



# 13 QUESTIONS TO ASK YOUR AMI VENDOR

## Evaluating Power Line Carrier Alternatives?

---

### 1. What are the steps for transitioning from my current Power Line Carrier (PLC) system to yours?

Sensus' FlexNet® is a long range radio, point-to-multipoint system. We would begin by deploying the network infrastructure, enabling the utility to replace existing PLC meters at their own pace. This transitional method continually maintains service and billing while integrating into the backend operational systems easily.

### 2. What is your network architecture – collectors, repeaters, etc.?

We use a point-to-multipoint architecture. Each endpoint communicates directly to multiple collectors, providing built in redundancy. This eliminates much of the infrastructure demands and the constraints present in mesh systems.

### 3. Do you use FCC licensed or unlicensed spectrum?

Sensus owns over 725 KHz of FCC primary use licensed spectrum in the PCS and MAS spectrum. By using federally licensed spectrum, a utility is guaranteed performance and protection for the life of the system. And with AES-256 bit encryption, everything is extremely secure.

### 4. What are the infrastructure requirements for your network? If a mesh, what is the average and maximum number of hops in the mesh?

No hops are required, as each endpoint communicates directly to the collectors. This greatly reduces latency, increases capacity, and provides the most resilient network in the industry.

### 5. Have your existing customers been able to migrate to your next generation applications and products without replacing the network and existing meters?

Yes. Sensus customers that deployed FlexNet over 13 years ago have been able to add multiple generations of technology to the same network infrastructure they initially deployed. They get full depreciation of assets while also being able to add new technology and applications to their existing network seamlessly.

### 6. How does your system support phase detection? Conservation Voltage Reduction (CVR)?

Each Sensus residential meter has the ability to determine the phase of the meter at any time requested by the utility. Each meter can also be configured for CVR by providing one minute interval data transmitted every five minutes with threshold alarming. Sensus provides applications for both activities.



## 7. How do I add Distribution Automation (DA) and Demand Response (DR) to your network?

DA and DR endpoints operate over the same FlexNet network deployed for AMI. To add DA, a utility would install a Sensus application and connect a communications interface module to the asset they would like to monitor and control. For DR, a utility simply needs to add the FlexNet or ZigBee enabled DR device to the network. Sensus has a DR scheduling application built into the headend system, supporting all DRMS MultiSpeak APIs.

## 8. How many times a day does each meter transmit in order to bring back four channels of 15 minute load profile data?

Generally, our meters only need to transmit every three hours, or eight times a day to provide this data. All parameters are configurable over-the-air, based on the utility's business processes and application requirements. The utility can do on demand reads, firmware downloads, or remote disconnect/reconnect without affecting any operation. Conversely, a mesh system transmits over ten thousand times a day just to maintain connectivity and even more to transmit useful data.

## 9. How does your network handle the challenges of rural environments?

FlexNet's architecture allows the utility the longest range, highest capacity network in the industry. This greatly reduces the amount of infrastructure that is required to cover 100% of your customers.

## 10. How long does it take your system to recover from outages longer than 4 hours?

No recovery is necessary. Sensus meters also have a super capacitor that allows them to continue transmitting outage notifications for up to ten minutes after losing power.

## 11. What is the lifespan and operational time of your batteries?

Collector batteries have a seven year lifespan and are designed to support full operations for over eight hours each time used. This not only provides information during critical outage events, but also reduces maintenance expenses.

## 12. Have you ever integrated with OMS and billing systems like mine?

Sensus has developed interfaces to most OMS, SCADA, MDM, DRMS and billing systems. This greatly reduces integration time and effort.

## 13. What kinds of successful percentages are your customers seeing for read rates, outage and restoration, and 2-way first time remote connect/disconnect commands?

In a polling of major AMI deployments by the Edison Electric Institute (EEI), Sensus read rates were noted as the best in the industry, exceeding 99.9% in most deployments—with 100% coverage. Sensus also has the leading outage (> 85%) and restoration (>90%) reporting numbers in the industry. Lastly, we provide an independent command channel where our customers achieve a >95% first time remote disconnect/reconnect command success rate