Indiana AMI Deployment

Update for Clark and Floyd Co. Officials

April 12, 2018

DUKE ENERGY®

AMI Benefits

More Options for Customers

- Provides hourly/daily usage data so customers can make informed energy choices—fewer bill surprises
- Paves the way to offer customers more energy efficiency programs and flexible payment options

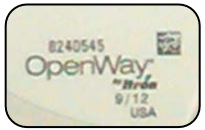
Benefits

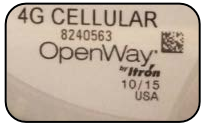
- Significantly reduce need for estimated bills with remotely read meters
- Lower risk of human error from manual meter reads
- Better information for customers to manage their energy use
- Faster service—move-in/out customer requests can be performed remotely without waiting for a technician to arrive
- Operational efficiencies

Metering options

- **Walk-by** – currently the majority of Duke Energy meters in Indiana are read by a meter reader that walks by the premise monthly and records usage.
- **AMR** (automatic meter reading)- AMR meters have RF communications capability and remotely transmit data to a mobile collection device used by a drive-by meter reader. Many water meters have moved to this technology, and Duke Energy uses AMR meters in special cases where safety or access issues exits.
- **AMI** (advanced metering infrastructure) – AMI meters are “smart meters” and a communication network that allows two-way communication capability.

Components of Advanced Metering Infrastructure





ITRON OPENWAY METER

- Collect, store, and transmit meter reads
- Allow for remote connection and disconnection
- Two communication types (mesh and direct connect)
- Scrolling Display – Read, Mesh Level, Com Status

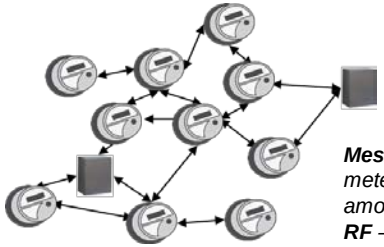
CONNECTED GRID ROUTER

- Gateway device for the solution – communicates to meters through RF mesh and back office via public wireless
- Pole mounted device
- Dimensions: 11.3 in. x 9.7 in. x 8.5 in. (without antennas)
- Weight: 23 pounds

RF RANGE EXTENDER

- Extends the RF signal to allow meters to communicate
- Installed on an as-needed basis
- Pole mounted device
- Dimensions: 12.2” x 7” x 5.3”
- Weight: 4 pounds

How the System Works



Mesh *– a group of meters that communicate amongst each other*
RF *– Radio Frequency*

CGR *– Connected Grid Router*

Meter measures energy consumption

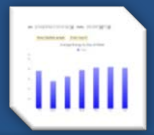
MESH – Data is sent via RF mesh to CGR

CGR transmits data via public wireless

Direct Connect – Data is sent via public wireless

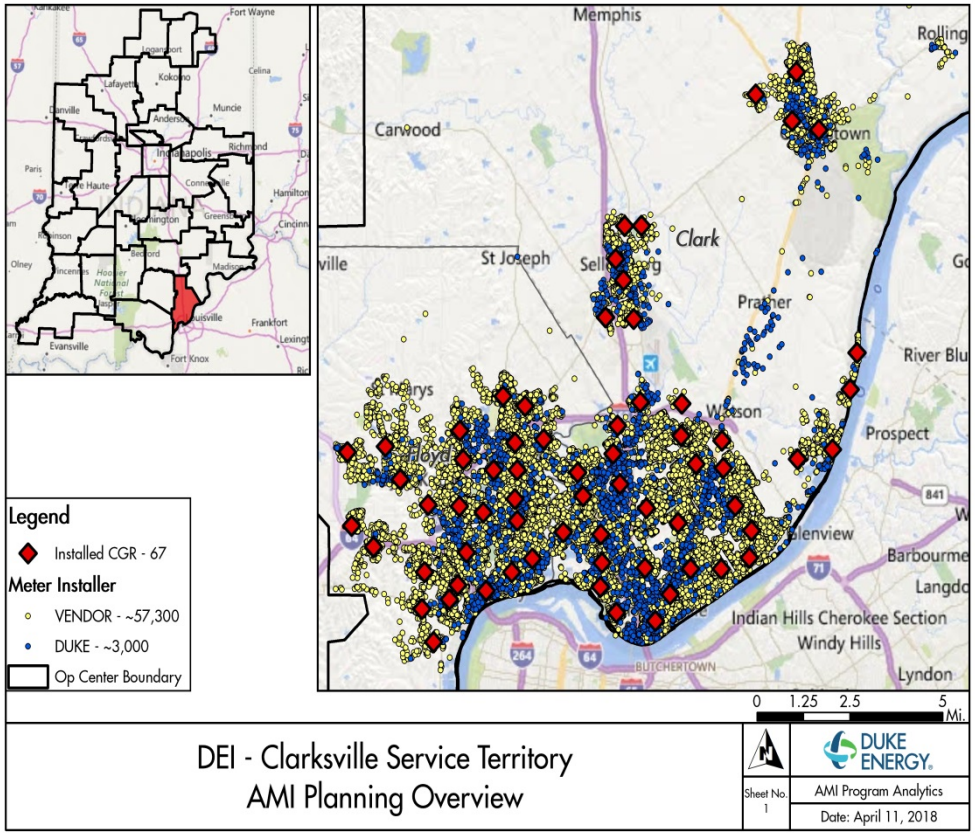
IT systems enable billing, remote order fulfillment, and customer programs

Customers can view energy usage information and have future opportunity to participate in customer programs



Project Overview – Duke Energy's Clarksville District

- Clarksville District scope
  - 67 CGRs
    - Completed.
  - 61,978 Meters
    - 57,370 Contractor Install
    - 4,608 Duke Install
      - In progress
      - 35% complete
    - 676 meters excluded
- Status
  - Postcards should be mailed to residential customers around mid to late May



Communications Plan

Proactive outreach:

- Education sessions with internal Duke employees that are responsible for external stakeholder relationships
- Updated external website
- Face-to-face meetings with stakeholders

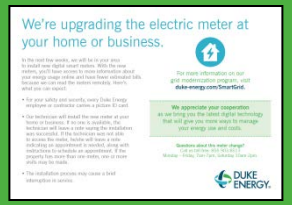
On-going project communications:

- Customer communication collateral and timeline
- “Rapid Response” Team and SMEs
- Face-to-face meetings as appropriate

Top Customer Concerns:

- Health Concerns
- Privacy
- Change

AMI Customer Communication



Postcard Informing of Pending Visit

Field Visit – Door Hanger

Appointment Request – Three Phone Calls

Appointment Request – Letter

Appointment Request – 2nd Letter

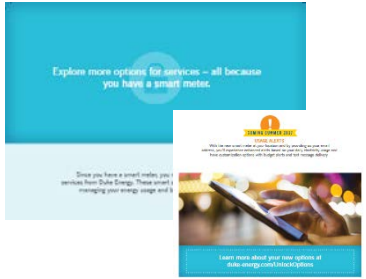
Customer Contact and Escalation Process

…Upon Successful Installation

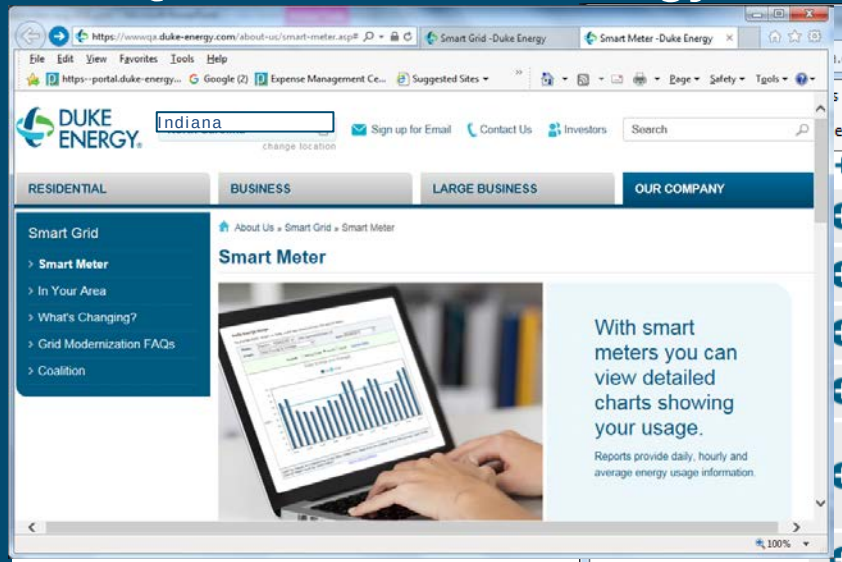
Successful Exchange Door Hanger

AMI Meter starts Billing

"More Options!" tri-fold



FAQs – www.duke-energy.com/smartgrid



Show All

- Who is receiving a smart meter?
- When am I getting my smart meter?
- Can I purchase and install or remove my own meter?
- Will I have to pay to have a smart meter installed?
- Since smart meters eliminate the need for a Duke Energy technician to come to my house and manually read my meter, what should I do if I see a technician on my property after my smart meter installation?
- Do I have to be home when my smart meter gets installed?
- Do the meter installations occur only during business hours, or will installations occur in the evenings and/or weekends as well?
- I want to be home when my smart meter in installed. Can I schedule an appointment?
- What is a smart meter?
- Will Duke Energy remotely control the smart meter?
- Is my information protected?

Closing

Q&A

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