



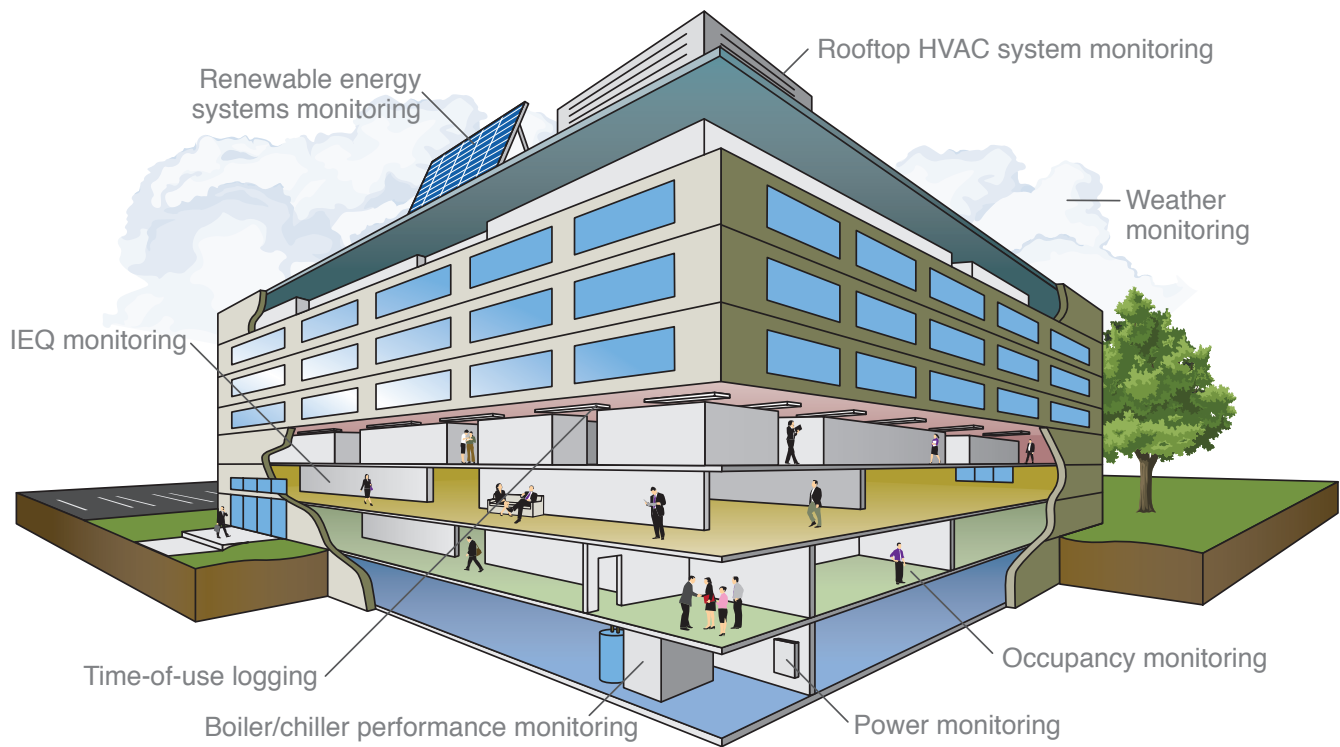
## Energy Monitoring Solutions



## Energy Monitoring Solutions from The Industry Leader

Every energy professional is faced with a difficult challenge; ensure maximum building performance while reducing energy consumption and lowering costs. To meet this challenge, you need to gather solid, objective data on building energy performance, and Onset has the experience and solutions to help – just as we've done for thousands of companies since 1981.

Over the years, the number of building performance applications Onset supports has grown to include everything from commercial energy auditing to Measurement & Verification and building commissioning. Our family of HOBO data loggers has expanded as well – from ultra compact, stand-alone devices to complete, web-based energy monitoring systems. Despite the toughest environmental conditions, all Onset data loggers provide many years of reliable, accurate performance you can count on.



## Data Loggers Drive Energy Management Decisions

- Track building electricity usage to understand energy profiles and manage peak energy demand
- Verify energy cost savings to determine ROI of new equipment
- Monitor equipment runtimes to ensure efficient operation and optimize scheduled maintenance
- Diagnose causes of occupant comfort complaints
- Monitor equipment for leaks to cut wasteful energy consumption
- Determine building load profiles to identify cost-effective efficiency projects

## Wide Range of Data Loggers

Nobody offers more data loggers than Onset. That means you can work with us to fully optimize the performance of your entire building – from boiler room to rooftop. If you need to measure kilowatt hours, power factor, air temperature, relative humidity, AC and DC voltage, current, motor runtime, room occupancy and lighting patterns, Onset has a data logger for you.



**Stand-alone Data Loggers.** HOBO data loggers are compact and easy to set up and deploy. You have a choice of low-cost, stand-alone loggers with internal sensors for measurements at the logger location, or multi-channel loggers with external sensors for monitoring at some distance from the logger. Most models feature an easy-to-view LCD display that visually confirms logger operation and battery status. All stand-alone loggers communicate with a PC or Mac via USB.

**Data Logging Systems.** HOBO U30 Remote Monitoring Systems enable real-time, remote access to your data via cellular, Wi-Fi, or Ethernet communications. They can be configured with any combination of external smart sensors, and have been designed with an industrial-grade, tamper proof enclosure. Simply plug in your sensors, connect the battery, and start streaming real-time data!



**Wireless Sensor Networks.** HOBO ZW Series data nodes are ideal for centralized, on-site monitoring of building performance. HOBO data nodes transmit high-accuracy, real-time data from dozens of points to a central PC. This eliminates the need to manually retrieve and offload individual data loggers, saving you time and money. Should an obstruction block the wireless data communication, the self-healing network will automatically re-route the path to the receiver – all without manual intervention.

## Advantages of HOBO Data Loggers

- Rapid deployment anywhere data is needed
- Wide range of measurement options
- Reliable, accurate performance year after year
- Intuitive software for fast setup and data analysis
- Leading technology and world-class support







HOBO UX90  
state logger



HOBO UX100  
temp/RH logger



HOBO U12  
multi-channel logger

Product Class	Advantages	Applications	Products
Stand-alone/ Integrated Sensor Models 	<ul style="list-style-type: none"> <li>• Fast, easy deployment</li> <li>• Low cost</li> <li>• Portable and reusable</li> <li>• User-replaceable battery</li> <li>• Flexible sampling rates</li> <li>• Comprehensive analysis software</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature/RH               <ul style="list-style-type: none"> <li>• HVAC/R diagnostics</li> <li>• Occupant comfort monitoring</li> <li>• Storage monitoring</li> <li>• Commercial energy auditing</li> </ul> </li> <li>• State (motor and light)               <ul style="list-style-type: none"> <li>• Motor/pump runtime monitoring</li> <li>• Lighting and occupancy studies</li> <li>• Appliance runtime monitoring</li> <li>• Time-of-use studies</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• UX100-001 temp</li> <li>• UX100-003 Temp/RH</li> <li>• UX100-011 Temp/RH</li> <li>• U12-015 stainless steel temp</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• UX90-005 occupancy &amp; light (5m)</li> <li>• UX90-006 occupancy &amp; light (12m)</li> <li>• UX90-002 light on/off</li> <li>• UX90-001 state</li> <li>• UX90-004 motor on/off</li> </ul>
Stand-alone/ External Sensor Models 	<ul style="list-style-type: none"> <li>• Flexible input channels for a wide range of external sensors</li> <li>• Portable and reusable</li> <li>• User-replaceable battery</li> <li>• Flexible sampling rates</li> <li>• Comprehensive analysis software</li> </ul>	<ul style="list-style-type: none"> <li>• Power/energy monitoring</li> <li>• HVAC/R performance monitoring</li> <li>• IEQ studies</li> <li>• Measurement &amp; Verification</li> <li>• Building commissioning</li> <li>• Motor/pump runtime monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• U12-006 4 ext channels</li> <li>• UX100-003 Ext Temp/RH</li> <li>• UX100-014 J,K,T,E,R,S,B,N thermocouple</li> <li>• H22-001 Energy Logger</li> <li>• UX120 Pulse Logger 4 ext. channels</li> <li>• U30-NRC weather station</li> </ul>
Data Logging Systems 	<ul style="list-style-type: none"> <li>• Remote access to real-time data via Cellular, Wi-Fi, and Ethernet</li> <li>• Plug-and-play smart sensors enable rapid deployment</li> <li>• Can be used in indoor and outdoor environments</li> <li>• 15 channels</li> </ul>	<ul style="list-style-type: none"> <li>• Power monitoring</li> <li>• HVAC/R performance monitoring</li> <li>• Facility monitoring</li> <li>• Storage monitoring</li> <li>• Weather monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• U30/GSM Cellular communication</li> <li>• U30/WIF Wi-Fi communication</li> <li>• U30/ETH Ethernet communication</li> </ul>
Wireless Sensor Networks 	<ul style="list-style-type: none"> <li>• Centralized, real-time energy and environmental monitoring</li> <li>• Reduces time/costs associated with manual data offload</li> <li>• Builds scalable and self-healing wireless network</li> <li>• Onboard buffer memory to prevent data loss</li> </ul>	<ul style="list-style-type: none"> <li>• Facility monitoring</li> <li>• Preservation studies</li> <li>• Warehouse/storage monitoring</li> <li>• Wireless power/energy monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• ZW-001 integrated temp</li> <li>• ZW-003 integrated temp/RH</li> <li>• ZW-005 ext. temp/RH, 1 analog port, 1 pulse input</li> <li>• ZW-006 4 ext. analog ports</li> <li>• ZW-007 ext. temp/RH, 2 analog inputs</li> <li>• ZW-008 2 analog ports, 2 pulse inputs</li> <li>• ZW-RCVR: ZW data receiver</li> </ul>





## Advanced Software Solutions

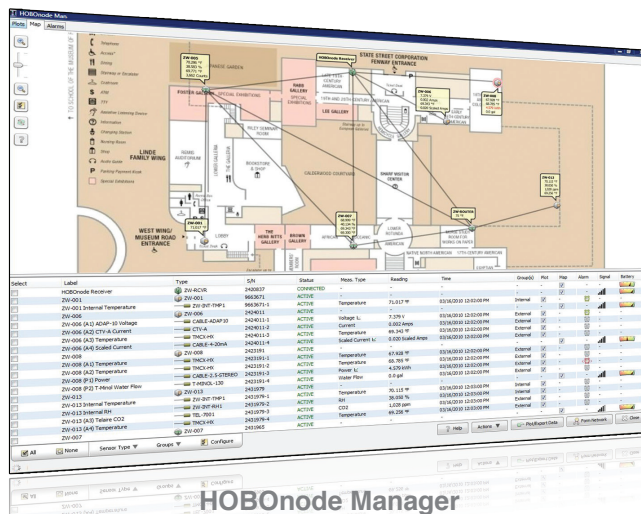
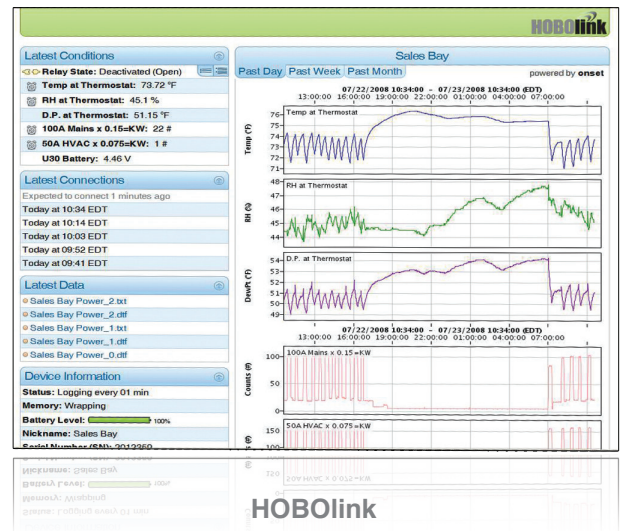


### HOBOWare® – PC or Mac-based Graphing & Analysis For use with Stand-alone HOBO Data Loggers

- Plot and analyze data from multiple data loggers and create custom graphs in minutes
- Quickly batch-configure and readout hundreds of loggers
- Merge, import and export data from one or more logger files at once

### HOBOLink® – Web-based Display/Readout For use with HOBO U30 Data Logging Systems

- 24/7 secure access to real-time energy and environmental data over the web
- Verify U30 system status remotely
- Set up and manage alarm notifications through the web
- Easily configure your data display settings
- Integrate energy data with custom software applications using HOBOLink Web Services API



### HOBONode™ Manager (part of HOBOWare) For use with HOBO ZW Series Data Nodes

- Network mapping: visualize the network via a floor plan of the facility
- Get real-time graphs of your building data
- Receive text messages or email when conditions exceed thresholds
- Export CSV data to Microsoft® Excel or any other 3rd party program

## Five Reasons to Choose Onset

1. **Responsiveness.** We build and ship all products from our highly responsive, dynamic manufacturing headquarters on Cape Cod. Most products ship within 24 hours!
2. **Reliable, Accurate Data.** HOBOs have become the industry standard because of this distinct advantage: they provide the most reliable, accurate energy and environmental data. The data can be accessed a variety of ways – via direct USB offload, Wi-Fi, cellular, or Ethernet.
3. **Simple & Cost-effective.** Onset products are designed from the ground up with simplicity, fast deployment, and affordability foremost in mind.
4. **Application Expertise.** With nearly three decades of experience, Onset has developed application expertise second to none. From commercial energy audits to HVAC/R system performance monitoring, HOBOs can be deployed in many different environments. Chances are, we've seen your application before and we know how to solve it.
5. **World Class Support.** Our world-class technical support is free for the life cycle of your purchase and our team of friendly, knowledgeable experts is just a phone call away.



## Contact Us

- Speak with an Onset Application Specialist by calling 1-800-564-4377
- Email your inquiry to [sales@onsetcomp.com](mailto:sales@onsetcomp.com)
- Go to [www.onsetcomp.com](http://www.onsetcomp.com) to browse white papers, application stories, videos and webinars

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