



Go Beyond Information.  
Deliver **Insight,**  
Choice and Control.

## Balance Energy Demand

The evolution of the network for existing grid and upcoming Smart Grid technologies is the beginning of a promise for energy service providers to meet today's ever-rising energy demand. Tendril recognizes this immense challenge and as the cloud platform provider for the energy industry brings unprecedented insight and control to the Energy Internet. Tendril's end-to-end solution enables energy service providers and their customers to work in conjunction to balance energy demand, monitor consumption, and manage usage.

Tendril Connect™— an open, secure and scalable platform, along with Tendril's consumer engagement products, applications and services create a dynamic dialogue like never before. Energy service providers can integrate Connect seamlessly with existing back office applications and network infrastructure. Powerful applications like Energy Efficiency, Load Control and Demand Response enable energy service providers to balance energy demand and mitigate peaks in real-time.

Within the home, customers can monitor and manage their energy usage through applications and products like web portals, mobile apps, in-home displays, smart thermostats and smart outlets that track energy costs and consumption by appliance, electronic or household device. Energy service providers and consumers can now work together to bring energy into balance.

THE TENDRIL SOLUTION  
GIVES ENERGY SERVICE  
PROVIDERS AND THEIR  
CUSTOMERS THE POWER  
TO SOLVE TODAY'S  
ENERGY CHALLENGES.

# Applications

## Energy Management Applications

Powered by Tendril Connect™, the Tendril suite of consumer engagement applications are designed to reduce peak loads, inform customers on usage, and involve customers in balancing energy demand. These applications use open standards to integrate with existing networks and back-office applications.



**Energize Web** – Energize is a revolutionary browser-based application suite of consumer-facing home energy management tools. Based on field research grounded in behavioral science and cognitive psychology, Tendril Energize provides a web portal as well as mobile and other applications to create an active learning experience where consumers can gain insight into their energy use and learn how to control consumption based on their unique goals. The result is persistent and active consumer participation in managing their home energy use with meaningful results.



**Energize Mobile** – with Energize Mobile, consumers have the ability to take the management of their home energy devices with them wherever they go, allowing them to monitor and make changes to their home's energy use anytime, anywhere. Energize Mobile uses a simple interface that gives customers a view of their personal home energy information that's nearly identical to the information they see when they log in to their personalized Tendril Energize web portal from the Internet.



**Load Control** – works with Tendril's load control oriented home devices to help energy service providers design and execute effective load control events.



**Demand Response** – mitigates load fluctuations at the HAN level and engages customers in incentives and pricing programs.



**Electric Vehicle** – manages asset demand and balances the charging needs of concentrated electric vehicles.



**Distributed Generation** – enables intelligent grid integration including net metering, generate-versus-consume decisions, energy storage and electric vehicles optimization.



**Support** – simplifies account management, communication and HAN interaction, without risking or retooling the entire back office and networking architecture.

ENERGIZE WEB



ENERGIZE MOBILE



## Home Area Network (HAN) Devices

The Tendril suite of products completes the two-way connection between energy service providers and their customers' homes. Energy service providers and consumers can work together to monitor, manage and reduce energy usage in real-time. The open, standards-based Tendril products provide integration with most network, metering and ZigBee® Smart Energy compliant HAN configurations.



**Transport** – an IP gateway device that helps energy service providers improve their ability to manage supply, demand and costs, while enabling customers to gain more access to energy-related information and more control over energy consumption decisions.



**Translate** – a device that receives energy consumption information from a homeowner's electric meter and communicates that information to other smart devices in the home.



**Insight** – an in-home display that communicates with networked smart devices including thermostats, electricity meters, outlets or Tendril Energize.



**Set Point** – a smart thermostat that communicates with a variety of in-home devices, such as outlets, electricity meters or Tendril Energize, to help consumers better manage their energy consumption and potentially reduce costs.



**Relay** – a device that extends the range of consumers' smart energy networks and makes it easier to access hard-to-reach places like garages, sheds and out-of-the-way areas of the home.



**ThinkEco Modlet SE** – The Modern Outlet. A three-prong, dual-socket, smart electrical outlet that can be plugged into a standard wall socket to monitor and control power for any connected electrical appliance or device, giving consumers the power to monitor, manage and improve their household energy footprint, from home or remotely.



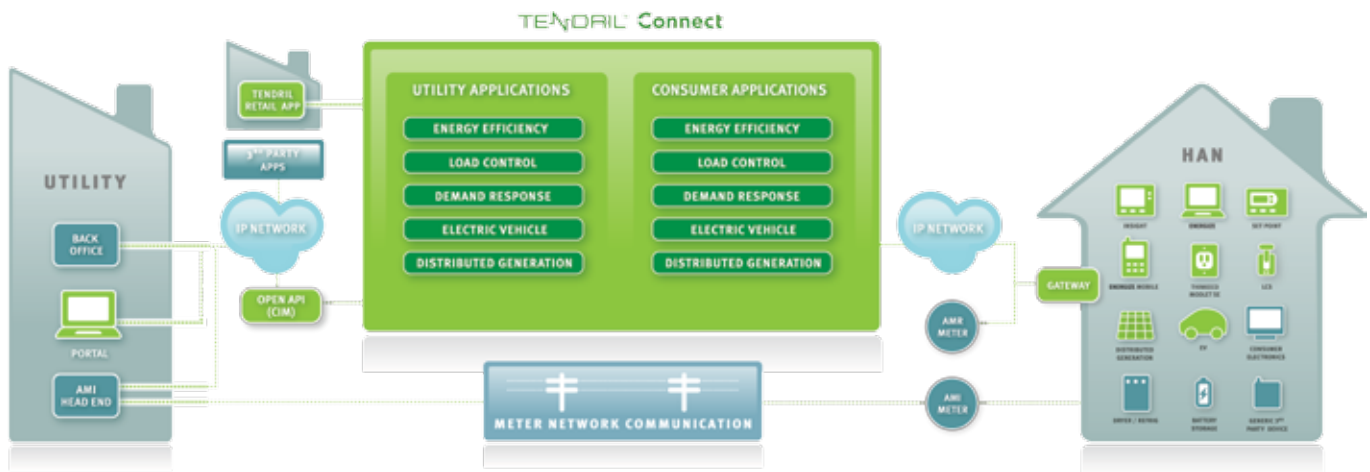
**Load Control Switch (LCS)** – a general-purpose load control device that enables energy service providers to shed electrical load during times of critical peak demand.

INSIGHT



SET POINT





Tendril Connect™ is the proven energy management platform that enables unprecedented insight, choice, and control. This open standards-based, end-to-end technology enables energy service providers and their customers the ability to deploy and take advantage of tomorrow's Smart Energy solutions, today. Energy service providers and their consumers are empowered with data and analytics about energy consumption, helping to drive down costs, lower environmental impact and realize operational efficiencies.

## Platform Technology

**Make the most of AMR investments.** Tendril supports AMR meters via the Tendril Translate. An AMR meter combined with Tendril devices provides most of a smart meter's functionality, and allows energy service providers that have made significant AMR investments to participate in the emerging Smart Grid, while recouping their capital investment.

**Extend AMI capabilities.** Advanced Metering Infrastructure, or AMI, introduced additional functionality beyond one-way meter reading such as two-way communications and support for Home Area Networks and in-home devices. Tendril has developed solutions to work with Itron OpenWay and L+G Gridstream mesh technologies, and is actively adding compatibility with other AMI systems.

**Gain a competitive advantage in the deregulated retail market.** Tendril provides a wide selection of consumer-focused solutions developed specifically for HANs that can be configured to provide a personalized, utility branded touch point.

**Do more with an open and standards-based solution.** The Tendril platform's open foundation provides seamless enterprise integration and an extensible framework of smart energy network-aware services that enable the platform to evolve with a energy service provider's enterprise, integrate with their meter networks and adapt to smart energy open standard devices available on the market.

**Trust a secure solution.** Tendril has adopted an approach to cyber security based on well-known industry standards and best practices. Tendril actively participates in several open alliances and work groups in an effort to adopt and advance cyber security solutions throughout the Smart Grid space, including the Cyber Security Coordination Task Group (CSCTG) and the UCAIug Smart Grid Security (SG-SEC).