

Tenant Billing Application Sheet



Optergy Enterprise + Proton



Electricity Meter



Water Meter



Gas Meter



Thermal Meter



After Hours AC



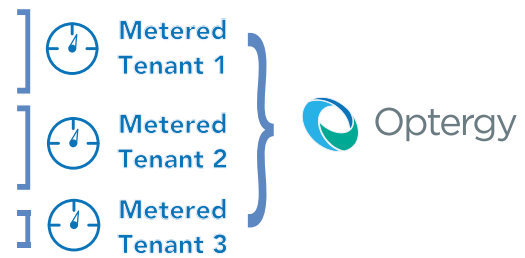
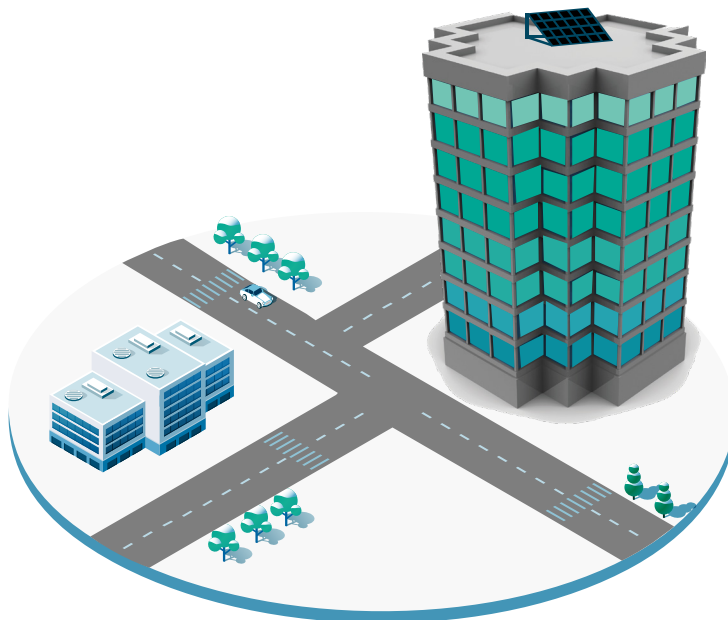
After Hours Lighting



Weather



Dashboards

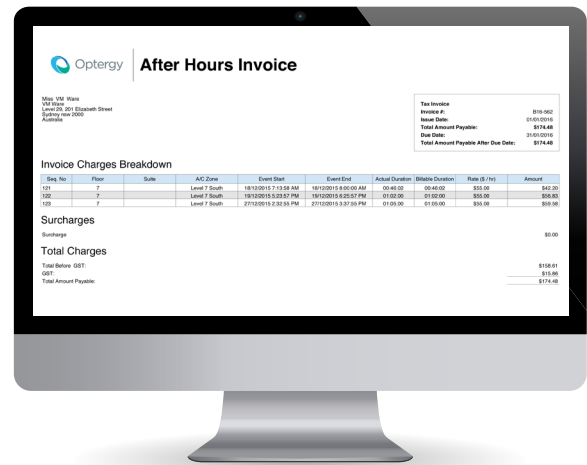


Description

Optergy tenant billing features allow the system to automatically generate content for tenants that include:

- Utility billing
- After hours override and billing
- Dashboards
- Foyer displays
- Weather data

Optergy tenant billing provides building automation contractors a unique opportunity to differentiate themselves from other contractors by bundling more project scope. Optergy tenant billing enables building owners to recover utility costs through billing of tenants for electricity, gas, water, thermal energy (chilled & hot) and after hours air-conditioning override. Optergy produces consumption reports in CSV and PDF or can automatically issue a formal invoice to building tenants.



OPTERGY WEB CLIENT

Tenant Billing Application Sheet



Utility Billing

Utilities such as electricity, gas, water and thermal (chilled & hot) can be easily metered/sub-metered and assigned to tenants for billing based on usage. Tenants that occupy multiple spaces can have multiple meters contribute to a single final bill per utility type. The bill itself can be configured to reflect property management branding, tariff charges, how to pay options and configured for automatic email distribution.

Simple Billing Configuration Workflow

- Step 1** Create space
- Step 2** Create meter/meter hierarchy
- Step 3** Create tenant
- Step 4** Create facility manager
- Step 5** Create tariff
- Step 6** Assign meters to spaces
- Step 7** Assign tenants and facility managers to spaces
- Step 8** Configure billing parameters
- Step 9** Configure notifications

Spaces


- Link to tenants
- Link to meters

Tenants

- Billing date options
- Automatic notification
- Automatic distribution
- Custom logo

Tariffs and Fees

- Time of use charge
- Peak demand charge
- Flat charge
- Block charge
- Additional fees
- Payment options
- Late fee

**Energy Invoice**
Electricity account

Mr Nicholas Heydon
House (39058251906)
10/46
Hillcrest Road
Quakers Hill New South Wales 2763
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

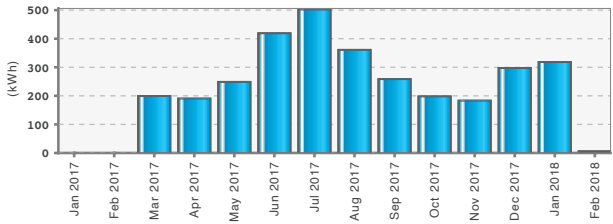
Meter Summary

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
Nicholas Heydon Home - 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

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

Example utility bill

Tenant Billing Application Sheet



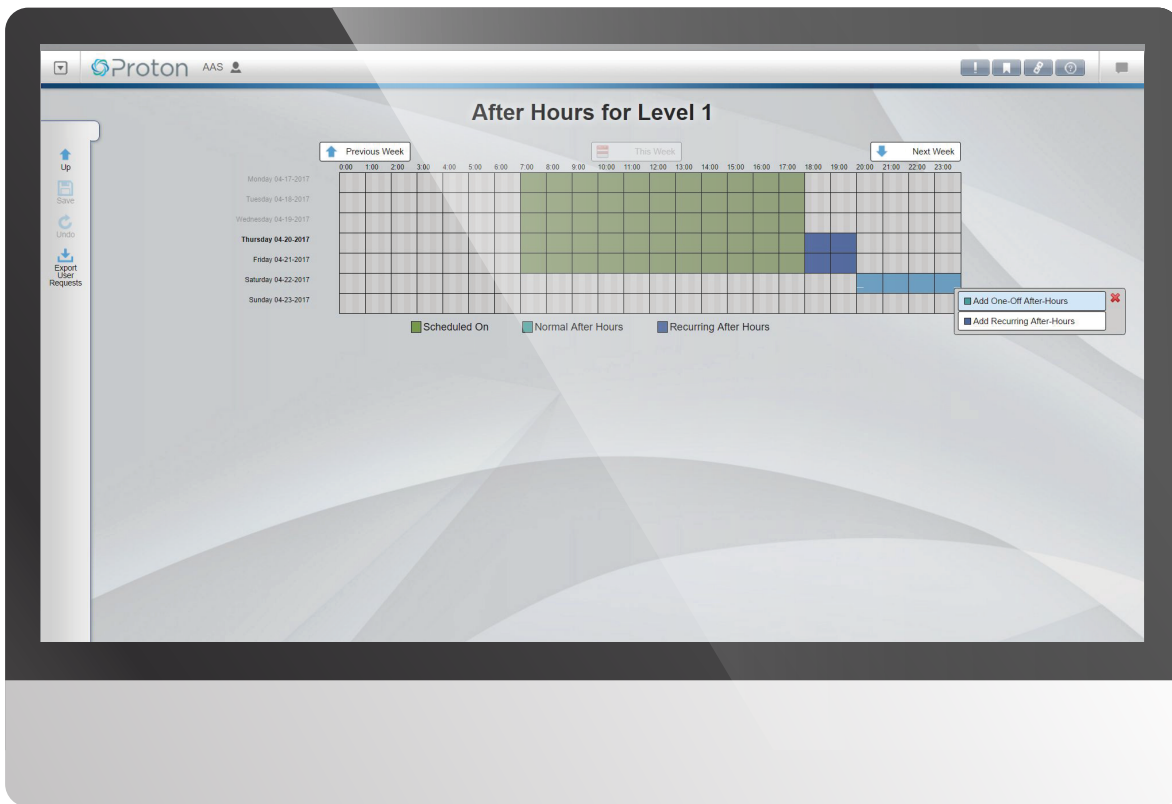
After Hours Override & Billing

In a typical commercial building, there is a lease agreement between owner and tenant which defines the core operating hours of the building. If tenants require air-conditioning or lighting base-building services outside the lease agreements core hours, the building owner can recover the additional costs of operating the building outside of these core hours. To recover these costs the building owner can allow the tenants to activate after hours utilities such as air-conditioning and lighting when working late.

Upon activation, the user signals the system that they need a period of 30 minutes (adjustable) of air-conditioning and/or lighting (or any other service). The system will log the start time, check that the equipment is not normally scheduled on at the requested time, and also check that the equipment is running.

Multiple tenants can be authorized to initiate the after hours event, and the events can be scheduled in advance (configurable number of days in advance).

Bills can then be generated automatically, report of usage, and the appropriate tenants contacted automatically by email. The bill itself can be configured to reflect property management branding, bill-to address, tax, charges (including time of use, demand, block, flat), custom header, pay to options, and automatic email distribution.



Example after hours request tenant interface

Tenant Billing Application Sheet



After Hours Override & Billing

Activation

- Pushbutton
- BACnet data point
- Schedule in advance
- On the fly (+/- 30min)

Fees

- Min charge \$/hr
- Optional surcharge
- Min duration
- Schedule is linked

Tenants

- Billing date options
- Automatic notification
- Automatic distribution
- Custom logo



After Hour Requests Level 1

Oberix Inc					
Requested By	Date(s) Covered	Time	Specific Days	Exclusions	Public Holidays
Admin	22/09/2017 - 22/09/2017	12:29 PM - 12:59 PM	Thursday Friday		yes
Steven Guzelimian	22/09/2017 - 22/09/2017	12:24 PM - 12:54 PM			yes

Example after hours request log capturing who requested after hours, date, start and end times, exclusions and public holidays



After Hours Invoice

Miss VM Ware
VM Ware
Level 29, 201 Elizabeth Street
Sydney nsw 2000
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

Example after hours invoice

Tenant Billing Application Sheet



End User Dashboards

Optergy has a built in dashboard tool that users can create custom content for the purpose of viewing energy, operations, HTML content and weather data. Dashboards are created using widgets placed on to a display and can be created and modified by non-technical users.

Supported features on dashboards include:

- HTML pages (internal pages or external URLs)
- Chart images (from reports)
- Dial images (can view live data)
- Live boolean data point (view graphic like stop red is off, green is on)
- Live range data point (change the color of the text based on criteria)
- Live text data point (BACnet point)
- Data comparisons ($>$ or $<$ or $=$ or not equal causes graphic to change)
- Data progress bars (create progress bar based on value range)
- Digital gauges (Live date as shown on gauges)
- Weather forecasts
- Weather station data point
- Text labels
- Navigation buttons



Example dashboard featuring embedded chart images (from reports)

Dashboards can be featured in scrolling displays, or simply accessed by a particular user for their purpose.

Dashboard page URL can be shared with other users of the system that have the appropriate privilege and is helpful for collaboration purposes.

Tenant Billing Application Sheet

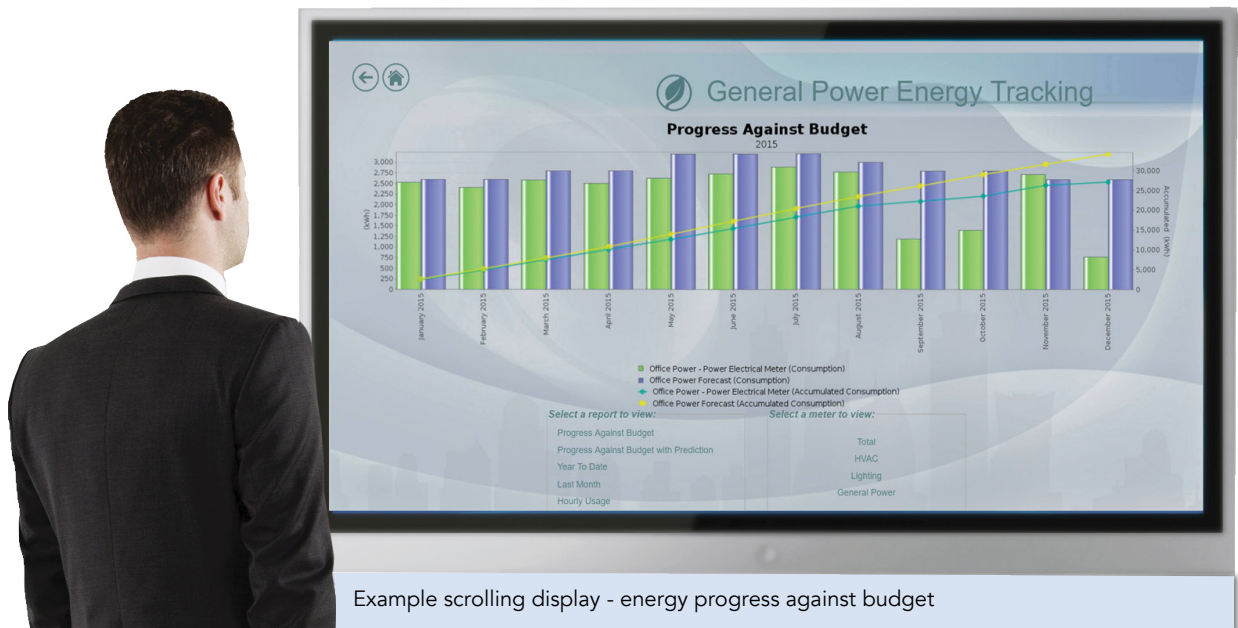
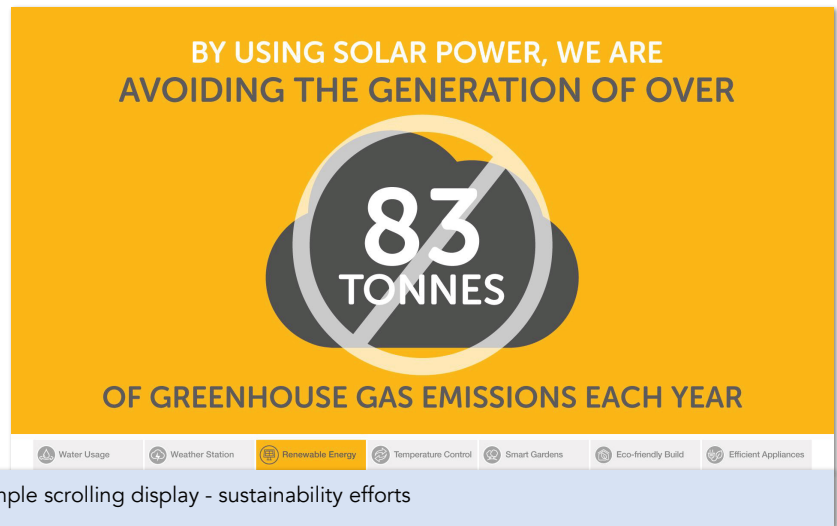


Foyer Displays (Scrolling Content)

Optergy features an automatic presentation that can be output to a connected smart TV or screen using the on board VGA or display port. This screen can display continuously changing content that is either part of the Optergy EMS/BMS system or using web URL links to other information.

Foyer displays also called scrolling displays, can be configured by any user to create custom content that will form a presentation. When used on a kiosk PC, the walk up users can interact with the content and the slideshow presentation will resume normal operation after user interaction concludes.

Buildings that would like to communicate to tenants and the general public to show off their sustainability efforts can make use of this feature.



Tenant Billing Application Sheet



Weather Data

Optergy has a built-in weather interface that will let the users connect their weather stations. Common weather stations include Vaisala and Davis Instruments to provide accurate local weather data. Also included is the ability to connect to online weather station services.

Currently, Optergy Software has three (3) weather stations:

- Vaisala WXT520 Weather Station - Onsite unit
- Davis Vantage Pro2 - Onsite unit
- Online service through API connection

Weather & forecast displays are created automatically after configuration and can be used in foyer displays, dashboards, graphic displays, and can even be used in programming logic, as all data points available are converted into BACnet objects that can be trended and alarmed as needed.



Tenant Billing Application Sheet



Weather Data

Available Weather Station Data Points

Depending on the weather station installed, the following data points are available:

Point	Instance	Vaisala WXT 520	Davis Vantage Pro2	Weather Underground
Temperature (Outside)	3000	✓	✓	✓
Temperature (Inside)	3001		✓	
Humidity (Outside)	3002	✓		✓
Humidity (Inside)	3003		✓	
Barometric Pressure	3004	✓		✓
Wind Direction	3005	✓	✓	✓
Wind Speed	3006	✓	✓	✓
Total Accumulated Rainfall	3007	✓		
Daily Accumulated Rainfall	3008		✓	✓
Monthly Accumulated Rainfall	3009		✓	
Yearly Accumulated Rainfall	3010		✓	
Rainfall Duration	3011	✓		
Rainfall Intensity	3012	✓	✓	
Accumulated Hail	3013	✓		
Hail Duration	3014	✓		
Hail Intensity	3015	✓		
Rainfall Peak Intensity	3016	✓		
Hail Peak Intensity	3017	✓		
Weather Station Heating Temperature	3018	✓		
Weather Station Heating Voltage	3019	✓		
Weather Station Supply Voltage	3020	✓		
UV Index	3021		✓	✓
Solar Radiation	3022		✓	
Davis WS Comms Status	3023		✓	

Using Weather Forecast Data

Item	Object Instance	Property	Day 3 Minimum Temperature	Base Instance + 6	Present Value
Day 0 Minimum Temperature	Base Instance	Present Value	Issue Date	Base Instance + 6	Description
Day 0 Wind Speed	Base Instance	Min Present Value	Day 3 Wind Speed	Base Instance + 6	Min Present Value
Day 0 Wind Direction	Base Instance	Profile Name	Day 3 Wind Direction	Base Instance + 6	Profile Name
Day 0 Wind Degrees	Base Instance	Resolution	Day 3 Wind Degrees	Base Instance + 6	Resolution
State	Base Instance	Description	Day 3 Maximum Temperature	Base Instance + 7	Present Value
Day 0 Maximum Temperature	Base Instance + 1	Present Value	Day 3 Forecast Text	Base Instance + 7	Description
Day 0 Forecast Text	Base Instance + 1	Description	Day 3 Humidity	Base Instance + 7	Min Present Value
Day 0 Humidity	Base Instance + 1	Min Present Value	Day 3 Rainfall	Base Instance + 7	Max Present Value
Day 0 Rainfall	Base Instance + 1	Max Present Value	Day 3 Snow	Base Instance + 7	Resolution
Day 0 Snow	Base Instance + 1	Resolution	Day 4 Minimum Temperature	Base Instance + 8	Present Value
Day 1 Minimum Temperature	Base Instance + 2	Present Value	Issue Time	Base Instance + 8	Description
Location Name	Base Instance + 2	Description	Day 4 Wind Speed	Base Instance + 8	Min Present Value
Day 1 Wind Speed	Base Instance + 2	Min Present Value	Day 4 Wind Direction	Base Instance + 8	Profile Name
Day 1 Wind Direction	Base Instance + 2	Profile Name	Day 4 Wind Degrees	Base Instance + 8	Resolution
Day 1 Wind Degrees	Base Instance + 2	Resolution	Day 4 Maximum Temperature	Base Instance + 9	Present Value
Day 1 Maximum Temperature	Base Instance + 3	Present Value	Day 4 Forecast Text	Base Instance + 9	Description
Day 1 Forecast Text	Base Instance + 3	Description	Day 4 Humidity	Base Instance + 9	Min Present Value
Day 1 Humidity	Base Instance + 3	Min Present Value	Day 4 Rainfall	Base Instance + 9	Max Present Value
Day 1 Rainfall	Base Instance + 3	Max Present Value	Day 4 Snow	Base Instance + 9	Resolution
Day 1 Snow	Base Instance + 3	Resolution	Day 5 Minimum Temperature	Base Instance + 10	Present Value
Day 2 Minimum Temperature	Base Instance + 4	Present Value	Day 5 Wind Speed	Base Instance + 10	Min Present Value
Forecast Date	Base Instance + 4	Description	Day 5 Wind Direction	Base Instance + 10	Profile Name
Day 2 Wind Speed	Base Instance + 4	Min Present Value	Day 5 Wind Degrees	Base Instance + 10	Resolution
Day 2 Wind Direction	Base Instance + 4	Profile Name	Day 5 Maximum Temperature	Base Instance + 11	Present Value
Day 2 Wind Degrees	Base Instance + 4	Resolution	Day 5 Forecast Text	Base Instance + 11	Description
Day 2 Maximum Temperature	Base Instance + 5	Present Value	Day 5 Humidity	Base Instance + 11	Min Present Value
Day 2 Forecast Text	Base Instance + 5	Description	Day 5 Rainfall	Base Instance + 11	Max Present Value
Day 2 Humidity	Base Instance + 5	Min Present Value	Day 5 Snow	Base Instance + 11	Resolution
Day 2 Rainfall	Base Instance + 5	Max Present Value	Day 6 Minimum Temperature	Base Instance + 12	Present Value
Day 2 Snow	Base Instance + 5	Resolution	Day 6 Wind Speed	Base Instance + 12	Min Present Value
			Day 6 Wind Direction	Base Instance + 12	Profile Name
			Day 6 Wind Degrees	Base Instance + 12	Resolution
			Day 6 Maximum Temperature	Base Instance + 13	Present Value
			Day 6 Forecast Text	Base Instance + 13	Description
			Day 6 Humidity	Base Instance + 13	Min Present Value
			Day 6 Rainfall	Base Instance + 13	Max Present Value
			Day 6 Snow	Base Instance + 13	Resolution