

AMI Lessons Learned

Background

Strategic Plan – “Assist members in areas of technology, safety and distribution system design, and maintenance.”

- KPP held an AMI event where we brought 3 vendors to the table to discuss AMI
- KPP members had a choice of what vendor they wanted to use
- Vision was selected by 6 members
- L&G by one member
- Jury still out for 1 member

Landis+Gyr
manage energy better

iENSU

VisionTM
Metering

Vendor Selection



Benefits of AMI

- Correct Meter Reads - No Re-reads
- On Demand Trouble Shooting
- Disconnect – Without Truck Roll
- Easy to Manage and Install
- Keeps Meter Readers Out of Harm- Bad Dogs, Slips, Trips, and Falls
- Set-Up Meter Alarms- i.e. Notification When Meter is Seeing Excessive Temperature
- Work With Existing ERT's in the Field if They are Compatible
- Load Forecasting
- Do Not Need to Open Meter Pits in Winter

Lessons CIS

- Work with customer information software early
 - These vendors are not always happy to integrate another software into there software
- Cost range from vendor to vendor
- Mass meter changeout can add cost, but well worth it





Lessons

- Gateway physical locations can be challenging
 - Climbing a water tower
 - Internet availability
- Try location first before installing expensive internet infrastructure
- Other 900MHz systems can cause packet shortages

Lessons

- Hardware is easy to install
- Software is easy to use
- Proficient in excel



Tektelic Gateway



Sentry 250 POE



Lessons

- Meters need to be loaded in the database by vision
- Some meters failed
- POE box calls for 240V wiring. 120V works best
- AIR 802 cards failure (power over ethernet)
 - Result is producing own POE card
- Internet Security
 - Add Firewall
- Supply Chain is huge hold up

Meter Communication Issue

- Had issue getting meters to communicate with gateways
- Tried different antenna arrangements
- Turned out to be an error on Vision changing servers
- Had to unplug meters for a long period of time
- Plug back in and they work
- RSSI >-119 SNR >-5

Meter Details

Account Number	1347	Meter Type	Lora	kWh Del	1254.000	Events <div>9/8/21 1060</div>
Name	[REDACTED]	Meter Form	N/A	kWh Rec	N/A	
Last Name	N/A	PT	1	kW Max	9.839	
Customer Address	[REDACTED]	CT	5	KVArh	463	
Street	[REDACTED]	Meter Serial Number	10602945	KVAr	0.000	8/19/21 1060 Clear
City	MOUNT HOPE	Meter Deveui	E70D38DAA1DF104A	Voltage A	241	8/19/21 1060 Sag
State	KS	Gateway	CITY OFFICE	Voltage B	0	
Zip	67108	Last valid data received	9/10/2021 1:52:26 PM	Voltage C	241	8/19/21 1060 Clear
Date meter installed	6/4/2021 9:22:46 AM	<div>Open switchClose switch</div> <div>Get switch statusPoll meter data</div> <div>Demand ResetERT downlink</div>		Switch Position	Open	
Cycle Day	0			Power Factor	0.001	8/19/21 1060 San
Electric ERT Id	N/A			Current A	0	
Electric Reading	N/A			Current B	0	Show Pre
Water ERT Id	N/A			Current C	0	
Water Reading	N/A			Temperature	114.8 F	
Gas ERT Id	N/A			RSSI	-87 to -73	
Gas Reading	N/A			SNR	12.0 to 12.5	

Water Module Lessons

- Water Modules are New
- Make sure the Water Module is communicating before installing in the ground
- A swipe of a magnet initiates communication
- Other brand meters charge a fee to read their meter with other AMI systems

