Save Energy Systems

Site Management Portal User's Guide, rev 2

This brief guide contains complete instructions on how to both use and manage the Portal's ability to give you summary performance information for your HVAC systems controlled by our DLC (Demand Limiting Controller) at geographically separate locations. It also explains how to use the Global Change feature to adjust system operating parameters at multiple locations with just one command.

Table of Contents

| Introduction | 2 |
|-----------------------|---|
| Privilege Levels | 3 |
| Summary | 3 |
| Login | 3 |
| Super | 3 |
| Menu Commands/Options | 4 |
| Site Summary | 4 |
| Global Change | 5 |
| Work Hours | 6 |
| Holiday Schedule | 6 |
| Add a Site User | 7 |
| Remove a Site User | 8 |
| Change confirmation | 8 |
| | |

Table of Figures

| Figure 1: Summary Data Screen | 2 |
|---|---|
| Figure 2: Site Summary Data | 4 |
| Figure 3: Global Change Options | 5 |
| Figure 4: Global Change - Work Hours | 6 |
| Figure 5: Global Change - Add User | 7 |
| Figure 6: Global Change - Remove a User | 8 |

Introduction

The Site Management Portal is a web based tool hosted on our Cloud servers. Users access the Portal through the URL <u>www.//portal.saveenergysystems.com</u> with a unique username and password. Based on your login, the Portal provides secure access to summary site data, a one button login to individual site locations, and provides an easy way to change the operating parameters for multiple sites (Global Change).

| ňergy | ystems | DLC | C Custo | mer Portal | | | | | Last Login | Welcome : 2000-01-01 00:00: | <u>plaskow</u> 00 from 1 | <u>Logout</u> 1.1.1.1 |
|---|--|---|--|--|--|--|--|----------------------------------|----------------------------------|---|-----------------------------|---|
| Site Summary Global Change Users | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Site Summ | narv | | | | | | | | | | | |
| Site Summ | nary | er the column h | eadings for | more info. | | | | | | | | |
| Site Summ | nary mouse ove nultiple col this buttol | er the column h lumns simultane n to have all situ | eadings for cously by ho es polled fo | more info. olding down the Shift ke r current data. Allow 1-2 | y and clickii 2 minutes fo | ng a second, or completion | third or o | even foui | th column i | header. | | |
| Site Sumn | nary mouse ove nultiple col this buttor Location | er the column h lumns simultane n to have all site | eadings for eously by ho es polled fo State \$ | more info. olding down the Shift ke r current data. Allow 1-2 As of ¢ | y and clickii 2 minutes fo Units 🗘 | ng a second, or completion Off Line | third or a >2 \$ | even foui >5 \$ | th column i DATS \$ | header. Outside temp 🗢 | DM \$ | Oldest Filter \$ |
| Site Sumn VOTE: Place your i You may sort on m Refresh Press Customer ¢ L Sealit | mary mouse ove nultiple col this buttor Location | er the column h lumns simultane n to have all situ \$ Coventry | eadings for cously by ho es polled fo State \$ RI | more info. Iding down the Shift ke r current data. Allow 1-2 As of ¢ 2019-10-19 10:05:44 | y and clickii 2 minutes fo Units \$ 7 | ng a second, or completion Off Line 0 | <i>third or c</i> >2 \$ 0 | even four >5 ≑ 0 | th column i DATS \$ | neader. Outside temp \$ 47.0 | DM \$ 0 | Oldest Filter \$ 2018-07-31 |
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| Site Sumn VOTE: Place your i rou may sort on m Refresh Press Customer ¢ L Sealit Sealit | mary mouse over nultiple col this buttor Location Login (Login (Login (| er the column h lumns simultane n to have all situ Coventry Cumberland Warwick | eadings for cously by he es polled for State \$ RI RI RI | more Info. olding down the Shift ker r current data. Allow 1-2 As of 2019-10-19 10:05:44 2019-10-19 10:07:59 2019-10-19 10:05:50 | y and clicki 2 minutes fo Units ¢ 7 6 6 | ng a second, or completion Off ¢ 0 0 1 | third or 6 >2 ≑ 0 0 0 | even four >5 ≑ 0 0 0 | DATS ¢ 3 1 | header. Outside temp ♦ 47.0 46.0 47.0 | DM \$ 0 0 0 | Oldest Filter \$ 2018-07-31 0000-00-00 2019-08-01 |

The site summary page organizes and displays data for each DLC managed facility. All data is automatically refreshed hourly. If you want to update the data, click on the Refresh button. If you wish to sort the data by a particular column then click the title column at the top of the table.

Users

There are three Privilege Levels, Summary, Login and Super.

The Users section of the Portal allows a user with Super level privileges to manage user permissions

| nerg | Vsystems | DLC Cus | tomer Portal | Last Login: | Welcome dcarloni Logout 2019-12-17 11:00:07 from 172.173.174.13 Your privileges: PFIT(SUPER) |
|---|---|---|--|--|--|
| Site Summ | nary G | lobal Change | Users | | |
| <u>User List</u> | Add User | | | | |
| | | | | | |
| David Ca | rloni | | | | |
| Submit Chang | jes | | | | |
| Login: | | | | First Name: | Last Name: |
| Login | | | | | |
| Email: | | | | | |
| Email: Privilege Info |) e assigned at least privileges for a spe | : 'SUMMARY' privileg | es for at least one customer. This a use the 'Delete privs' button. | allows the user to see portal summary ir | formation for that customer. |
| Email: Privilege Info A user must be To remove all p Customer | e assigned at least privileges for a spe SUMMARY | : 'SUMMARY' privileg ecific customer choc LOGIN S | ues for at least one customer. This a use the 'Delete privs' button. UPER Delete Privs | allows the user to see portal summary in | formation for that customer. |
| Email: Privilege Infe A user must be To remove all p Customer PFIT SELECT | o e assigned at least privileges for a spe SUMMARY | : 'SUMMARY' privileg ecific customer choo LOGIN S | es for at least one customer. This a ose the 'Delete privs' button. UPER Delete Privs | allows the user to see portal summary ir | formation for that customer. |
| Email: Privilege Info A user must be To remove all p Customer PFIT ▼ SELECT ▼ Notes: | e assigned at least privileges for a spe SUMMARY O | : 'SUMMARY' privileg ecific customer choc LOGIN S | ues for at least one customer. This a use the 'Delete privs' button. UPER Delete Privs | allows the user to see portal summary in | formation for that customer. |

The most basic level of permissions is Summary permission.

Summary Permissions:

This permission level is used primarily by staff assigned to monitor overall system operation, but can't normally make changes to system operation. On login they can only view the "Site Summary" menu item which shows site data as displayed in Figure 1. They also would not have a "Login" button available, just a link to the facility's site.

Login Permissions:

Login level permissions are meant for staff familiar with system operations. Users with Login permission are allowed to make changes to site operating parameters. On the Summary page Login level users would see the following additional items:

- A "Login" button This allows the user secure login access to a site provided they have the same login information on both the Portal and the individual site.
- "Global Change" A user with Login permissions can use the Global Change page to edit settings for multiple sites <u>without</u> needing a unique login for that particular site. For more information on the Global Change page see page 7.

Super Permissions:

The Super permission level is usually reserved for an administrator. Super users have the ability to add/edit users and assign privileges. Normally, SES staff creates the first Super user for a customer. That user will then have the ability to create other Super users.

NOTE: This privilege should be assigned with caution. All Super users are created equally. They have full edit capability and can delete any user, including the first Super user created by SES staff.

When you login to the Portal the system associates your login name with both a customer name and specific security privileges you have for that each site. This means that each site must be setup with your login name and password. This can be done individually or through Global Changes. **NOTE**: Login names are NOT an email address. It is possible to have multiple login names with the same email address. This allows a user to have distinct privileges for different sites.

Menu Commands/Options

In this section we provide examples for all the menu items accessible at the different privilege levels.

Site Summary

User's whose duty is to monitor overall operations are assigned Summary level privileges. They will see the display below. This is useful in tracking overall HVAC operations across separate locations. The "As of" date supplies the exact time the data was collected (normally hourly). To refresh the data on the page hit the refresh button, please give the system a few seconds to update.

| DLC Customer Portal Welcome kiwiworker Logout | | | | | | | | | | | | |
|---|---------------------------|---|------------------------------|--------------------------------------|-------------|----------------|------------|-----------|-------------|-----------------|------|-----------------|
| Site Summa | Site Summary | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Site Sum | mary | | | | | | | | | | | |
| NOTE: Place you You may sort on | r mouse ov multiple co | ver the column hea plumns simultaneo | adings for m usly by hold | ore info. ling down the Shift key | and clickin | g a second, | third or e | ven fourt | th column h | eader. | | |
| Customer 🖨 | Location | ¢ | State 🛊 | As of 🔶 | Units \$ | Off Line \$ | >2 \$ | >5 \$ | DATS 🔻 | Outside temp | DM ¢ | Oldest Filter 🖨 |
| Kiwi | Login | Pawtucket | MA | 2019-07-30 10:05:46 | 6 | 0 | 3 | 0 | 3 | 83.0 | 1 | 2018-10-10 |
| Kiwi | Login | Middletown | RI | 2019-07-30 10:06:07 | 6 | 0 | 0 | 0 | 3 | 82.0 | 0 | 0000-00-00 |
| Kiwi | Login | Seekonk | MA | 2019-07-30 10:06:02 | 3 | 0 | 2 | 0 | 2 | 82.0 | 0 | 2018-01-24 |
| Kiwi | Login | Somerset | MA | 2019-07-30 10:05:48 | 7 | 0 | 0 | 0 | 2 | 82.0 | 0 | 2018-01-24 |
| Kiwi | Login | Pawtucket | RI | 2019-07-30 10:05:54 | 5 | 0 | 0 | 0 | 2 | 82.0 | 0 | 2018-01-24 |
| Kiwi | Login | Fall River | MA | 2019-07-30 10:05:45 | 7 | 0 | 1 | 0 | 1 | 83.0 | 0 | 2019-05-28 |

Figure 1: Site Summary Data

Each row of the summary table displays basic information about each site. The first few columns show users the location, state, and the last time the site updated the page. Additionally, you can see the total number of HVAC units at the site, as well as the number of units offline.

The next two columns show the number of zones that have current zone temperatures greater than 2 or 5 degrees above the setpoint. For systems equipped with a DATS (Duct Air Temperature Sensor) the number shown in the "DATS" column is the number of incidents where the HVAC equipment did not supply enough cool/warm air.

The final three columns show the outside temperature, how many zones are currently being actively demand managed (DM) and the last time filters were changed. For example, in the above figure the DM column for Pawtucket shows the site is currently exceeding energy target levels and the DLC has allowed the set point to rise to the upper limit for one zone. Finally, the last column shows the oldest filter on any of the units at the site.

Moving the mouse over any column heading provides a more detailed explanation. The user can also sort on one or multiple columns by clicking the column title. In the example above the user has sorted the table based on the DATS column. Several sites are reporting alerts have occurred in the last 24 hours, e.g. Pawtucket reports 3 separate zones with supply alerts. This may also explain the number of zones currently outside of set point by more than 2 degrees.

Login Summary

The user with login privileges have all the same rights as the site summary user, but the difference is that this user had access rights to login into the DLC system located at the sites on the screen. By clicking on the login button, a new tab is opened, and the user is automatically logged into the system selected and presented with the dashboard for that system.



Global Change

This is one of the more powerful portal features It allows you to make changes across one or more sites as a single operation instead of requiring you to login at each site. The initial screen appears as follows:

| DLC C | Customer Po | ortal - Make globa | al change | | | | | | | | | |
|---|---|---|---|--|---|--------------------------------------|--|--------------------|----------------------|--|--|---|
| Fo make a c | configuration cha | nge effecting multiple si | tes: | | | | | | | | | |
| Then click <i>IMPORT</i> Apply the Be patien Change Typ | k on the 'Apply C ANT:There is no change by selec it, do NOT chang e: Work Hour | hanges' button. <i>A confir 'undo' capability, be sur</i> tting 'OKAY' on the confi e your browser window | mation screen in the of the change rmation screen. as the change i | <i>will appear giving y</i> e. s applied. | ou a final cha | ance to cheo | ck the ch | ange. | | | | |
| Apply Char | ige | s Holiday Schedul | e 🔍 Add a Site | User Delete a S | iite User 🗆 (| Change Pass | sword | | | Outside | | Oldest |
| Apply Char | ge Customer \$ | s Holiday Scheduk | Add a Site State \$ | User Delete a S | ite User 🗆 (| Change Pass Off Line | sword | >5 \$ | DATS \$ | Outside temp | ¢ DM ¢ | Oldest Filter |
| Apply Char Select \$ | customer \$ | s Holiday Schedule | Add a Site State MA | User Delete a S As of a 2019-12-04 07:05:26 | Units \$ | Change Pass Off Line 0 | sword >2 ≑ 0 | > 5 \$ 0 | DATS \$ 1 | Outside temp 24.0 | DM + 0 | Oldest Filter |
| Apply Char Select 🗢 | ge Customer ¢ Core Core | s Holiday Scheduk | Add a Site State + MA MA | User Delete a S As of a 2019-12-04 07:05:26 2019-12-04 07:05:19 | Units + 5 8 | Change Pass Off Line • 0 | sword >2 ♦ 0 0 | > 5 \$ 0 | DATS \$ 1 0 | Outside temp 24.0 24.0 | DM \$ 0 0 | Oldest Filter 4 2018-04-23 2018-05-08 |
| Apply Char Select \$ | customer + Core Core Core | S Holiday Scheduk Location Login Braintree Login Brockton | Add a Site State + MA MA MA | User Delete a S As of a 2019-12-04 07:05:26 2019-12-04 07:05:19 2019-12-04 07:05:09 | Units • 5 8 4 | Change Pass Cine + 0 0 0 | sword >2 ♦ 0 0 0 0 0 0 0 0 0 | >5 ♦ 0 0 | DATS \$ 1 0 0 | Outside temp 24.0 24.0 24.0 | DM \$ 0 0 0 | Oldest Filter 4 2018-04-23 2 2018-05-08 2 2018-09-20 2 |

Figure 2: Global Change Options

At the top of the page are detailed instructions on how to use Global Change. The user is allowed to pick from one or more changes to be applied. As changes are chosen the page expands to collect the additional information required for that change (see Figures on following pages).

Notice the site data display is very similar to that shown on the "Site Summary" with one addition, the "Select" column. The user is allowed to select all the sites for which a change will be applied.

Work Hours

The Work Hours option allows a user to set when a site will be occupied. This affects HVAC scheduling for the site.

Any entry of start/end times for a specific day of the week will result in ALL units being changed to use those times for that day for the sites selected.

If no changes are desired for a day, leave the start/stop times entirely blank. This will result in no changes being made to any units for that day.

| DLC Customer Portal - Make global change | | | | | | | | | | | |
|---|---|-----------------------------------|---|--------------------------------------|------------------------------------|----------|--------|--|--|--|--|
| To make a configuration change effecting multiple sites: | | | | | | | | | | | |
| First select Then use f Then click <i>IMPORTA</i> Apply the Be patient | First select the type of change you'd like to make. Then use the checkboxes in the summary site information to select the specific sites where the change should be applied. Then click on the 'Apply Changes' button. A confirmation screen will appear giving you a final chance to check the change. IMPORTANT: There is no 'undo' capability, be sure of the change. Apply the change by selecting 'OKAY' on the confirmation screen. Be patient, do NOT change your browser window as the change is applied. | | | | | | | | | | |
| Change Type | : 🗹 Work Hours | Holiday So | hedule 🗌 Add a Sit | e User 🗆 Delete | a Site User | | | | | | |
| Occupied | Hours: | | | | | | | | | | |
| Enter occup Leave the d | pied times in 24 h lay blank if no ch | our format (HH anges are to be | :MM). This will be a made to existing o | pplied to ALL UI ccupied hours fo | NITS at the site. or that site. | | | | | | |
| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | | | | |
| Start Times: | | | | | | | | | | | |
| End Times: | | | | | | | | | | | |
| Apply Chang | ge | | | | | | | | | | |
| | | Fi | gure 3: Globa | l Change - | Work Hours | | | | | | |

Holiday Schedule

This allows you to add or remove a holiday. Both the date and description field must be supplied. To remove a holiday only the date is necessary. The date must be entered in yyyy-mm-dd format.

| Add a Holiday Date (yyyy-mm-dd): | Description: | | |
|---|--------------|--|--|
| Remove a Holiday Date (yyyy-mm-dd): | | | |
| Apply Change | | | |

Add a Site User

The Add Site User option makes it simple to add a new user to several sites with one operation. You can setup a user's site permissions here as well. At the present time you must login on each site if you the user wishes to receive SMS alerts in addition to, or in replace of, email messages.

| New | Users Information | n | Apply Change |
|--------|---------------------|------------------------|--|
| User | Id: | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| User | Nama | | |
| User | Name: | | |
| Email | : | | |
| Passv | vord: | | |
| Repe | at Password: | | |
| * If y | ou don't change pas | sword, leave it blank. | |
| Users | Access Privileges | | |
| | Setup | | |
| | Holidays | | |
| | Enter/Edit Electric | Bills | |
| | Monitor System | | |
| | Reports | | |
| | Enter/Edit Security | / System | |
| | Maintenance | | |
| | Zone Temp Alerts | | |
| | Receive Demand N | 1anagement Alerts | |
| | Duct Air Temp Sup | ply | |
| | Unit Off Line | | |
| | | | |

Figure 4: Global Change - Add User

Remove a Site User

To remove a user from a site or multiple sites, enter the user's user id in the textbox. It's okay if the ID does not exist on all of the selected sites.

| Remove | a User | |
|----------|--------|--|
| User ID: | | |
| | | |

Figure 5: Global Change - Remove a User

Change confirmation

Please note that the "Apply Change" button on the preceding screens will result in the system making sure you have provided needed data. No site changes occur during this process.

On a separate page, you will be given the opportunity to "Confirm Change" as shown in the example below for a work-hours change:

Apply Global Site Change

NOTE: All the fields on this form are read-only. If you wish to make corrections you need go back to the previous page.

The changes shown will be applied to these sites: Back Office,

Occupied Hours:

Changes will ONLY be applied to days which have start/end times. Blank days will be ignored during the update.

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|-------|--------|---------|-----------|----------|--------|----------|--------|
| Start | 04:00 | | | | | | |
| End: | 17:00 | | | | | | |
| | | | | | | | |
| | | | | | | | |

Apply Change (no undo!)

For a more in-depth review of all the site User Privileges please see the DLC Site Guide.