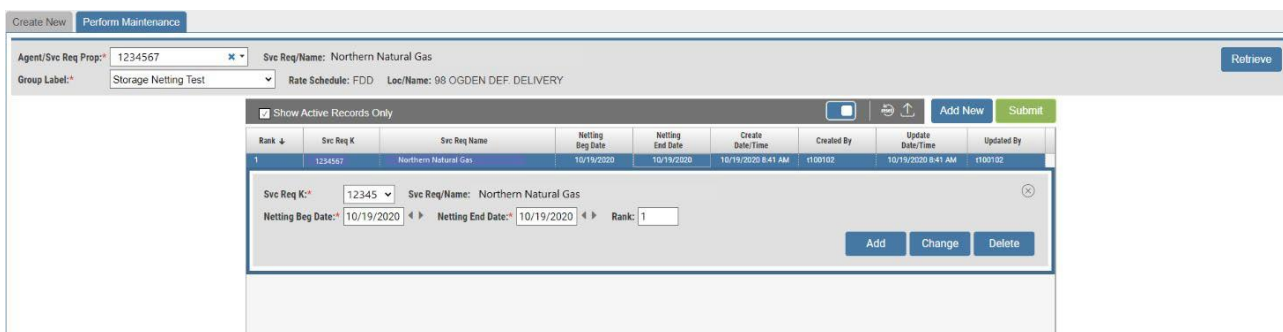
5. To keep the selected record active and add a new record to the group you can use the Add New or Add button. By using the Add button you are using the selected grid rows entry form and adjusting the data to create a new record.

6. To change the selected record change whichever field, you want to change within the entry form and select Change.

7. To delete the selected record select Delete within the entry form.

8. When all changes have been made to the group select Submit.

Storage Netting Activity

The Storage Netting Activity screen allows the user to view netting activity for a group on a specific gas day.

1. To view storage netting activity, fill in the Gas Day, Agent/Svc Req Prop, and Group Label fields and select **Retrieve** (Figure 9).

Figure 9. Storage Netting Activity Retrieval Form

2. The storage netting activity screen will populate in two grids (Figure 10).

Figure 10. Storage Netting Activity Grids

Contract Rankings						
Rank ↓	Svc Req K	Svc Req Name				
1	1234567	Northern Natural Gas				

Svc Req K [1] ↓	K Flo [2] ↓	Nom Qty	Sched Qty	Up/Dn K	TT [3] ↓	Pkg ID
1234567	R	319	319	987654	06	Netting Test
		319	319			

Total Nom Receipt Qty: 319   **Total Nom Delivery Qty:**

Total Sched Receipt Qty: 319   **Total Sched Delivery Qty:**

3. The first grid *Contract Rankings* displays the contracts and ranks within the group.

4. The second grid *Activity/Results* displays all storage activity on the storage contract for the retrieved gas day.

5. If netting has not occurred on the contract a message will appear in blue above the entry form (Figure 11).

Figure 11. No Netting Activity

TMS Generic Screen Functions

Export and Print

Each screen within the application is able to be exported as an Excel document or printed as a PDF.

1. To export the data on the screen, select the ⬆ icon above the grid and choose to export as CSV or Excel. Exporting by Excel will hold any grouping or sorting changes made to the grid.

2. To print the data on the screen, select the 🖶 icon in the top right of the screen. The print function will hold any grouping or sorting changes made to the grid.

Grouping

1. To group, find the column heading you want to group by, select the column, and drag and drop it into the Drag and Drop bar. For example, if you want to group by *Cycle*, hover your mouse over the column *Cycle*, left click and hold, then drag the mouse upwards into the Drag and Drop bar.

2. Above the column headings on the left side of the screen you will see the name of the column the grid is grouped by in the Drag and Drop bar (Figure 1).

Figure 1. Grouping

3. To expand the grouping within the grid there are two methods.
    a. The first method can be used to expand a specific grid row by selecting the + next to the label in the grid row within the *Group* column (Figure 2).
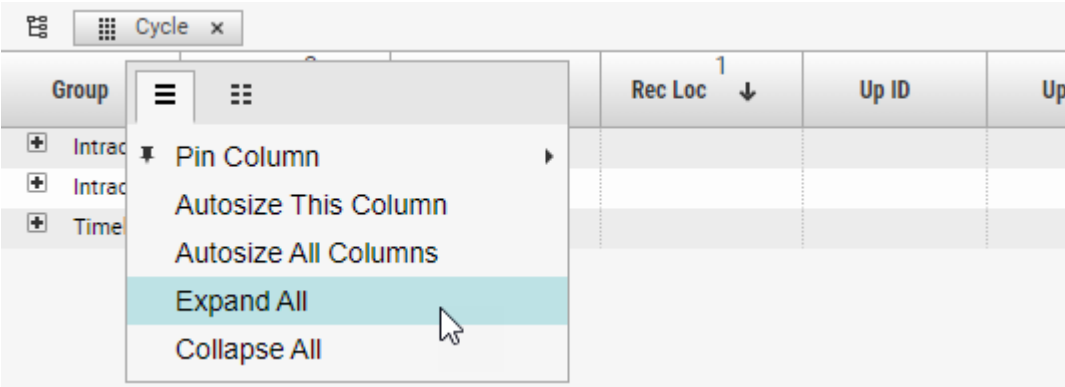
Figure 2. Single Grid Row Expand

   b. The second method can be used to expand or collapse all groupings at once. Select the Column Header Menu and select Expand All or Collapse All (Figure 3).

Figure 3. Expand All and Collapse All

4. The user also has the ability to sub-group after a grouping has already been applied.

5. To sub-group the user will perform the same steps as grouping by selecting a column header, dragging and dropping the column header into the Drag and Drop bar behind the column header that is already grouped. This will then create a sub-group (Figure 4).

Figure 4. Sub-Grouping
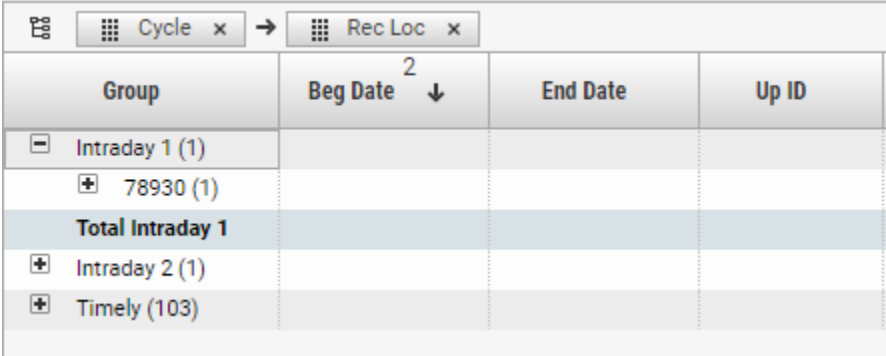
6. To rearrange the groupings, drag and slide in front or behind the columns that are also being grouped.

7. To remove the grouping either click on the X within the grouped label in the Drag and Drop bar or select [reset] above the grid. By selecting reset the grid will return to its default state.

Sorting

Every column in the grid can be sorted and all the grids within the application have a default sorting option which varies from screen to screen (Figure 5).

Figure 5. Default Sorting Column Order

1. To sort a column, click on the column header you wish to sort, and an arrow will appear. The arrow highlights that the column is being sorted by ascending or descending order (Figure 6).

Figure 6. Ascending and Descending Order

Cycle ↓	Beg Date	End Date	Rec Loc	Up ID	Up K	Rec Qty

2. Once a column is sorted you can multi-sort by selecting CTRL on the keyboard and clicking on the second column you wish to sort by. This will now create two columns to sort by and a number will appear in each column header to distinguish the sort order (Figure 7).

Figure 7. Multi-Sort

Cycle ¹ ↓	Beg Date ² ↓	End Date ³ ↓	Rec Loc	Up ID	Up K	Rec Qty

3. To remove sorting select [reset icon] above the grid. By selecting reset the grid will return to its default state.
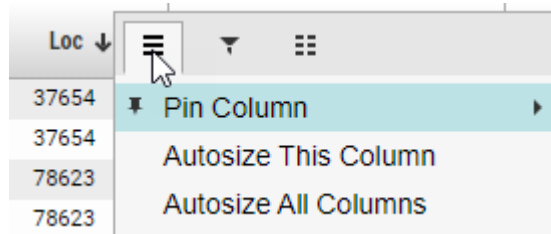
Column Header Menu/Hamburger Icon

Each column heading has a Column Header Menu option [Group icon] which appears when a user hovers its mouse in the column heading. By clicking on the Column Header Menu icon the menu opens and there are three menu options (Figure 8).

Figure 8. Column Header Menu

Pinning and Auto-sizing
The first icon provides the options to pin or auto-size columns.

1. To pin a column, open the Column Header Menu and hover over Pin Column. A window will open to the right of the menu that will provide the option to pin to the left or right of the grid.
2. To auto-size a column or columns open the Column Header Menu and select either Auto-size This Column or Auto-size All Columns.

3. To remove the pinning or auto-sizing select [reset icon] above the grid. By selecting reset the grid will return to its default state.
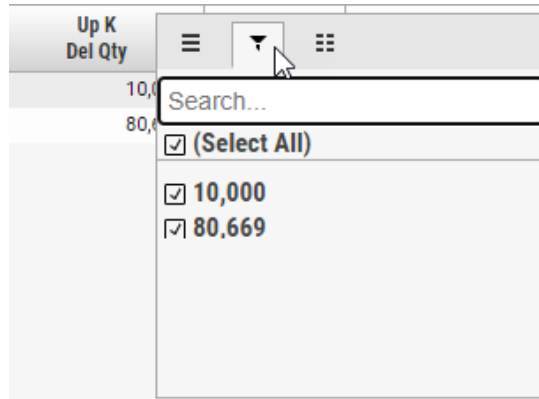
Filtering
The second icon provides the option to filter the data (Figure 9).
1. To Filter open the Column Header Menu and select the second icon. The filtering option will open.

2. If there are a variety of values within the filter tab you can use the Search option to quickly find the value, you are wishing to filter.
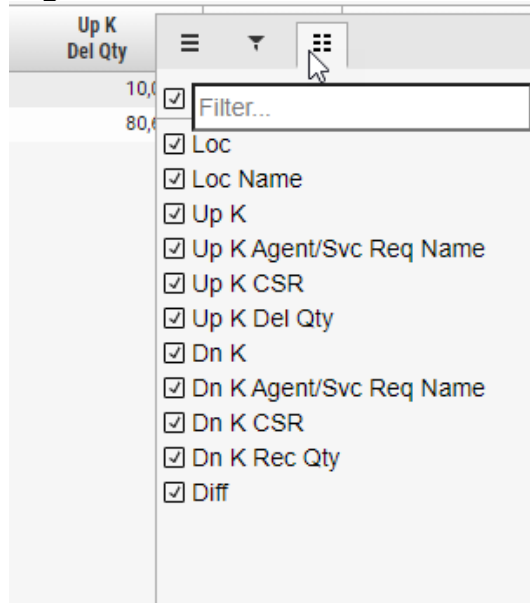
Figure 9. Filter

3. To remove the filtering select above the grid. By selecting reset the grid will return to its default state.

Hide/Show columns

The third icon provides the option to hide and show columns.

1. To hide and show columns open the Column Header Menu and select the third icon. The Hide and Show columns option will open (Figure 10).

Figure 10. Hide and Show Columns

To show columns that were hidden select above the grid. By selecting reset the grid will return to its default state.