

# Application Brief



## Customer

Black Hills Power

[www.blackhillspower.com](http://www.blackhillspower.com)

## Partner

TESSCO Technologies Inc.

[www.tessco.com](http://www.tessco.com)

## Location

United States

## Industry

Power: Advanced Metering Infrastructure

## Project Scope

Serving customers using 1,654,805 kilowatt hours (kWh) of power annually in twenty communities located in western South Dakota, northern Wyoming and southeastern Montana, Black Hills Power was looking for a secure Advanced Metering Infrastructure (AMI) backhaul solution that utilized Verizon's cellular network. The AMI backhaul solution needed to be able to securely and reliably communicate between Elster gateway collector units in the field and the Metering Automation Server (MAS) located at the central data center.

## Solution

TESSCO Technologies worked with Black Hills to implement an effective AMI backhaul solution that provides secure, real-time remote monitoring of smart meters. By integrating Red Lion's Sixnet IndustrialPro™ routers with Elster collector units, TESSCO developed an optimal solution that cost-effectively addresses customer requirements. The secure performance and reliability of Red Lion's rugged industrial cellular modems enables Black Hills to remotely monitor energy consumption,



*"Sixnet cellular modems are fully configurable to maintain secure tunnels per IT security policies."*

*- Rick Dobbe,  
Black Hills Power*

outage/restoration notification and alarms over the Verizon network while maintaining secure tunnels that meet IT policies. In addition, Black Hills was able to use SixView Manager™ remote monitoring and control software to remotely access, configure and manage thousands of critical devices from a central data center.

## Benefits

Red Lion's Sixnet IndustrialPro routers offer high-speed, secure wireless TCP/IP connectivity to remote devices. Working with Elster collector units in the field, the compact routers provide real-time access to data, which enables Black Hills to proactively manage and monitor electricity usage. The end result:

- Simplifies deployment with web-based monitoring and management
- Provides ease of use through remote configuration
- Offers reliability with fast additional AMI backhaul
- Delivers infrastructure security via built-in firewall

## Products

Model	Description
<a href="#">SN-6621</a>	IndustrialPro router
<a href="#">ST-PS-024-05</a>	AC to 24 VDC, 5A, 120W power supply
<a href="#">SN-SVM</a>	SixView Manager remote monitoring and control software

## Network Diagram

