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

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

Meter measures energy consumption

MESH – Data is sent via RF mesh to CGR

Direct Connect – Data is sent via public wireless

CGR transmits data via public wireless

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

Mesh – a group of meters that communicate amongst each other

RF – Radio Frequency

CGR – Connected Grid Router

Mesh

RF
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

4/16/2018
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

Date: 4/16/2018
FAQs – www.duke-energy.com/smartgrid

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 is installed. Can I schedule an appointment?

What is a smart meter?

Will Duke Energy remotely control the smart meter?

Is my information protected?
Q&A

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