MRES® Municipal Power
LEARNING ACADEMY

Electric Industry Trends

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MISSOURI RIVER® ENERGY SERVICES

Agenda

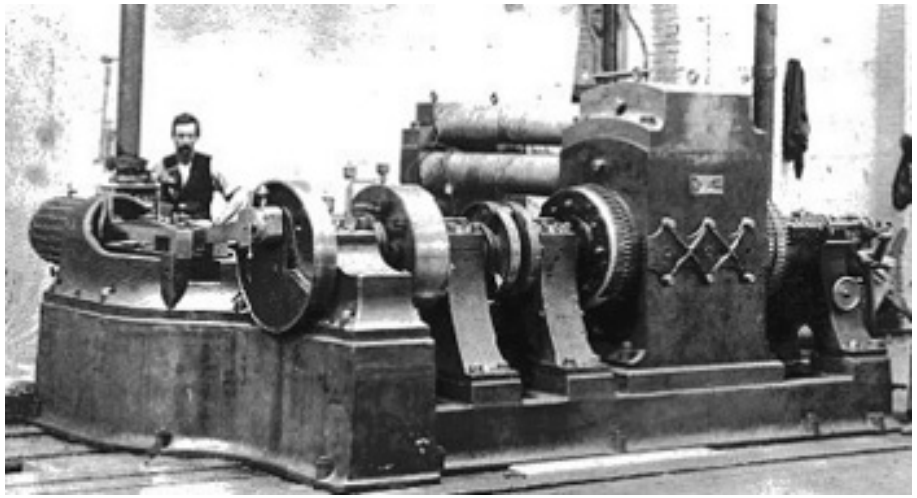
- Electric utility industry
- About public power
- Industry trends
- Effective governance

Electric Utility Industry

Birth of an industry



Pearl Street Station was the first central power plant in the U.S. It was in NYC on a site measuring 50 by 100 feet. It began with one Direct Current (DC) generator, and it started producing energy on Sept. 4, 1882, serving an initial load of 400 lamps and 85 customers.



Three Types of Electric Utilities

	Public Power	Rural Cooperatives	Investor-Owned Utilities
MODEL	Publicly owned, not for profit	Privately owned, not for profit	Privately owned, for profit
ACCOUNTABLE TO	Community	Members	Shareholders
SHARE OF UTILITIES	59%	26%	5%
SHARE OF CUSTOMERS	15%	13%	66%
SHARE OF GENERATION	9%	4%	34%

Numbers do not add up to 100% because this does not show federal power agencies, power marketers, behind the meter, community choice aggregators, and non-utility generators.

Utilities can raise funds through

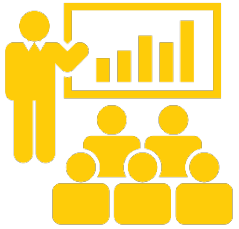
PUBLIC POWER UTILITIES

Tax-exempt municipal bonds



RURAL ELECTRIC COOPERATIVES

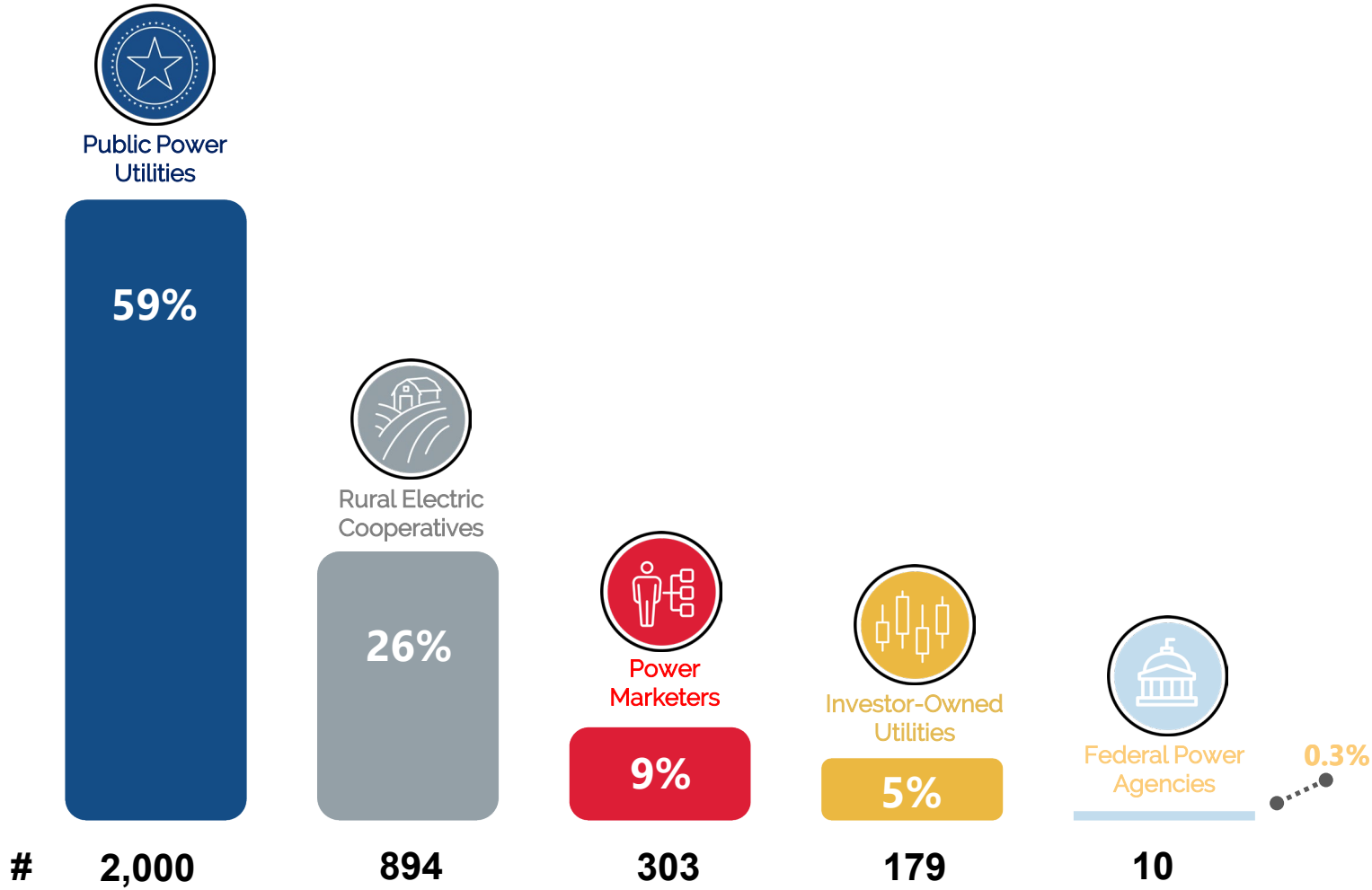
Loans from the U.S. Department of Agriculture's Rural Utilities Service, or cooperative and private lenders



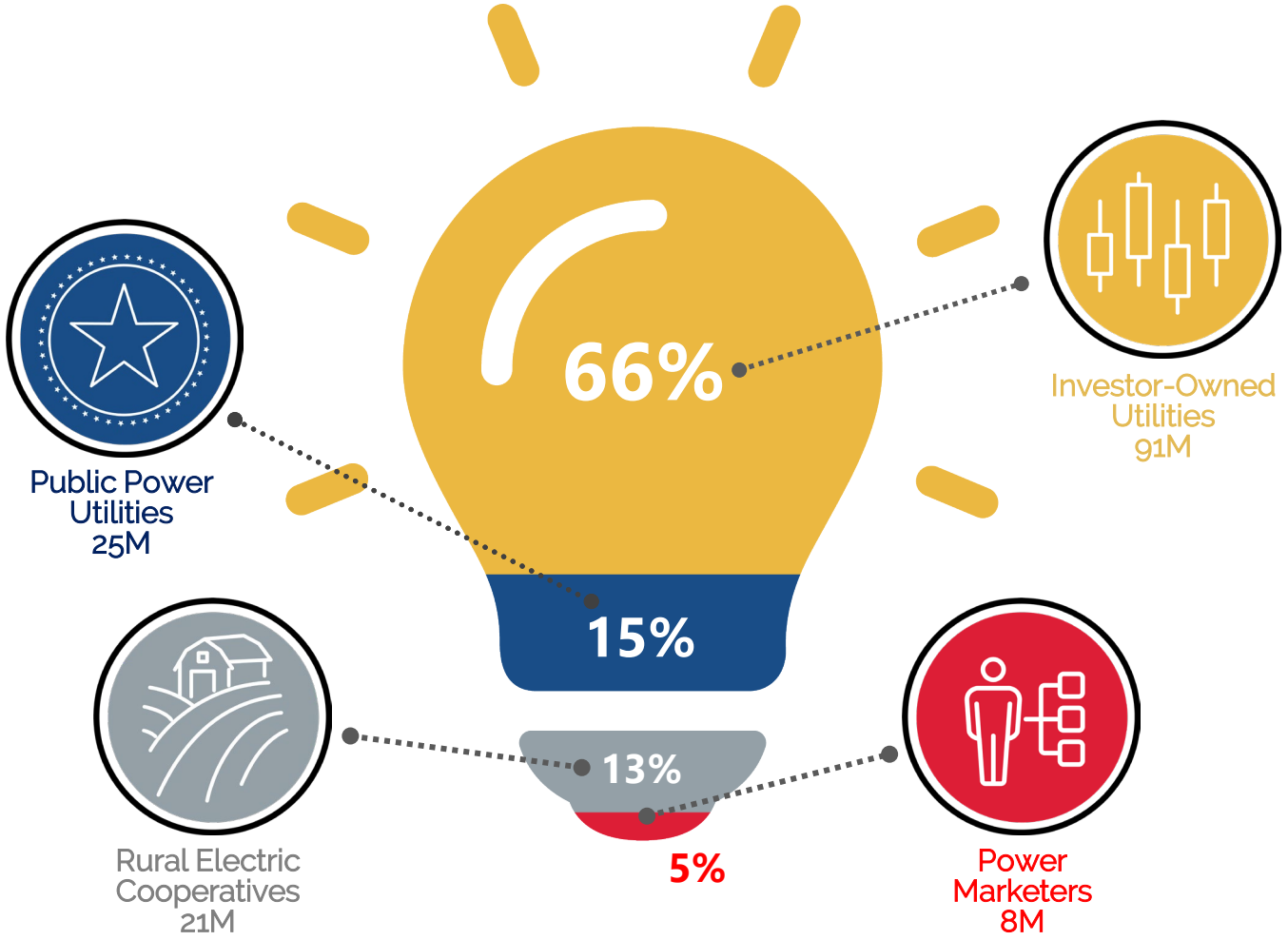
INVESTOR-OWNED UTILITIES

Stock issue or corporate debt

Electric utilities in the U.S. by type



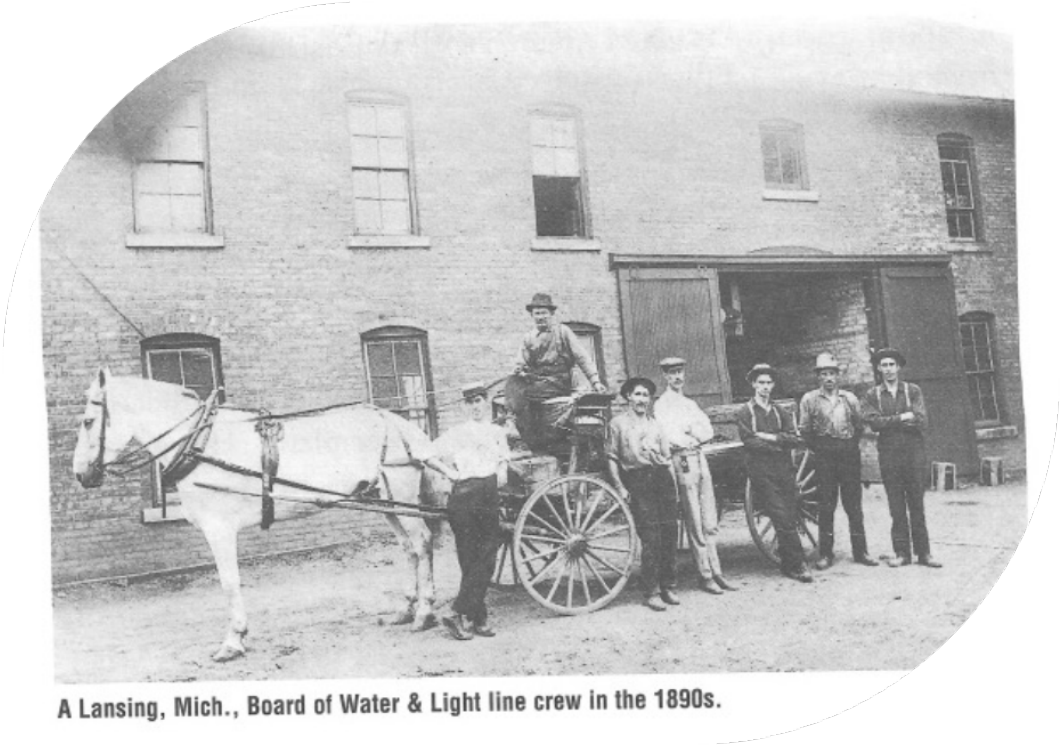
Electricity customers served by



About Public Power

Origins of public power

- First appeared more than 140 years ago
  - Oldest public power utility: Butler, Missouri (1881)
  - Over 30 public power systems began in the 1880s
- Numbers grew rapidly between the late 1800s – early 1900s
  - 1930s: many sold to larger interests
- Today there are over 2,000 public power systems
  - Over 1,000 public power systems have celebrated their 100-year anniversary



A Lansing, Mich., Board of Water & Light line crew in the 1890s.

Public power utilities are like our public schools and libraries



Community-owned

Division of local government





Elected or appointed boards — mayors, council members, citizens

2,000

public power utilities provide electricity to

54

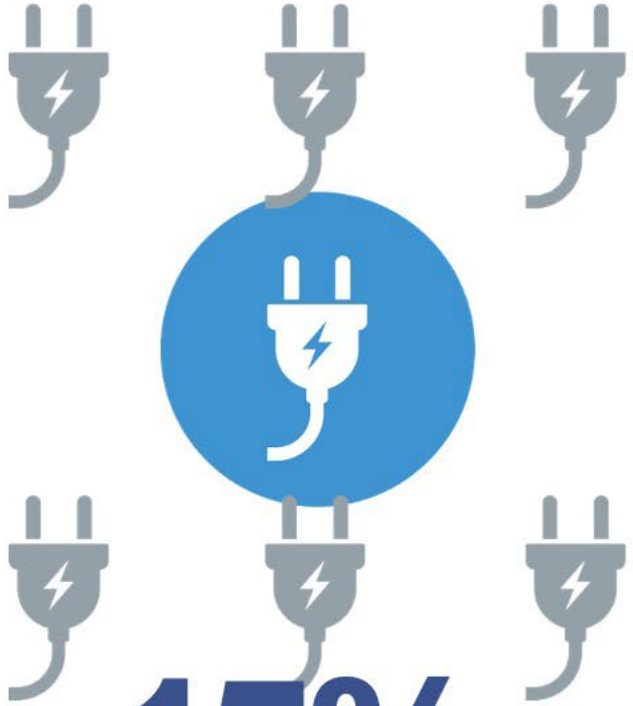
million people* in

49 states and

5 U.S. territories

*Based on U.S. Census Bureau stats of 2.6 people per household/meter

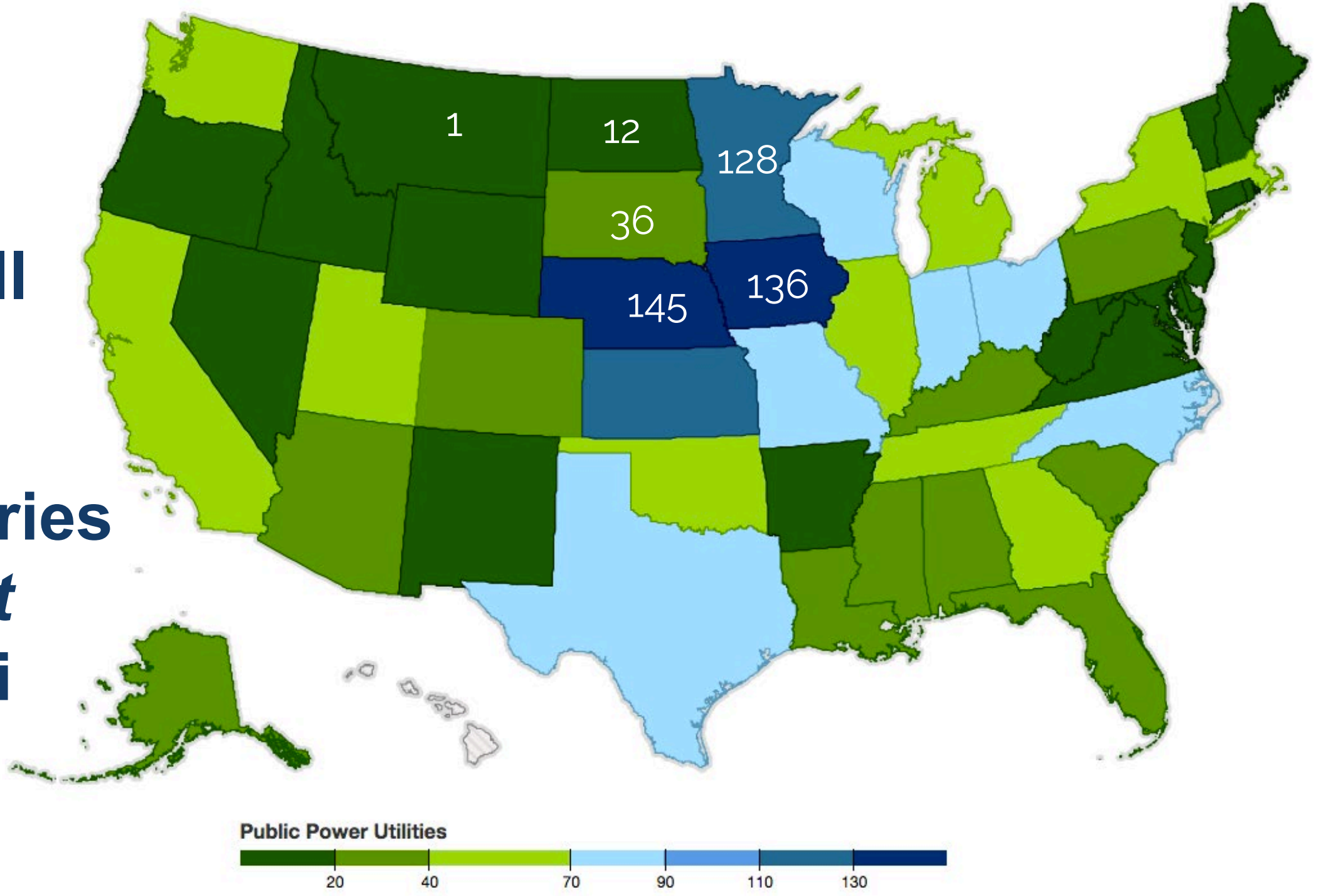
&



15%

of electricity customers in the U.S. are served by public power

Public power is in all states and territories *except* Hawaii



AMERICAN PUBLIC POWER ASSOCIATION
Powering Strong Communities

How many customers does a public power utility serve?

1,322
PUBLIC POWER UTILITIES SERVE UNDER **4K** CUSTOMERS

330
PUBLIC POWER UTILITIES SERVE **4–10K** CUSTOMERS

263
PUBLIC POWER UTILITIES SERVE **10–40K** CUSTOMERS

51
PUBLIC POWER UTILITIES SERVE **40–100K** CUSTOMERS

30
PUBLIC POWER UTILITIES SERVE OVER **100K** CUSTOMERS



The median public power utility serves about **2,000 customers** and generates **$5 million** in annual revenue.



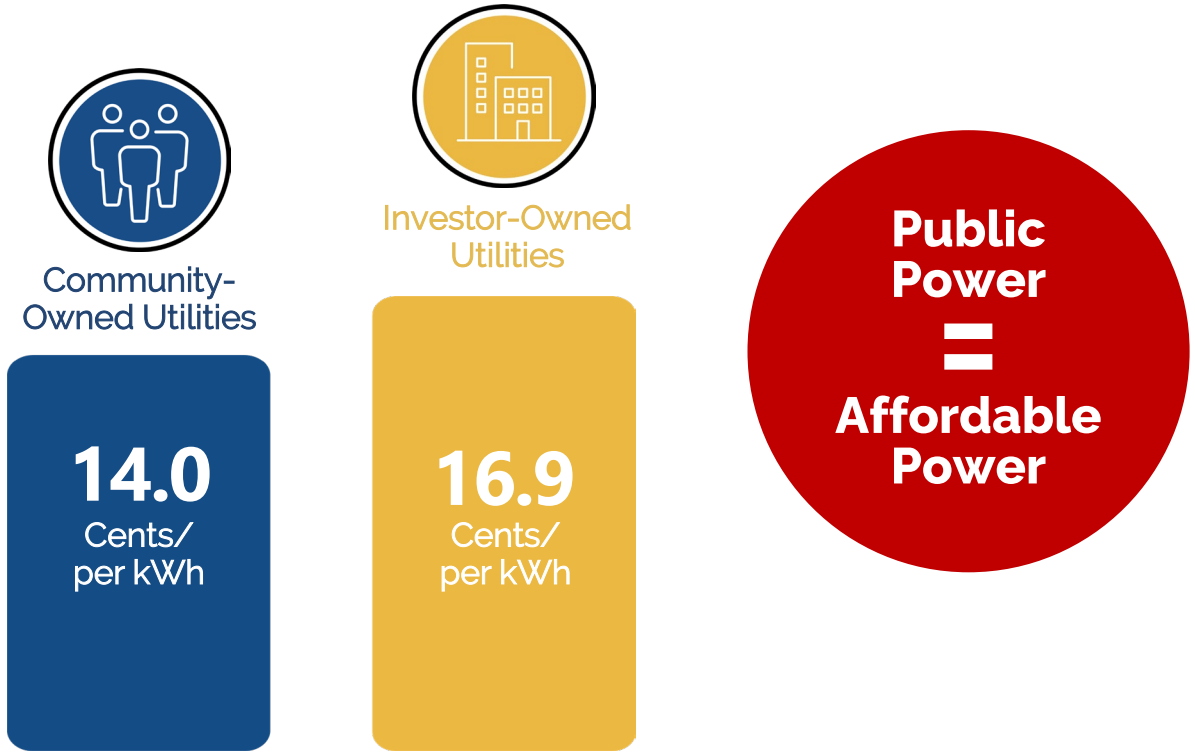
The median public power utility serves about **2,000 customers** and generates **$5 million** in annual revenue.

75%

PUBLIC POWER UTILITIES SERVE UNDER 5,000 CUSTOMERS

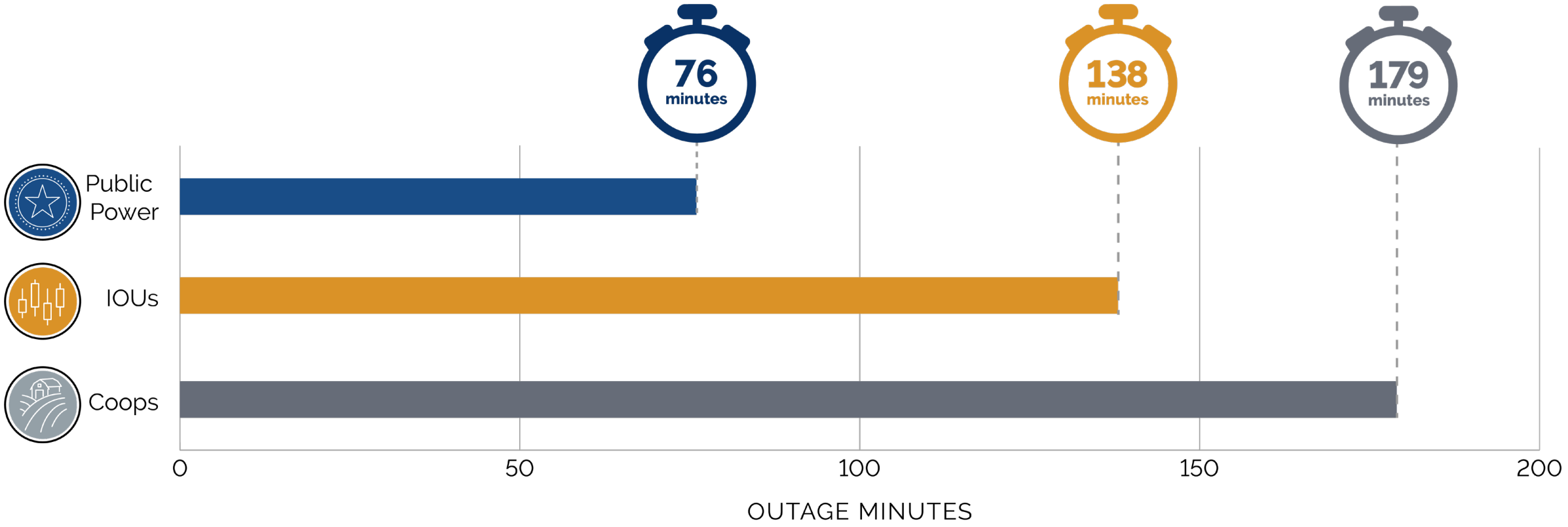
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Average home electricity prices in the U.S. (2026)



Average Outage Time for electricity customers

*Without major events



AMERICAN PUBLIC POWER ASSOCIATION
Powering Strong Communities

Public Power: An Economic Engine

Local ownership turns essential service into lasting community value

55M+

PEOPLE SERVED

Across the United States

100K+

PUBLIC POWER WORKERS

Supporting reliable local service

59%

OF U.S. ELECTRIC UTILITIES

Are public power utilities

THE LOCAL VALUE CYCLE

1 Economic Development

Reliable, competitively priced power helps communities retain, attract, and grow businesses.

2 Community Investment

Local governance keeps decisions focused on community priorities and long-term needs.

3 Local Purchasing Power

Utility payroll and purchasing circulate through local and regional economies.

Sources: American Public Power Association, Stats & Facts and 2026 Public Power Statistical Report.

All text, shapes, colors, and numbers are editable.

Public Power Pays Back

- In 2022, public power contributed a median of 5.1% of electric operating revenues to communities they serve; MRES member average 8.9%

- In comparison, investor-owned utilities paid a median of 4.7% of electric operating revenues in taxes and fees to state and local governments



Value through Joint Action

- Economies of scale
- Shared resources and opportunities
- Larger voice with legislators and regulators
- Mutually beneficial services and opt-in services
- Meet future challenges together
- Reduced risks
- Members are stronger together



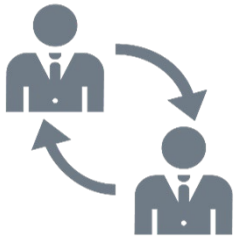
Trade associations representing public power utilities at state and region

- Share members with, but are run independently from, APPA
- Serve public power utilities and providers within a specific state or region
- Provide services including:
  - ✓ Advocacy
  - ✓ Education/training
  - ✓ Communications/news

American Public Power Association

Trade association representing
public power utilities across the U.S.

MEMBER EDUCATION
AND INFORMATION





POLICY
ADVOCACY



BEST PRACTICES
AND RESOURCES

Industry Trends

Community utilities in a time of great change



- Factors driving this change:
  - Shifting regulatory environment
  - Changing power supply
  - New technologies
  - Evolving customer preferences
  - Workforce issues
  - Increasing financial pressures

Changing power supply focused on decarbonizing

- Coal retirements are impacting resource adequacy
- Natural gas/wind/solar/batteries replacing coal
- Distributed generation is changing utility business model
- Large load development, difficult for most local transmission to support
- Transmission buildout is slow and expensive



New technologies

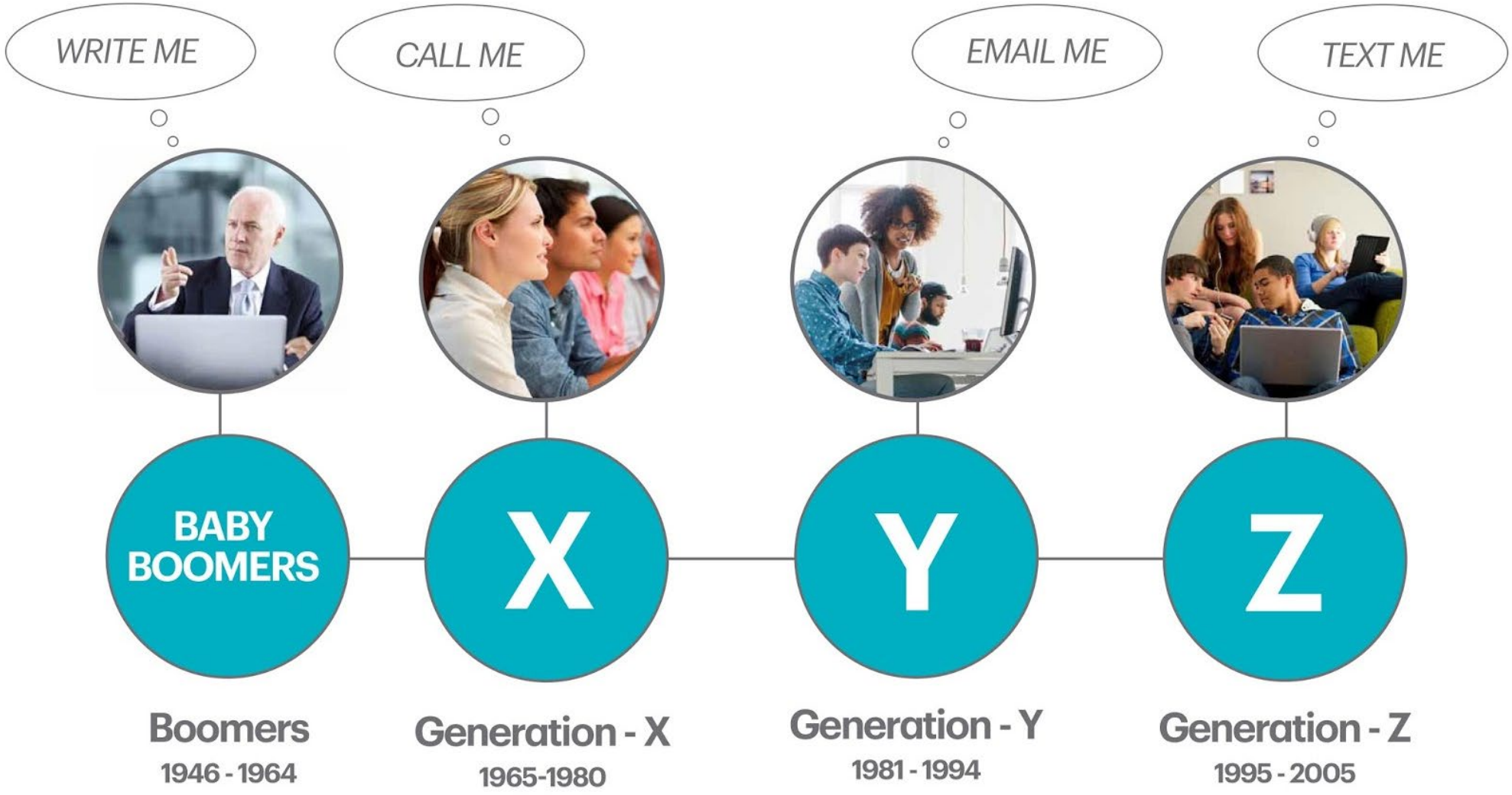


Higher customer expectations

- Customers want to be able to do business with you 24/7/365
- Interact with their utility through multiple platforms: live voice, IVR, website, social media and still walk in your door
- Less loyalty and less tolerance for mistakes
- You are not being compared just to your neighboring IOU, but also Amazon, Zappos, Apple and dozens of other providers of service



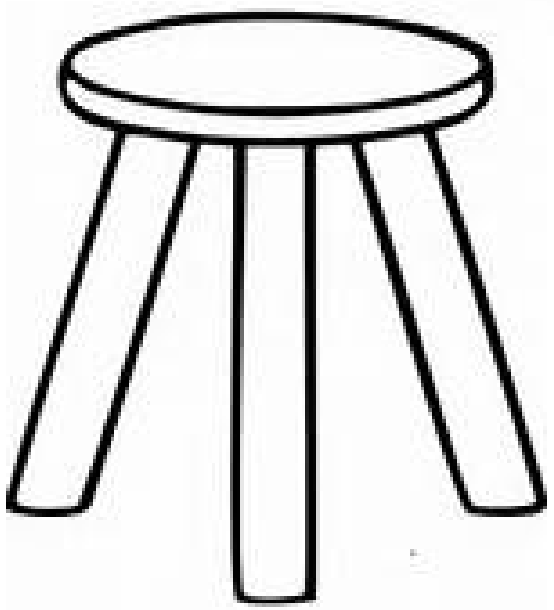
Workforce changes



Increasing financial pressures



- Higher inflation with less workforce
- Capital improvements on existing infrastructure (can’t afford to)
- New technologies needed such as software and more sensors (grid edge), which also requires more system hardening (cybersecurity) and different skill sets
- Customer expectations and communications
- Rate structures not mirroring cost of service (fixed versus variable)



Today’s challenges



- Increasing retirements, resulting in experience loss
- Smaller employment pool
- Changing “employee” characteristics
- Changing work environment
- Compensation challenges
- Is public power a “feeder” program for the IOUs and rural electric co-ops?

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Thank you

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