TELENETWORKS

DC REMOTE POWER SYSTEMS

DC REMOTE POWER SYSTEMS

What is Remote Powering?

- Transmission of dc power using existing “dark” copper network.
- Also called line power, express power, span power.
- DC Voltage is converted from -48V to a higher voltage level as per UL60950-21. The higher voltage is transmitted over copper pairs. Incoming voltage at the remote end is converted to the voltage required by the load.

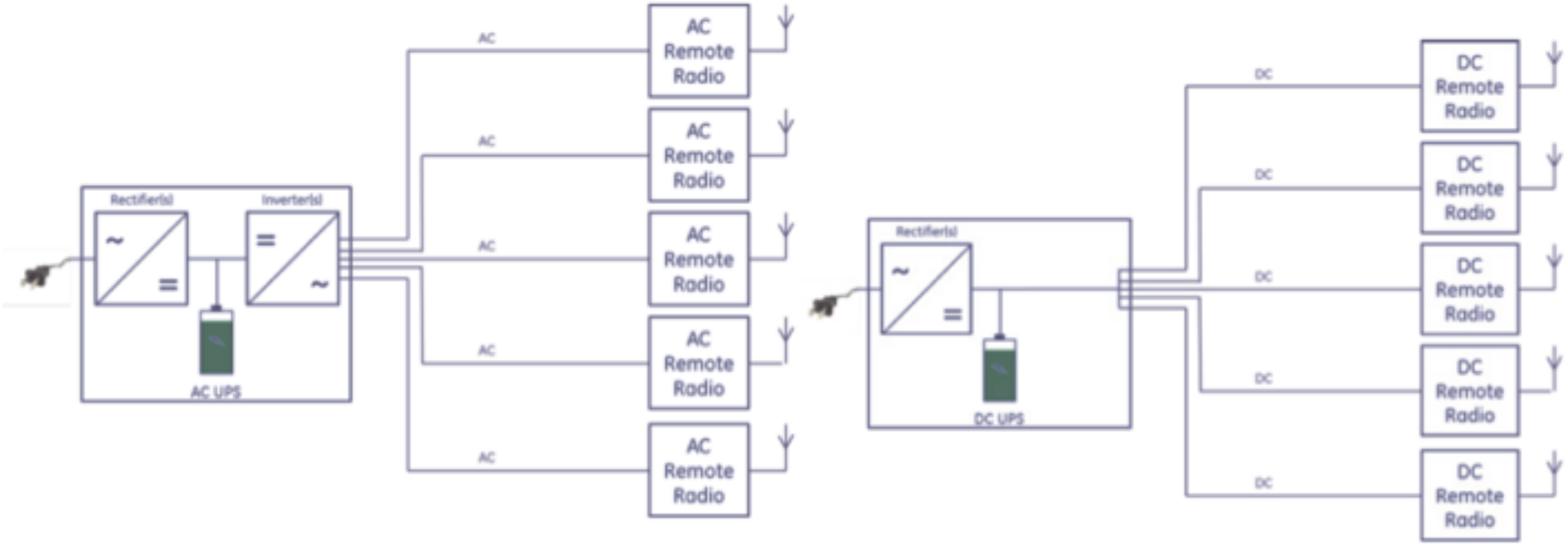
DC REMOTE POWER SYSTEMS

Advantages of Remote Powering

- ***Utility powered nodes are difficult to deploy due to infrastructure investment, and involvement of local agencies.***
- ***Provides power distribution with battery back-up maintained at a central location to avoid costs of deploying and maintaining remote battery strings at OSP cabinet at a large number of distributed nodes.***
- ***No construction works needed, using the already existing copper cabling to inject the power.***
- ***Decreased dependence on energy providers.***
- ***Higher reliability of the network.***
- ***In case of long outages only one mobile generator is necessary to restore the operation of the whole network.***

DC REMOTE POWER SYSTEMS

Remote Power From a Central UPS

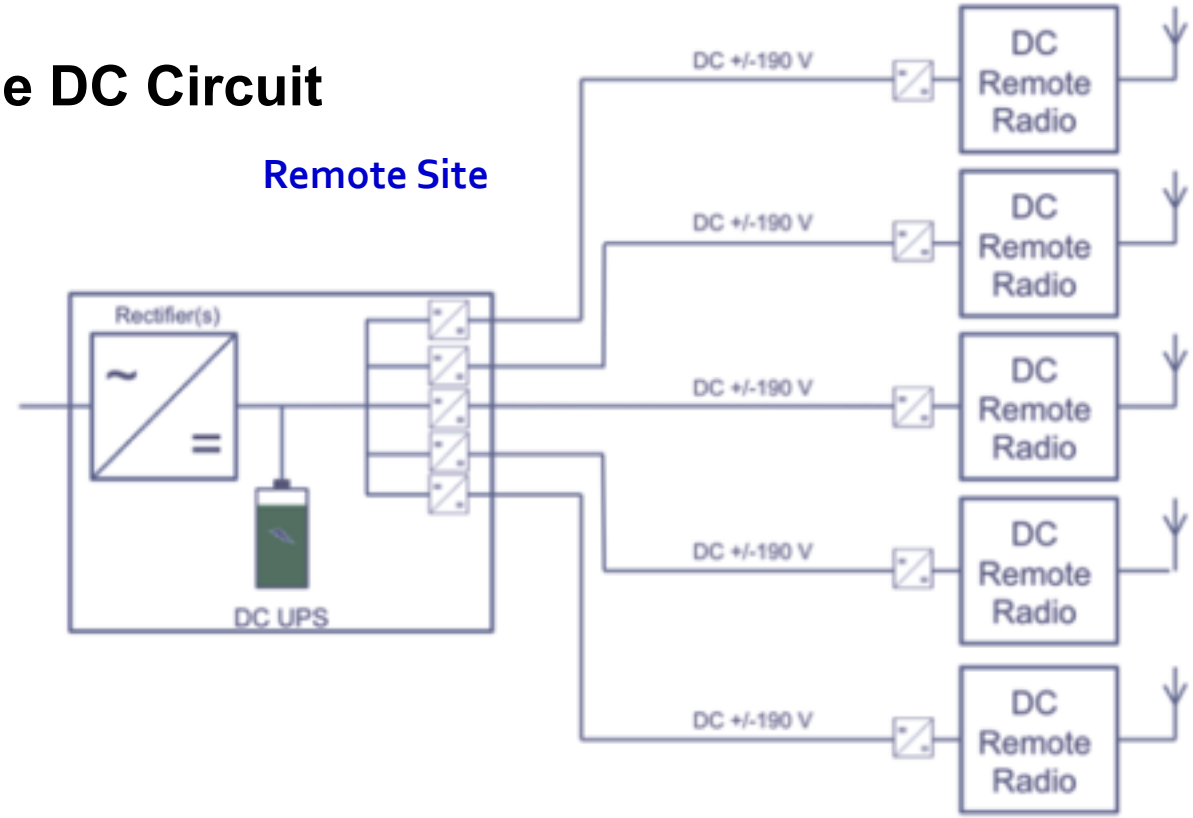


FACTS:

- Provisioning of a larger UPS to power many remote sites (radios) from a central location offers many advantages including reduced maintenance and replacement costs associated with multiple battery locations.

DC REMOTE POWER SYSTEMS

Power Limited High Voltaje DC Circuit



FACTS:

- The use of high voltage allows the delivery of power over greater distances with smaller cables.
- A power delivery infrastructure using high voltage DC (+/-190 volts) with a 100 volt-amperes (VA) power limit per circuit can be installed using an appropriate cable, without the use of a protective conduit.
- As most remote radios do not accept +/-190 volts DC directly, a down converter is used

DC REMOTE POWER SYSTEMS

CELL SITE REMOTE POWERING (EXAMPLE)

OSP Cabinet (DSLAM, Power Down converter, RBS Equipment)

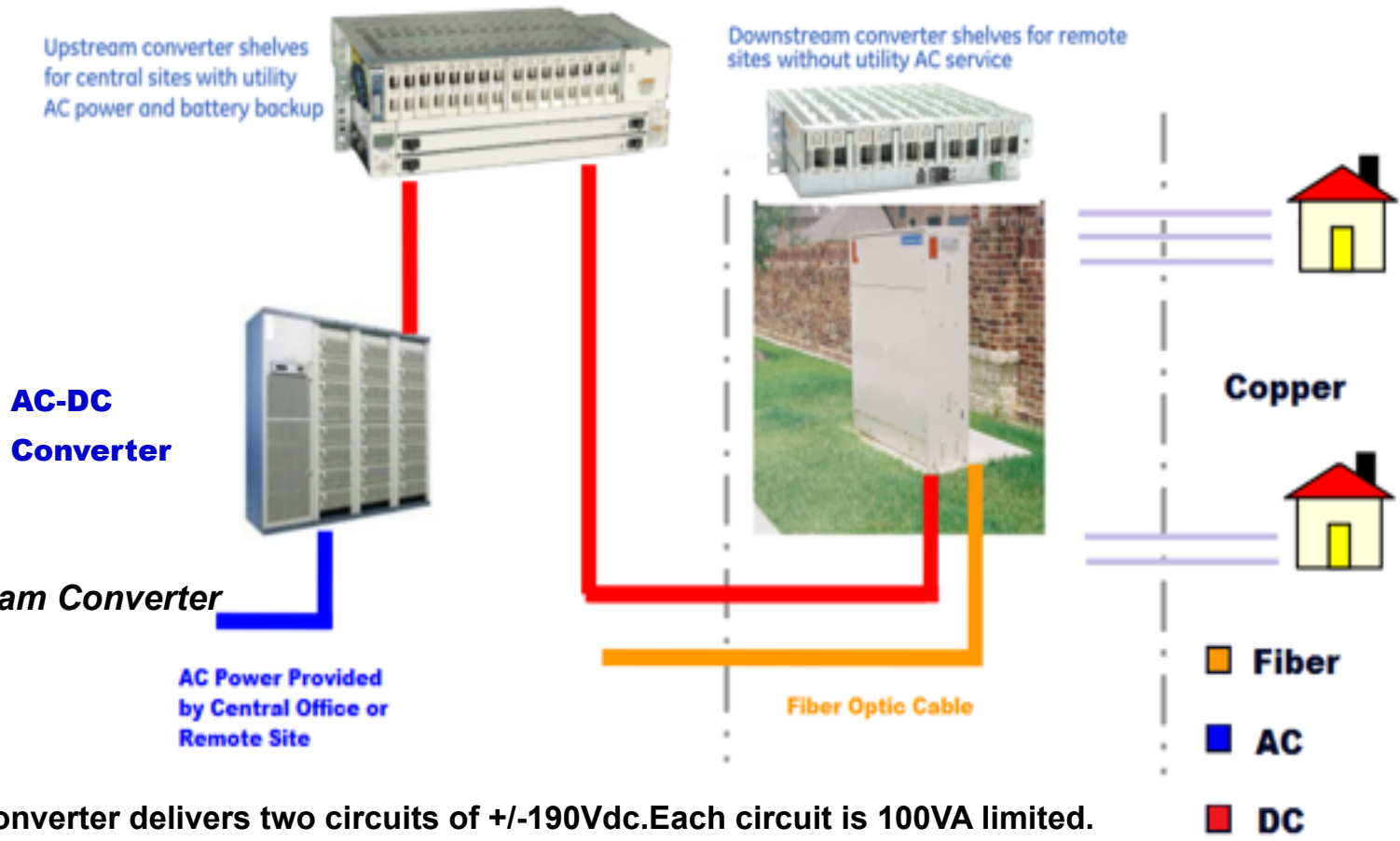
Three Sector Antenna

Lamp Light

OSP Cabinet (DSLAM, Power Down converter, RBS Equipment)

DC REMOTE POWER SYSTEMS

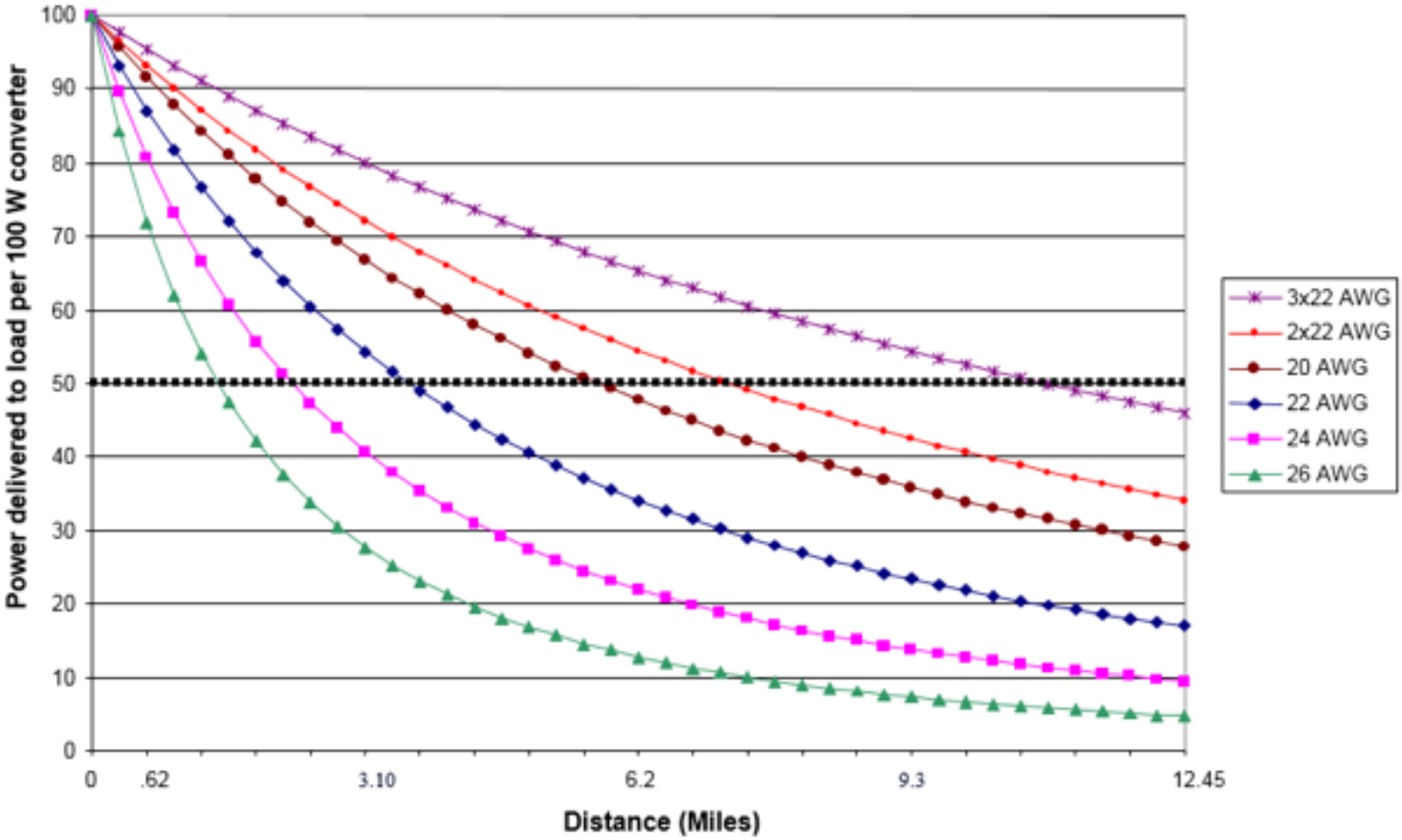
REMOTE POWER SOLUTION



The QS892A upstream converter delivers two circuits of +/-190Vdc.Each circuit is 100VA limited. The QS892A downstream converter receives two circuit of +/-190Vdc and delivers up to 65Watts of -48Vdc power.

DC REMOTE POWER SYSTEMS

Typical Power-Distance Curves for +/-190V



DC REMOTE POWER SYSTEMS

Why GE Remote Powering System

- **Distributed Architecture integrates converter and current limiter into a single card which also prevents contact with unprotected high voltage.**

- **Upstream solutions available in 23”, 19” and Mini shelf (5.86”)**

- **Downstream Solutions available in 48v up to 1300W in a single shelf.**

Contacting TeleNetworks

Providing Solutions to Your Requirements

▪Puerto Rico

Tel: 1-(787) 766-2829
Email: sales@telenetworks.net

▪Dominican Republic

- **Tel: 1-(809) 687-0612**

Email: sales@telenetworks.net