ER Data Connector v1.2

User Guide for v6.5 systems or later

Catalog No. 11-808-614-01

Rev. 2/25/2020

Important changes are listed in Document Revision History at the end of this document.

All rights reserved throughout the world. All trademarks are the property of their respective owners.

The content of this guide is furnished for informational use only and is subject to change without notice. Carrier assumes no responsibility or liability for any errors or inaccuracies that may appear in the informational content contained in this guide.

Contents

What is the ER Data Connector add-on? 1
Requirements 1
Setting up the ER Data Connector add-on 1
Configuring the connection 2
Step 1: Communication and access setup 2
Step 2: Data export setup 2
Step 3: Proxy setup 2
Defining buildings 3
Configuring meter sources 3
To assign meter sources 4
Pairing meter sources and BuildingOS meters 4
To filter the paired meter list 5
To assign meters to a building 6
To push meters into service 6
To manage export settings 7
Viewing the export history 7
Troubleshooting 8
Document revision history 9

What is the ER Data Connector add-on?

The ER Data Connector add-on provides a data connector that manages the secure connection and transfer of data between your building automation system and an external energy management system powered by BuildingOS® (BuildingOS). Use this tool to:

- select trended energy data to be continuously exported into BuildingOS meters
- export the trend source data on a periodic basis into BuildingOS

This add-on supports an authentication that requires user credentials for both a building automation system and a cloud energy application. See "Installing an Add-on User Guide" for more information on the following:

- Installing an add-on
- Applying a license
- Running an add-on
- Upgrading an add-on

For information on running your energy reports, see the *BuildingOS help* (*https://learn.buildingos.com*).

Requirements

- You are running a v6.5 or later system with the latest cumulative patch applied.
- You have set up trend points to write to Trend Historian at the desired frequency.
- You have downloaded **erdataconnector.addon**.
- You have purchased and obtained the ER Data Connector add-on license.
- You have enabled https on your Building Automation System (BAS); see "To set up server connection" in your BAS Help.
- You have verified with your IT administrator that the https port (typically 443) is open between the BAS Server and BuildingOS® cloud platform (*.buildingos.com).
- You have set your system to back up regularly to ensure the add-on's data is also backed up.

NOTES

- If an http proxy is configured, see your system administrator.
- An issue may arise if both Weather v2.4 and Proxy Config are installed along with the ER Data Connector add-on.

Setting up the ER Data Connector add-on

Use this tool to select trended energy data and export that data into BuildingOS® meters:

1. *Configure the connection* (page 2).
2. *Configure buildings* (page 3) and *meter sources* (page 3).
3. Specify a whole-building meter in the BuildingOS application.
4. Confirm the units and other meter settings in the BuildingOS application BEFORE enabling export from the add-on.
5. *Assign BuildingOS meter sources* (page 4) to your building automation system trends.

© 2020 CCS International
All rights reserved

Configuring the connection

On the **Home** page, click **Configure and Authenticate** to do the following:

Step 1: Verify communication and access settings

Step 2: Configure the export process

Step 3: Configure the proxy, if used

Step 1: Communication and access setup

1. On the **Home** page, click **Configure and Authenticate**.
2. Click **Energy Platform Communication and Access Settings**.
3. Click **Initialize OAuth Credentials**.
4. Verify that the values in the **Local HTTPS Port** and the **OAuth Callback Registered Host** fields are correct. If not, edit the settings.
5. Click **Save Settings**.

Step 2: Data export setup

1. Click **Export Process Settings**.
2. Edit the fields as needed; see table below.
3. Click **Save Settings**.

Field	Description
Enable Artifact Auto-deletion	Check to set how often export history is automatically deleted
Delete Artifacts on Disk Older than Specified # of Days	Enter number of days export history is retained before being deleted
Suspend Export Process	Select this **only** to prevent data from being exported to BuildingOS
Site Identifier	Enter how you would like the server name to be displayed

Step 3: Proxy setup

1. Click **Proxy Configuration**.
2. Click **Automatically Determine Proxy Settings** to display the information.
3. Click **Test Connection.**
4. If the test succeeds, click **Save Settings** and proceed to *defining your buildings* (page 3).

© 2020 CCS International
All rights reserved

5 If the test in step 3 fails, click **Use a Proxy** to enter the address and port; then repeat steps 3-4.

6 If the test in step 5 fails, click **Proxy Requires Authentication** and enter your proxy details; then repeat steps 3-4.

Defining buildings

To manage energy usage, start by defining your buildings. You must provide the name, address, type, size, and location of your energy-managed buildings.

1 Click **Buildings** on the menu bar at the top; then click **Add a Building**.

2 Enter the values for each field; then click **Save**.

3 Repeat steps 2-3 for all remaining buildings.

After defining your buildings, you must configure your list of *meter sources* (page 3) and then assign them to buildings.

Configuring meter sources

After defining your buildings, you must define your trend source data. If any meters have previously been tagged as an energy source in your building automation system, they are detected by the add-on and appear in a list on the **Meter Sources** page along with many of their properties.

Use the **Action** droplist to:

- assign selected sources
- refresh the list
- select or de-select all sources
- show/hide details of each item.

To view more details for the meter sources

Click **Action** > **Show Source Details**.

To hide the details, click **Action** > **Hide Source Details**.

To sort the meter sources list

Click any of the column headings that contain the **Sort** arrows.

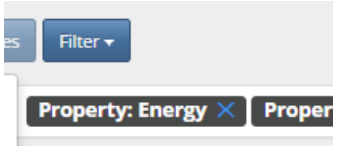
© 2020 CCS International
All rights reserved

To filter the meter sources list

1 Click **Meter Sources** on the menu bar at the top.

2 Click **Filter**, select a meter property such as Energy or a location in the System Scope tree, then click **Apply Filter**.

NOTE Each time you select an item from the **Meter Sources Filter Criteria** page, the filter appears above the list indicating what types of items are in the list. You can delete any of these filter items by clicking the **x** on the filter button, then clicking **Apply Filter**.



To assign meter sources

1 Click **Meter Sources** on the menu bar at the top.

2 Check the checkbox to the left of one or more items in the list that you want to assign.

TIP If you want to assign all items in the list at one time, click **Actions** (Action) > **Select All Meter Sources**. You can also uncheck any as needed.

3 Click **Assign Selected Meter Sources**.

NOTE The meter sources will move from this page to the **Meter Pairings** page immediately.

4 Click **OK**.

5 Repeat steps 2-4 until you have assigned all sources.

You are ready to *pair and set up the data push* (page 4) for each meter source in BuildingOS.

Pairing meter sources and BuildingOS meters

After assigning the source meters, you must map the energy trend sources from your building automation system to the BuildingOS meters to put them into service. The list contains all meter sources that were assigned on the **Meter Sources** page.

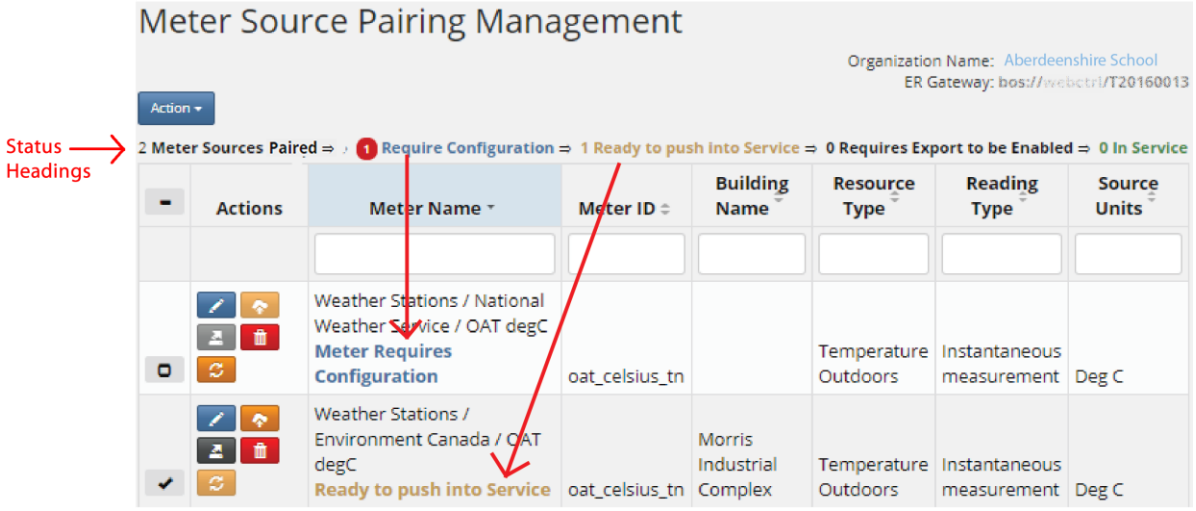
To put a meter into service, you must:

1. *assign* (page 6) the meter to a building
2. *push* (page 6) the data to the server
3. *export* (page 7) the data to enable it to be used by BuildingOS.

The status all each meter sources is indicated under the **Action** button and labeled as **xx Meter Sources Paired**. The statuses to the right of **xx Meter Sources Paired** are a summary of how many items in the list are in each state.

In the example below, there have been 2 meters successfully paired from the **Meter Sources** page.

© 2020 CCS International
All rights reserved



TIPS

- Click one of the colored status headings in the **Meter Name** column to take you to that point in BuildingOS.
- Click the **Organization Name** link to take you to the homepage in the BuildingOS application.
- The red-circled number next to the **Require Configuration** status heading indicates how many have not been assigned to a building yet.
- Click the **Meter Details** button (+) for pairing information and details such as name, ID, lookup string, and whether it has been enabled for export.
- To remove a meter from the list back to the **Meter Sources** page, click **Delete** (🗑). You must also delete the corresponding meter in BuildingOS as well.
- During commissioning, click the **Sync** button to change the state of the meter in the add-on to **Ready to push into service** if the meter has been deleted from the BuildingOS application.

To filter the paired meter list

On the **Meter Pairings** tab, the list contains all configured meters. Each of the five status headings is color-coded.

To filter the list, do either of the following:

- enter a word in the boxes below the column headings. For example, type **water** in the box beneath **Meter Name** to filter the list below to only the meters with water in their names.
- click on one of the colored-coded status headings such as **Require Configuration** or **In Service.** For example, click the green **In service** status heading to see only the meters already in service.

© 2020 CCS International
All rights reserved

Status of meters	Description of items in filtered list
Require Configuration	The number of items in the list that still require configuration. This number is also indicated in the menu bar as reminder that some still need to be configured. Click **Edit** ( ) to configure. NOTE If the Meter Source Name is longer than 128 characters, you must shorten the name before you are allowed to pair it.
Ready to Push into Service	The number of items in the list that have been configured but not yet put into service or have been deleted in BuildingOS and need to be re-pushed. Click **Push** ( ) to configure.
Requires Export to be Enabled	The number of items in the list that have not yet been marked for export. Click **Export** ( ) to configure.
In Service	The number of items in the list that are successfully pushing data to BuildingOS.

To assign meters to a building

1. Click **Meter Pairings** on the menu bar at the top.
2. Click **Edit** ( ) to the left of the item.
3. Select a building from the **Building Name** droplist.
4. Click **Apply**.

TIP To assign multiple meters to a building at one time, check the checkbox next to each item; then click **Actions** > **Assign Selected Meters to a Building**.

To push meters into service

1. Click **Meter Pairings** on the menu bar at the top.
2. Click **Push** ( ) to the left of the item.

   TIP To push multiple meters at one time, check the checkbox next to each item; then click **Actions** > **Push Selected Meters into Service**.
3. Click **OK**.

© 2020 CCS International
All rights reserved

To manage export settings

To enable one meter for export

1 Click **Meter Pairings** on the menu bar at the top.
2 Click **Export** ( ) to the left of the item.
3 Under **Export Properties**, check the **Export Enabled** checkbox.
4 Click **OK**.

To enable multiple meters for export

1 Click **Meter Pairings** on the menu bar at the top.
2 Check the checkbox next to each item.
3 Click **Actions** > **Enable Export for Selected Meters Pairings**.

To manually schedule an export

1 Click **Meter Pairings** on the menu bar at the top.
2 Click **Export** ( ) to the left of the item.
3 Under **Manually Schedule Reading Exports**, select the amount of data you want sent.
Or select **Custom Date Range** and enter the date and time range of the data to export.
4 Click **Run Export**.
5 Click **OK**.

To delete the export history

1 Click **Meter Pairings** on the menu bar at the top.
2 Click **Export** ( ) to the left of the item.
3 Under **Manage Export History**, click **Delete Export History**.
4 Click **OK**.

Viewing the export history

After all meters have been assigned and are attempting to export Trend Historian data to BuildingOS, you can view the history by clicking **Export History** on the menu:

- To filter the list, select one of the states from the **Status** droplist such as Successful or Suspended.
- To sort the list, click any of the column headings that contain the **Sort** arrows.
- To see more detail on a specific export event, check **Plus** ( ) to the left of the event. Then click the link that appears in order to see the raw data that was pushed.
- To delete export record(s) from the history list, check the checkbox ( ) to the left of the item(s); then click **Delete** ( ). Or delete them all by clicking **Delete All Export History** at the top of the page. Note that the data being deleted is just the history records - not the actual trend data.
- To refresh the values on the page, click **Start Auto Refresh**.
- To finish setting up a customer, log into your BuildingOS system and select your customer's organization. Go to **Apps** > **File Library**, then follow the instructions in your Onboarding checklist.

© 2020 CCS International
All rights reserved

Troubleshooting

Symptom: Not all data seems to be exported to the BuildingOS application.

Solution: See **Viewing the export history**, then check for failed sources and un-paired meters.

Symptom: Meter data is missing for a period of time.

Solution: *Push meters into service* (page 6). Then if a meter's data is still missing, check the following:

1. In your BAS front-end, verify that historical data is present for the meter.
2. Go to the meter in your BAS front-end and verify that the trend data exists for the desired period of time.

Symptom: Error message containing the word "FORBIDDEN". OAuth on the BuildingOS server may have been manually revoked or expired.

Solution: OAuth may need to be re-initialized on the **Settings** page.

Symptom: The ER Data Connector add-on no longer responds to user input due to inactivity logout.

Solution: Log back in via your energy management system or the ER Data Connector add-on; then re-attempt your operation.

© 2020 CCS International
All rights reserved

Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
2/25/20	Legalease	All rights reserved statement	A-D
8/22/19	Requirements To manage export settings	Clarified https connection Added ability to enter time range to the Custom Date Range	X-O-MH-TC X-ST-BK-BR

* For internal use only

© 2020 CCS International
All rights reserved