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INTEGRATED UTILITY SERVICES: FORT COLLINS AS A CASE STUDY

JACOB CORVIDAE – ROCKY MOUNTAIN INSTITUTE
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ABOUT RMI / CWR

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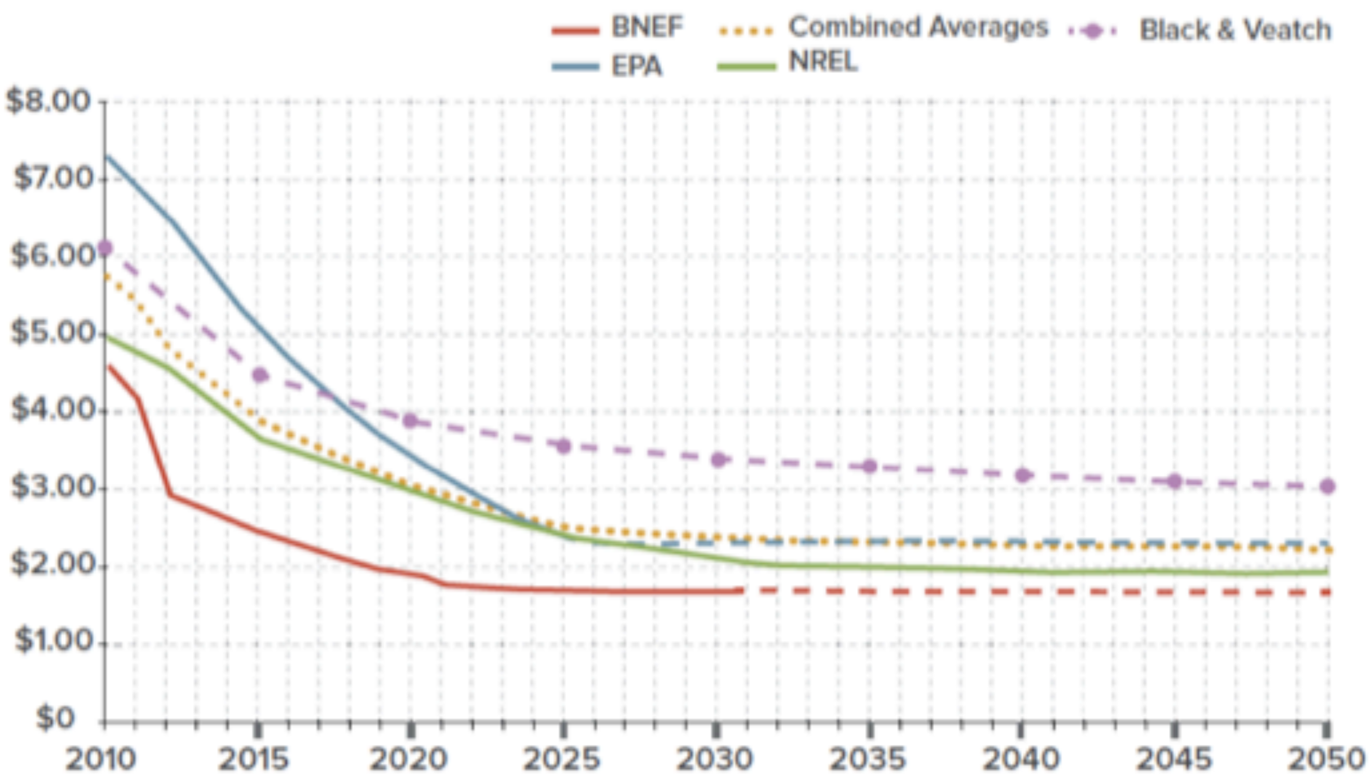
Market-based solutions

Low-carbon economy

Efficiency and Renewable Energy

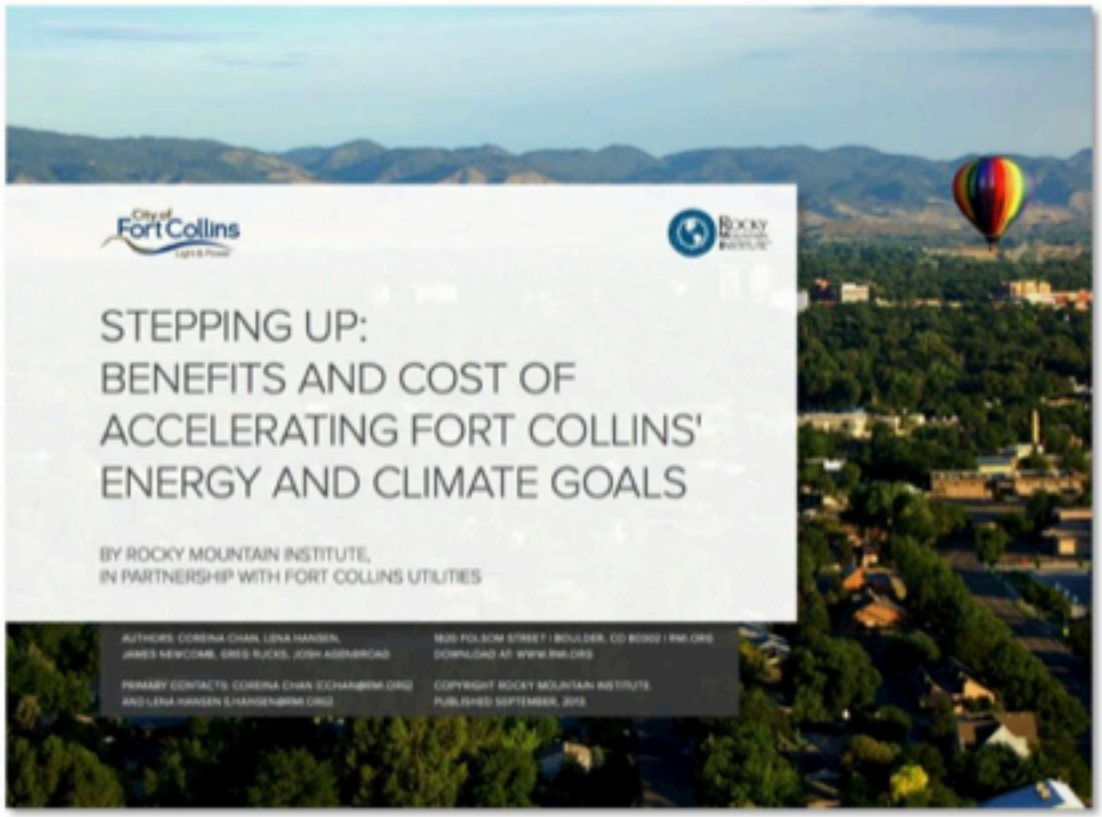
FIGURE 18: RESIDENTIAL INSTALLED PV COST FORECASTS WITH RMI PROJECTIONS

[Y-AXIS 2012$/$W_{dc}$ - INSTALLED]



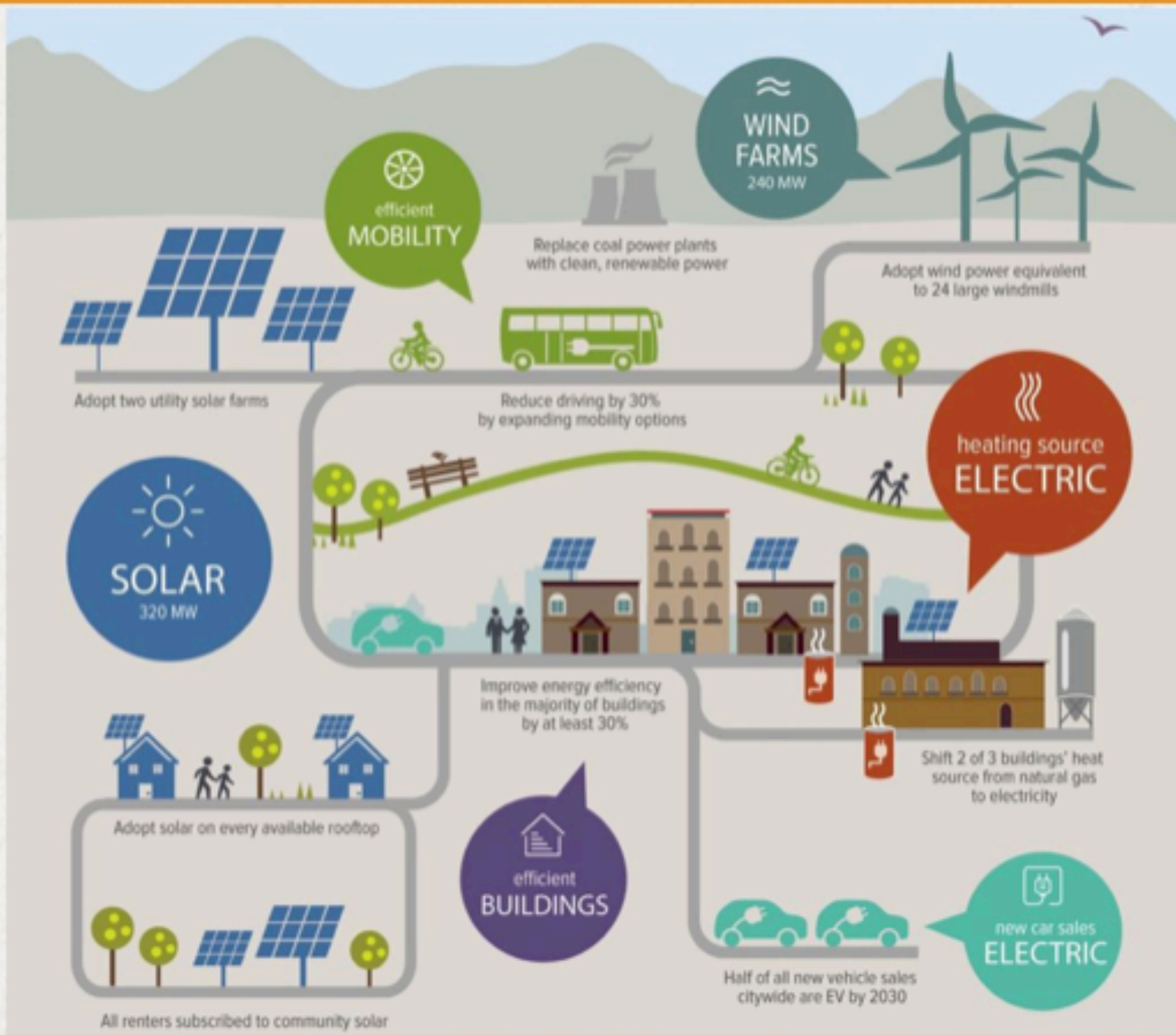
(DASHED LINES REPRESENT EXTRAPOLATIONS)

FORT COLLINS GREENHOUSE GAS GOALS



- **Accelerate carbon goals** (80% below 2005 levels) **20 years**
- **Net benefit of $265 million** for the community
- **Reduce annual cash outflows** from the community to pay for coal and natural gas fuel by close to $50 million
- **Increase local investment** by $30 million per year
- **400–500 jobs**

MULTIPLE STRATEGIES REQUIRED



BALANCING MULTIPLE COMMUNITY INTERESTS

Customer Interests

- Feel happy and confident in the results of services provided
- Access affordable energy and value-added services
- Experience a streamlined purchase process
- Experience enhanced customer service

Utility Interests

- Stabilize business model
- Ensure savings for customers
- Accelerate levels of renewable and energy efficiency adoption to support City's Climate Action Plan goals

City Interests

- Reach Climate Action Plan goals
- Stimulate economic development
- Ensure equitable access to energy

Business Interests

- Minimize complexity and operational risk
- Improve business climate

Core Design Principles

INTEGRATED UTILITY SERVICE (IUS) MODEL

Key Program Features

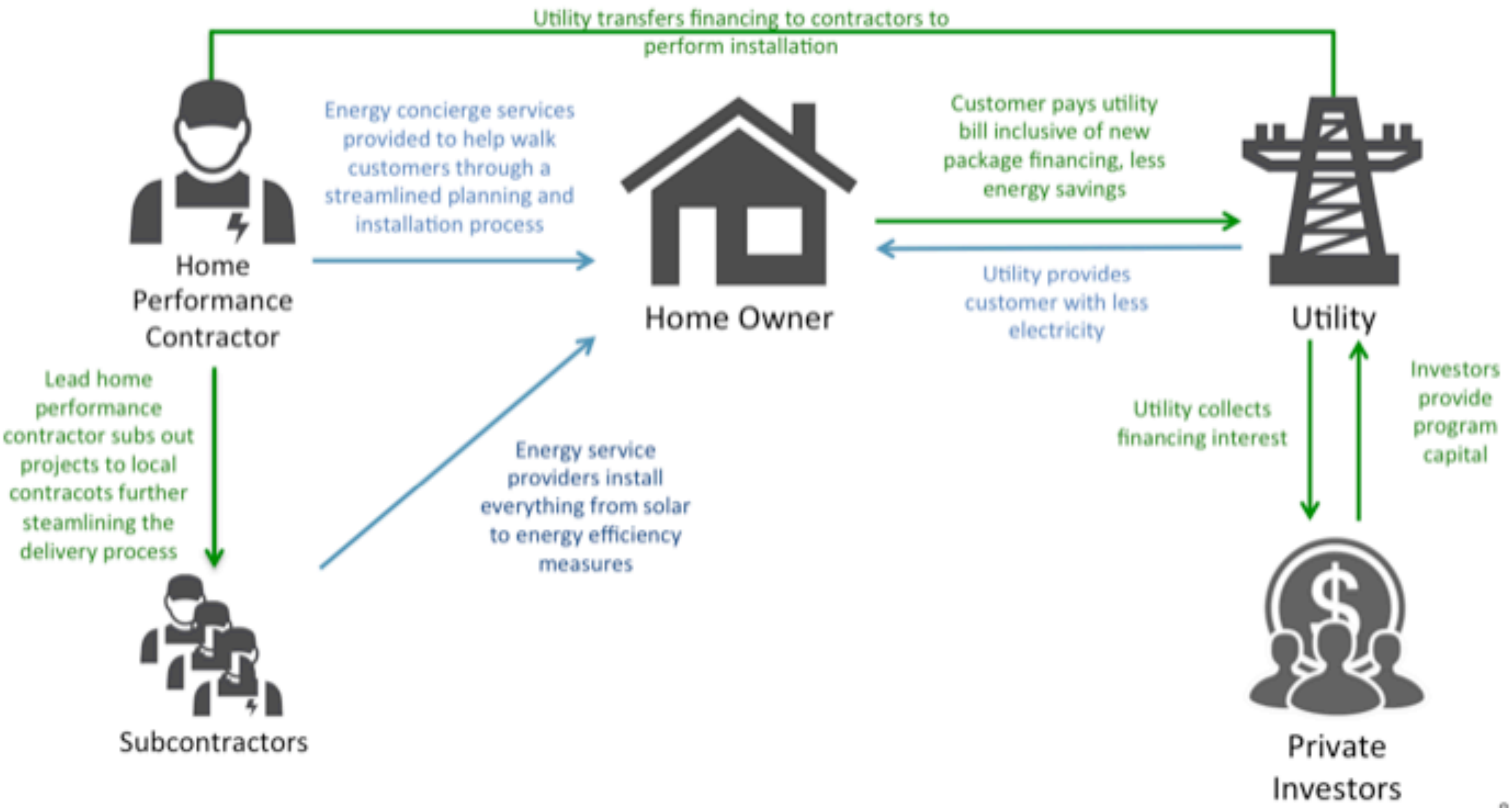
- Opt-out basic package offered to all residential customers
- On-bill tariff – lower bill from day 1
- Bundled delivery of services (allowing for deep energy savings)
- Lower cost central procurement

Easy, Customer-Centric Delivery

- Integrate offerings so that customer is presented with small number of services that address home needs comprehensively
- Minimize touch points with customer by identifying opportunities ahead of time, and contracting services centrally
- Eliminate need for up-front payments through on-bill repayment
- Show customers the money by making savings very transparent on energy bills
- Nudge approach builds momentum through an opt-out offering delivered at a neighborhood scale

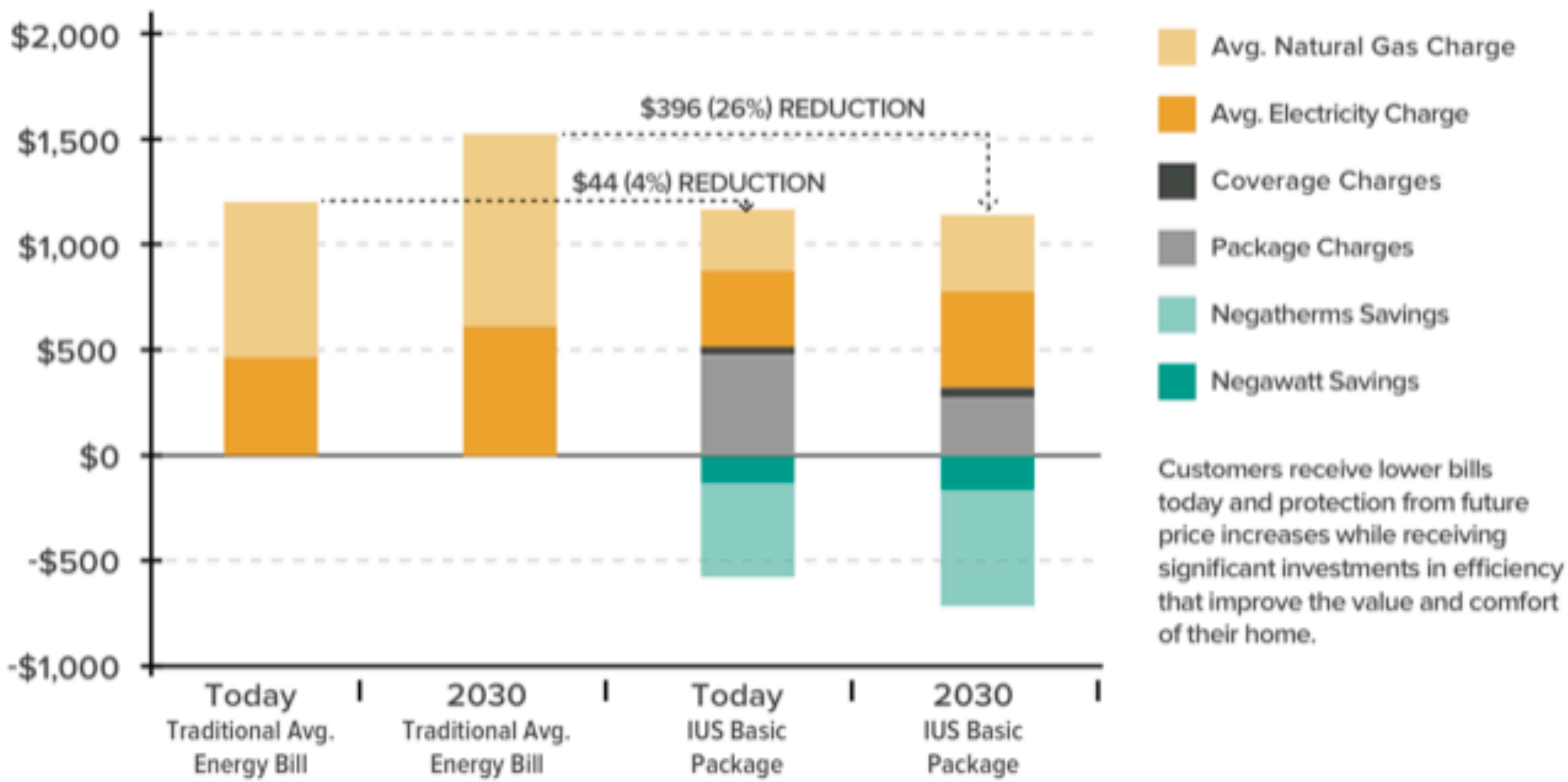
IUS ENERGY AND CASH FLOWS

REQUIRES UTILITY TO TAKE ON CERTAIN BANKING FUNCTIONS WHILE COORDINATING A DIVERSE ECOSYSTEM OF SERVICE PROVIDERS



INCREASED CUSTOMER SAVINGS

AVERAGE ANNUAL ENERGY BILL VS IUS BASIC PACKAGE
FOR PRE-1945 SINGLE FAMILY HOME



Customers receive lower bills today and protection from future price increases while receiving significant investments in efficiency that improve the value and comfort of their home.

IUS CAN REPLACE DECLINING DEMAND WITH NEW REVENUE

OFF BALANCE SHEET

	BAU	IUS	CHANGE
Residential Energy Consumption (kWh/yr)	344,988,297	271,637,757	-73,350,540
Participating Meters	55,772	39,040	
FCU SINGLE-FAMILY HOME ANNUAL REVENUE			
Traditional Electricity Revenue	$30,798,744	$24,887,885	-$5,910,860
IUS Package Fee Revenues	NA	$1,874,001	$1,874,001
IUS Coverage Charges	NA	$1,940,308	$1,940,308
Total Annual Revenue	**$30,798,744**	**$28,702,194**	**-$2,096,550**
FCU SINGLE-FAMILY HOME COSTS			
Fixed Costs	-$9,030,426	-$9,030,426	$0
PRPA Energy Charge	-$12,272,191	-$9,662,909	$2,609,282
PRPA Demand Charge Proxy	-$5,095,321	-$4,011,967	$1,083,354
Additional IUS Overhead Cost	NA	-$775,697	-$775,697
Interest Payments+	NA	$0	$0
Taxes and Equivalents	-$1,847,925	-$1,722,132	
Total Annual Cost	**-$28,245,863**	**-$25,203,130**	**$3,042,733**
ADJUSTED INCOME	**$2,552,882**	**$3,499,064**	$\boxed{\textbf{\$946,182}}$
Income from IUS	NA	$2,809,754	
Income from Traditional Electricity	$2,552,882	$689,310	
Percentage from IUS	NA	80%	
Percentage from Traditional Electricity	100%	20%	
Adjusted Income/Revenue	8%	12%	

Traditional revenue falls

But is offset by package processing fee revenues

And additional charges to cover additional costs

Fixed costs are the same

Energy and demand charges fall

New programs cost money

KEY TAKEAWAYS

- Utilities are experimenting with new business models, and should consider delivery of efficiency and other offerings as a potential service
- Efficiency does not have to mean lost revenue; opportunity to diversify
- Aggregating demand reduces costs while enabling large private investment
- Utilities have core advantages: access to data, existing customer relationship, ability to aggregate demand and capacity to procure and deliver at scale
- Taking a comprehensive approach to customer needs – bundled offerings, financing, central delivery – can increase adoption

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Creating a clean, prosperous, and secure energy future™