



Aclara AMI Overview

(Advanced Metering Infrastructure)





OUR AGENDA

INTRO **1** Introduction

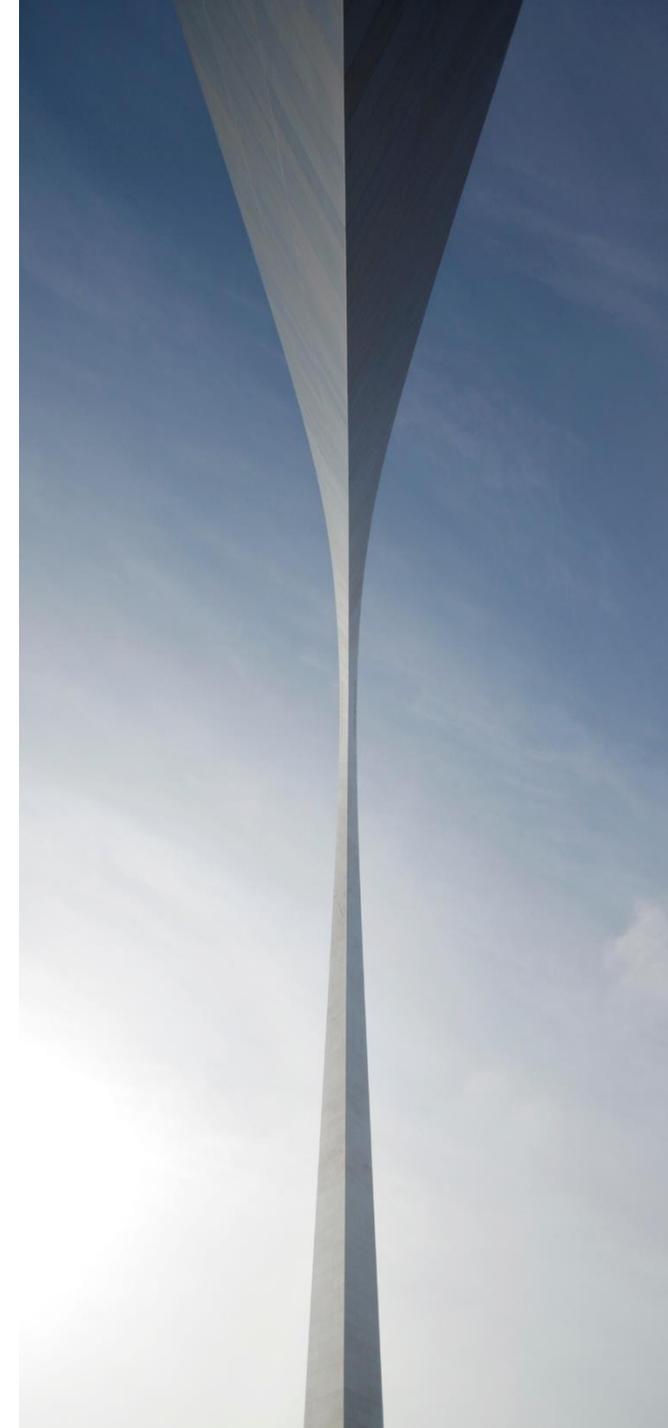
ACLARA OVERVIEW **2** Vendor Background

SOLUTION DESIGN **3** AMI – Advanced Metering Infrastructure

INSTALLATION **4** Installation Services Overview

CONSUMER PORTAL **5** Demonstration

Q & A **6** Discussion



Aclara Presenters

Larry Rygiel – Regional Director, Aclara

Larry Rygiel is the Sales Director covering Ohio Valley for Aclara. In this position, Larry is responsible for AMI business development and account management for electric, water, and gas utilities in Ohio Valley territory. He has total of 4+ years in this role with Aclara. My territory includes Ohio, Kentucky and Tennessee.

Larry has 40+ years in the electrical & utility industry in various sales and management positions. He has a MS in Management from Kettering University & BS in Mechanical Engineering from Western Michigan University. Larry lives in Grand Blanc, Mi. with his wife for 33+ years and has 3 grown children.

Chris Kilroy – Sales Director, Aclara SGS

Chris Kilroy is the Sales Director for the Eastern US for Aclara SGS, which is the meter installation division. In this position, Chris is responsible for business development and account management of these services for electric, water, and gas utilities and serves as a subject matter expert supporting his peers within Aclara. He has a combined total of 5 years in this role with Aclara.

Chris spent over 17 years in sales and account management in the telecommunications industry. He has a BA in Political Science from the University of Alabama in Huntsville, the home of the southern-most NCAA ice hockey team and not to be confused with the Crimson Tide. Chris still resides in the Huntsville, AL area with his wife of 22 years, his daughter who is nearing her high school graduation, and has a son who recently began a PhD program.

WHO WE ARE

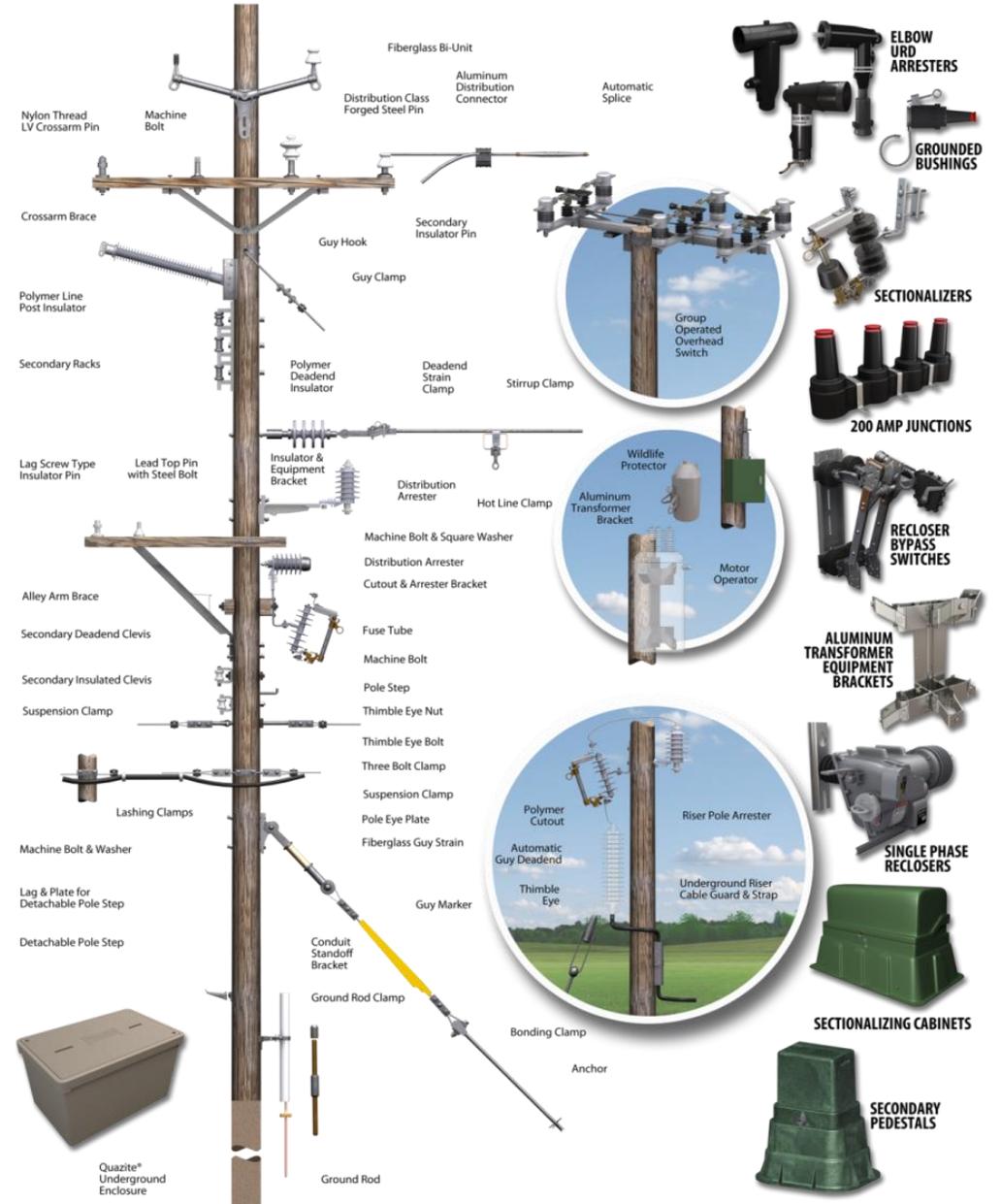


Hubbell
Power
Systems

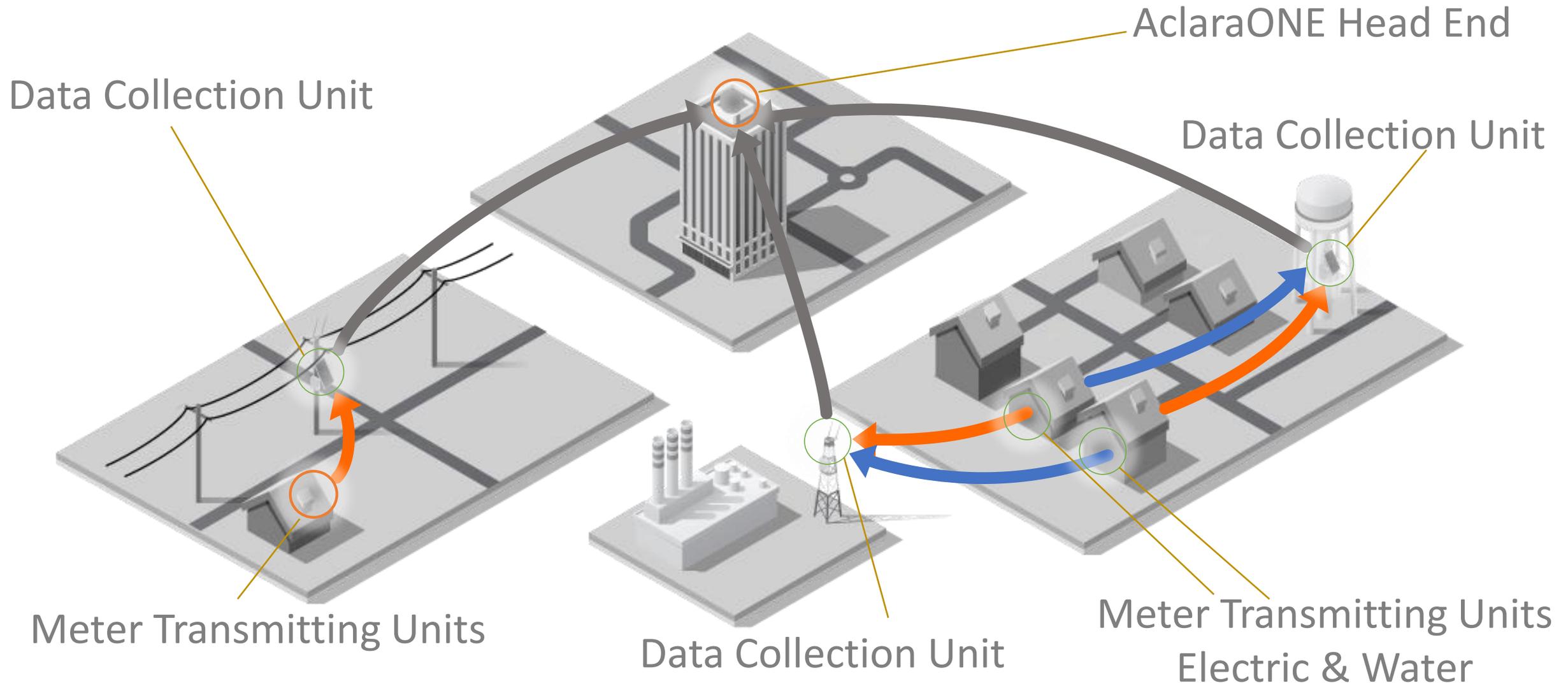
Hubbell
Construction
& Energy

Hubbell
Commercial
& Industrial

Hubbell
Lighting



ACLARA RF NETWORK



A woman with curly hair is smiling and holding a lightbulb up to the ceiling. The room is dimly lit with warm string lights. The text "Meter Installations" is overlaid in the center.

Meter Installations

Aclara SGS Meter Installation Services

- Extensive Experience Nationwide and in Ohio:
 - Successful deployments of more than 13M meters
 - Utility Clients Include: AEP Ohio, Mansfield, Piqua, Duke Energy IN, Minneapolis, Memphis, ConEdison (NYC)
- Fully Trained Technicians for Water & Electric Meter Installations
- Installers are Provided Company Vehicles, Tools, & Safety Gear (PPE)
- Aclara Manages a Call Center Services for Appointment Scheduling
- Aclara Prints & Mails Notices to Customers
- Our Supervisor Performs Quality Audits on Safety & Installation Processes



What to Expect During Meter Installations

- Electric & water installs are done separately
- Post cards mailed a few weeks before installs start
- Indoor water meters require appointments when an adult is home
- Average visit time:
 - 5 minutes for electric
 - 25 minutes for water
- Brief service interruptions:
 - Typically, 30-60 seconds for electric
 - Typically, 10-15 minutes for water
- Door tags are left at every visit
- Our Call Center's Toll-Free # is on postcards & door tags
- Aclara will call to schedule an appointment for:
 - All water meters
 - If installer cannot get to the electric meter on 1st visit

Water Meter Replacement Project

The City of Minneapolis is upgrading water meters in your neighborhood. Please call today to schedule an appointment with the City's contractor, Aclara, to replace the meter on your property.

**Schedule your appointment today
by calling 612.512.1955
to prevent water shut off.**

For more project information or to review frequently asked questions, visit minneapolismn.gov/watermeter.

Minneapolis Public Works
Water Treatment & Distribution Services



How You Can Help

- Residents can call Aclara's toll-free # to schedule an appointment when postcard arrives for:
 - Indoor water meters
 - You have sensitive electronic or medical equipment
 - Electric meter is difficult to reach (fence, pets, etc.)
- Respond promptly to our postcards & phone calls
- Ensure City has your current phone # on file
- Be home during appointment window
- Make sure meter is not obstructed before we arrive
 - Unlock gates, secure pets, trim bushes, remove other outdoor items (electric)
 - Move furniture or boxes, open drywall (water)
- Reschedule if:
 - Someone in your home is potentially ill
 - You cannot be home during appointment window



Meter Installers and Your Safety

Recognizing Aclara SGS Meter Installers:

- Wear Standard Uniforms w/ Safety Gear: (Reflective vests, helmets, gloves, face shields, etc.)
- Carry Photo ID Badges
- Drive fleet vehicles w/ company signage
- Badges & vehicle signs are marked w/ our logo and “City Contractor” or similar wording

Aclara’s regularly updates safety procedures based on all health guidelines

- Morning health screenings
- Installers wear face masks, medical gloves, and shoe coverings
- Routine hand-washing or use of hand sanitizer
- Frequent sanitizing of tools, equipment, vehicles, & workspaces
- Maintain 6’ minimum distance from door & residents
- Require residents to wear face mask while we work inside



How many smart meters are installed in the United States, and who has them?

In 2019, U.S. electric utilities had about 94.8 million advanced (*smart*) metering infrastructure (AMI) installations. About 88% of the AMI installations were residential customer installations.

AMI includes meters that measure and record electricity usage at a minimum of hourly intervals and that provide the data to both the utility and the utility customer at least once a day. AMI installations range from basic hourly interval meters to real-time meters with built-in two-way communication that is capable of recording and transmitting instantaneous data.

The U.S. Energy Information Administration (EIA) does not publish data on natural gas meters or water meters.

Number of AMI installations by sector, 2019				
Residential	Commercial	Industrial	Transportation	Total
83,539,594	10,850,886	446,871	1,504	94,838,855

[https://www.eia.gov/tools/faqs/faq.php?id=108&t=3#:~:text=How%20many%20smart%20meters%20are,metering%20infrastructure%20\(AMI\)%20installations.](https://www.eia.gov/tools/faqs/faq.php?id=108&t=3#:~:text=How%20many%20smart%20meters%20are,metering%20infrastructure%20(AMI)%20installations.)

With 400 Million Smart Water Meters to be Installed Worldwide by 2026, Scalable Meter Data Management is Crucial

MDM platform vendors should identify the water utility's specific requirements for an MDM

August 01, 2019 04:00 AM Eastern Daylight Time

LONDON--(BUSINESS WIRE)--As pressures of climate change and water wastage rise, smart water meters are becoming increasingly critical for global water conservation efforts by utilities to track water usage and identify waste and leakage. This drive for digitalization of water utilities distribution network will result in an installed base of 400 million smart water meters worldwide by 2026, according to a new report from global tech market advisory firm, **ABI Research**.

<https://www.businesswire.com/news/home/20190801005064/en/With-400-Million-Smart-Water-Meters-to-be-Installed-Worldwide-by-2026-Scalable-Meter-Data-Management-is-Crucial>

CONSUMER ENGAGEMENT PORTAL



My Bills

- Enable customers to self-serve through transparency into their bills



My Savings

- Provide customers with resources to conserve energy/water



My Usage

- Equip customers with tools to understand their AMI data and consumption



Alerts & Notifications

- Keep customers engaged through actionable notifications

Account: 1218337093

John Doe

123 Main St, Some City, Boston 12345

Electric • Water • Gas

Notifications 12

Cost - 12 May 2020**Cost threshold alert**

Your estimated cost-to-date exceeded your chosen threshold of \$25.00.

[View Bill](#)**Cost** - 12 May 2020

Your estimated cost-to-date exceeded your chosen threshold of \$25.00.

Usage - 12 May 2020**Cost threshold alert**

Your estimated cost-to-date exceeded your chosen threshold of \$25.00.

[View Bill](#)[View 5 more notificaitons](#) ▾

Made in InVision

[Manage Notifications](#)

Top Actions

[View My Bills & Statements](#)[View My Monthly Usage](#)[Start or Stop My Service](#)[View My Saving Options](#)[Update My Profile](#)[Next Bill](#)[Last Bill](#)

Account: 1218337093

John Doe

123 Main St, Some City, Boston 12345

Electric • Water • Gas

Show me... My past 12 months billed usage

Electric

Gas

Water



Show Previous Year

kWh

Download CSV

120

120°

80

90°

40

°F

0

30°

JUN

JUL

AUG

SEP

OCT

NOV

DEC

JAN

FEB

MAR

APR

MAY

● Previous 12 Months ● Last 12 Months — Previous Avg. temperature - - - Last 12 Months Avg. temperature



My Home Profile

Your Home

Refine your selection

Your Home

Home style

My billed usage

When was your home built?

1996 - 2000

What is the square footage of your home?

801 - 900 Sq Ft

How many people live in your home?

2

Number of levels in your home, not including the attic or basement

2

Do you have a basement?

2

Completed



Your home's heaviest hitters

Your Home Profile is a series of questions about your home and appliances that can help you understand how you use water. Your answers are used to personalize your experience and provide better recommendations for reducing your usage and saving money. You don't have to complete the whole profile, but a more complete profile will lead to better recommendations.

\$10 OFF
20 Energy Efficient
LED Bulbs

[Learn More](#)

EVERY DROP COUNTS
Smart Water Usage Guide

[Learn More](#)



Water



Lighting



Air



Devices



Cooking

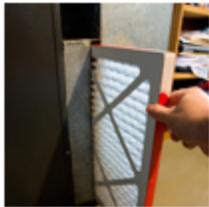


Other

Sort By : Recommended

Create a personal savings plan!

Keep track of your water saving projects in My Plan. There you can create a to-do list of water saving actions you plan to do, mark off which tasks you've already completed, and see estimates of how much your efforts can save.



Regularly Clean or Replace the Filters Used by Your Heating and Cooling Equipment

Add to your to-do list

Completed

Cost

\$10

Est. Saving

\$15/yr



Maintain your central air conditioner

Add to your to-do list

Completed

Cost

\$10

Est. Saving

\$15/yr



Regularly maintain your room air conditioner

Add to your to-do list

Completed

Cost

\$20

Est. Saving

\$25/yr

Account: 1218337093

John Doe

123 Main St, Some City, Boston 12345

Electric • Water • Gas

Last Bill	Next Bill
04/03/2020 - 05/04/2020	
Total Electricity Used	152 kWh
Total Gas Used	87 CCF
Total Water Used	71 gal
Average Daily Cost	\$3.95
Number of Days	32
Avg. Temp	68°F
Demand (kW)	3

Top Actions

-  [Pay My Bills](#)
-  [View My Monthly Usage](#)
-  [View My Saving Options](#)
-  [Manage My Notifications](#)



Bill Highlights

 Electric

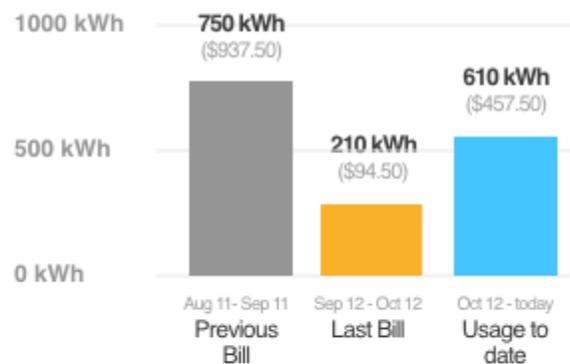
 Gas

 Water

610 gal
Your usage to date

5 Days
into your billing cycle

My Usage Comparison



What is kWh?

1 kWh = running a typical refrigerator for 12 hours.

From your last bill
(Sep 12 - Oct 12)

210 kWh

[View Usage](#)

As of 27 days into your billing cycle.

04/03/2020 - 05/04/2020 31 Days

Electric Use So Far 2,286 kWh

Gas Use So Far 3,543 CCF

Water Use So Far 281 cgal

Your Bill To Date
As of 05/31/20 \$2,399.53

Average Daily Cost \$399.92

Projected Bill \$14,370.16

[View & Pay Bills](#)

Informational Resources

“Smart meters do not produce any negative health impacts. They emit a low level of radio frequency energy that is both FCC-approved and lower than the level of RF energy emitted by many other devices that are used daily by millions of people.”

“Published research indicates that exposure to RF from Smart Meters is very low, approximately a thousand times or more below the exposure guidelines established by the FCC. At these levels, RF emissions from Smart Meters are unlikely to produce any adverse health effects to humans.”

Duke Energy:

“Both the FCC and World Health Organization have stated that the small amount of RF emitted by smart meters poses no threat to human health. Consumer safety is one of Duke Energy's top priorities, and we continuously work to ensure the safety and reliability of the products and services we offer.”

First Energy:

“Numerous studies – including a study* conducted by the California Council on Science and Technology as well as a study* conducted by the Electric Power Research Institute (EPRI) – have shown that smart meters using radio frequency (RF) technologies pose no health risk. A smart meter with RF technology uses a low-power radio to communicate the electricity usage of a home or business to the electric company through remote telecommunication technologies.”

Informational Resources

[Radio Frequency and Smart Meters](#) – Smart Energy Consumer Collaborative, a nonprofit organization that conducts research to educate consumers on the benefits of the smart grid.

[FCC policy on human exposure to radio frequency electromagnetic fields](#) – Federal Communications Commission

[Radio Frequency Safety](#) – Federal Communications Commission

[Radio Frequency Exposure Levels from Smart Meters](#) – Electric Power Research Institute (EPRI)

[Health Impacts of Advanced Metering Systems](#) – N.C. Department of Health and Human Services, Division of Public Health

QUESTIONS

A landscape photograph at sunset. The sky is a gradient of orange and yellow, with a bright sun low on the horizon. In the foreground, there are silhouettes of utility poles and power lines. On the left, a building with a corrugated metal roof is partially visible. The overall mood is contemplative and serene.