





Loveland Water and Power



Platte River
Power Authority



City of
Fort Collins
Utilities

Efficiency Programs Overview & Update

John Phelan & Tracey Hewson
Fort Collins Energy Board and
Loveland Utilities Commission
Special Joint Meeting
October 27, 2016

The Energy We Live By™



EfficiencyWorks™

Efficiency programs provide “line of sight” support of multiple initiatives.



**2016-2026
Strategic Plan**

Compliance Assurance

Safety

Financial Stability

Employee Engagement

Exceptional Customer Service

Improved Collaboration & Communications

Resource Management

Technological Innovation

Operational Excellence



Platte River
Power Authority
The Energy We Live By™

Efficiency: a Team Effort

Platte River

Adam Perry
Bryce Brady
Adam Zipperer
Adrien Kogut
Melissa Wangnild
Paul Davis

Estes Park

Susie Parker
Rueben Bergsten

Longmont Power & Communications

Anne Lutz
Chuck Finleon
Robert Love
Tracie Tovar
Marisa Jarae

Fort Collins Utilities

John Phelan
Diana Royal
Crystal Shafii
Kelley Gonzales
Michael Authier
Lisa Schroers
Gary Schroeder
Kim DeVoe
Todd Musci
Lucas Mouttet
Liesel Hahn
Renee Davis
Lisa Gardner
John Robson

Fort Collins (continued):

Travis Paige
Wendy Serour
Peter Iengo
Tony Raeker
Dustin Main
Brian Tholl

Loveland Water and Power

Tracey Hewson
Lindsey Bashline
Gretchen Stanford
Allison Bohling



Common Energy Efficiency Programs



Efficiency Works™

Estes Park
Light and Power

Fort Collins
Utilities

Longmont
Power &
Communications

Loveland
Water and Power

Platte River
Power Authority

Efficiency Works for Home

- Home efficiency audits & rebates
 - Neighborhoods pilot
- Energy efficient lighting and products
- Northern Colorado ENERGY STAR® Homes

Efficiency Works for Business

- Efficiency assessments/technical support
 - Energy and water audits
- Building Tune-Ups (BTU)
- Rebates for efficient equipment



Efficiency Works for Homes

Home Efficiency Audits & Rebates

- Program managed by team of Platte River and Muni staff
- Program administrator (CLEAResult) contract managed by Platte River
- Directive Funding from Municipality budgets

Program Administrator Provides:

- Efficiency audit and customer advisor services
- Contractor management
- Rebate Processing
- Quality assurance and verification

"[The Advisor] was extremely helpful in showing us where we can best improve the efficiency of our house."
Participating Homeowner



Efficiency Works for Homes

Energy efficient lighting & products

- Retail point-of-sale rebates for LEDs and other efficient lighting technologies
- The Home Depot, Ace Hardware, Wal-Mart, Sam's Club, The Light Center, Joseph's Hardware, Batteries Plus, etc.
- Rebates are paid based on contracted rates and sales data provided monthly by retailers
- Expansion beyond lighting in 2017+



Efficiency Works for Business



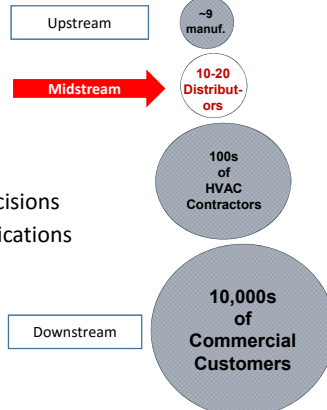
- Custom Rebates
 - Rebates based on energy savings and project cost
 - Virtually any equipment that saves energy: chillers, evaporative coolers, compressed air, special controls, etc.
- Prescriptive Rebates
 - Rebates for equipment that saves energy (or water with city funding)
 - Lighting, cooling, building envelope, food service, grocery, office & IT, variable frequency drives (VFDs)
- Efficiency assessments / technical support
- Building tune-ups
 - Utility pays for retro-commissioning study, implementation oversight, and verification
 - Customer commits to perform no- and low-cost efficiency upgrade

800+ projects per year across four cities and growing...



Midstream Cooling Incentive Program (Pilot)

- Support for high-efficiency commercial packaged cooling equip
- Rebates directed at HVAC distributors ("midstream")
- Benefits
 - Distributors control equipment stocking
 - Distributors influence contractors' purchasing decisions
 - Fewer market actors simplifies program communications
 - Distributors are most familiar with equipment
 - Lower per unit rebates & yet higher participation
- Program implementer: Energy Solutions
 - Also implements program for Xcel Energy
- Run through end of year and consider next steps



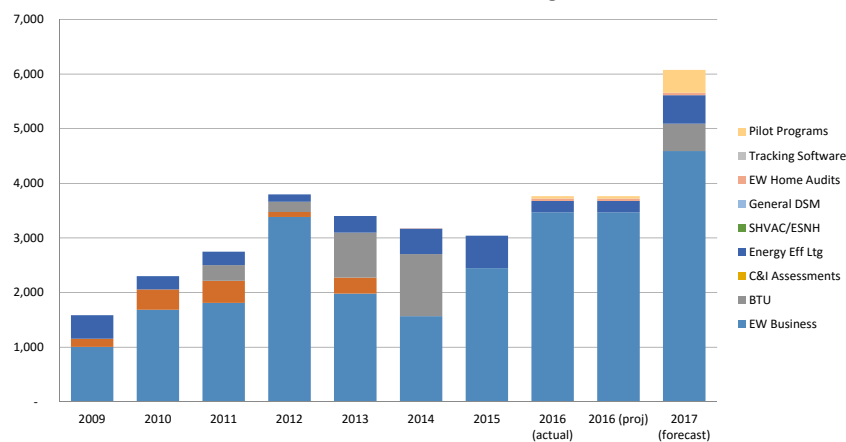
Historical and 2016 Results

- For Loveland and Fort Collins
 - Energy savings
 - Business and home participation
 - Retail lighting sales
 - Upstream HVAC participation



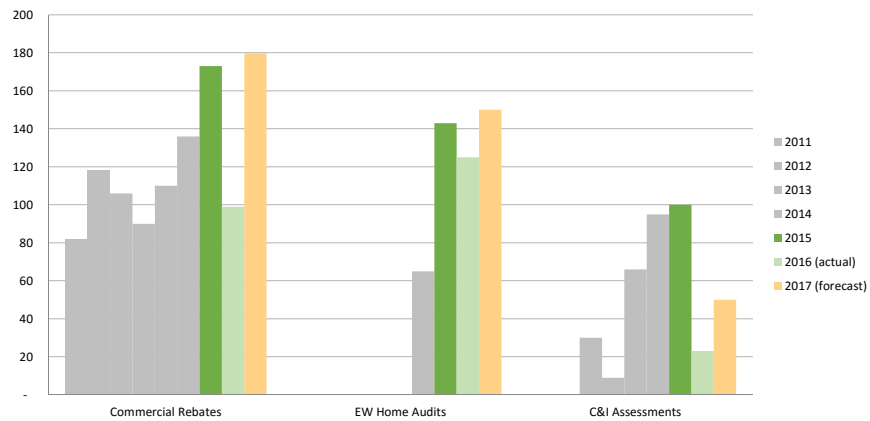
Efficiency Energy Savings Results

Loveland Annual EE Savings



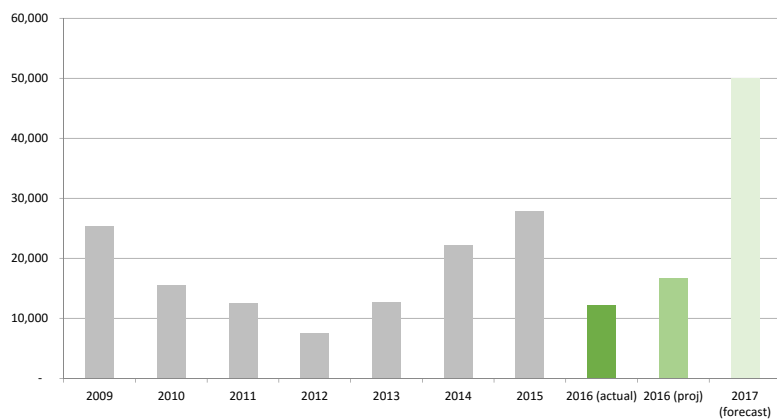
Efficiency Program Participation Results

Loveland EE Rebates and Audit Participation



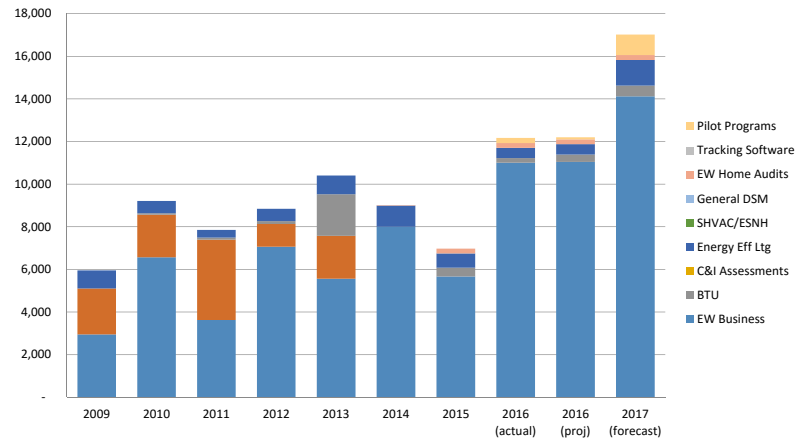
Retail Products Results

Efficient Lighting and Products in Loveland retailers



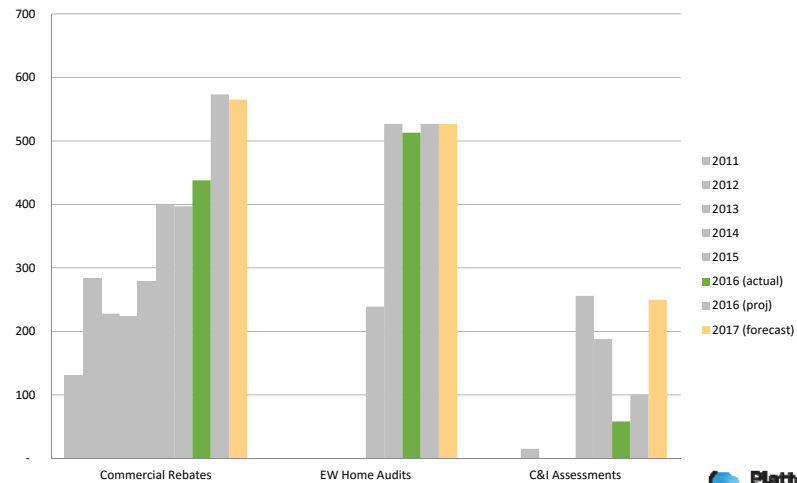
Efficiency Energy Savings Results

Fort Collins Annual EE Savings



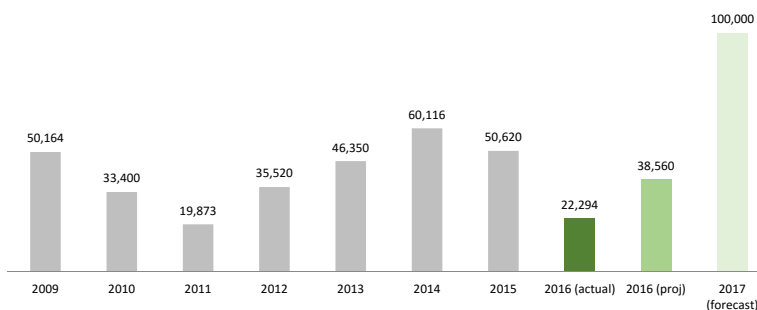
Efficiency Program Participation Results

Fort Collins Rebate and Audit Participation



Retail Products Results

Efficient Lighting and Products in
Fort Collins retailers



Upstream HVAC Results (YTD)

- 5 Distributors So Far (95% of commercial sales in area)

Key Performance Indicators

Midstream (7/8/2016 to 10/24/2016)

Metric	Total Paid
# of Projects	9
Tons	204
Costs	\$20,961
kW*	15.5
kWh*	50,181

Downstream (1/1/2016 to 7/8/2016)

Metric	Total Paid
# of Projects	8
Tons	114
Costs	\$38,575
kW*	8
kWh*	34,457

Note: *kW and kWh values are estimated

Midstream Cooling Program

16



Upstream HVAC Results (YTD)

Cumulative Total Paid per City (as of 10/24/16)

Metric	Estes Park	Fort Collins	Longmont	Loveland
Projects	0	7	1	1
Tons	0	163	5	36
Incentives	\$0	\$11,336	\$425	\$2,356
Total Fees	\$0	\$16,672	\$611	\$3,678
kW*	0	12	1	2.5
kWh*	0	33,803	1,021	15,357

Note: *kW and kWh values are estimated

Midstream Cooling Program

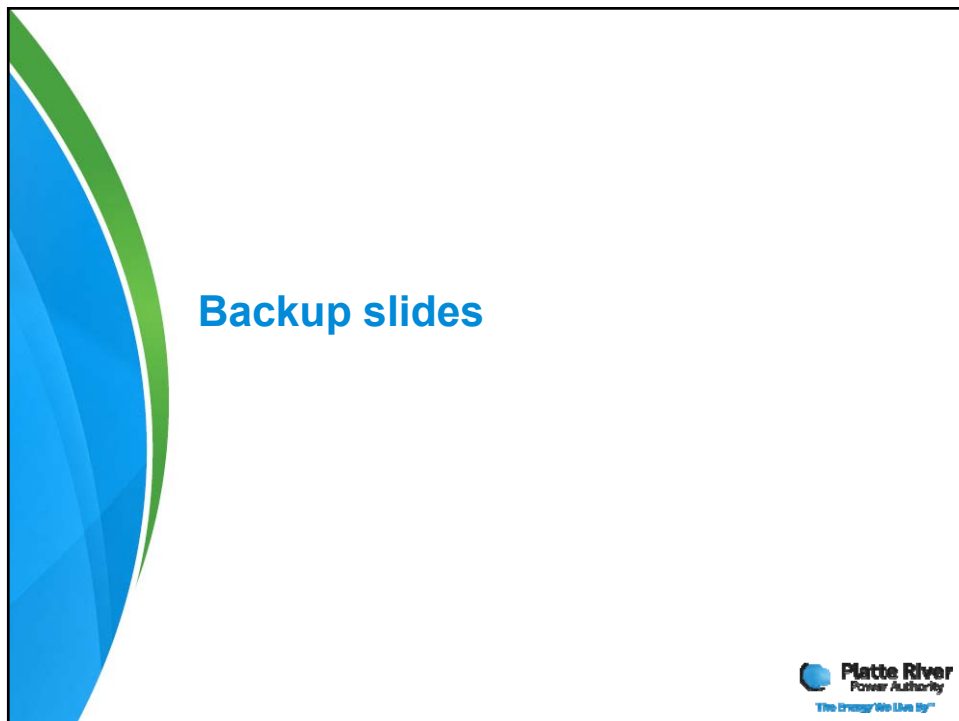
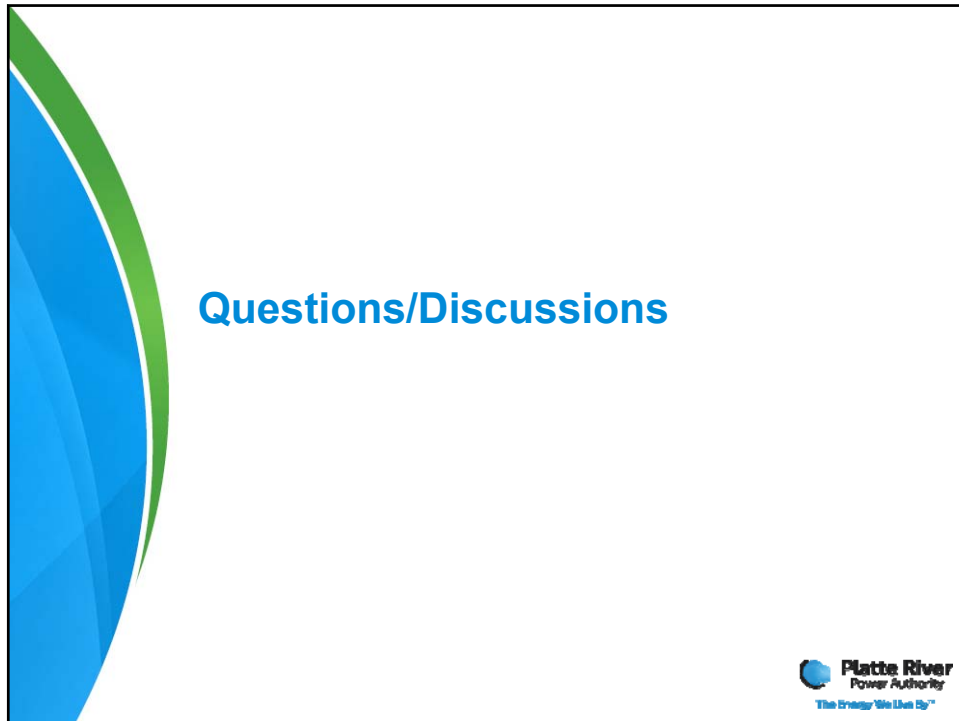
17



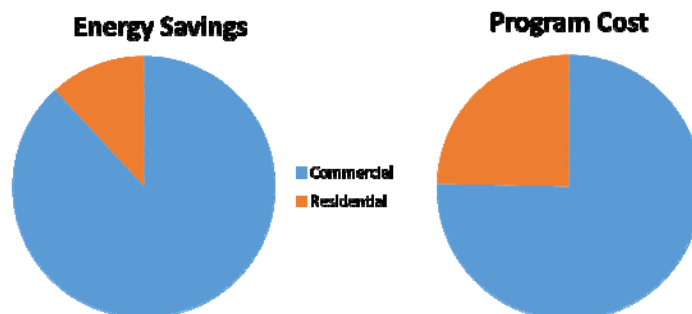
Ongoing Activities and Next Steps

- Continue to evaluate commercial rebates to meet EE goals and gap analysis to focus efforts and analysis
- RFP issued for commercial DSM, assessment, advising and technical services for 2017
- Continue DSM Software implementation
- Midstream Cooling pilot
- Efficiency Works Neighborhoods – FC Pilot
- Increase consumer products - Retailer Program Partnership (RPP)
- EE Financing – Fort Collins RFP and other opportunities being monitored
- Considering third-party program evaluation (2017)





Common Efficiency: Savings and Spending by Customer Class



Common programs only, including combined results of 2015 actual and 2016 commitments.
Does not include municipalities programs (e.g., Home Energy Reports).
Looking at new program models to improve residential savings and cost effectiveness.

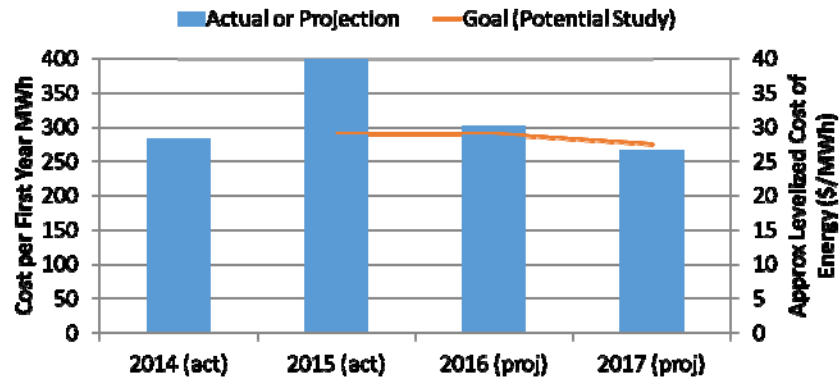


Rebate Levels & Program Budgets

- Portfolio level
 - Achieve energy and demand savings targets
 - Spending within Platte River and municipality budgets
 - Other considerations
 - Spend up to 75% of efficiency cost premium
 - Offer something for each customer class (commercial, residential)
- Efficiency program / efficiency measure level
 - Rebates set high enough to interest customers and contractors
 - Rebate as percent of project cost
 - Rebate effect on customers' simple payback period
 - Some rebates may exceed implied portfolio \$/MWh as long as others are lower
 - Helpful to spur interest in new efficiency measures
- Collaborative effort among Platte River & city staffs



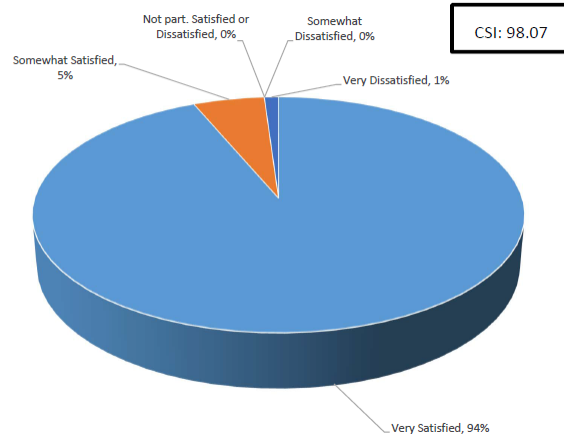
Cost of Efficiency Programs



Platte River
Power Authority
The Energy We Live By™

Commercial Rebates: Survey Sample Results

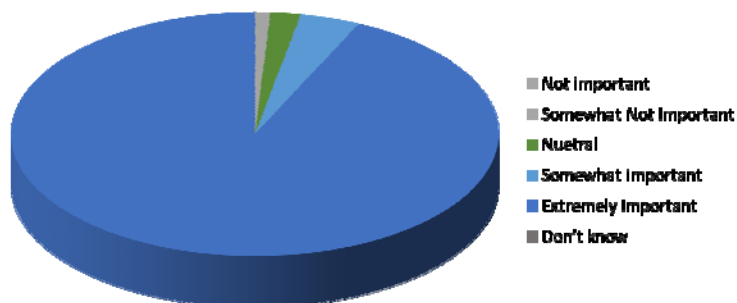
Q8. Overall, how satisfied are you with your project?



Platte River
Power Authority
The Energy We Live By™

Commercial Rebates: Survey Sample Results

Importance of Rebate in Decision



85% of business participants stated that rebates were an important in their decision to do EE project



Efficiency Program Expansion

- Expand EE program goals
 - Planning to ramp programs over five years
 - All achievable EE with lower cost than combined cycle gas (including projected CO₂ costs)
 - Energy savings goal: 0.5%/yr in 2015 → 0.6%/yr in 2016 → 1.3%/yr by 2020
 - Cumulative total load reduction by 2020: ~ 30 MW and 180,000 MWh
- Expand EE program budget (incentives and other non-staff costs)
 - \$2.4 million in 2015 → \$3.3 million in 2016 → ~\$10 million by 2020
 - 1% of retail revenue in 2015 → 1.3% in 2016 → ~ 3.3% by 2020
 - Boosted 2017 budget request by \$2 million (61%) over 2016 budget
- Increase EE program staffing
 - +2 FTE since 2015 + potential need for added staff to continue program growth
- Continue collaboration with municipality EE staff
 - Municipalities' additional funding (Common Programs)
 - EE program planning and operational details
- Approval via Platte River board on annual basis



