Optergy

Operating Manual

BUILDING MANAGEMENT SYSTEMS (BMS)
ENERGY MANAGEMENT SYSTEMS (EMS)

Contents

1. Optergy System Overview

The building management system (BMS) comprises of an Optergy portal. This is a platform that hosts a number of application packages. These applications meet the needs of high performance energy management systems (EMS) and assist in meeting 5 star Green Star and 5 Star National Australian Building Energy Rating Scheme (NABERS) office building.

Optergy Key Features

Optergy provides a very flexible web-based graphical user interface for user interaction. This means you can monitor and control your building from anywhere on the planet where there is an internet connection, on any PC without requiring any software to be installed.

Optergy allows monitoring in real time of your building and plant data, utility consumption (electricity, gas, water and thermal) and contains powerful reporting facilities based on the data which is collected and stored on site, arming you with the information on how the building is performing, and where attention may be required. The Optergy application tool provides innovative solutions in:

- Flexible and secure access to different groups of users
- Thin client portal – compatible with routers and firewalls
- Live updating on display screen
- Multi monitoring energy management with tariff calculator and facility of generating accurate energy utility billing
- NABERS compliance
- Prepare forward estimates of energy & water use and greenhouse gas emissions
- Automatic data aggregation and archiving

BACnet Compliant

Optergy is a suite of server-based modules which provides the user interface for BACnet based building management installations. Unlike some BACnet vendor systems, Optergy uses native BACnet protocols and allows communication with all systems and installations complying with the BACnet standard.

Network Architecture

Figure 1 demonstrates a system architecture design of an integrated energy managements system with the different connection methods:

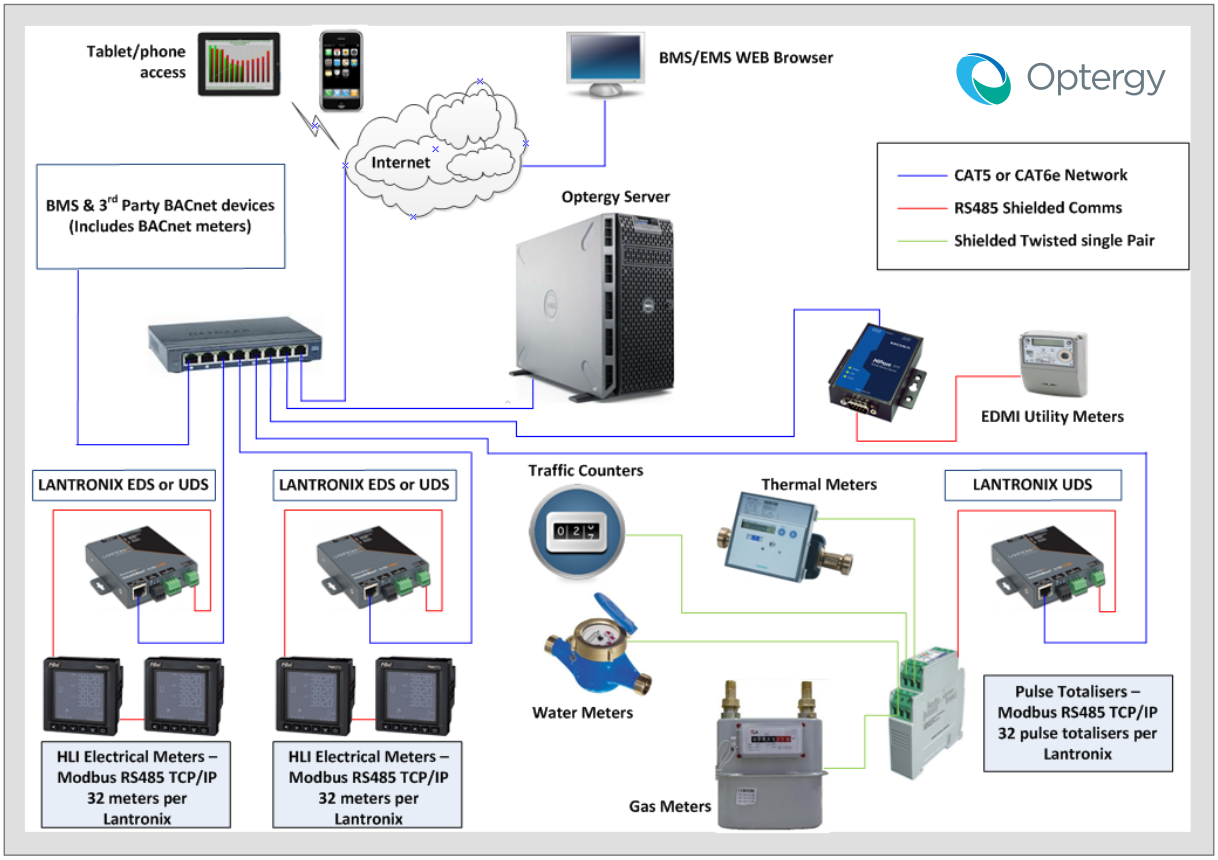


Figure 1: Typical Optergy EMS network architecture

Monitoring Capabilities

Optergy uses BACnet/IP Annex J and Modbus TCP/IP field communication interface devices in order to provide real-time data from meters. The capabilities of the Optergy system upon reading the field devices are to energy log and trendlog data for all supported parameters.

Data Storage

As per *Figure 1*, the Optergy Portal resides locally on site as to allow the client to have full control and real-time access to historical data and reports.

Backup

Optergy supports manual backup facilities split into three different options; 'Job', 'Energy Logs' and 'Trendlogs'. The user has the ability to select one or all three options for manual backups.

Optergy also supports automatic backups; these can be stored locally on Optergy or setup for FTP backup. The automatic backups transferred to remote servers and local PC's to ensure complete data recovery. Automatic backups are completed on a weekly basis.

2. Accessing the System

2.1 User Access Methods

Optergy is a web-based building and energy management system, and only requires a web browser to function. Supported web browsers include Internet Explorer, Firefox, and Chrome.

Before attempting to connect to Optergy, you must have the web address (URL) of the Optergy Portal.

To connect to the Optergy Portal, open your web browser, and in the address bar, enter the URL provided, refer to *Figure 2*. You will then be taken to your Optergy Workspace page or the logon page if you have not logged on for the current session.

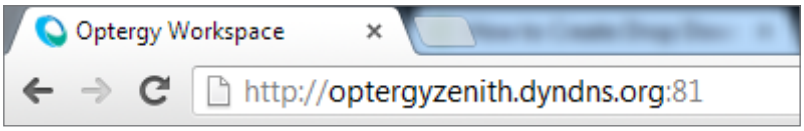


Figure 2: Access to Optergy

2.2 Logging On

When you connect to the Optergy portal, you will be taken to the log in screen, refer to *Figure 3.*

Figure 3: Log in screen

To gain access to the Optergy Portal, enter your username and password in the relevant fields (Usernames and passwords are case sensitive) provided. Click the 'Log in' button to gain access.

Note: You may also see the log in screen if you try and access a page after there has been an idle period of 15 minutes or more.

2.3 Using the Dial Pad

After the user has successfully logged into Optergy, the Optergy Workspace will display as shown the on *Figure 4* with the user name on the top left.

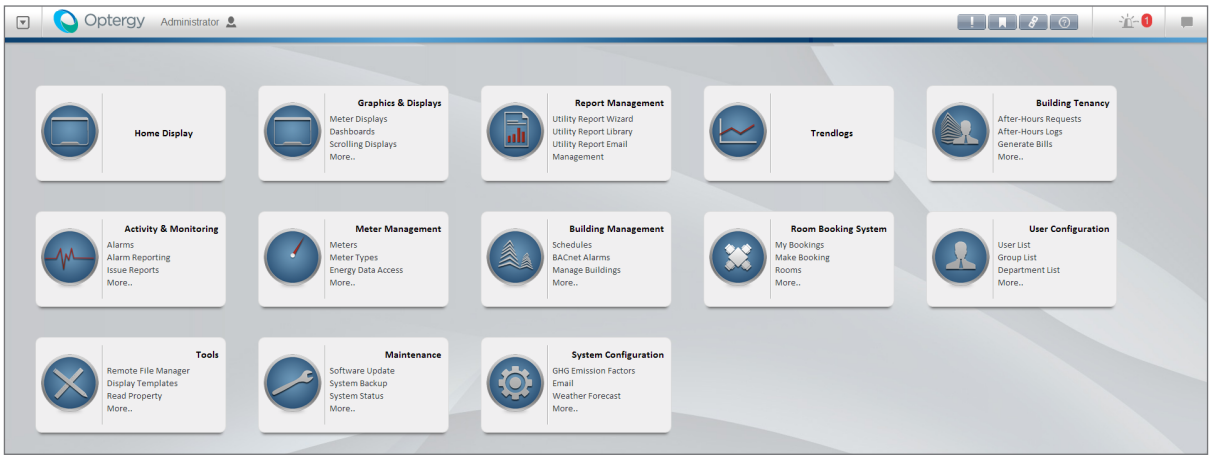


Figure 4: Dial Pad

The dial pad is the primary way for accessing the various features in Optergy. It behaves in a similar manner to the iPad/iPhone.

The 'banner' shows the username of the user logged in is displayed. Since it is possible to have multiple simultaneous logins with several web browsers, this allows you identify the username for that session. The banner also has a main menu located in the top left hand corner; this has a list of all of the functions/features available as well and can be used as an alternative to the dial pad buttons. The banner also has an 'Alarm' and 'Notification' ribbon that displays the most recent alarms and notifications.

There are four banner buttons located at the top right next to the alarm and notification ribbons; these buttons include 'Issues', 'Bookmarks', 'Get page URL', and 'Help'. These are common items that can be accessed easily regardless what page the user is viewing.

The dial pad has a number of buttons that lead to sub dial pads. Each group of items contains functions relevant to the heading; there are several shortcuts displayed on the button that will lead the user directly to the function. If the user clicks on the icon or the 'More...' option, it will open the sub dial pad.

Once you have finished your Optergy session, click on the user icon and select logout. This will take you to the logout screen. If you wish to get back in, click the Log in again button.

2.4 Accessing BMS Displays

Based on the user credentials, different users can be set to log in to different start displays. By default, the dial pad is the default display. To access the BMS displays, select 'Home Display' and this will navigate you to the BMS front end graphics. At any time, if you click on the Optergy logo located in the banner, 

it will return you back to the dial pad. You can open multiple browsers to navigate multiple pages simultaneously; there are two ways to do this. Holding the 'Shift' key while clicking on the Optergy logo will open a new browser; holding the 'ctrl' key while clicking on the Optergy logo will open a new tab in the current browser. The same principle applies to clicking on buttons in the dial pad.

3. Trendlogs

To access trendlogs, click on the 'Trendlogs' button located on the dial pad home page as shown in *Figure 5*:

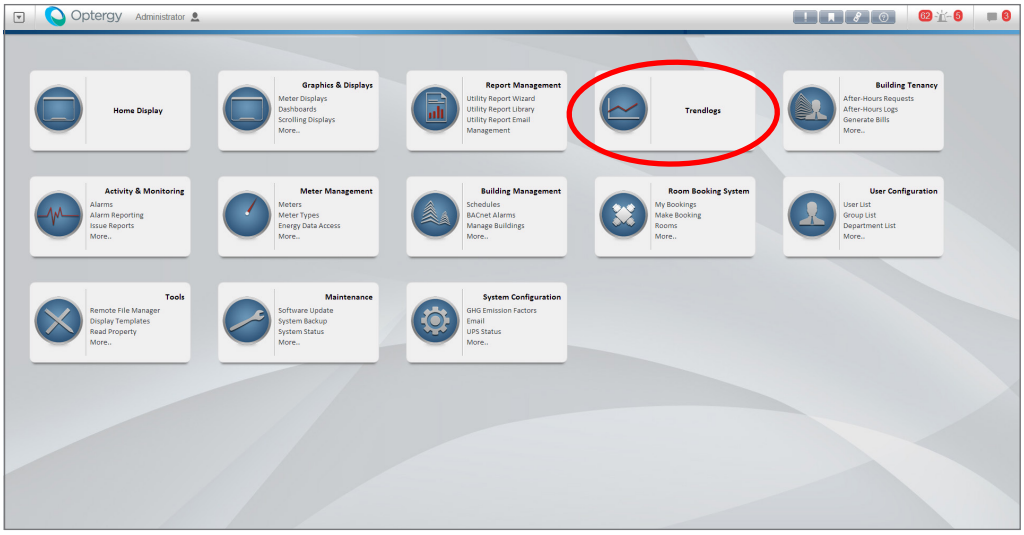


Figure 5: Accessing trendlogs

3.1 Basic Trendlog View Settings

To quickly look at the most recent data for a particular trendlog, double click the required trendlog from the list; this will launch a new web browser and display a graph showing trendlog data for today, refer to *Figure 6*. *Figure 7* shows all of the trendlogs available in the system; there is a filter available to help search for specific trendlogs. Logs can also be sorted by clicking on the heading that you want to apply the sort to. Selecting multiple trendlogs (up to 8) and clicking 'View Multiple' will launch a new web browser displaying multiple trendlogs on one display.

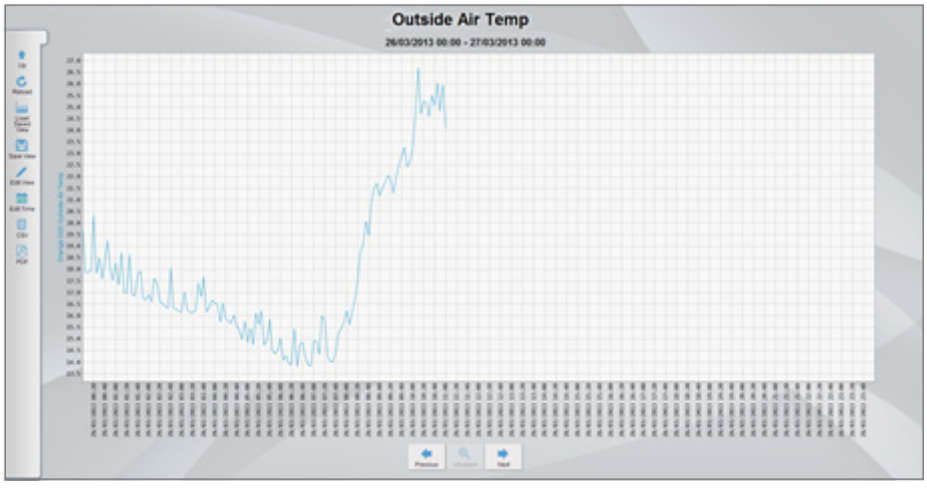


Figure 6: Trendlog view

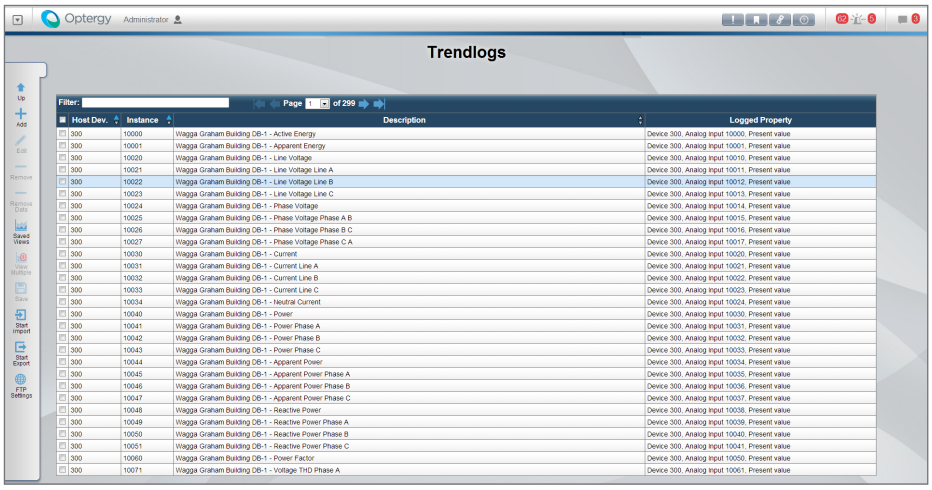


Figure 7: Accessing trendlogs

The other way to access trendlogs is by right clicking on a point from the BMS displays and selecting 'View Trendlog' as shown in *Figure 8*; this will launch a new web browser and display a trendlog of the selected point showing the current days log.

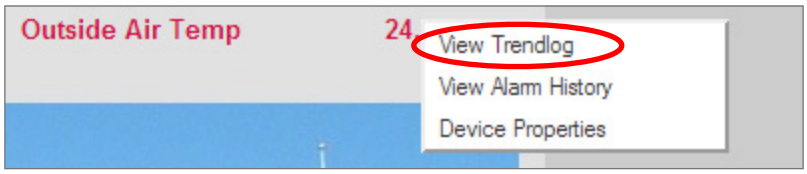


Figure 8: Accessing trendlogs from BMS displays

3.2 Advanced Trendlog Features

3.2.1 Time Period

When viewing a trendlog, it is possible to modify the time period. This can be done by clicking the 'Previous' and 'Next' buttons located at the bottom centre of the screen as seen in *Figure 9*. This will update the trendlog to show the previous or next 24 hour time period.

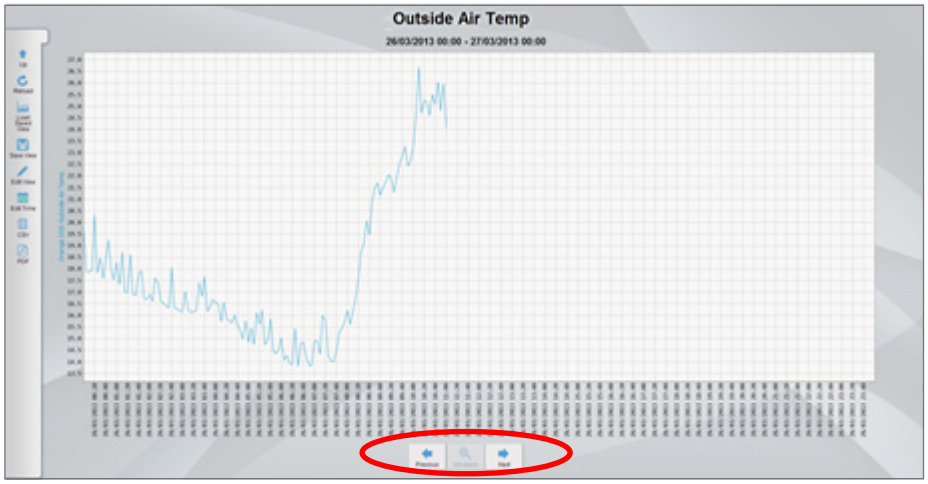


Figure 9: Trendlog time period

It is possible to define a time period by selecting 'Edit Time' on the loading dock located on the left, refer to *Figure 10*. This will show a new window that will allow you to specify the time period you require.

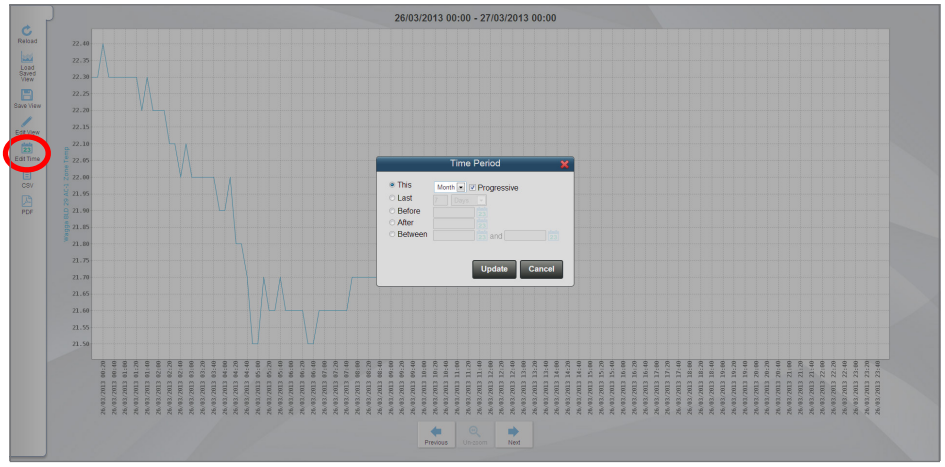


Figure 10: Trendlog time period

3.2.2 Edit View

By clicking 'Edit View', a popup will appear which allows for overall graph options to be changed, as well as individual graph options. You can edit the title, add additional trends, specify axis, and specify trendlog colours.

3.2.3 Exporting Trendlogs

If you click on the 'CSV' icon, Optergy will save a copy of the trendlog as a CSV file that will contain all of the raw data used to compile the trendlog. If you select the 'PDF' option, you will get a PDF document of the web display as shown in *Figure 11*.

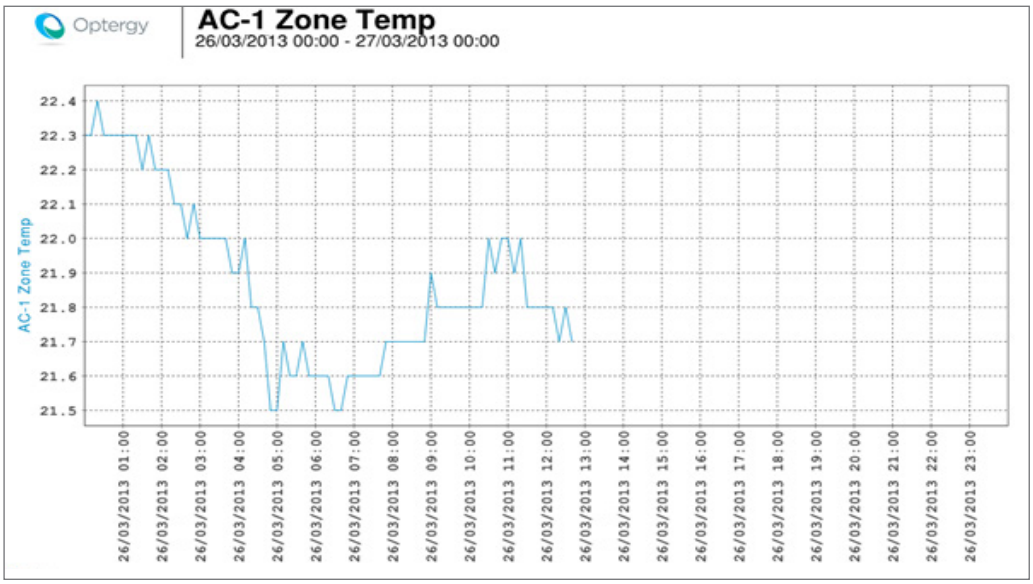


Figure 11: PDF Trendlog

4. Time Schedules

'Schedules' can be found under the button 'Building Management'. So long as the user has the correct credentials, they can view/edit time schedules. The filter can be used to find specific schedules. Selecting a schedule from the list and clicking edit (or double click) will open the schedule and allow you to view/change the schedule. The first pop up shown is the schedule configuration page; to edit the time block, click on 'Weekly Schedule' as shown in *Figure 12*.

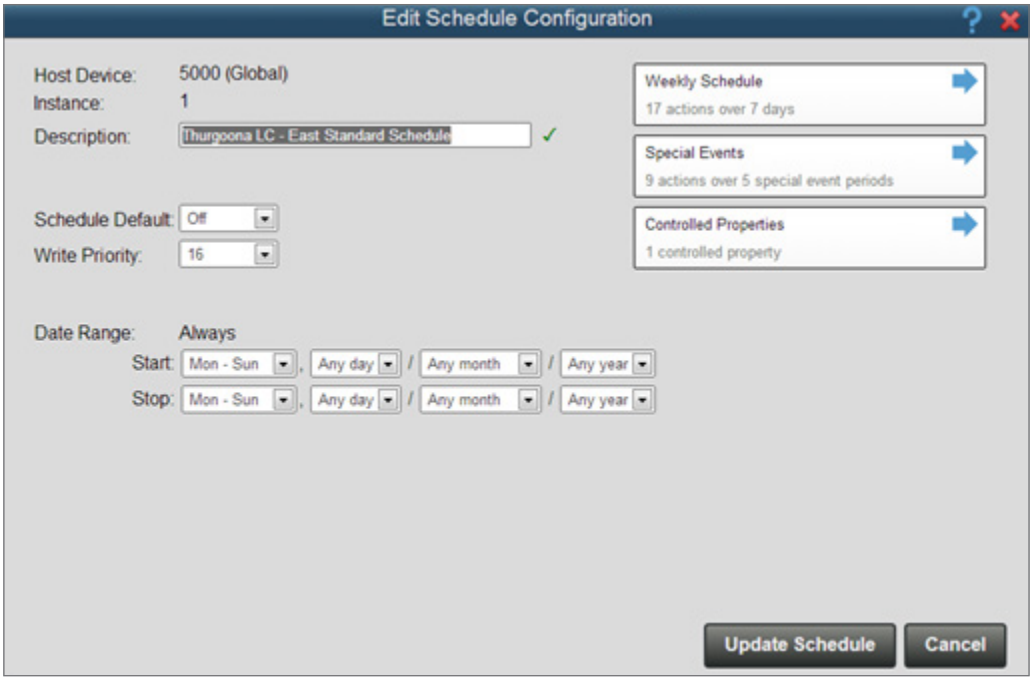


Figure 12: Schedule Configuration

From here, changes can be made by highlighting areas and selecting 'Set to on', 'Set to off' or 'Set to auto'; refer to *Figure 13*.

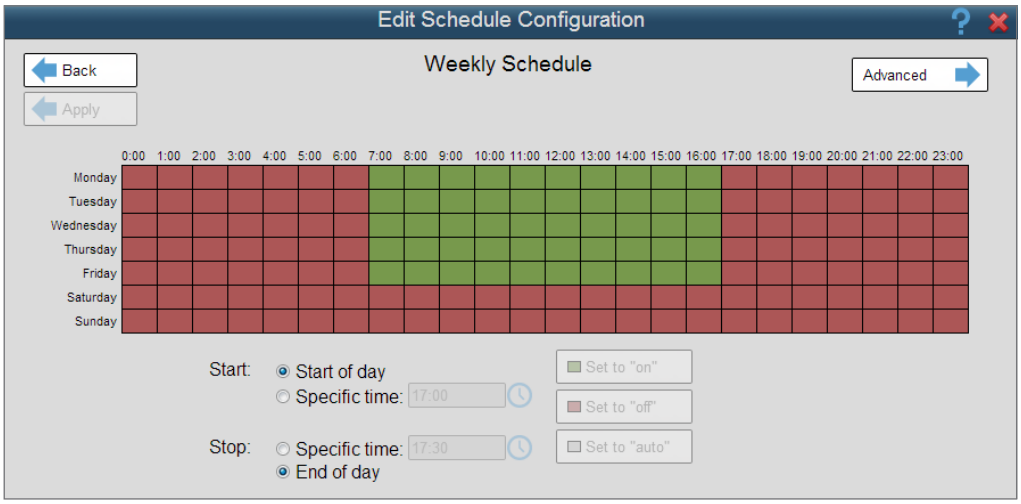


Figure 13: Schedule

Clicking on the 'Advanced' tab shows the times in analytical format where times can be added or removed without the graphical interface. Going back to the schedule configuration page and selecting 'Update Schedule' will save the schedule changes immediately.

4.1 Special Events

Special events can be added to the schedule by selecting 'Special Events' and adding events as required. The 'Event Ranking' must be at a higher priority (lower number) to the standard schedule; generally standard schedules are set to priority level 16 which is the lowest priority (as the number decreases, the priority increases), refer to *Figure 14*. Click 'Apply' then go back to the configuration page and click 'Update Schedule'.

Figure 14: Special Events

You can also link Calendars to schedules; for this functionality refer to *Appendix 1 Section 6 – Calendars.*

5. After Hours Requests

There is generally an 'After Hours' log in that directs you straight to the after hours page to allow you to request after hours operation refer to *Figure 15*.

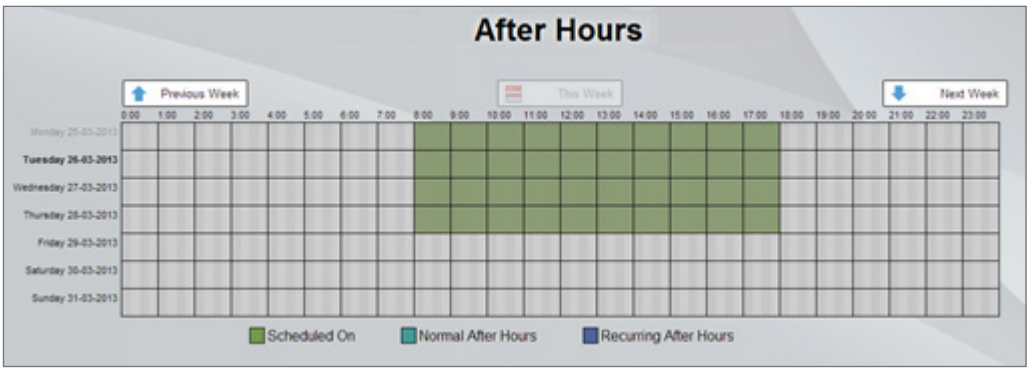


Figure 15: After Hours

The green area identifies the base schedule (8:00am – 6:00pm in figure 15); you cannot set an after hours time period during these times. The after hours scheduling page allows you to save times slots in 15 minute intervals. There is also the option of the recurring functionality that allows you to enter repeated sequences of after hours requests.

5.1 Requesting After Hours

To request an after hours period, simply click on the desired part of the grid using; when you release, you will be prompted and asked 'Add One-Off After Hours' or 'Add Recurring After Hours', refer to *Figure 16*. Select your choice and click 'Save' and your request will be processed. Once saved, the area selected will change colour according to the type of after hours requested (one-off or recurring).

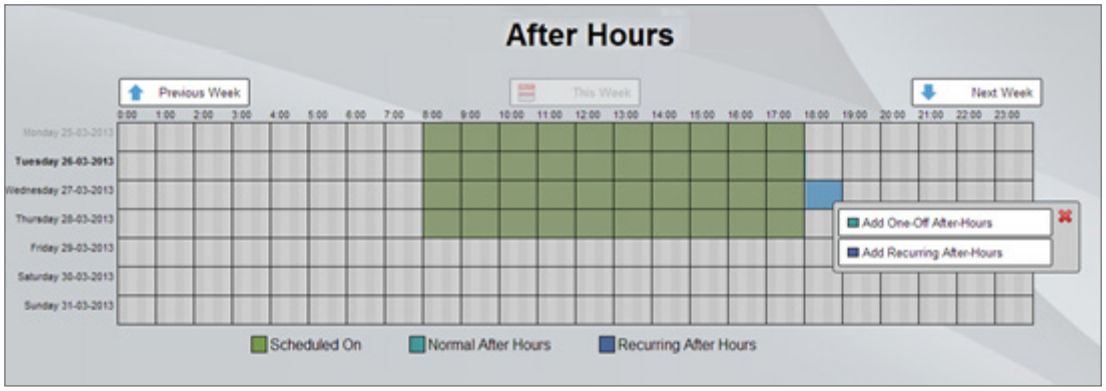


Figure 16: Requesting After Hours

5.2 Removing After Hours Requests

To remove an after hours, simply click on the after hours area and select 'Remove After Hours Request' and click 'Save', refer to *Figure 17*. Note that once an after hours period has commenced, it cannot be deleted.

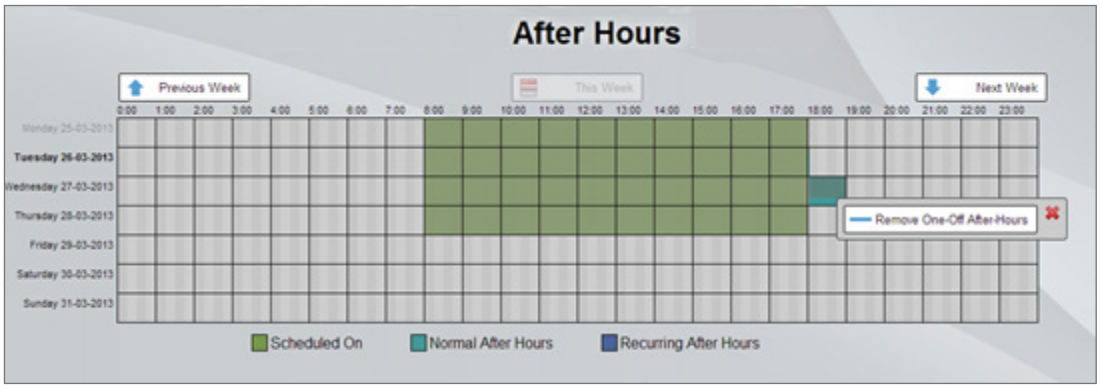


Figure 17: Deleting After Hours

5.3 Generate Bills

To generate an after hours bill, the user must have the correct credentials. Navigate to 'Building Tenancy' then 'Generate Bills'. Select the desired tenant from the list and click 'Generate After Hours Invoice', refer to *Figure 18*.

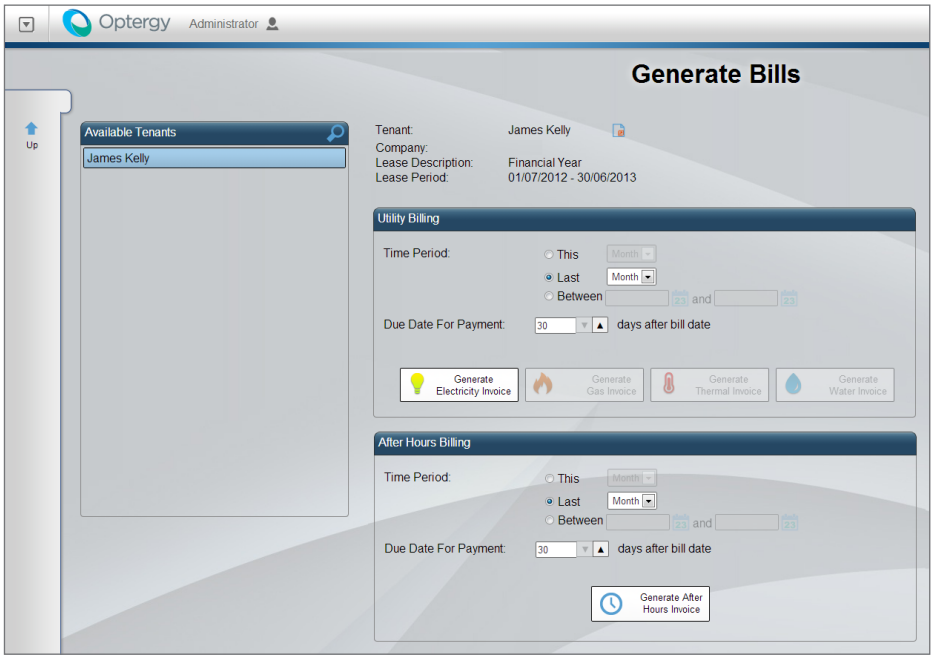
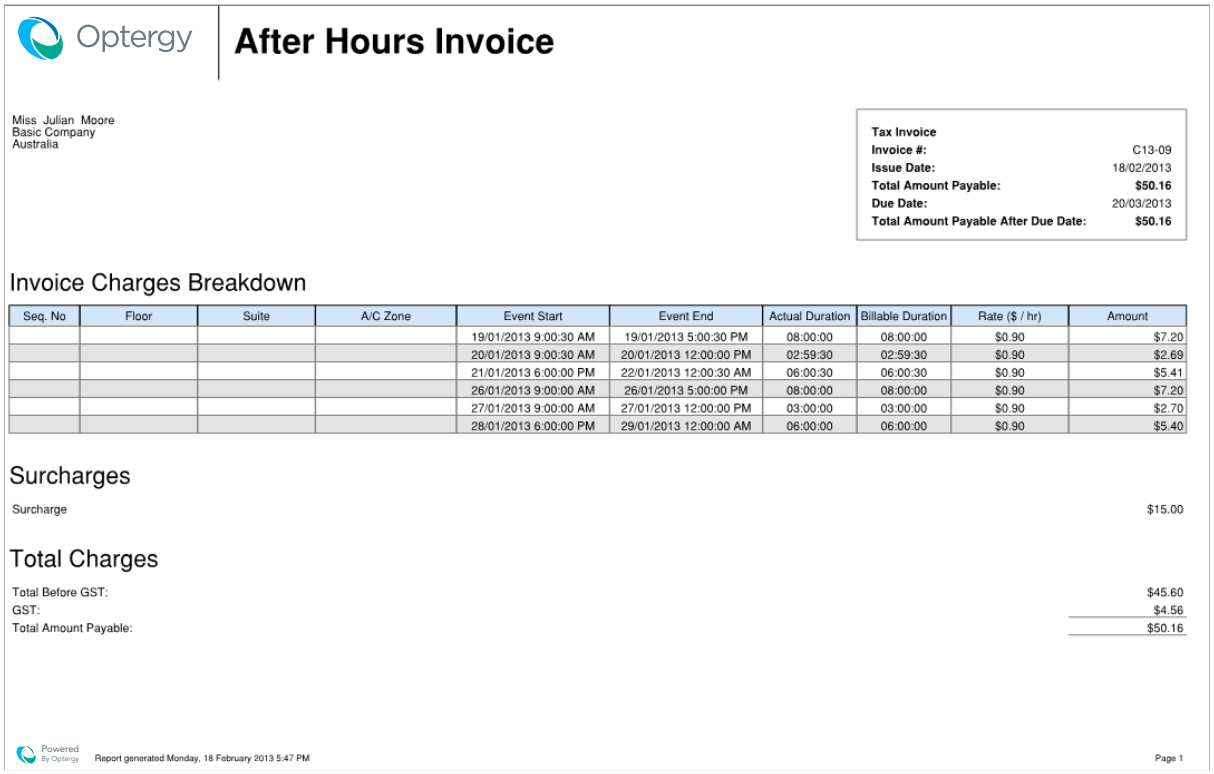


Figure 18: Generate After Hours invoice

A PDF invoice will be generated, refer to *Figure 19*.



Optergy

After Hours Invoice

Miss Julian Moore
Basic Company
Australia

Tax Invoice
Invoice #: C13-09
Issue Date: 18/02/2013
Total Amount Payable: **$50.16**
Due Date: 20/03/2013
Total Amount Payable After Due Date: **$50.16**

Invoice Charges Breakdown

Seq. No	Floor	Suite	A/C Zone	Event Start	Event End	Actual Duration	Billable Duration	Rate ($ / hr)	Amount
				19/01/2013 9:00:30 AM	19/01/2013 5:00:30 PM	08:00:00	08:00:00	$0.90	$7.20
				20/01/2013 9:00:30 AM	20/01/2013 12:00:00 PM	02:59:30	02:59:30	$0.90	$2.69
				21/01/2013 6:00:00 PM	22/01/2013 12:00:30 AM	06:00:30	06:00:30	$0.90	$5.41
				26/01/2013 9:00:00 AM	26/01/2013 5:00:00 PM	08:00:00	08:00:00	$0.90	$7.20
				27/01/2013 9:00:00 AM	27/01/2013 12:00:00 PM	03:00:00	03:00:00	$0.90	$2.70
				28/01/2013 6:00:00 PM	29/01/2013 12:00:00 AM	06:00:00	06:00:00	$0.90	$5.40

Surcharges

Surcharge $15.00

Total Charges

Total Before GST: $45.60
GST: $4.56
Total Amount Payable: $50.16

Powered By Optergy Report generated Monday, 18 February 2013 5:47 PM Page 1

Figure 19: After Hours invoice

6. Alarms

BACnet alarms in Optergy represent a BACnet alarm object, which monitor data points connected to the system, watching for specified conditions. Once an alarms criteria has been met, its associated notification class will set about notifying the system either through banner notifications, emails or SMS.

The 'BACnet Alarms' page allows for BACnet alarm objects to be viewed, created, edited and removed, and is accessed from the 'Building Management' sub-menu. Meter alarms generated within Optergy are not BACnet alarms and are only available to be seen within Optergy.

6.1 Alarm Banner

The alarm banner will show the most recent alarms when clicked on, refer to *Figure 20*. The alarms can be acknowledge from this point by clicking the acknowledge button. Alarms can also be hidden from the banner by clicking the close icon. On the left hand side of the banner, a summary of the 'Current Alarms' is shown – this details both BACnet alarms and Meter alarms. The full alarm list can be seen by clicking the 'Go to Alarm List' button.

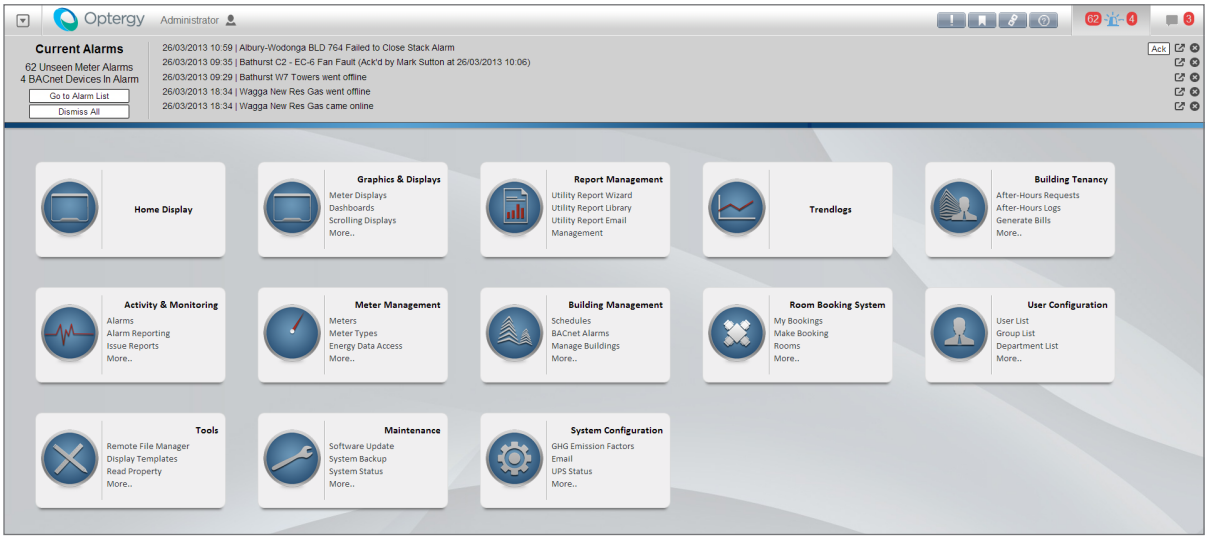


Figure 20: Alarm Banner

6.2 Alarm Banner

The alarm list shows a summary of the alarms in the system, refer to *Figure 21*.

Last Notification	State	Source	Event Type	Most Recent Message	Acknowledge	Links
26/03/2013 17:31	Normal	BACNET	Wagga Sutherlands Labs - AC-3 Fault		Acknowledge	
26/03/2013 17:31	Normal	BACNET	Wagga Sutherlands Labs - AC-2 Fault		Acknowledge	
26/03/2013 10:59	Alarm	BACNET	Albury-Wodonga BLD 764 Failed to Close St...		Acknowledge	
26/03/2013 09:35	Alarm	BACNET	Bathurst C2 - EC-6 Fan Fault		Acknowledge	
26/03/2013 08:05	Normal	BACNET	Albury-Wodonga BLD 764 Failed to Open St...		Acknowledge	
26/03/2013 08:05	Normal	BACNET	Albury-Wodonga BLD 764 Failed to Open W...		Acknowledge	
26/03/2013 08:05	Normal	BACNET	Albury-Wodonga BLD 764 Failed to Open Ea...		Acknowledge	
25/03/2013 13:40	Normal	BACNET	Bathurst C2 - EC-5 Fan Fault		Acknowledge	
25/03/2013 13:12	Normal	BACNET	Bathurst C2 - EC-4 Fan Fault		Acknowledge	
23/03/2013 03:25	Normal	BACNET	Wagga SOD Fume 4 Fan Fault		All acknowledged	
17/03/2013 09:33	Normal	BACNET	Bathurst C01 - Condensor Water Temp Alarm		All acknowledged	
08/03/2013 12:02	Normal	BACNET	Wagga SOD Exhaust Fan 6 Fault		All acknowledged	
03/03/2013 01:02	Normal	BACNET	Wagga SOD Compressed Air Pressure Low ...		All acknowledged	
02/03/2013 13:08	Normal	BACNET	Bathurst C2 - ICP 2 Pump Fault		All acknowledged	
01/03/2013 16:08	Normal	BACNET	Wagga SOD Air Compressors Common Fault		All acknowledged	
27/02/2013 16:14	Normal	BACNET	Bathurst C2 - Exhaust Fan 1 Fault		All acknowledged	
27/02/2013 10:44	Alarm	BACNET	Wagga Sutherlands Labs - AC-4 Fault		All acknowledged	
11/02/2013 17:11	Normal	BACNET	Bathurst C2 - EC-8 Fan Fault		All acknowledged	
18/01/2013 12:07	Normal	BACNET	Wagga BLD 29 Fire Trip		All acknowledged	
25/12/2012 13:16	Alarm	BACNET	Bathurst C2 - ICP 3 Pump Fault		All acknowledged	
19/12/2012 13:40	Normal	BACNET	SMS31 SOD Prep Room Fridge Alarm		All acknowledged	
19/12/2012 13:36	Normal	BACNET	SMS31 SOD Class Room Fridge Alarm		All acknowledged	
19/12/2012 13:31	Normal	BACNET	SMS31 SOD Cool Room Fridge Alarm		All acknowledged	
30/11/2012 11:21	Normal	BACNET	Bathurst C2 - EC-7 Fan Fault		All acknowledged	
29/11/2012 09:54	Normal	BACNET	Bathurst C2 - EC-8 Pump Fault		All acknowledged	

Figure 21: Alarm List

Individual alarms can be acknowledged from here by selected the 'Acknowledge' button; you must have the credentials to do so. Repeat alarms are grouped; for more details, highlight an alarm and select 'View' from the loading dock – this will show all alarms for the monitored point. The 'Ack All' button on the loading dock will acknowledge all unacknowledged alarms.

6.3 Alarm Reporting

Alarm reporting provides alarm history in a non-interactive format that is friendly for printing. To access alarm reports navigate to 'Activity & Monitoring' then 'Alarm Reporting'. Alarm reports can be custom built based on user specified criteria, refer to *Figure 22*.

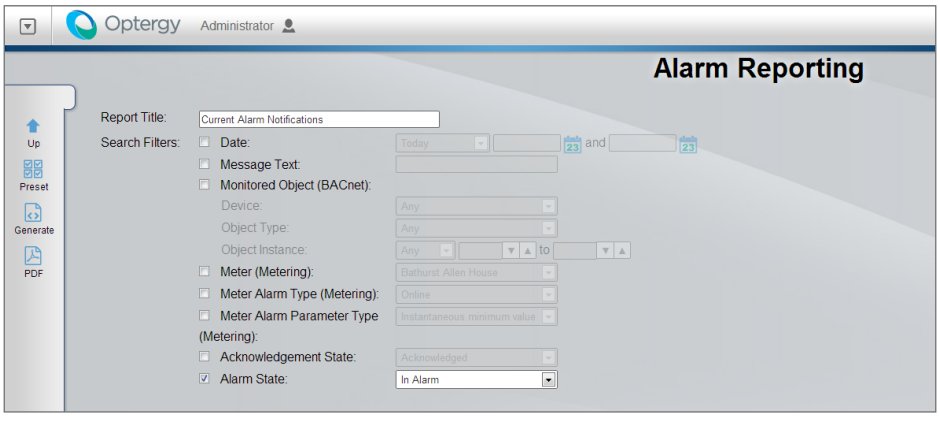


Figure 22: Alarm Reporting

A Report Preset can be selected by clicking 'Preset'. This will automatically select the settings according to the preset selected. Click 'Display' to apply the preset, refer to figure 23. Once you have the required criteria, you can generate the report or save it to a PDF by selecting 'Generate' or 'PDF'.

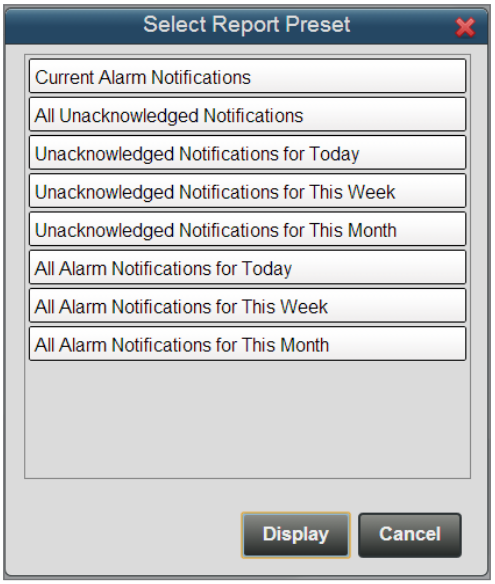


Figure 23: Alarm Report Preset

7. Real Time Meter Displays

Optergy Meter displays, allows users to access each type of meter, outlaying the basic understanding of their physical connection.

7.1 Electrical Meter Samples

Figure 24 shows a sample of the real-time data that can be monitored by the Crompton Integra 1630 Electrical Meters. It also provides the facility for the user to view trendlogs of each parameter of the meter by right-clicking any of the parameters and selecting trendlog. Clicking on the daily/weekly/monthly/yearly buttons will launch consumption reports for the meter in a new window.

Figure 24: Optergy Meter Display Sample Graphic (Integra 1630)

Figure 25 shows an example of the monthly consumption report generated. There are a number of buttons at the bottom to allow the user to customise the report. The left dock also has a number of options that allows you to save as CSV or PDF, add the report to the report library, email the report and add auto email reporting.

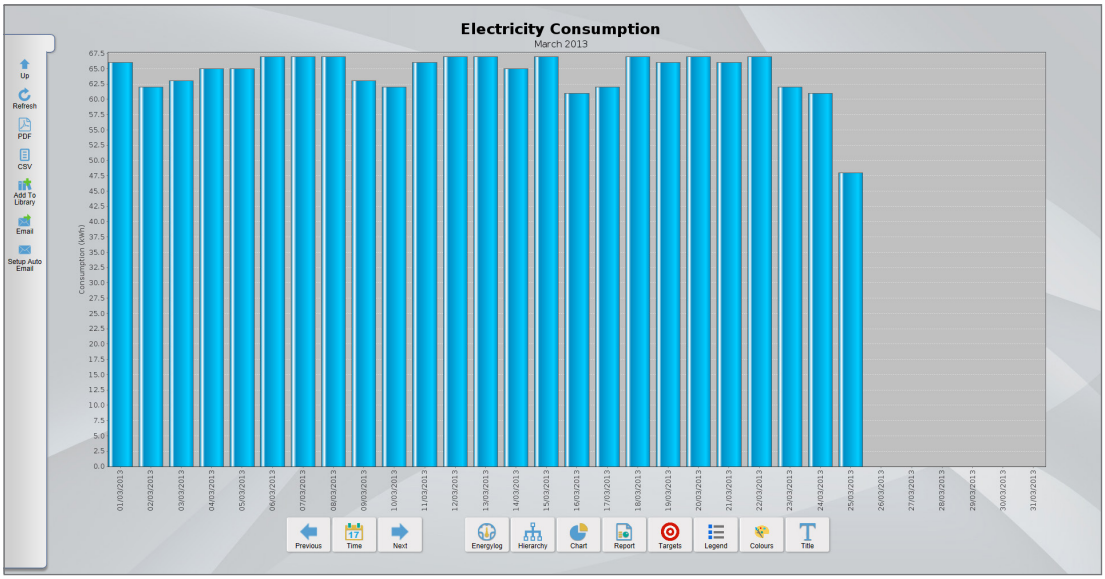


Figure 25: Optergy Electricity Consumption Report example

Figure 26 is a sample of the trendlog data available for the past 24 hours, you can then save this log as CSV data or save and print as a PDF. It is also possible to zoom in for more resolution.

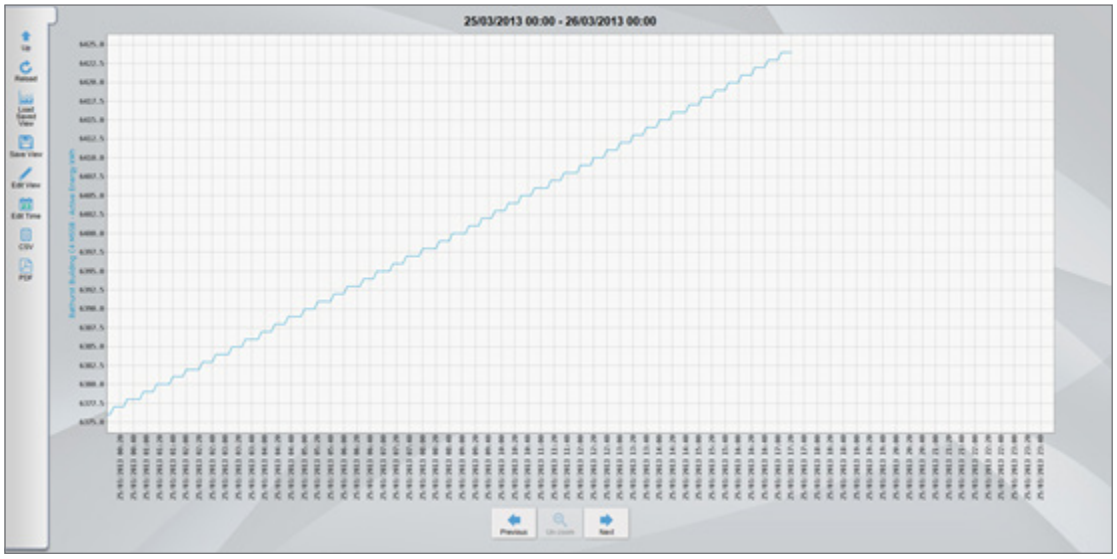


Figure 26: Optergy Meter Trendlog Point Menu sample

7.2 Gas, Water & Fluid Energy Meter Samples

Gas, water and thermal meters are represented as shown below in Figure 27. Generally, these meters are a pulse input and only have one parameter for consumption. Fluid energy meters such as Magflows or Ultrasonic meters can have additional parameters depending on the interface utilised; it is possible to also display high/low temperature and the difference in temperature for thermal meters.

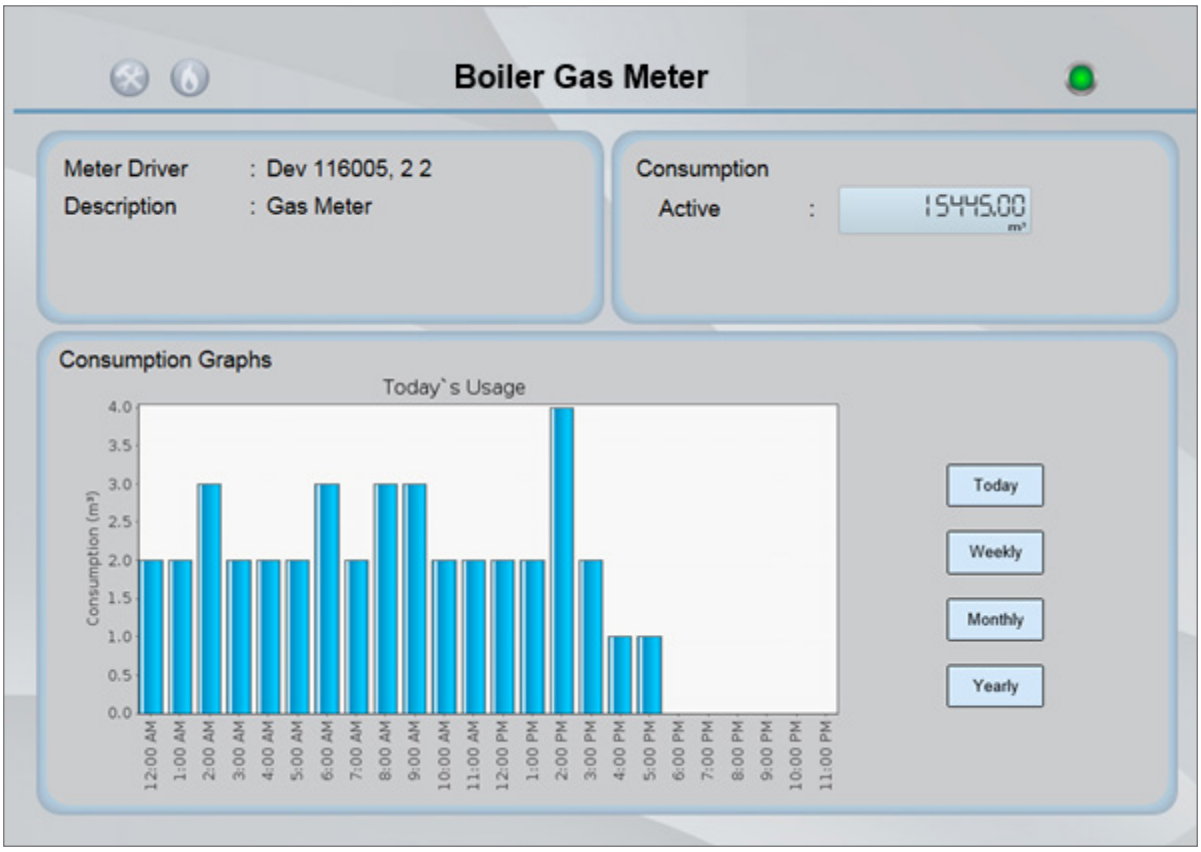


Figure 27: Optergy Gas Meter sample display

7.3 Calculation Meter Samples

Optergy has the ability to combine and subtract installed meters in order to create calculation meters. These meters are created to show the consumption of total systems throughout the site. This also enables the addition of meters which show the consumption of physical unmetered boards. Basic arithmetic can also be performed to manipulate meter data. *Figure 28* shows an aggregate water meter.

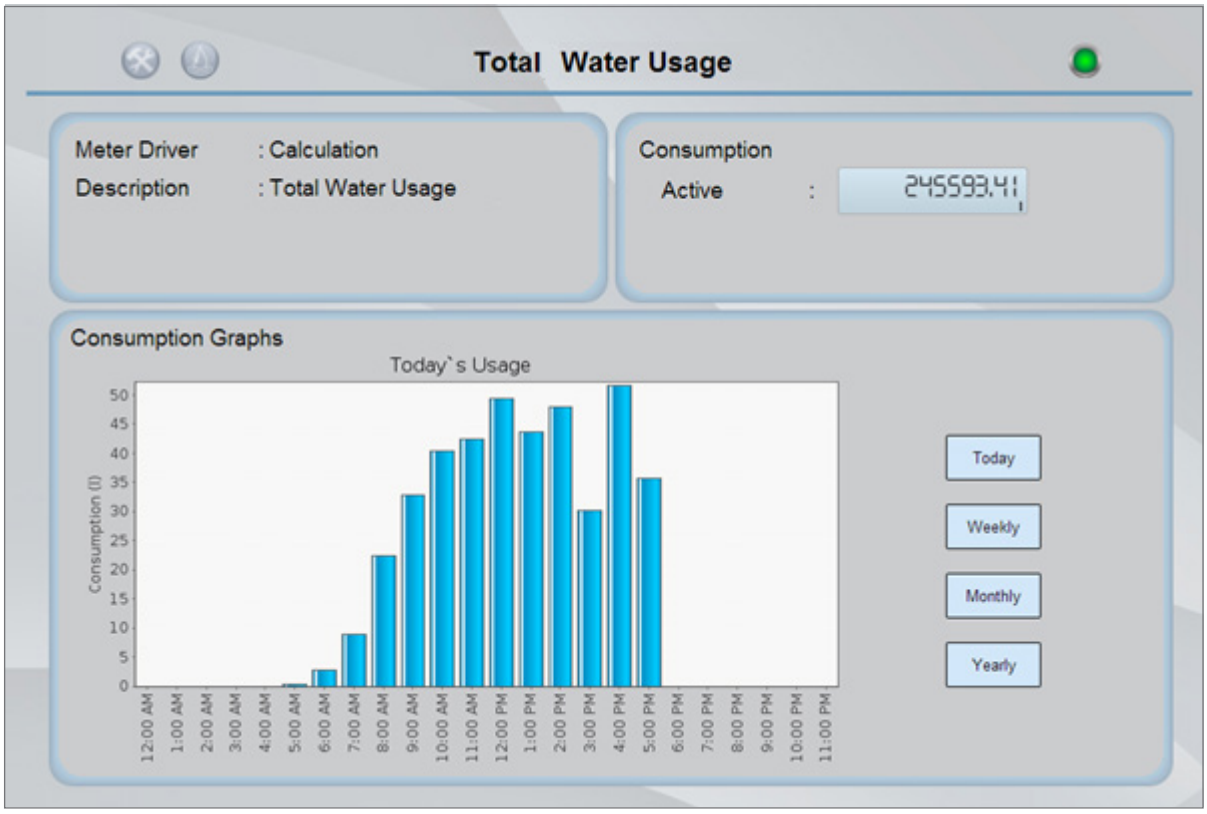


Figure 28: Optergy Virtual and Aggregate Meter sample display

8. Utility Reports

One of the key strengths of Optergy lies in its ability to generate a large number of reports based on the meters installed in your building(s). With these reports, you can track energy usage on a day to day basis, all the way out to forecasting energy usage for the next few years. These reports can be used to make decisions about how you run your building, or be used as a starting point to find out why your building is performing the way it is.
Optergy provides reports for:

- Electricity meters
- Gas meters
- Water meters
- Fluid Energy (Thermal) meters

There is a utility report wizard that will guide you to generating reports with a few simple clicks. Once generated, these reports can be saved to the report library for future use. Reports can be downloaded as CSV or PDF and can also be emailed directly with the option for auto emailing as well.

The first step is to select the type of chart, there are seven to choose from, refer to *Figure 29*.

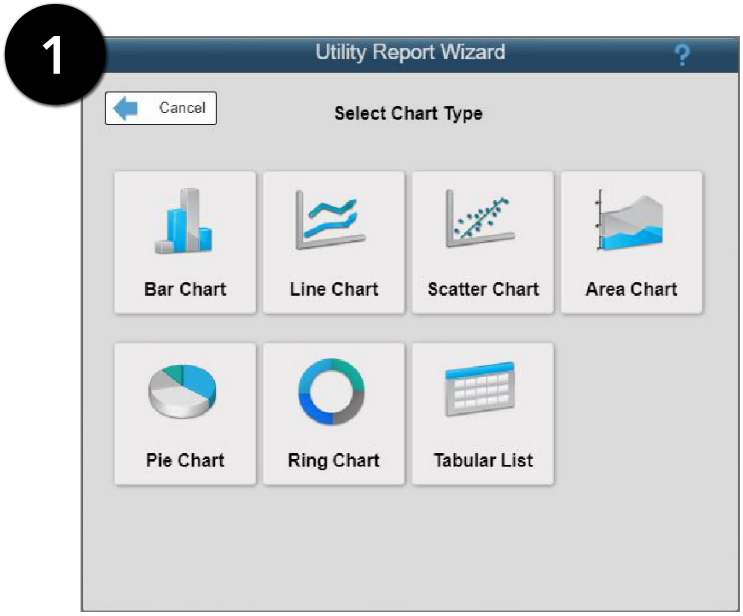


Figure 29: Utility Wizard chart options

The second step is to select the report type, as in 'Consumption', 'Demand', or 'Green House Gas Emissions', refer to *Figure 30*.

Figure 30: Utility Wizard report type

The third step is to select the meter energy logs, refer to *Figure 31*.

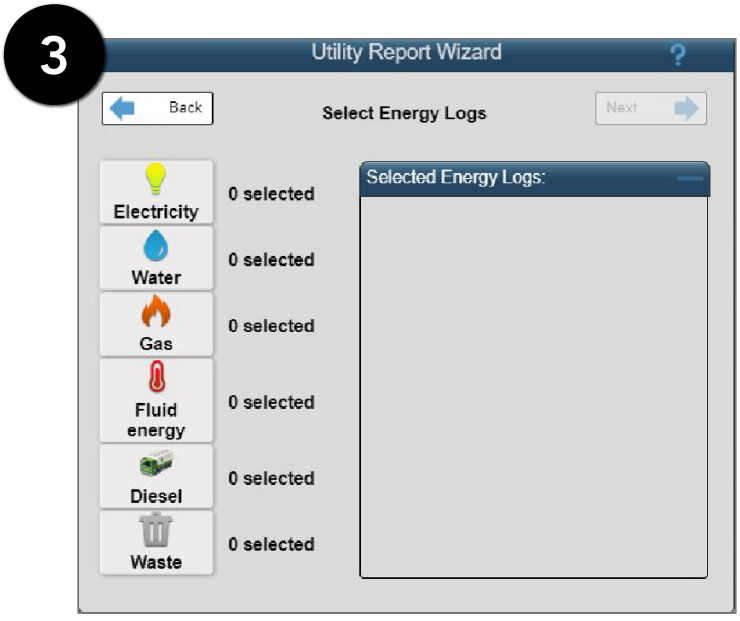


Figure 31: Utility Wizard energy log selection

Note: Different utility types cannot be displayed on the same report, for example, you cannot combine gas usage and electricity usage on one report. You can add multiples of the same utility to compare meters.

The fourth step is to select the utility type you would like to display, refer to *Figure 32*.

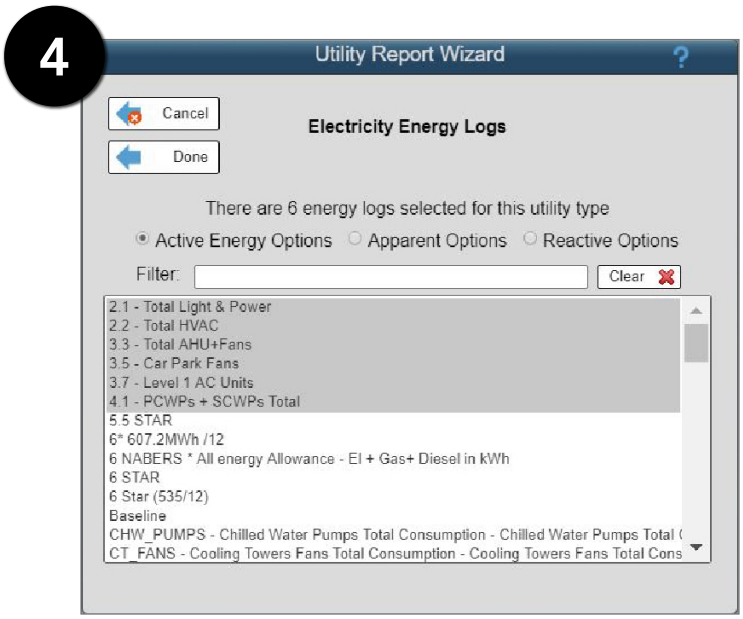


Figure 32: Utility Wizard utility type

The final step is to select the date range that you would like to view, refer to *Figure 33*.

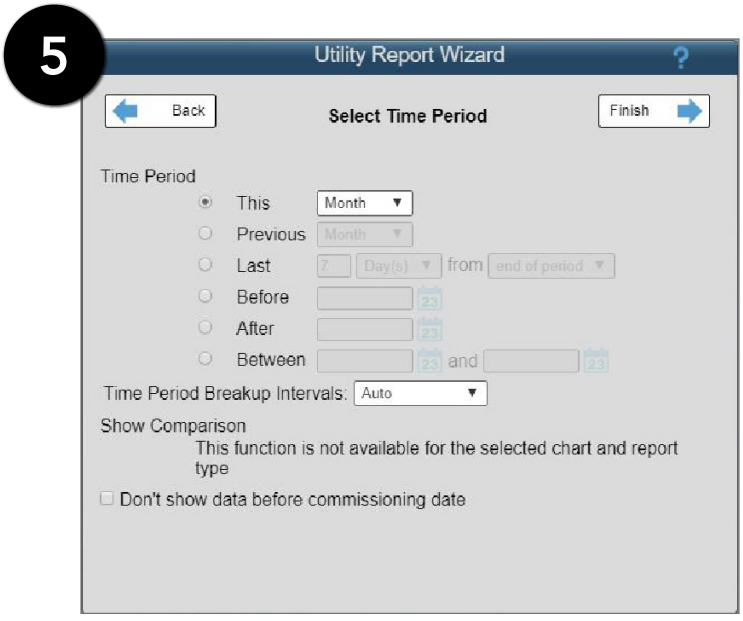


Figure 33: Utility Wizard date range

Once selected, click 'Finish' and the report will be generated, refer to *Figure 34* for an example.

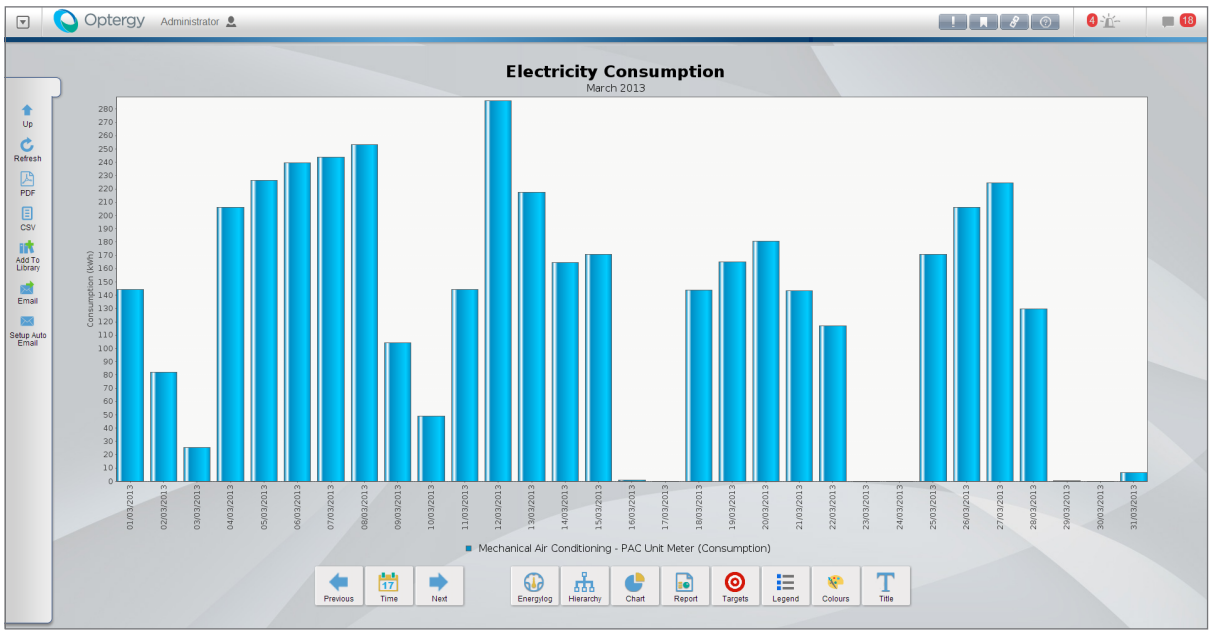


Figure 34: Utility Wizard generated report

From here it is possible to modify the report to suit; you can change the time period, add energy logs, change the chart type, change the report type, add targets, customise the legend/colours/title, save as CSV/PDF, email the report, and setup auto emailing. All of this can be achieved using the buttons located at the bottom of the report and also the loading dock on the left.

8.1 Progress Against Budget (NABERS)

Displays can show logged data from a meter vs. forecast data, allowing you to track predicted energy use versus actual energy use, as shown in *Figure 35*. This requires set up of forecast meter(s) with building modelling data.

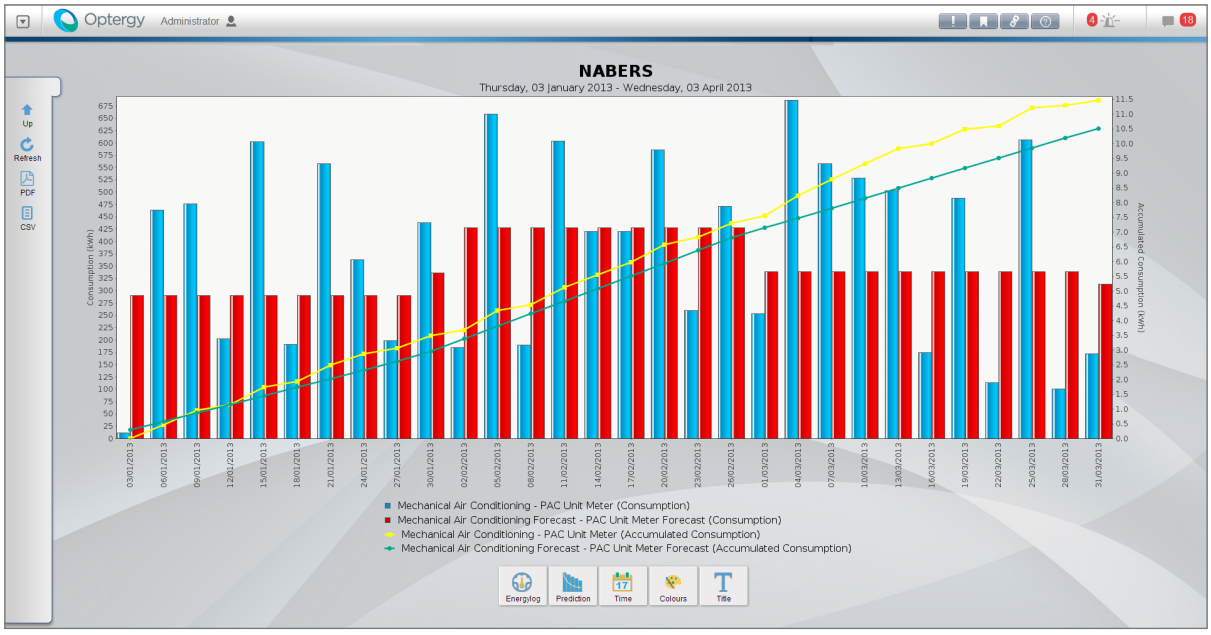


Figure 35: Progress against budget sample

There are simple prediction algorithms that can be enabled to show expected use based on historical data.

8.2 Greenhouse Gas Emissions

The Greenhouse Gas Emissions Report shows how much carbon dioxide (CO2) is generated per month per meter.

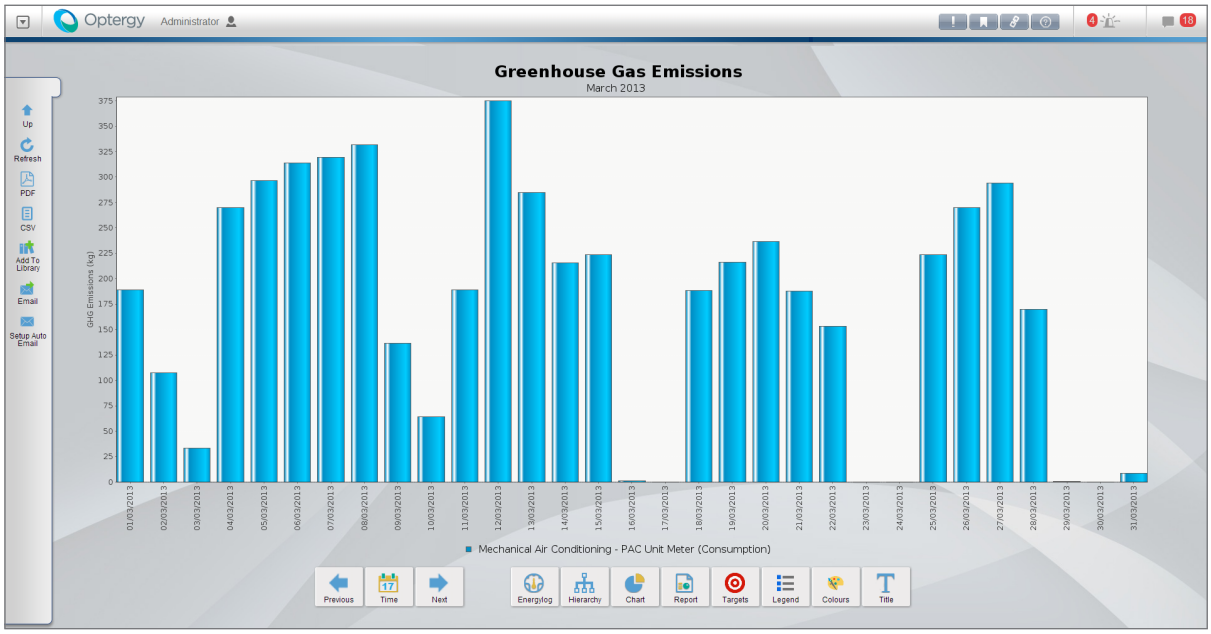


Figure 36: Greenhouse gas emissions sample

8.3 Optergy Billings

Optergy has the ability to generate invoices to tenants based on their energy usage, calculated from the meters associated to that tenancy, refer to *Figure 37*, or based on after hours usage, refer to *Figure 38*.

Optergy

Energy Invoice
Electricity account

Miss Julian Moore
Basic Company
Australia

Tax Invoice	
Invoice Number:	C18-09
Issue Date:	02/03/2018
Total Amount Payable:	$313.83
Due Date:	03/05/2018
Total Amount Payable After Due Date:	$313.83

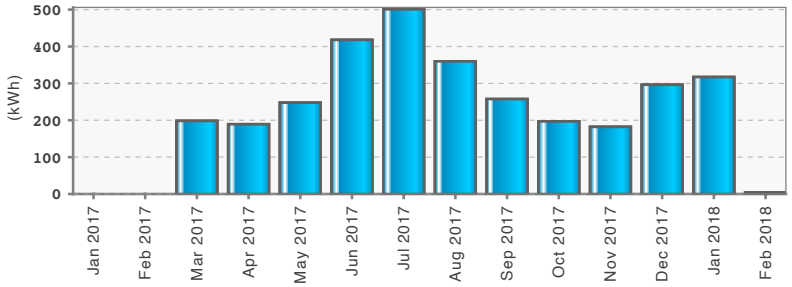
Meter Summary

Meter	Days Covered By Invoice	Previous Reading	Current Reading	Usage
Main Incoming Meter (1)	96 days	2,335.2 kWh 10/26/2017 12:00 AM	3,139.3 kWh 01/30/2018 12:00 AM	804.1 kWh

Your Overall Picture

Average Usage Per Day
8.38 kWh

Same Time Last Year
Not Available



Invoice Charges Breakdown

Supply Period - Thursday, October 26, 2017 to Monday, January 29, 2018

Flat Rate Charge Details			
Description	Rate	Usage	Charge
Main Incoming Meter (1)	0.29 / kWh	804.1 kWh	$233.19

Additional Fees And Charges

Daily Supply Charge - $0.7747 Per Day	$80.64

Total Usage and Supply Charges

Total Amount Payable:	$313.83

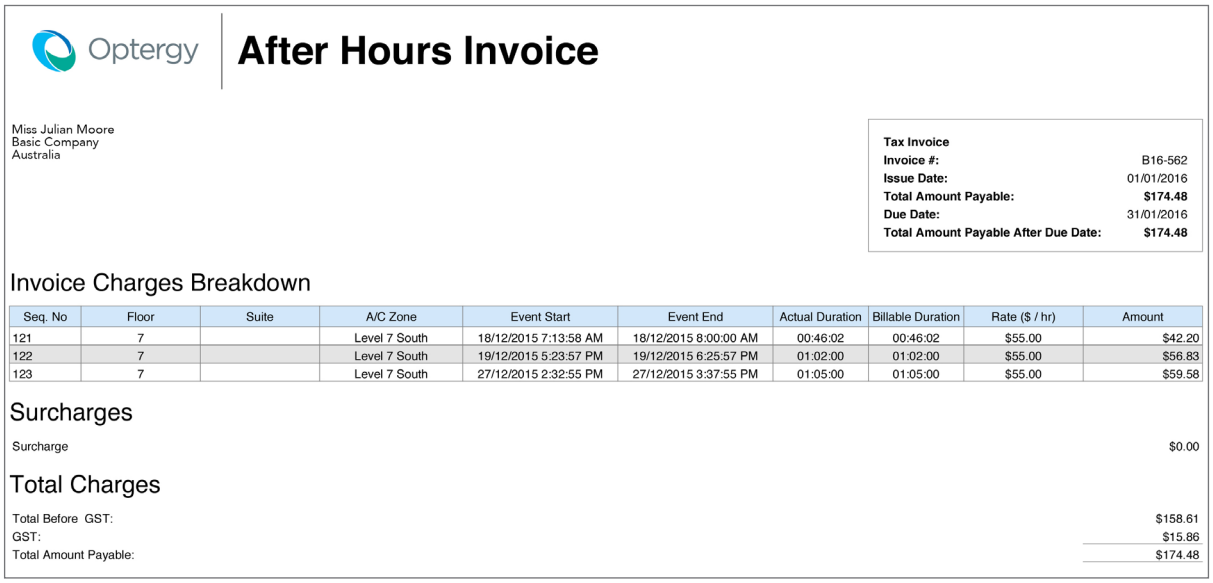
How To Pay

Online Payment
Use your credit or debit card to pay online at nick@payme.com or call 123456789

BPAY
Use BPAY tp pay from your online bank, credit union, building society
Biller Code: 123456
Reference: 12345678987654321

Powered By Optergy Report Generated Wednesday, February 07, 2018 11:43 AM Page 1

Figure 37: Tenant invoice sample



Optergy

After Hours Invoice

Miss Julian Moore
Basic Company
Australia

Tax Invoice

Invoice #:	B16-562
Issue Date:	01/01/2016
Total Amount Payable:	**$174.48**
Due Date:	31/01/2016
Total Amount Payable After Due Date:	**$174.48**

Invoice Charges Breakdown

Seq. No	Floor	Suite	A/C Zone	Event Start	Event End	Actual Duration	Billable Duration	Rate ($ / hr)	Amount
121	7		Level 7 South	18/12/2015 7:13:58 AM	18/12/2015 8:00:00 AM	00:46:02	00:46:02	$55.00	$42.20
122	7		Level 7 South	19/12/2015 5:23:57 PM	19/12/2015 6:25:57 PM	01:02:00	01:02:00	$55.00	$56.83
123	7		Level 7 South	27/12/2015 2:32:55 PM	27/12/2015 3:37:55 PM	01:05:00	01:05:00	$55.00	$59.58

Surcharges

Surcharge	$0.00

Total Charges

Total Before GST:	$158.61
GST:	$15.86
Total Amount Payable:	$174.48

Figure 38: After Hours invoice sample

9. System Maintenance

For the Optergy portal to run smoothly and optimally, it is recommended that the unit is placed in a conditioned area free from dust. It is extremely important that the portal is fitted with a supported uninterruptible power supply (UPS) so that power spikes/surges/failures do not damage the hardware. It is also recommended that backups are performed to an FTP server to prevent data loss. This can be automatically scheduled and Optergy will perform the backups as a routine. If an FTP server is not available, it is recommended that backups are copied from the portal at least once a week.

The UPS should be checked six monthly and if need be replaced every two years or as per the manufacturer's recommendations. The UPS USB lead must be plugged into the Optergy portal so Optergy can read the status of the UPS and determine if there has been a power outage. In the event of a power outage, the portal will safely shut down and once power is re-instated, the Optergy portal will automatically switch on and boot up.

It is recommended that all Optergy portals are equipped with two hard disk drives and a RAID configuration is setup; this prevents the likely hood of data loss. The status of the RAID configuration can be check by navigating to 'Maintenance', then 'System Status' and then 'RAID Info'.

Appendix 1 - Product Literature

All of the following information can be found within the 'HELP' menu available online in the Optergy portal.

Optergy

ENABLING SMART SPACES TO IMPROVE PRODUCTIVITY AND ENVIRONMENTAL & BUSINESS SUSTAINABILITY

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