



Jump Starting Energy Efficiency Technology Adoption

Ken Williams

November 6, 2014

Agenda

- About WECC
- Ratepayer Funded Energy Efficiency Programs
- Energy Efficiency Program Technical Resources
- Emerging Technology Programs
- Plug Load Measures In Energy Efficiency Programs

About WECC

- Proving the value of energy efficiency and renewable energy since 1980
- National leader in administering, implementing, and designing energy programs
- Anticipate and understand trends that affect the marketplace



How WECC is Helping Save Energy

CALIFORNIA

Bay Area Regional Energy Network

- Innovative financing

CONNECTICUT

Clean Energy Finance and Investment Authority

- Innovative financing

COLORADO

Xcel Energy

- Retail
- Residential Prescriptive
- Recycling

ILLINOIS

Nicor Gas, MidAmerican Energy Company

- Planning
- Retail

INDIANA

Citizens Energy Group, Indianapolis Power & Light Company, Indianapolis Neighborhood Housing Partnership

- Residential Retrofit
- Residential Prescriptive
- Residential New Construction
- Commercial and Industrial Prescriptive
- Commercial and Industrial Custom
- Multifamily
- Residential Kits
- Residential HVAC
- Online Assessment

IOWA

Iowa Association of Municipal Utilities, Corn Belt Energy Coop, MidAmerican Energy Company, Alliant Energy, Central Iowa Power Cooperative, Cedar Falls Utilities, Other Muni and Coops

- Retail
- Residential New Construction Quality Assurance and Control

KENTUCKY

Duke Energy

- Residential Audit and Direct Install

MICHIGAN

Michigan Electric Cooperative Association, Lansing Board of Water and Light

- Comprehensive Residential, Commercial, and Industrial Portfolio Management

MINNESOTA

Xcel Energy, Minnesota Power, Alliant Energy, Southern Minnesota Municipal Power Agency, Otter Tail Power Company, Other Muni and Coops

- Retail

- Residential Prescriptive
- Residential HVAC
- Residential Home Energy Analysis
- Recycling

NEW JERSEY

Financing Solutions for New Jersey's Clean Energy Program

- Residential Efficiency Financing

NEW MEXICO

Xcel Energy

- Retail
- Residential Prescriptive
- Recycling

NEW YORK

Financing Solutions for New York State Energy Research and Development Authority

- Residential Efficiency Financing

NORTH CAROLINA

Duke Energy

- Residential Audit and Direct Install

OHIO

Duke Energy, Vectren

- Residential Prescriptive
- Residential Audit and Direct Install
- Commercial and Industrial Custom
- Commercial and Industrial Prescriptive

SOUTH CAROLINA

Duke Energy

- Residential Audit and Direct Install

SOUTH DAKOTA

Xcel Energy

- Retail

WISCONSIN

Focus on Energy, U.S. Department of Energy, Wisconsin Department of Administration

- Residential New Construction
- Residential Retrofit
- Commercial and Industrial Prescriptive
- Commercial and Industrial Custom
- Community Based
- Low Income
- Innovative Financing
- Contractor Training
- Residential Renewables



In our last fiscal year, **WECC** helped save:

16 million
therms of natural gas

630 million
kilowatt-hours of electricity

\$85 million
in energy costs

In other words, over the last year,
WECC has helped save enough energy to:

Eliminate
1.1 billion
POUNDS OF CO₂

Conserve
59.3 million
gallons of gasoline

Remove
110,296
cars from
the roads

Power
83,567
homes for one year

Adoption of New Energy-Efficient Technologies

Bad

- Customer resistance to paying incremental costs for energy efficiency

Good

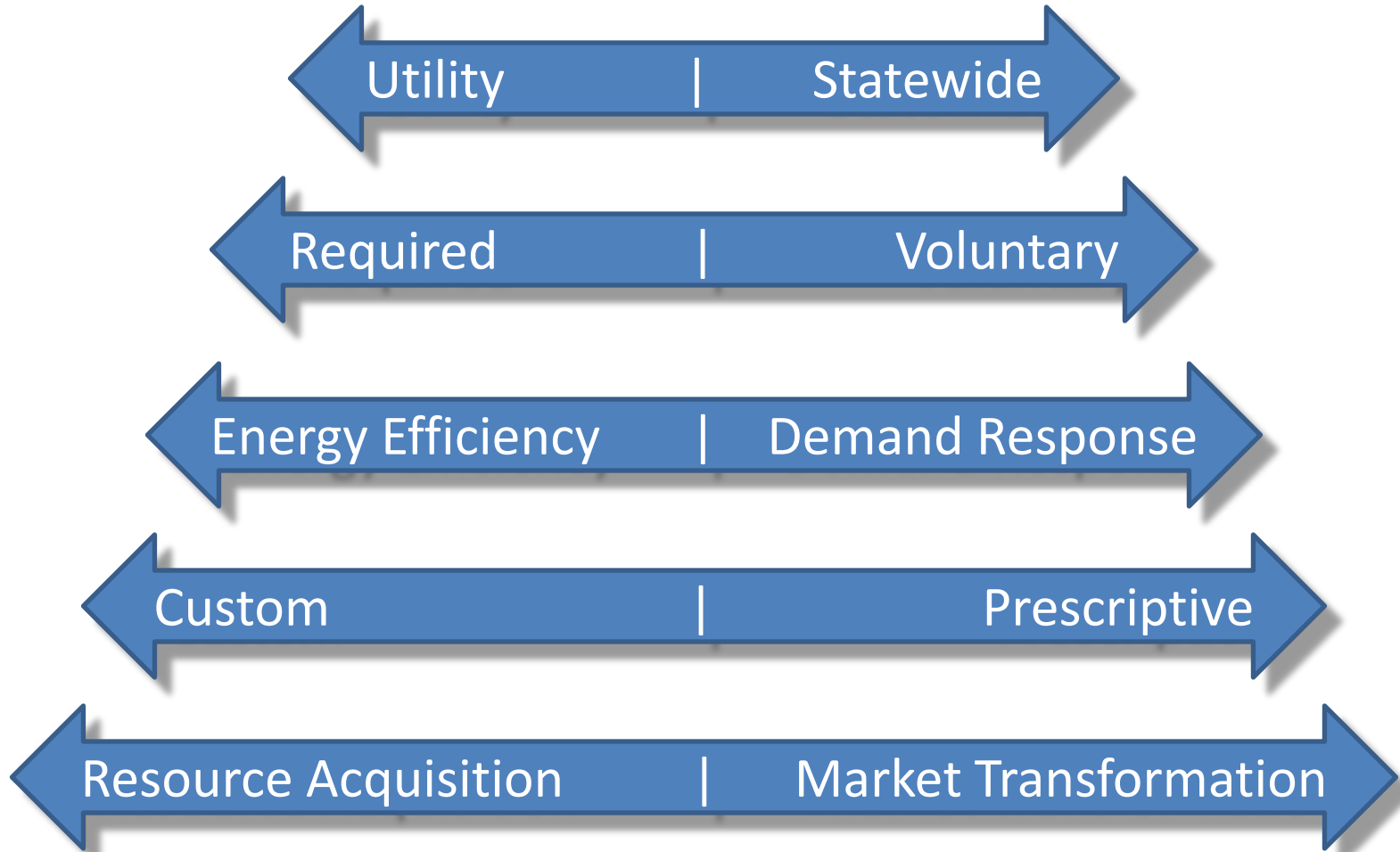
- \$8 Billion available annually to fund energy efficiency

Ugly

- The barriers to getting funding for new technologies

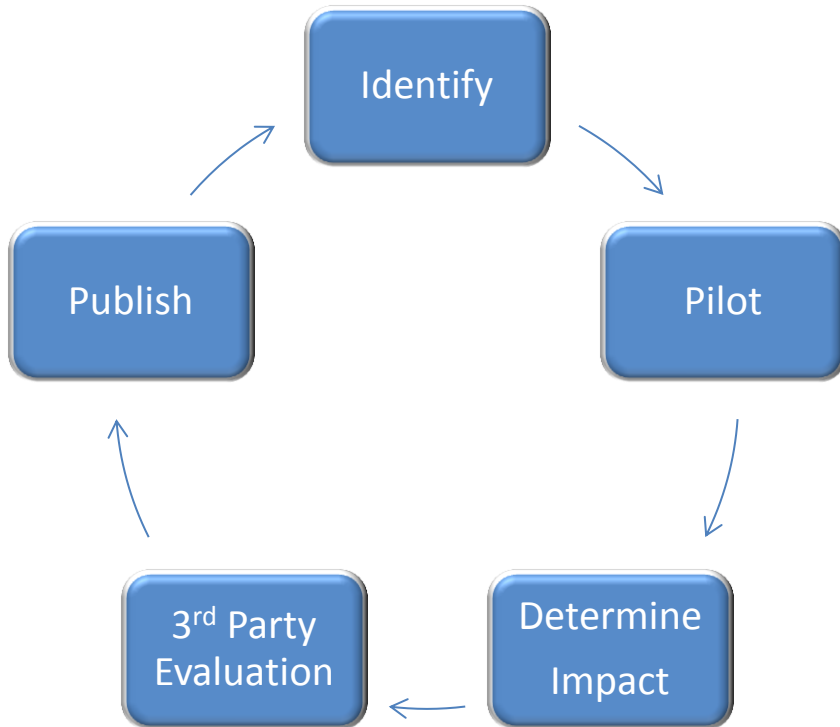


Ratepayer Funded Programs



Ratepayer Funded Programs

Adding New Measures (technologies)



- **Identify**
 - Program participant or vendor
 - Paper or presentation
- **Pilot**
 - Limited trial within a program
 - New program pilot
- **Impact**
 - Energy savings calculation
 - Net savings (- free ridership)
- **Evaluation**
 - Independent 3rd party
- **Publish**
 - Program measure list
 - Prescriptive program
 - Technical resource manual
 - Program evaluation report

Ratepayer Funded Programs

Technical Resource Examples



- California DEER.....<http://www.energy.ca.gov/deer>
- NW Regional Technical Forum.....<http://rtf.nwcouncil.org>
- Cal TR.....<http://www.caltf.org>
- Focus on Energy TRM.....<http://www.focusonenergy.com>
- Illinois TRM.....<http://www.ilsag.info>
- USDOE DSIRE.....<http://dsireusa.org>

Emerging Technology Programs

- Ratepayer funded
 - Ongoing programs
 - Industrial and commercial technologies
 - Mass market technologies
 - Periodic RFPs
 - New technologies
 - Existing technologies with low adoption rates
 - New approaches
- Grant programs
 - Federal and state programs



Plug Load Measures In Energy Efficiency Programs

Retail Programs



Energy Efficiency Kits

Direct Install Programs



Questions?

For more information, please contact:

Ken Williams

WECC Corporate Executive Consultant

New Market Development

608-729-6881

kwilliams@weccusa.org