ORIGINAL

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Dixie Escalante

The Power of Friendly Service

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AZ CORP COMMISSION
DOCKET CONTROL

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January 31, 2009

Arizona Corporation Commission
DOCKETED

JAN 3 0 2009

DOCKETED BY
KC | nr

Arizona Corporation Commission
Attention: Docket Control
1200 W. Washington
Phoenix, Arizona 85007

Re: Smart Metering Infrastructure; Compliance Item to Decision No. 70696; Docket Nos. E-01891A-08-0061 and E-02044A-08-0061

Dear Sir/Madam:

I am the Engineering Manager and Chief Operating Officer for Dixie Escalante Rural Electric Association, Inc. (the "Cooperative".) I am supplying this information in compliance with the third ordering paragraph of Decision No. 70696 which required that the Cooperative by no later than January 31, 2009 "meet the requirements of Decision No. 69736 to investigate the feasibility of implementing an advanced metering infrastructure..." In that regard, the Cooperative intends to implement a Smart Metering Infrastructure, as described herein.

We currently use the Hunt Technologies/Landis+Gyr Energy Management Systems Turtle TS1 metering system to provide remote reading capabilities in our Utah and Arizona service areas. The TS1 system is not capable of providing Time of Use, Net Metering, or Advanced Meter Functions. However, the next generation, the TS2 system, is capable of providing all of these services as well as continuing to support the installed base of TS1 transmitters. It is our intent to upgrade that system to the TS2 metering system which we believe meets the smart metering requirements as described in Finding 10 of Decision No. 69736 in that it has a two-way communication capability, it is field upgradeable to new functions, and it is able to support advanced functions.

Although we are still working on precise details, our plan for the upgrade to the TS2 technology is to install the TS2 SPU 3000 receivers in our two substations which serve Arizona Customers. Individual meters and TS2 modules would then be installed as customers request a service which requires an advanced metering function. In many cases the TS2 module may be retrofitted into existing meters with TS1modules thereby eliminating some of the equipment cost of replacing the existing meters. Customers not requiring advanced meeting functions (i.e. those remaining on standard rates) will continue to utilize the existing TS1 system.

Cellnet Hunt+

manage energy better

TS2 System Overview

March 25, 2008

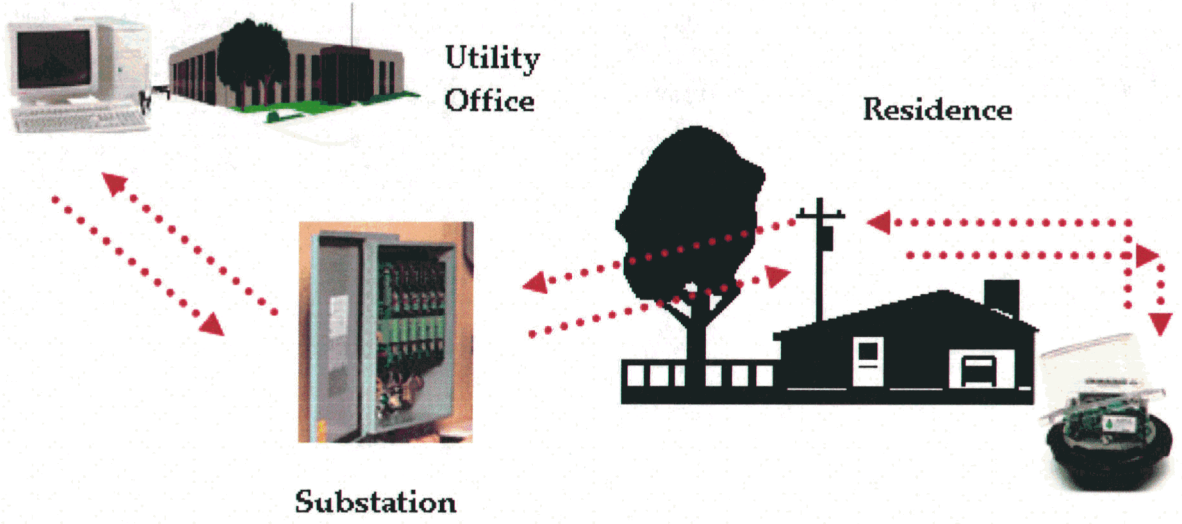
Cellnet+Hunt provides a flexible, scalable, and modular Advanced Metering Infrastructure (AMI) solution that uses innovative ultra-narrow-bandwidth (UNB) technology to deliver data using the existing power line infrastructure. UNB technology takes advantage of a little-used segment of the very low frequency spectrum band to transfer data from distant electric, water, and gas meters to utility offices.

Cellnet+Hunt's endpoint, installed in each meter, transmits data continuously to a substation processing unit (SPU), placed at the substation. The substation processing unit relays the data to a SQL Server database at the utility office, where the data is managed using web-based software called the Command Center.

The TS2 system provides bi-directional communication. With TS2, commands to get on demand readings, change time-of-use schedules, activate load control, or disconnect/connect electric service can be sent over the power line, eliminating costly trips into the field.

The endpoint's two-wire connection to line voltage provides both power and a communication path. This enables the endpoint to be packaged for installation inside both electromechanical and solid state meters, single phase and polyphase, as well as in Cellnet+Hunt's load control devices and remote service switches. Our endpoints work with more meters than any other power line carrier AMI solution.

In addition to supporting demand and time-of-use rate structures, the TS2 endpoint provides momentary and sustained outage information. System performance characteristics and outage notification and restoration functionality are also provided. The endpoint's non-volatile EEPROM memory ensures that data is never lost.



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TS2 System Components

Endpoint

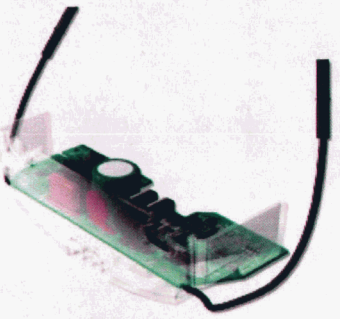
The endpoint is the AMI device installed in each meter. Each TS2 endpoint comes pre-programmed with default settings to achieve plug and play installation. The endpoint's two-wire connection to line voltage provides both power and a communication path. This enables the endpoints to be packaged for installation inside both electromechanical and solid state meters. The TS2 system also provides support for devices outside the meter, including Cellnet+Hunt's Load Control Switch and Remote Service Switch, allowing the utility to control load and service disconnects from the utility office. Other applications that will be available in the near future include pre-pay meters and in-home displays.

Endpoint Operation: Each endpoint uses a unique frequency assigned by its respective substation controller to continuously transmit data. Each endpoint can be remotely configured over the power line to eliminate trips into the field when rate schedules change. The endpoints contain a flashable microprocessor that accommodates firmware upgrades, ensuring that new features can be added without requiring the utility to install new endpoints. Each endpoint supports both demand and time-of-use rate structures and provides momentary and sustained outage information. In addition, each endpoint works with Cellnet+Hunt's back office software to self-monitor and provide information about tampering. This feature offers revenue protection to the utility.

The Cellnet+Hunt system uses true two-way communication. Commands – such as load control, remote disconnect or changes in billing packets – can be sent in near real time to the endpoints at the same time data is being transmitted from the endpoint – without corrupting the current data packet. The utility can change time-of-use periods and manage critical peak pricing from the utility office.

In 2007, Cellnet+Hunt introduced a new enhancement called streaming data. A data element from a meter such as kWh, or voltage if the meter supports this, is continually streamed to a newly designed substation processing unit and to Command Center. Each hour's data is received at the utility with a one- to two-hour latency. This means that if a customer is on the phone, their consumption of one to two hours previous may be viewed. This data may be used for load profiling information for cost of service studies or exported to a portal to be viewed by the customer in late 2008.

Because all endpoints can receive commands simultaneously, Cellnet+Hunt offers the ability to request coincident demand data for a group of meters, by substation, or for the entire distribution system. These requests may be sent immediately or scheduled to reoccur at a specified frequency. This feature is also useful for remote demand reset and collection of final readings for account transfers. In meters that support voltage reporting, such as in the Landis+Gyr FOCUS, valuable voltage data can be retrieved to assist with distribution engineering and operations.



The endpoint has been architected with the future in mind. The user is provided with a means of configuring each endpoint to transmit the data necessary to support the rate structures for each customer class. Different data may be transmitted each day of the week to accommodate collection of data which may be required less frequently, such as gas and water usage and power outage statistics.

Cellnet + Hunt

Meters Supported: Solid state meters supported for residential applications include the Sensus iCon, Itron CENTRON, and Landis+Gyr FOCUS. These solutions incorporate the full functionality of the TS2 endpoint inside the meter. This includes Time of Use and Maximum Demand functionality.

An endpoint is also available for the GE kV2c meter or the Landis+Gyr S4/S4e meter. In this application the meter performs the metrology calculations. The endpoint reads the resulting parameters from the internal meter register and transmits the requested values to the utility office. The endpoint is designed to fully support the S4/S4e meter and the kV2c meter plus the K, T and E Soft Switches. This will allow the utility to access over 200 data values, including basic billing data, voltages and currents, reactive power, Time of Use, and a variety of power quality values. The utility can define a standard daily packet, or a unique packet for each day of the week. Special packets may be requested at any time.

ELSTER

Itron

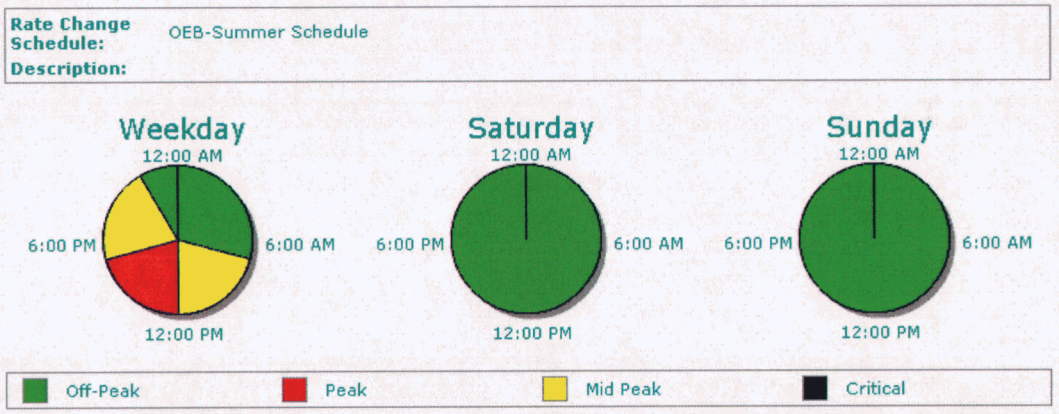
Landis + Gyr

SENSUS METERING SYSTEMS

Endpoint Configuration: Single phase endpoints are factory pre-programmed with Kh, kWh, and dial-digit values. Factory default values are Kh = 7.2, KWh = 0, and Dial digits = 5. Factory default settings may be changed using the handheld programmer or remotely from the utility office.

Endpoints are configurable to ensure that existing and future electric rate structures are supported.

- **kWh Usage:** The endpoint transforms an induction disc meter into a solid state device capable of monitoring energy usage by counting disc revolutions. After configuring the endpoint with the initial kWh reading on the meter register, the endpoint's internal kWh register matches the meter's register. A snapshot of this internal kWh register is transmitted daily over the distribution system. The endpoint performs a direct register read of kWh values on solid state meters.
- **Time-of-Use:** The endpoint supports time-of-use (TOU) rate structures with up to 4 daily rate periods. The usage during each 15 minute interval in a day is allocated to one of the 4 rate periods as specified by the user. The rate periods can be customized for Weekday, Saturday, and Sunday and Holiday day types. Thus, a high-demand rate period can be applied to different time periods on a weekday than it is on a Saturday or Sunday. This enables more effectively matching higher billing rates with higher demand/consumption periods that vary on different days of the week. The system also enables creating a seasonal schedule accommodating up to eight changes in the TOU rates structure throughout the year as load profiles change with the seasons.
- **Maximum Demand:** The endpoint supports 15, 30, and 60 minute maximum demand intervals. Both block and rolling calculations are supported. The user may configure the endpoint to transmit the daily maximum demand or chose to reset the demand registers remotely. Remote demand reset may be scheduled to reoccur at the end of each billing period. For time-of-use rate structures, the maximum demand for each rate period is measured.



Type	Start	End
	12:00 AM	7:00 AM
	7:00 AM	12:00 PM
	12:00 PM	5:00 PM
	5:00 PM	10:00 PM
	10:00 PM	12:00 AM

Type	Start	End
	12:00 AM	12:00 AM

Type	Start	End
	12:00 AM	12:00 AM

Outage Detection: In addition to providing electric consumption metering capability, the endpoints track each occurrence of an interruption in voltage, and present this information to Cellnet+Hunt's Command Center and the utility's Outage Management System automatically. This means that the utility does not have to wait for a customer to report an outage. Whether one customer or many thousands of customers are without power, the utility knows about it in minutes. In remote areas or in storm situations, this automatic system-wide outage reporting is invaluable.

Outage Tracker All

Collector	Currently Power Failed	Power Restored
Houston / HOUSTONBUSS1	12	72
Eupora / EUPORA	0	5
Houston / HOUSTONBUSS2	3	85
Grand Total	**15**	**162**

Endpoint Actions

Add to status group | Auto-Find Enabled | Go

HOUSTONBUSS1

Meter #	Type	Map Loc	Phase	Power Failed Detection Time	Power Restoration Detection Time	Approximate Duration	Status Groups
14366	TS2	HW-8-02-D-003	A	1/24/2007 11:54 PM	1/25/2007 4:48 AM	5 hours	
14908	TS2	MT-2-35-B-504	C	1/25/2007 6:45 AM	1/25/2007 7:36 AM	45 min	
15097	TS2	MT-1-01-A-007	A	1/25/2007 6:42 AM	1/25/2007 9:57 AM	3 hours	
15166	TS2	HE-7-09-C-002	C	1/25/2007 6:42 AM	1/25/2007 8:03 AM	75 min	
15248	TS2	MT-2-36-B-010	C	1/25/2007 7:00 AM	1/25/2007 9:48 AM	3 hours	
15472	TS2	VA-5-26-D-001	A	1/24/2007 11:30 PM	1/25/2007 4:48 AM	5 hours	
15552	TS2	SP-2-23-D-001	B	1/25/2007 7:36 AM	1/25/2007 7:51 AM	30 minutes	
15601	TS2	HW-9-05-B-315	B	1/25/2007 7:00 AM	1/25/2007 12:36 PM	6 hours	
15866	TS2	HW-8-04-D-001	A	1/24/2007 11:30 PM	1/25/2007 4:54 AM	5 hours	
15888	TS2	HW-8-02-C-008	A	1/24/2007 11:45 PM	1/25/2007 5:06 AM	5 hours	

EUPORA

Meter #	Type	Map Loc	Phase	Power Failed Detection Time	Power Restoration Detection Time	Approximate Duration	Status Groups
21816	TS2		C	1/25/2007 7:09 AM	1/25/2007 9:00 AM	2 hours	
21870	TS2		B	1/25/2007 12:09 AM	1/25/2007 7:30 AM	7 hours	
22724	TS2		A	1/25/2007 12:06 AM	1/25/2007 7:30 AM	7 hours	
24712	TS2		C	1/25/2007 8:27 AM	1/25/2007 9:30 AM	60 min	
24723	TS2		A	1/25/2007 8:12 AM	1/25/2007 10:18 AM	2 hours	

HOUSTONBUSS2

Meter #	Type	Map Loc	Phase	Power Failed Detection Time	Power Restoration Detection Time	Approximate Duration	Status Groups
14591	TS2	HK-9-18-D-586	A	1/25/2007 3:24 AM	1/25/2007 12:54 PM	10 hours	
15334	TS2	HK-9-18-C-763	A	1/25/2007 2:57 AM	1/25/2007 8:00 AM	5 hours	
15405	TS2	HK-9-18-C-767	A	1/24/2007 3:03 PM	1/24/2007 7:03 PM	4 hours	
15405	TS2	HK-9-18-C-767	A	1/25/2007 2:54 AM	1/25/2007 8:00 AM	5 hours	

The accumulation of this outage data arms the utility's customer service, operations, and distribution planning departments with valuable outage statistics. This data may be used to calculate power reliability indices for reporting to the utility's public service commission. The statistics calculated include:

- **Momentary Interruptions:** A count of voltage interruptions lasting anywhere from three cycles to 30 seconds in duration.
- **Momentary Event Interruptions:** A momentary event interruption is defined as one or more momentary interruptions occurring within a five minute time period. This counter enables multiple recloser operations resulting from a single fault to be classified as a single event.
- **Sustained Interruptions:** A count of voltage interruptions with duration greater than 30 seconds.
- **Sustained Interruption Duration:** A cumulative duration of sustained interruptions in minutes.

Power Interruption History Report Averaged By Month & SPU

Substation Processing Unit : Big Valley / SPU1 (TS2)

		Feb 2006
SPU1	Sustained Interruptions Count	0.0
	Sustained Interruptions Duration	0.0
	Momentary Interruptions Count	0.0
	Momentary Interruptions Events	0.0

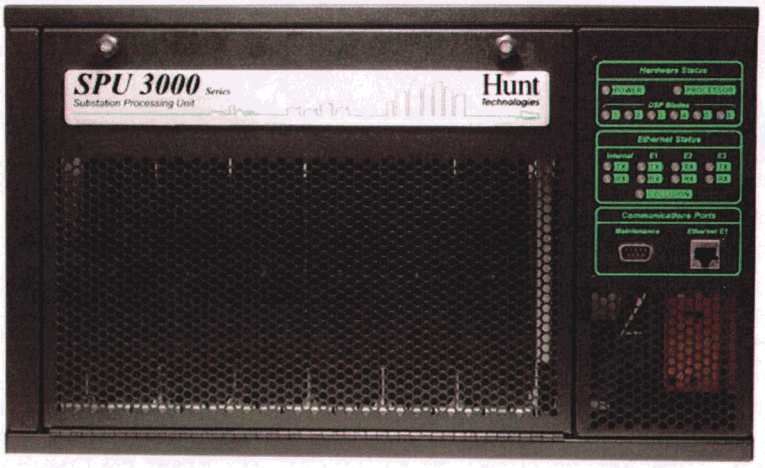
Printed On	**3/3/2006 10:28 AM**
Start Date	**2/1/2006 10:28 AM**
End Date	**3/3/2006 10:28 AM**

Substation Processing Unit

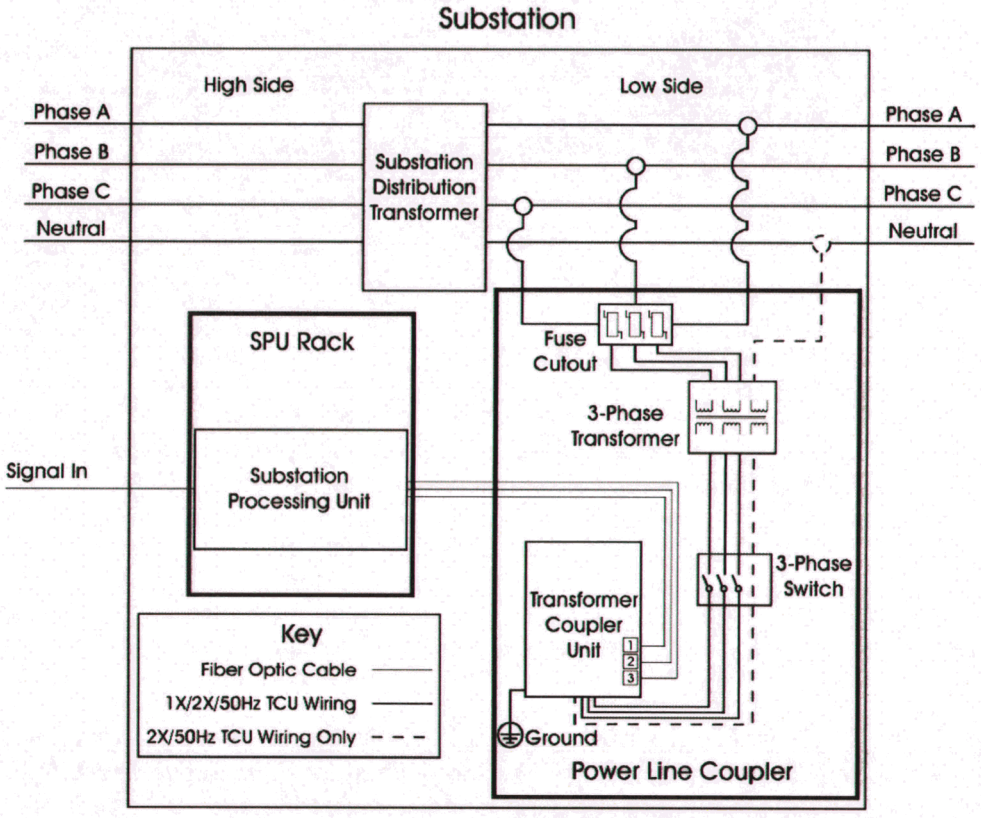
The substation processing unit is a device installed in a substation that controls bi-directional communication with both the Command Center software in the utility office and endpoints installed at metering locations. The substation processing unit is built around an industrial grade computer designed to withstand the harsh environment of a substation. The substation processing unit uses Cellnet+Hunt's proven Ultra Narrow Bandwidth (UNB) power line carrier technology to continuously receive data from each endpoint on the substation. The substation processing unit also facilitates sending messages to each endpoint from the substation. This messaging can be broadcast simultaneously to an individual endpoint, group of endpoints, or all endpoints.

The components can be installed in a standard 19-inch rack inside a control house. In the event that a control house is not available, the substation processing unit can be installed in a NEMA 3R enclosure at a location that is within 150 feet of the substation metering wires.

The following photo shows a SPU 3000 substation processing unit.



The following diagram illustrates a typical single-bus, single-TCU power line coupler installation.



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Power Line Coupler

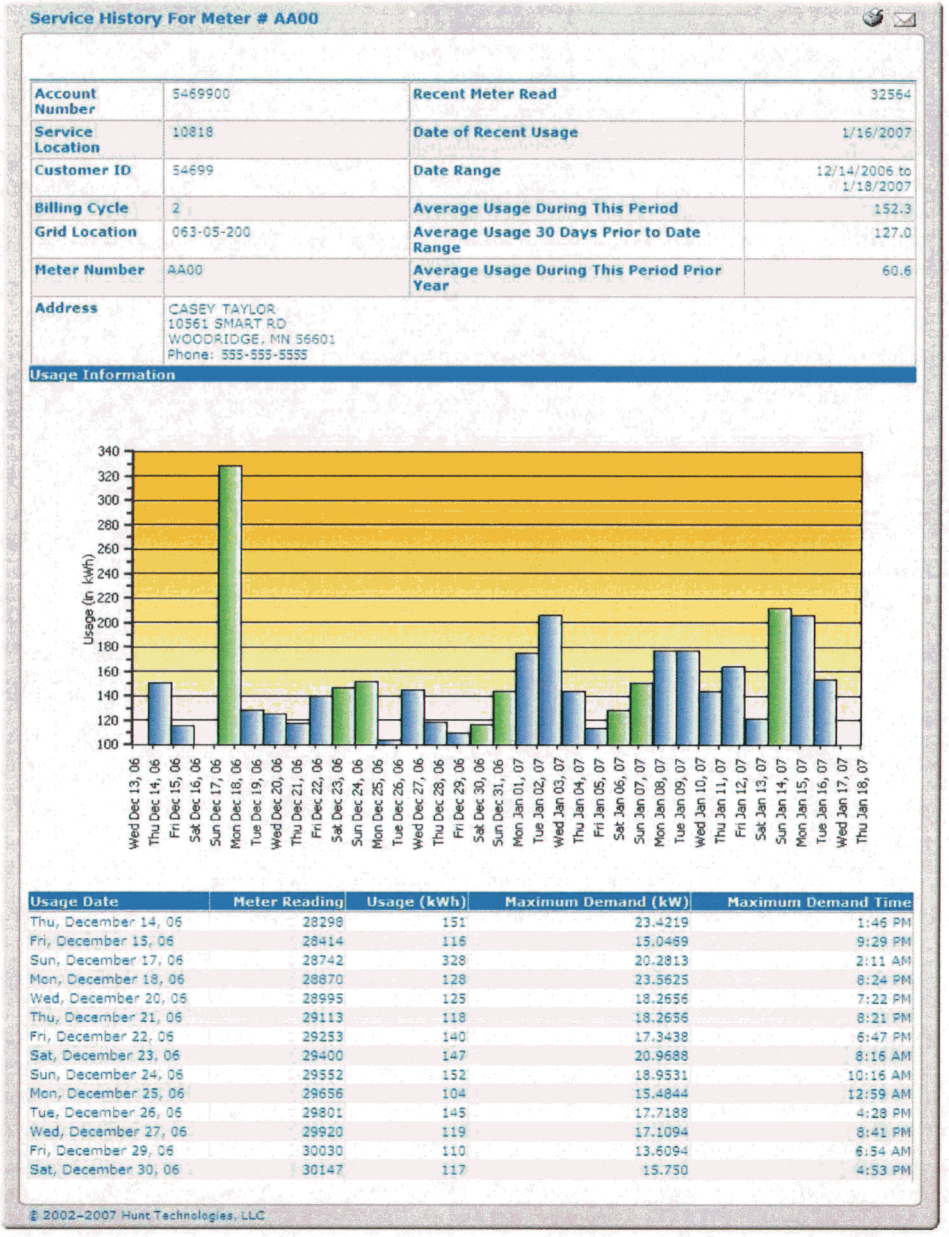
The power line coupler is a device installed at each distribution substation which couples a low voltage signal onto the power line for communication with endpoints. The device also provides isolation between the substation processing unit and the electrical distribution system via fiber optic connection.

The Transformer Coupling System consists of the Transformer Coupler Unit (TCU) and a 75 kVa (minimum) three-phase pad mount transformer or three-phase pole mount transformer bank consisting of three 25kVa (minimum) transformers. The TCU can accommodate all distribution voltages and may be installed on either a grounded wye or delta distribution bus.

Command Center Software

Cellnet+Hunt's Command Center™ software is the heart of your AMI system and the key to managing your operations efficiently. By integrating AMI data with your customer information system, outage management system and engineering analysis application, Cellnet+Hunt's Command Center lets you increase operational efficiencies and improve customer service.

Developed in an open architecture that will integrate seamlessly with current software applications, Cellnet+Hunt's Command Center software contains reports that are tailored for use by billing, finance, customer service, operations, distribution planning and engineering departments. Cellnet+Hunt's software solution brings benefits to your entire business.



Service History For Meter # AA00

Account Number	5469900	**Recent Meter Read**	32564
Service Location	10818	**Date of Recent Usage**	1/16/2007
Customer ID	54699	**Date Range**	12/14/2006 to 1/18/2007
Billing Cycle	2	**Average Usage During This Period**	152.3
Grid Location	063-05-200	**Average Usage 30 Days Prior to Date Range**	127.0
Meter Number	AA00	**Average Usage During This Period Prior Year**	60.6
Address	CASEY TAYLOR 10561 SMART RD WOODRIDGE, MN 56601 Phone: 555-555-5555		

Usage Information

Usage Date	Meter Reading	Usage (kWh)	Maximum Demand (kW)	Maximum Demand Time
Thu, December 14, 06	28298	151	23.4219	1:46 PM
Fri, December 15, 06	28414	116	15.0469	9:29 PM
Sun, December 17, 06	28742	328	20.2813	2:11 AM
Mon, December 18, 06	28870	128	23.5625	8:24 PM
Wed, December 20, 06	28995	125	18.2656	7:22 PM
Thu, December 21, 06	29113	118	18.2656	8:21 PM
Fri, December 22, 06	29253	140	17.3438	6:47 PM
Sat, December 23, 06	29400	147	20.9688	8:16 AM
Sun, December 24, 06	29552	152	18.9531	10:16 AM
Mon, December 25, 06	29656	104	15.4844	12:59 AM
Tue, December 26, 06	29801	145	17.7188	4:28 PM
Wed, December 27, 06	29920	119	17.1094	8:41 PM
Fri, December 29, 06	30030	110	13.6094	6:54 AM
Sat, December 30, 06	30147	117	15.750	4:53 PM

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Command Center MDM: For additional meter data management, Cellnet+Hunt offers the advanced features of Command Center MDM, which provides a software integration toolkit with built-in support for many popular utility applications. MDM supports multiple systems processing data from multiple AMI/AMR systems and networks, including power line carrier (TS1 and TS2), short-hop RF, RF Mesh and GPRS. It offers a live repository for AMI data for 5+ years and over 70 reports. These include:

- Service history reports with temperature and interval data;
- Validation groups threshold with reporting;
- Interruption validation;
- High usage/demand reporting;
- Usage by substation'
- Voltage reporting'
- Tamper detection analysis reporting; and
- System maps based on GPS coordinates.

Command Center MSP: In addition, Cellnet+Hunt also offers the Command Center Managed Services Package (MSP), which provides a simple way to implement and operate your AMI system. These services give you complete control of your AMI system by providing access to your data through a secure, browser-based protocol, while Cellnet+Hunt provides the IT expertise, server management and disaster recovery protection for your data. Cellnet+Hunt's MSP eliminates the need to purchase computer hardware, software licensing or to hire the technical support necessary to administer the AMI Central Server. In addition, MSP customers receive the benefits of Cellnet+Hunt's support agreement including access to world class technical support.

Mobile Administration Software

The Mobile Administration Software (MAS) was developed for the Windows Mobile operating system and makes quick work of endpoint installations. The Mobile Administration Software works with Symbol and Dolphin handheld computers and provides the capability to communicate with the endpoint through the meter glass without de-energizing the meter. The MAS is capable of changing the meter constants, initial kWh reading, and data transmission configuration of the endpoint. The MAS also augments the meter change-out process by providing the capability to collect installed and removed meter data for download to the host computer. Bar code scanning is also supported to aid in collection of the meter numbers. Data captured using the MAS can be downloaded each day to the host computer via wireless, serial, or modem communication. The Windows Mobile operating system offers additional features providing better extensibility for future projects.

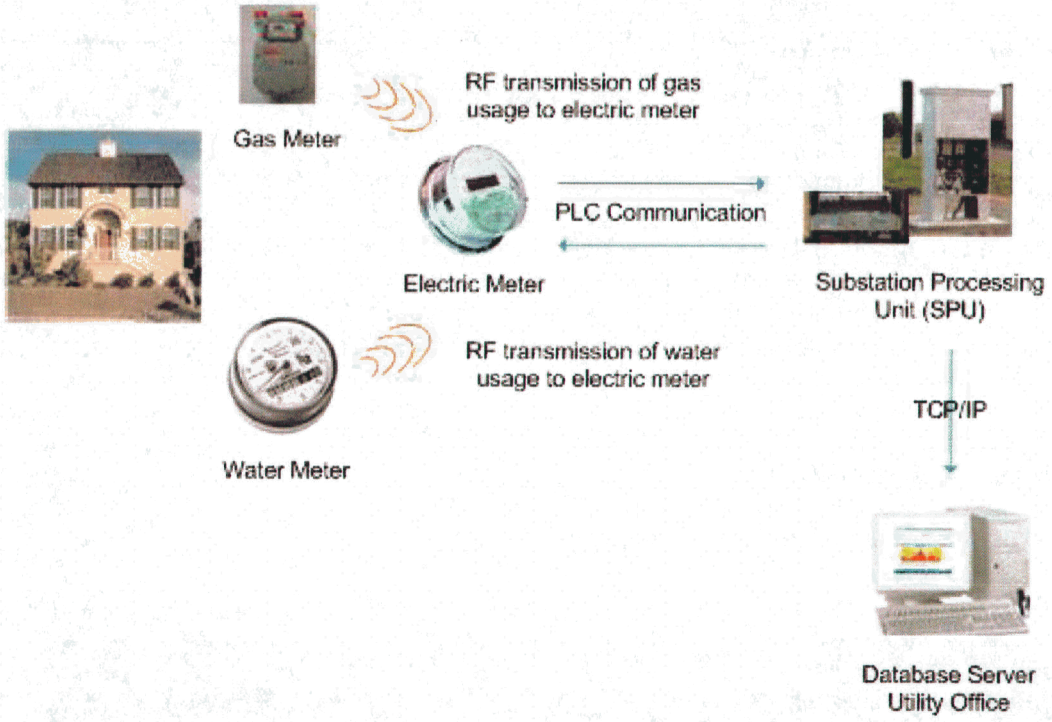
Multi-Utility Solution for Electric, Water and Gas

Cellnet+Hunt delivers an innovative Power Line Carrier (PLC) solution for electric, water and gas meters. Using the utility's existing power line infrastructure, Hunt's multi-utility endpoint, partnered with Badger Meter's ORION® transmitter, provides daily usage, tamper detection, and water leak detection notification without requiring the utility to send a radio receiver equipped van, build radio towers or incur additional infrastructure expense.

The daily water and gas data, transmitted across the power lines with the electric data, gives the utility the opportunity to improve cash flow by shortening the time between reading and receipt of payment, improve customer service by allowing consumers to pick the billing date that meets their needs, and promotes operational efficiencies with more detailed theft and tamper information.

Key Features:

- Wireless radio link to gas and water meters means no external interfaces, cables, antennas, or sensors.
- Endpoints may be programmed remotely from utility office.
- Endpoints provide tamper and water leak detection notification.
- Shared infrastructure means faster return on investment for AMI.
- Electric utilities can offer meter reading services to water and gas service providers.
- PLC communication path is as reliable as the power network.
- Daily reads translates to improved cash flow with more billing options.



How it works:

A Badger ORION RF transmitter is connected to the water meter or gas meter encoder. A Cellnet+Hunt TS2 Endpoint is installed in the electric meter where it is used to collect daily electric meter readings. Attached to this endpoint is an RF receiver and antenna, which "listen" to the transmissions from the ORION transmitter. Every 20 minutes the receiver activates itself and records the meter reading, plus the flags indicating water leak and/or tamper detection. On a daily basis, at midnight, the latest readings are combined and transmitted via power line carrier to the substation processing unit located at the electric substation. The substation processing unit decodes and stores the readings for transmission to the utility office.

The RF receiver in the Multi-Utility Endpoint also monitors the RF signal transmitted from the ORION transmitter. If there is a 24 hour period when no signal has been received, then the endpoint sends back a Stale RF indication in the next night's data packet.

Each of these three conditions, tamper detect, water leak detect, and stale RF are included on the Dashboard in the Command Center software. The Dashboard summarizes the overall operating condition of the AMI system. By clicking on the alert on the Dashboard, the utility operator is linked to the Suspect Meters Report. Using this report the operator can immediately determine which meter is sending the suspect reading, and can note how long the condition has existed. This information is also included in the Billing Extract to the Customer Information System or Billing System, for access by Customer Service personnel.

Water Meters

A Badger ORION RF transmitter is connected to the water meter encoder. There are three types of ORION transmitters available, depending on the application. The ORION pit transmitter is fully encapsulated in a tube-shaped package that mounts through a hole in the pit lid. This transmitter is most common in southern climates, and in some commercial buildings. The pit package is designed to survive extended periods underwater without damage. For meters located indoors, there are two alternatives. The integral-mount ORION is one piece with the meter register. This provides the ultimate in ease of installation and protection against tampering. The remote-mount ORION can be positioned up to 75' from the water meter, to allow for best RF signal propagation to the electric meter in difficult environments. The ORION transmitter is compatible with all Badger Meter registers, and with the encoding heads of other major manufacturers.

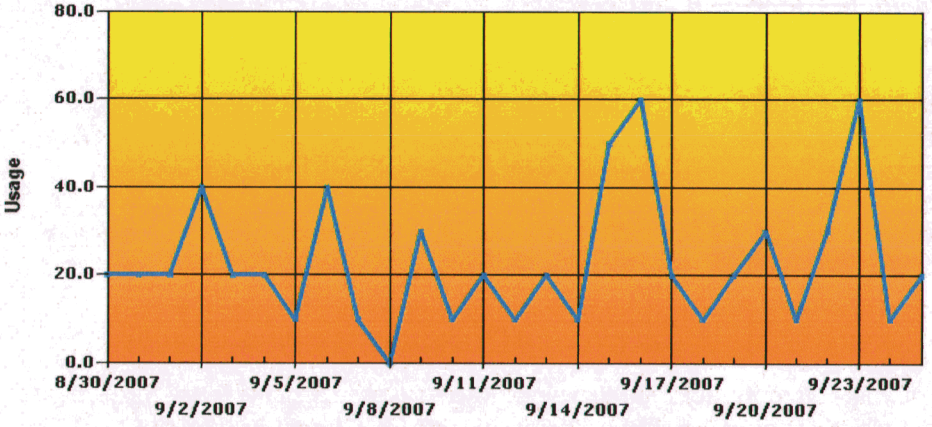
Tamper detection is monitored at the ORION transmitter on pit transmitters and remote transmitters where there is a cable between the register and the transmitter. Traditionally this has caused problems for utilities when the cable is short-circuited or disconnected. This can occur accidentally by the homeowner damaging the wire, or through intentional tampering to prevent the older style pulse counter from registering usage. This can go undetected for long periods of time before it is discovered. Badger Meter has solved this problem. If the transmitter cable is opened or shorted, even momentarily, a latching flag is set in the transmitter and sent to the receiver in the Multi-Utility Endpoint for inclusion in that night's data packet. It can only be reset when a technician visits the site to correct the tamper condition and reset the flag.

Cellnet Hunt

Multi Utility Usage Report

Customer Information	
Meter Number	70720009
Account Number	4510645
Customer ID	
Service Location	1924 Witt Rd
Customer Name	
Address	N/A

Usage over Time



Usage Date	Meter Reading	Total Usage (In Cubic Feet)
Saturday, September 08, 2007	9493	0.0
Sunday, September 09, 2007	9496	30.0
Monday, September 10, 2007	9497	10.0
Tuesday, September 11, 2007	9499	20.0
Wednesday, September 12, 2007	9500	10.0
Thursday, September 13, 2007	9502	20.0
Friday, September 14, 2007	9503	10.0
Saturday, September 15, 2007	9508	50.0
Sunday, September 16, 2007	9514	60.0
Monday, September 17, 2007	9516	20.0
Tuesday, September 18, 2007	9517	10.0
Wednesday, September 19, 2007	9519	20.0
Thursday, September 20, 2007	9522	30.0
Friday, September 21, 2007	9523	10.0
Saturday, September 22, 2007	9526	30.0
Sunday, September 23, 2007	9532	60.0
Monday, September 24, 2007	9533	10.0
Tuesday, September 25, 2007	9535	20.0
Grand Total		**420.0**

Badger Meter has provided a sophisticated water leak detection circuit in the ORION transmitter. The ORION transmitter monitors water flow each hour. If there is a period of 24 consecutive hours with at least 1 gallon of flow each hour, then the leak detect bit is set and transmitted to the TS2 endpoint in the electric meter. If there is a one hour period where no flow is registered, then the flag is automatically reset and the 24 hour counter starts over again.

Gas Meters

A Badger ORION RF transmitter is connected to the gas meter encoder. The transmitter utilizes the meter drive to measure gas consumption. The ORION transmitters are compatible with the majority of utility gas meter models and makes currently in operation in the U.S. The transmitters have a magnetic tamper function in addition to using a seal wire. If tamper is detected, a latching flag is set in the transmitter and sent to the receiver in the Multi-Utility Endpoint for inclusion in that night's data packet. It can only be reset when a technician visits the site to correct the tamper condition and reset the flag.

Integrating Endpoint Information with Utility Applications

Integration of AMI data with customer information systems, outage management systems, and GIS can increase overall efficiency, potentially generate additional revenue, and improve customer service. The Command Center software package is built on an open architecture using technologies that allow tight integration with the utility's other software applications.

Some of the interfaces provided:

- CIS/Billing interfaces: provides sharing of data between CIS/billing systems and the Command Center, including customer data, readings data, and meter data.
- Outage Management System interfaces: the Command Center can automatically notify outage management systems when a power outage or restoration occurs.
- GIS and Engineering Analysis application interfaces: phase data can be provided from the Command Center for use by GIS and EA applications. Coincident demand and max demand data provided to engineering analysis applications can help with load balancing and transformer sizing.
- Service Connect-Disconnect: an interface exists that allows another utility application to use the Command Center software to disconnect or connect meters from the utility office.
- Usage Monitoring: "Virtually disconnected" meters can be added to a usage monitoring group automatically from another utility application. The Command Center will alert the end-user when unexpected usage occurs.