

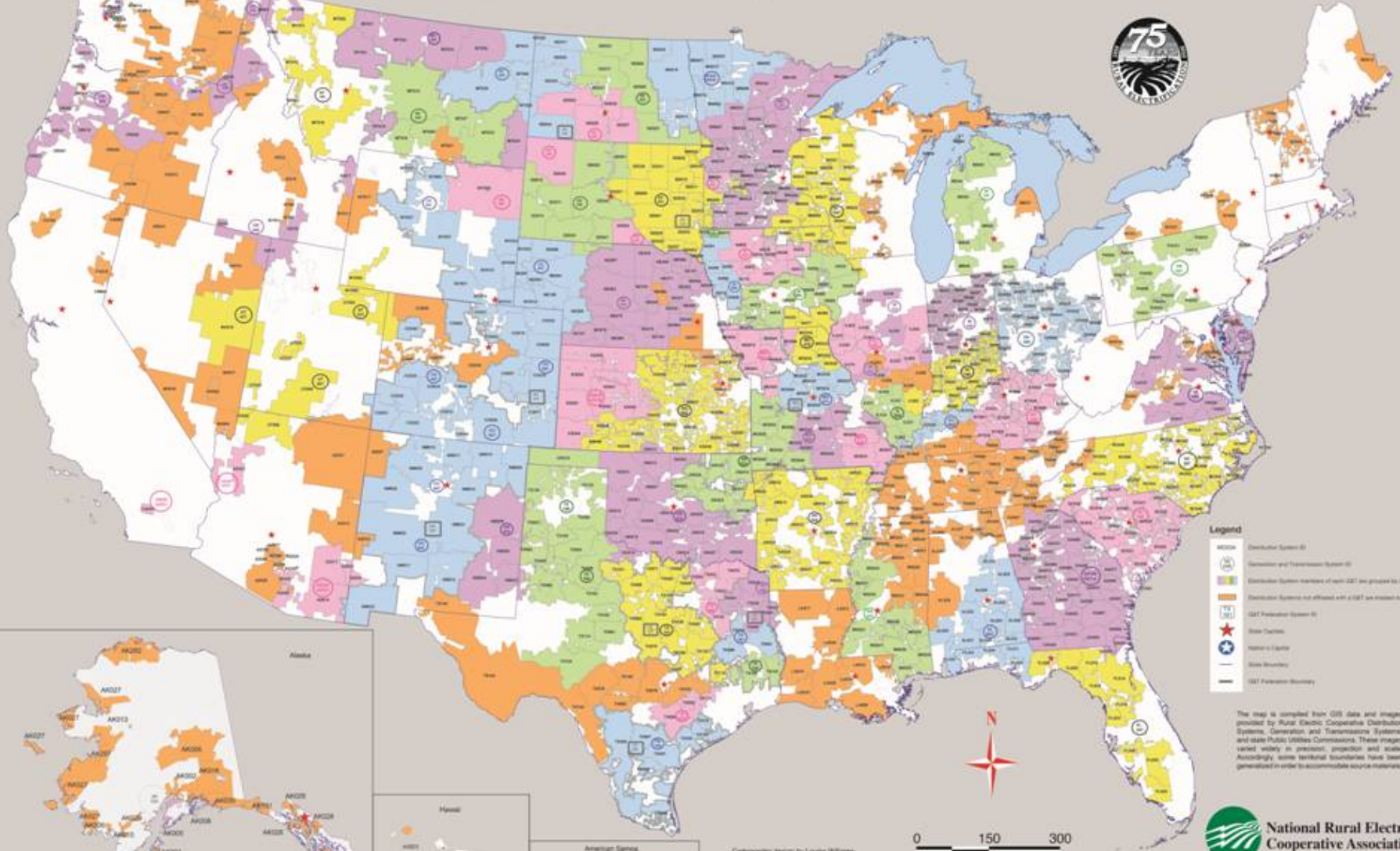


# Beneficial Electrification as a Strategy to Enhance Energy Productivity in Rural Communities

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# America's Electric Cooperative Network

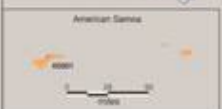


- Legend**
- Distribution System ID
  - Transmission and Transmission System ID
  - Distribution System number of main DSID not grouped by color
  - Distribution Systems not affiliated with a DSID are shown orange
  - DSID Population System ID
  - State Capital
  - State's Capital
  - State Boundary
  - DSID Population Boundary

The map is compiled from GIS data and images provided by Rural Electric Cooperative Distribution Systems, Generation and Transmission Systems, and state Public Utilities Commissions. These images varied widely in precision, projection and scale. Accordingly, some territorial boundaries have been generalized in order to accommodate source materials.



0 150 300  
miles



Cartographic design by Louise Williams  
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# Rural Residential Needs

- You can really impact people's lives in rural areas – with a ***tailored and appropriate*** approach
- Federal policies and programs can skew towards national numbers (not always reflective of rural use)
- 55% of co-op power is consumed by residential consumers-members.
- More than half of coop service territory has no natural gas service and new service is not cost-effective
- Finding ways to help folks save money by wise energy use is what we do and will be a key strategy moving forward

# Coop Facts – Serving the Rural Demographic

- The average income for co-op-served households is about 12 percent lower than the national average.
- 9 in 10 electric cooperatives have average household incomes below the national average, and 4 in 5 have average household incomes lower than their state averages.
- Cooperatives serve the vast majority of the nation's persistent poverty counties (327 out of 353, or 93 percent). These counties have deeply entrenched poverty with rates consistently 20 percent or above for the last three decades.
- In all, 1 in 6 of the 42 million Americans served by cooperatives live below the poverty line, many of them in these counties.
- At 14.7 percent, the share of mobile homes in the housing stock of co-op territories is more than double the US average of 6.5 percent.

# Electric Technology Has Changed - Electric Agricultural Pumps and Heat Pumps



***Great opportunity to incentivize electric agricultural pumps and heat pumps for space heating in rural areas!!!***

# Down The Road – More Electric Tractors and Broadband/Technology Enabled Water Management

John Deere unveils latest all-electric tractor prototype for zero-emission agriculture

Fred Lambert - Dec. 5th 2016 5:30 am ET [@FredericLambert](#)

ELECTRIC TRACTOR

JOHN DEERE





# Resources on How To Help Consumers With Electric Water Heating

Visit: <https://www.cooperative.com/public/bts/energy-efficiency>

Business &  
Technology  
Strategies

## TechSurveillance

Consumer-Centric Programs that Promote Electrification:  
*Leasing Water Heaters and Other Strategies to Meet Consumer Needs with Electric Water Heaters*

BY CHRISTINE GRANT, AMY WHEELESS, AND PATRICK KEEGAN,  
COLLABORATIVE EFFICIENCY

JANUARY 2017

## The Hidden Battery

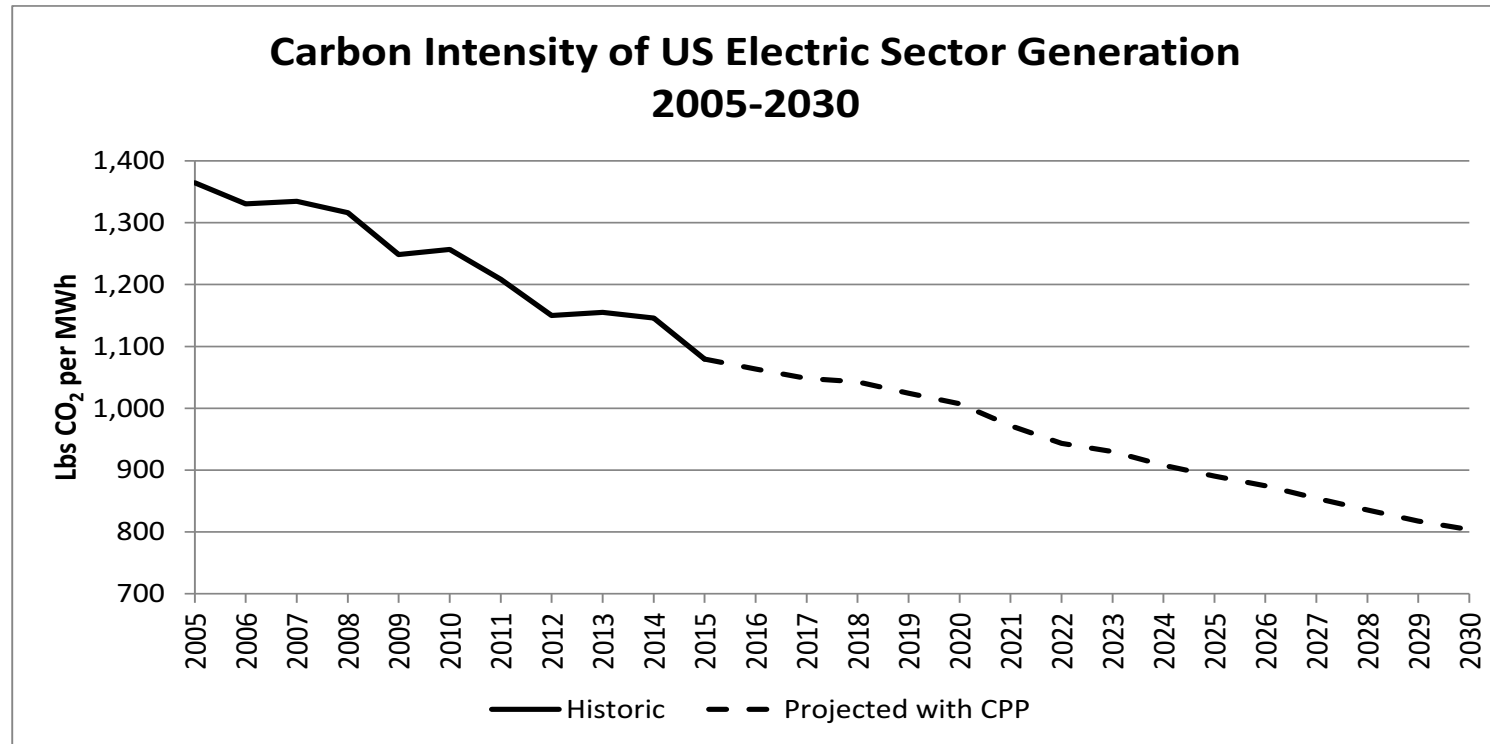
Opportunities in Electric Water Heating

PREPARED FOR





# Opportunity for “Environmentally Beneficial Electrification” to Improve “Emissions Efficiency”



- While the energy efficiency of devices will not change once installed, the **emissions efficiency** (or “**emiciency**”) will improve over time.
- Provides great opportunity for rural coop members – folks using fuel oil for houses heating, diesel for agricultural pumps, need help with up front equipment costs etc.

# Contact Information

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