

PAYBOX REPLACEMENT PROJECT

PUBLIC UTILITY BOARD – STUDY SESSION

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SEPTEMBER 27, 2017

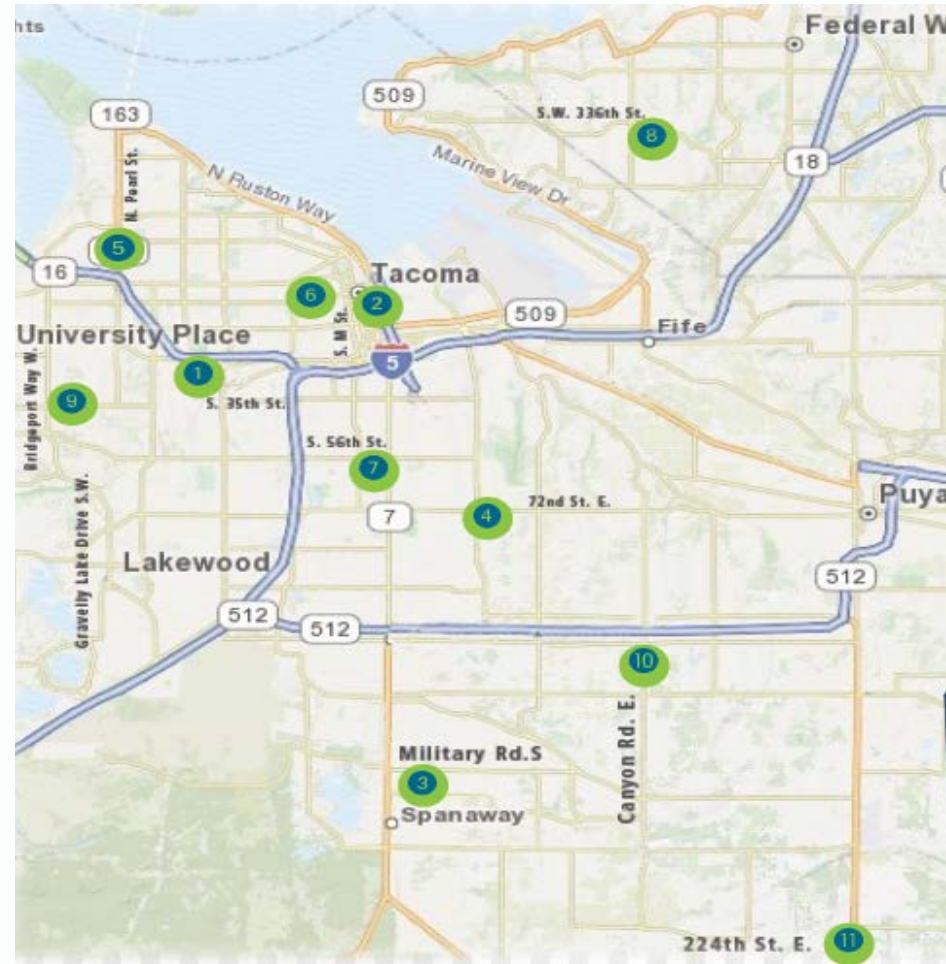


AGENDA

- **Background**
- **Current State**
- **Solutions Considered**
- **RFP and Vendor Selection**
- **Benefits**
- **Budget and Timeline**

BACKGROUND

- Customer payment kiosks were deployed in 2003 as a means to offer customers a convenient, cost effective alternative channel to pay their utility bills.
- The 2010 Customer Services strategic plan encouraged the adoption of “customer self-service” technologies resulting in the replacement of the first generation kiosks with those presently deployed.
- In addition to utility payments kiosks also accept Click! payments increasing the convenience factor for customers.



CURRENT STATE

- Current kiosks have been deployed through out our service territory and have become an integral part in how customers interact with the utility and pay their utility bills.
- This channel is increasingly relied upon by our unbanked, underbanked and low income customers.
- On average TPU kiosks process 115,000 transactions and collect approximately \$20,000,000 in revenue annually.
 - **\$11,200,000 Cash**
 - **\$8,800,000 Credit**



CURRENT STATE

- Current fleet has not received a significant hardware or software refresh since deployment in 2010
- Kiosks have exceeded their expected end of life by 2 ½ years.
 - Replacement parts are no longer produced and increasingly difficult to source and procure.
 - Kiosks are failing at an exponential rate requiring more internal resources to keep them operational.
 - In the first six months of 2017 kiosks averaged 2 ½ hours of downtime each day.

SOLUTIONS CONSIDERED

- Request for Information (RFI) was published in 2016 allowing the market place an opportunity to provide a variety of remote payment options.
- Responses included:
 - **In store pay sites**
 - (ie. Pay Near Me, Western Union)
 - **Websites and Mobile Apps**
 - **Kiosks**
 - (Lease and Purchase)

SOLUTIONS CONSIDERED

- **RFI response evaluations identified three options:**
 - **In Store Pay Sites**
 - Concern regarding access to customer information.
 - Charged the customer a transaction or convenience fee.
 - Concern about customer experience.
 - Limited to cash payments
 - **Websites and Mobile Apps**
 - Owned and operated by a 3rd party vendor.
 - Did not address the need to serve unbanked customers.
 - Charged the customer a transaction or convenience fee.
 - TPU's MyAccount website recently optimized.
 - ✓ **Kiosks**
 - No transaction or convenience fee charges.
 - Accepts cash, check and credit/debit cards. (Visa/MasterCard/Discover)
 - Allows TPU to maintain control over payment site locations.
 - Provides a platform to serve TPU's current needs as well as the ability to expand and support future customer programs.

RFP AND VENDOR SELECTION

- A Request for Proposal (RFP) was published in May 2017 soliciting vendors to provide a kiosk replacement solution.
 - **3 vendors responded**
 - CityBase, Kiosk Information Systems and Tio Networks
- Submittals were reviewed and scored by a Selection Advisory Committee comprised of representatives from Tacoma Power, Tacoma Water, Environmental Services, Click!, Marketing and Communications and Customer Services.

Suggested Rating Guidelines - *Excellent*: 9-10 Score; *Good*: 7-8 Score; *Fair*: 5-6 Score; *Poor*: 3-4 Score; *Very Poor*: 1-2 Score

	Name of Company	A. Qualifications/ Experience of Firm & Key Personnel (RFP Sections 3.02 D, E & F)		B. System Information / Project Approach (RFP Sections 2.02 A-F, 3.02 G & I)		C. Training Plan for City Staff (RFP Section 3.02 H)		D. Fees & Charges (RFP Section (3.02 J))		E. SBE / MWBE		F. Submittal Quality, Organization, Completeness		Total Weighted Score Out of 100
		Score (0-10)	Weighted Score (20%)	Score (0-10)	Weighted Score (40%)	Score (0- 10)	Weighted Score (10%)	Score (0-10)	Weighted Score (20%)	Score (0- 10)	Weighted Score (5%)	Score (0- 10)	Weighted Score (5%)	
1	CityBase	6.7	13.4	6.6	26.4	6.9	6.9	8.0	16.0	-	-	7.0	3.5	66.2
2	Kiosk Information Systems	6.4	12.8	5.9	23.6	4.9	4.9	5.0	10.0	-	-	4.9	2.5	53.8
3	Tio Networks	7.5	15.0	6.5	26.0	6.4	6.4	2.0	4.0	-	-	7.0	3.5	54.9

RFP AND VENDOR SELECTION

CityBase, Inc. was selected as the vendor to replace our current kiosks based on several factors:



- Their solution supports TPU's technology strategy roadmap by offering a cloud based solution.
- They were the only vendor who offered a business model that did not charge the customer a fee for making a payment.
- Client references highlighted and reinforced CityBase's commitment to providing a complete, tailored and quality service.

BENEFITS

CityBase's Solution provides:

- **Increased payment options.**
 - Checks will be accepted at all locations not just the lobby. This will help shift costs from our most expensive payment channel to one of our least.
- **Increased receipting options.**
 - Customers will be able to receive payment receipts via text, email or traditional paper print out.



BENEFITS

CityBase's Solution provides:

- **Increased deployment flexibility**
 - Kiosks are connected through a secure VPN network. Eliminating a physical hardwire connection affords greater deployment options.
- **The ability to reliably support current and future programs.**
 - The success of current programs such as the Bill Credit Assistance Program (BCAP) and future AMI related pre-pay programs require a reliable, convenient, physical payment channel customers can trust.

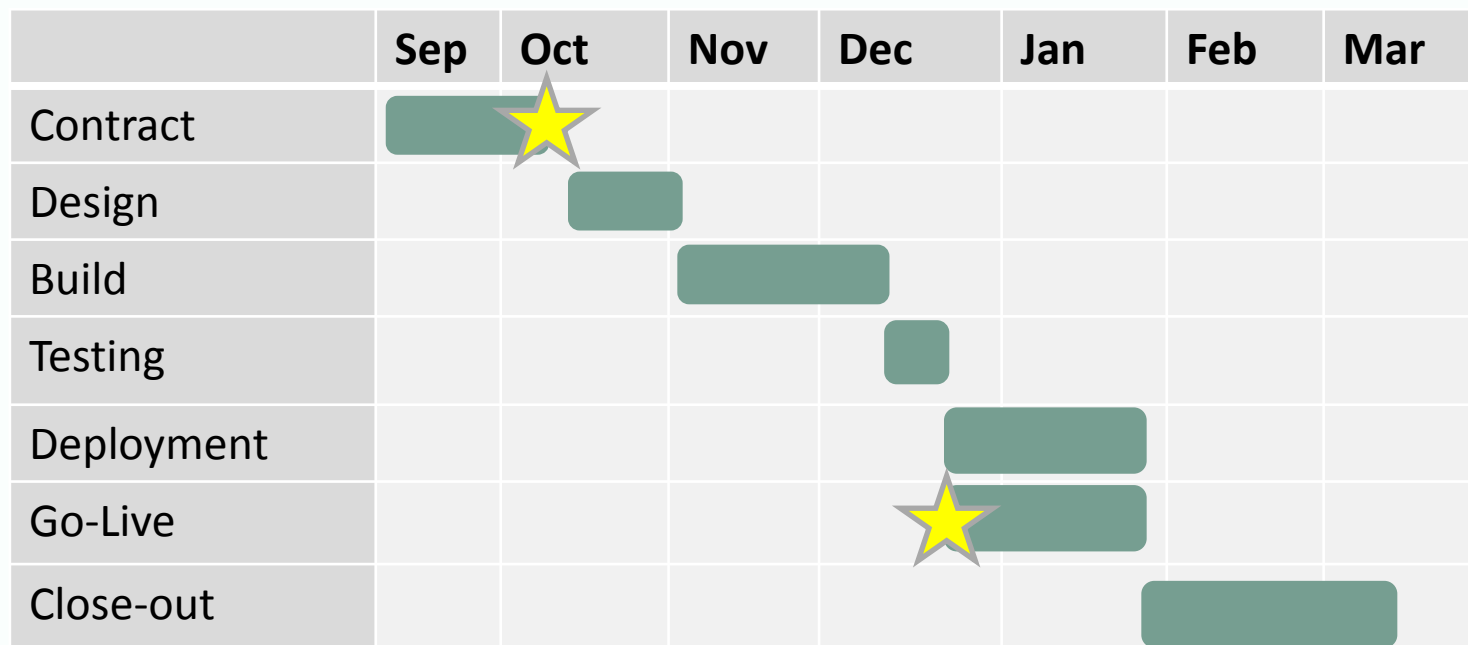
BENEFITS

CityBase's Solution provides:

- **Enhanced reporting via website portal**
 - **Real-time system status and trouble alerts.**
 - **Payment transaction volumes by tender type globally and by individual kiosk**
 - **Cash cassette monitoring by individual kiosk.**
- **TPU the ability to redeploy internal technical staff to other areas of need.**
 - **By supporting both hardware and software, current technology staff can now be utilized to support other areas of the utility.**

BUDGET AND TIMELINE

- Approved Capital Budget of \$600,000.
- Timeline based on PUB approval.



QUESTIONS?



Low-Income Conservation

Changes for 2018-19

Conservation Resources Management
September 27th, 2017

Why we are presenting today:

Inform the PUB about pending changes to our low-income offerings in 2018

1. Background
2. What has changed
3. New low-income programs for 2018-19
4. Low-income Ideas that need additional research
5. Discussion and feedback

BACKGROUND

Why we do energy conservation

Manage future needs – Acquiring conservation resources today allows us to delay purchasing more expensive resources

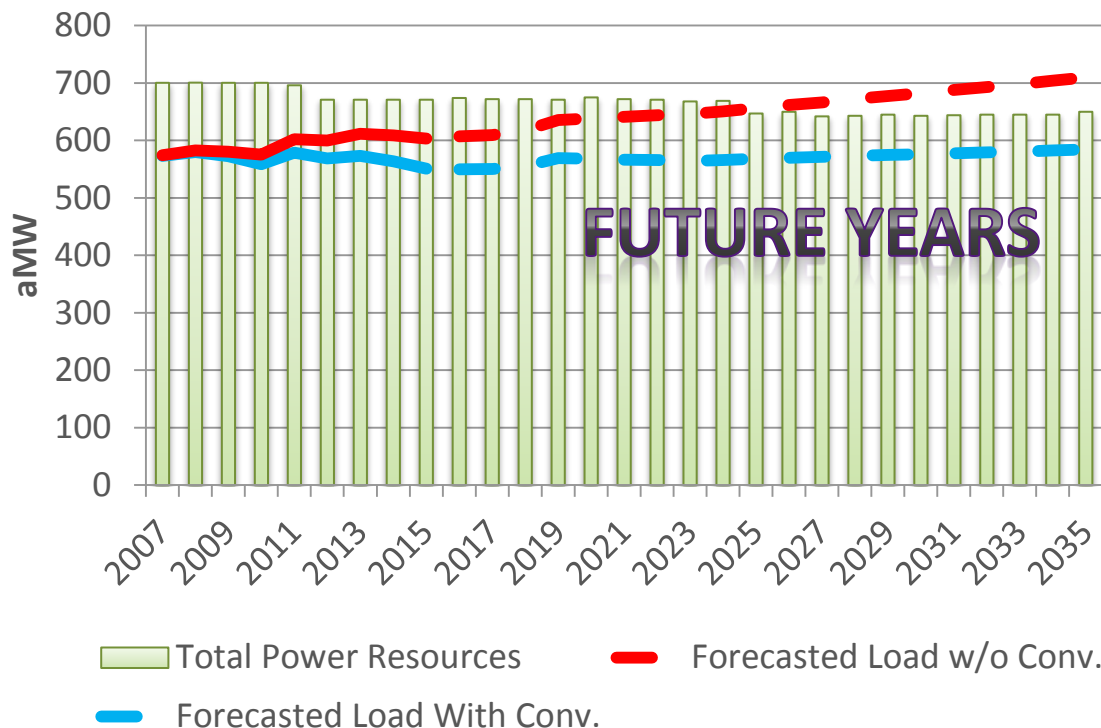
Legislative mandate – Washington Independence Act (RCW 19.285) requires large public utilities to acquire all cost effective conservation

Secondary Benefits

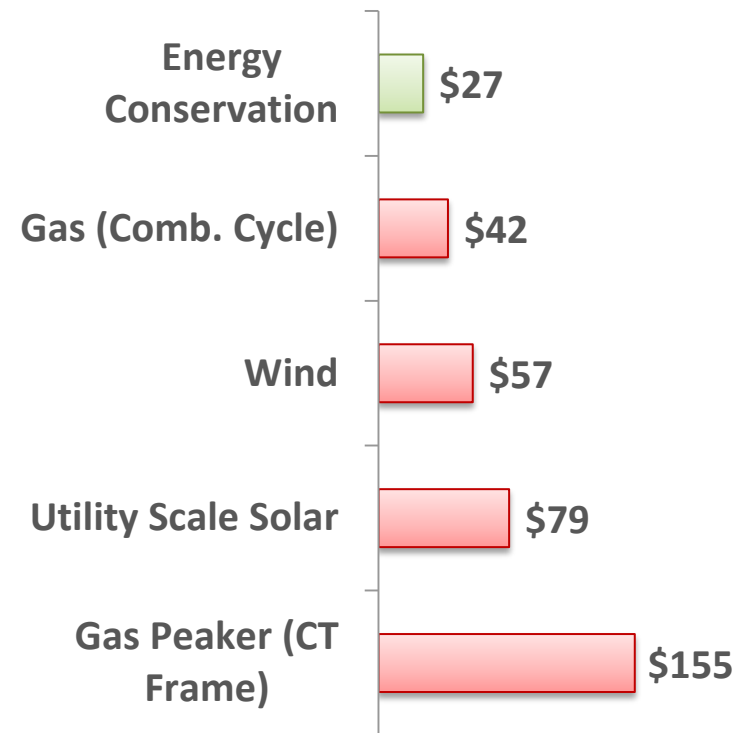
- **Environmental stewardship** – Allows us to serve more customers with our mostly carbon free electricity
- **Customer engagement** – Creates positive interaction between us and our customers

Energy conservation has delayed the need to acquire more expensive resources

Annual Load-Resource Balance (Critical Water
- 2016 Load Forecast)



Conservation is the lowest
cost resource (2017 IRP)



How do we determine how much conservation to acquire and which measures to offer?

Total Resource Cost (TRC) sets our energy conservation target

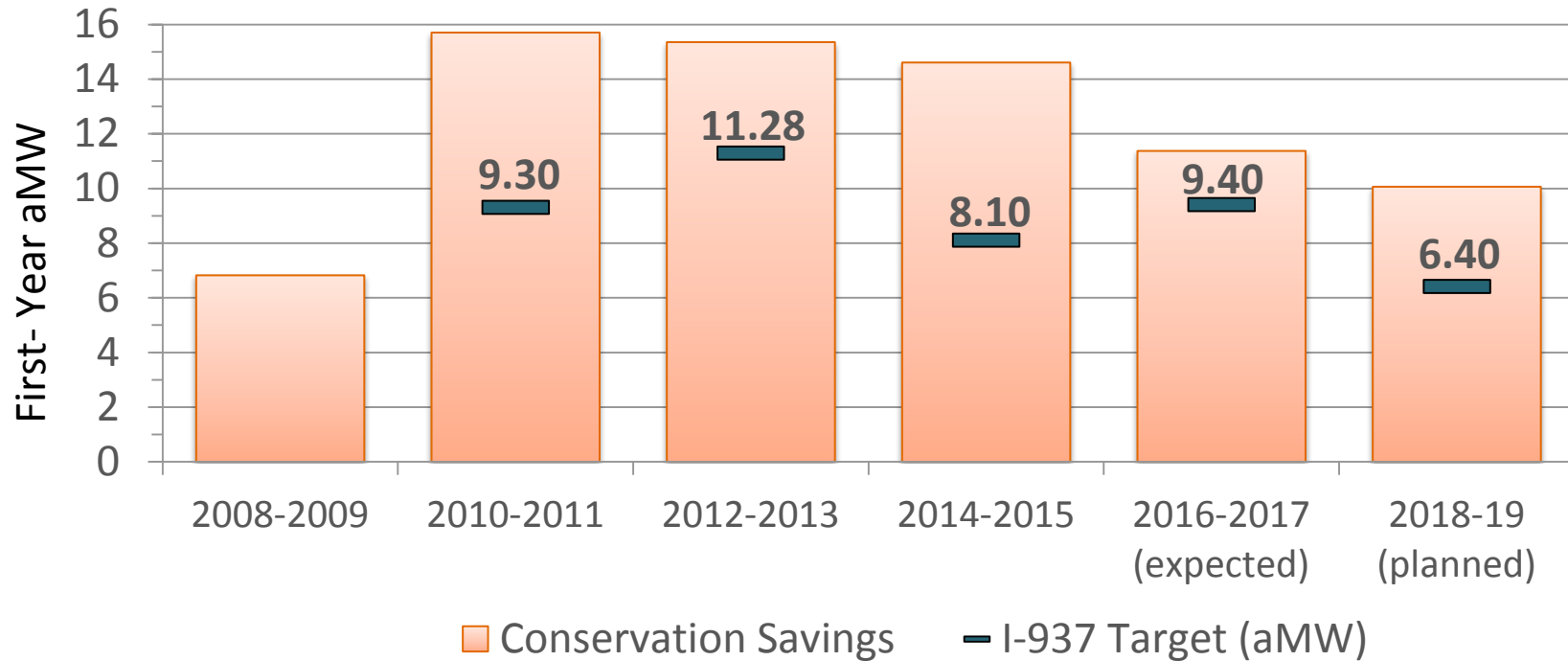
- Required by law (WAC 194-37-070)

Measures we offer must pass one of two economic screens:

- Total Resource Cost (TRC) – a social test that compares total benefits to total costs
- Utility Cost Test (UCT) – a utility centric test that compares utility benefits to utility costs

Using these screens ensures energy conservation is a sound investment for participants and non-participants – because all rate payers fund energy conservation programs

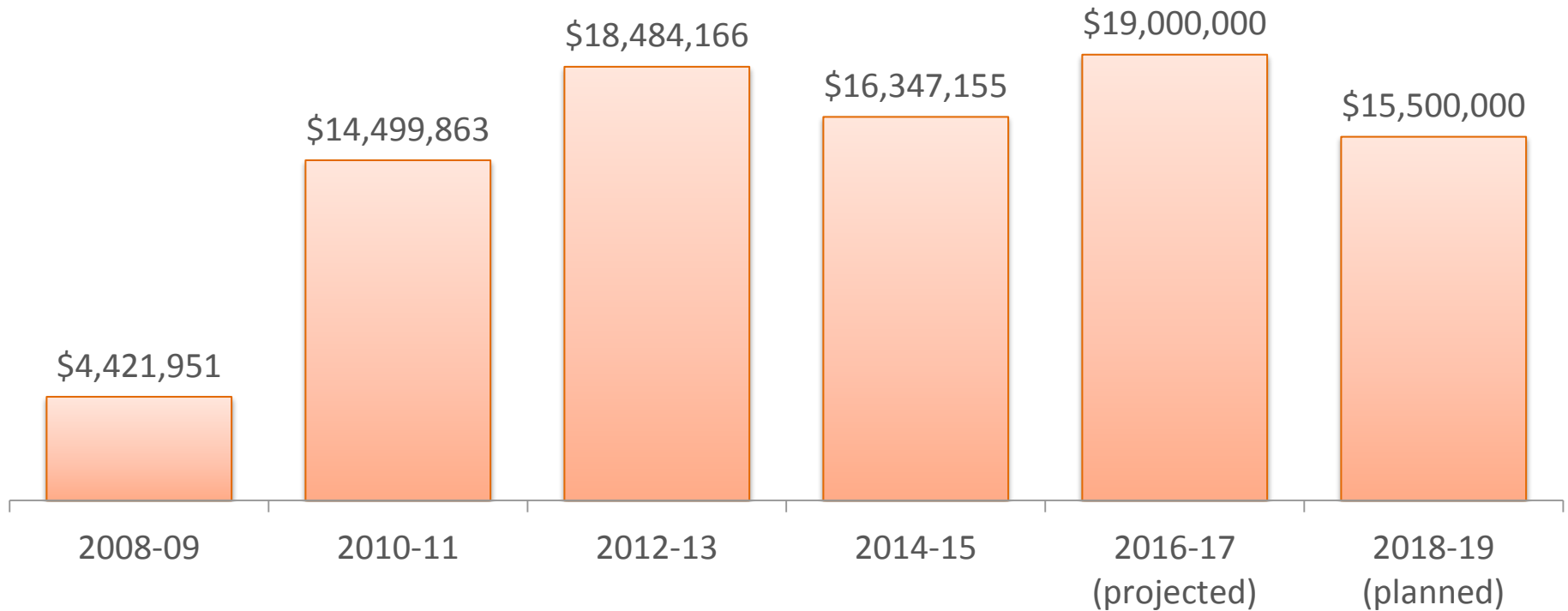
Conservation targets trending down over time



Conservation targets (and spending) trend down over time

- Lower electric savings than previously thought
- Past success eliminates future potential

As conservation targets trend down spending will decline



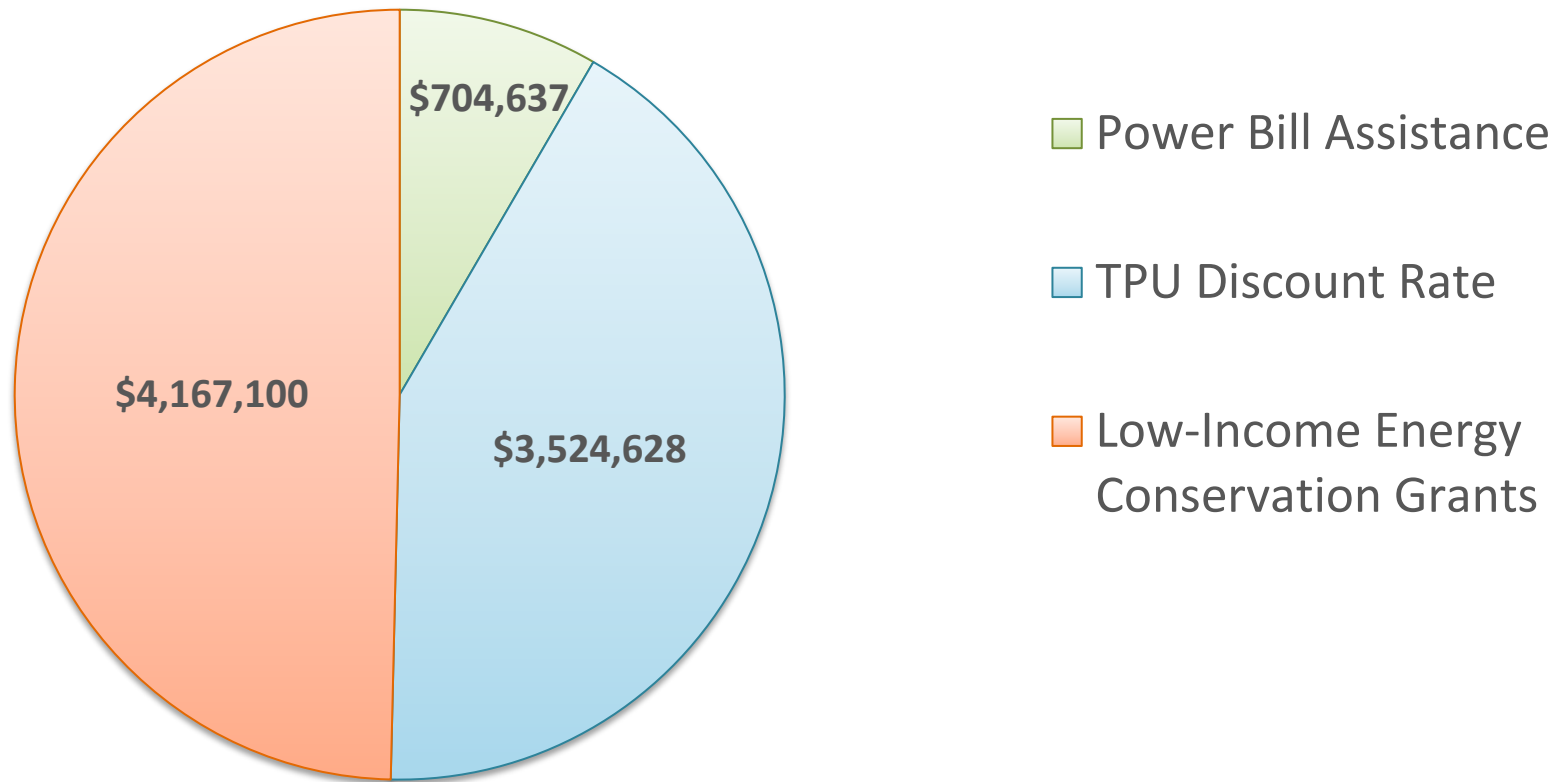
Our low-income program focuses on expensive, long term energy investments

- Similar to non-low income, but we pay 100% of the cost
- Projects would not get completed without utility assistance
- Windows, insulation, heating systems

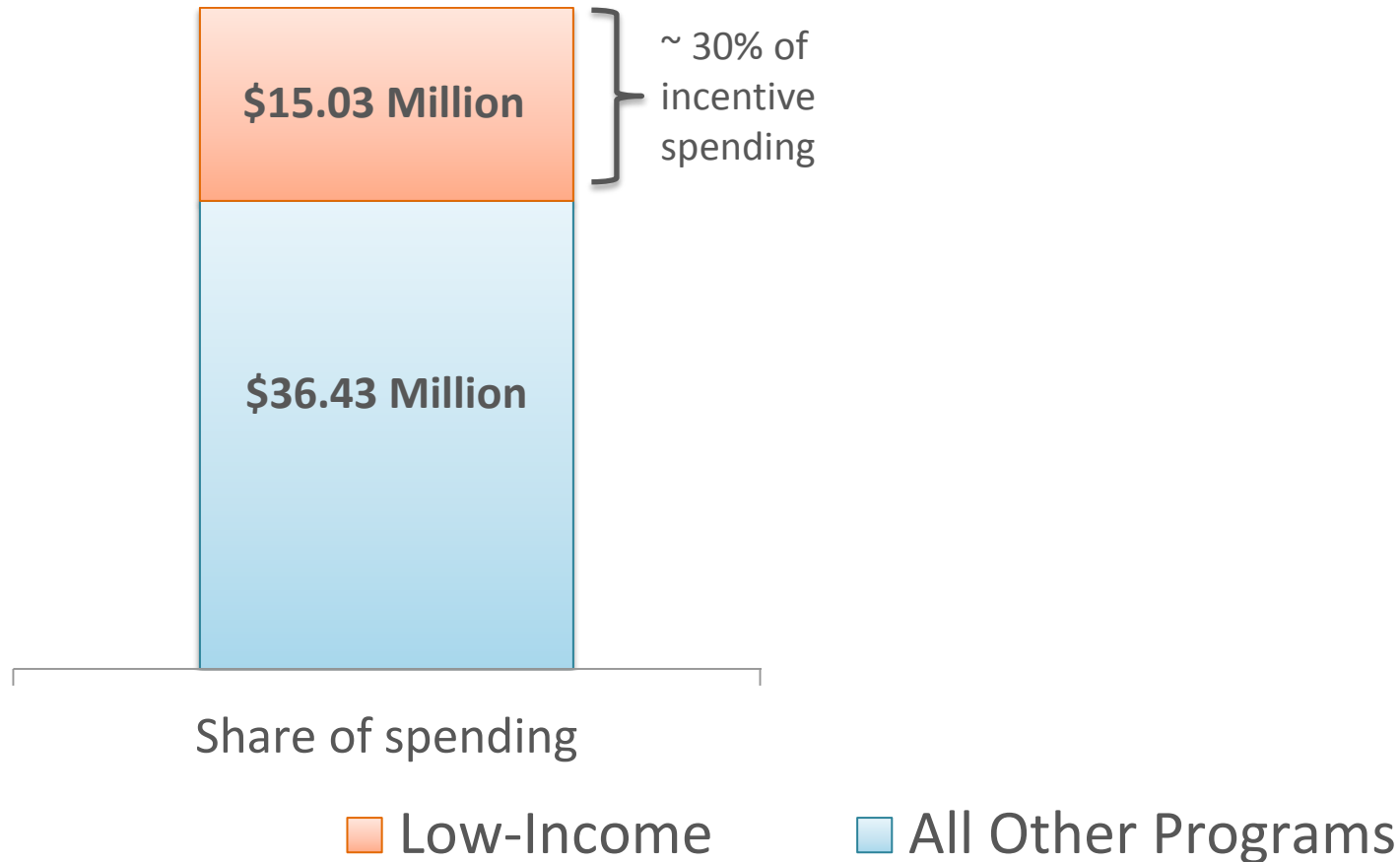


Low-income energy efficiency represents half of TPU's low-income spending

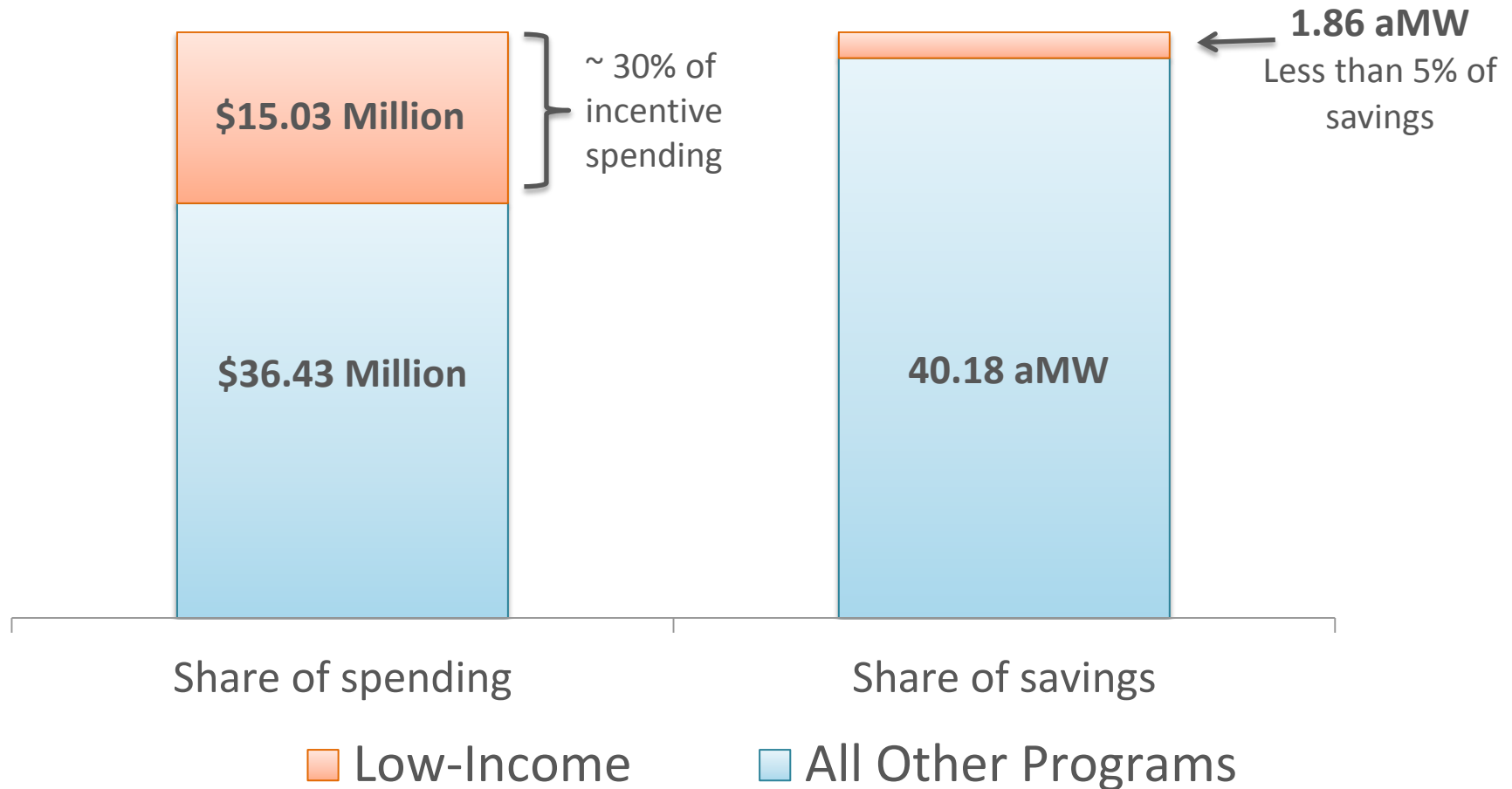
2015/16 low-income spending



The low-income program is a significant portion of our spending (2011-2016)

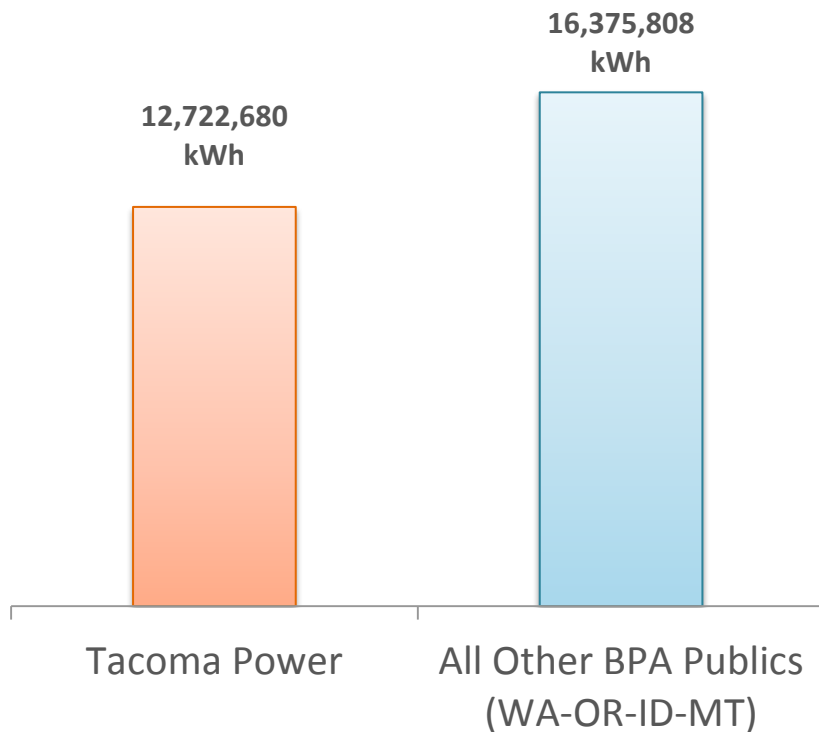


The low-income program is a significant portion of our spending (2011-2016)



Our low-income conservation program operates on larger scale than peer utilities

Our program accounts for 44% of regional low-income kWh savings (2011-2017)^[1]



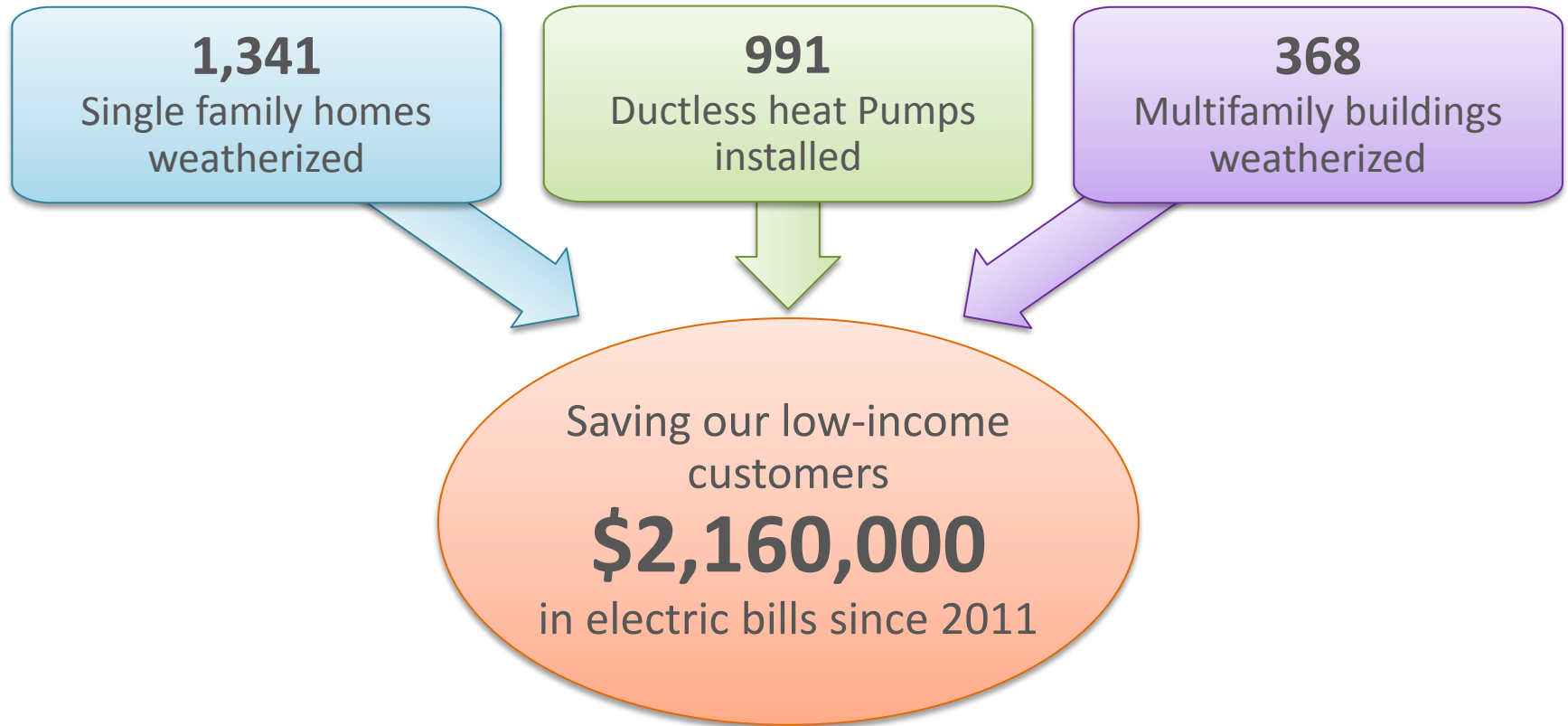
We outspend peers on low-income energy efficiency (% of retail revenue 2014)^[2]



[1] BPA data request 8/16/2017

[2] 2015 LPPC benchmarking study

The program has been successful in lowering bills for participating low-income customers (2011-2016)



WHAT HAS CHANGED

Savings for key measures reduced

Savings values are determined by the Regional Technical Forum

- Part of the Northwest Power and Conservation Council
- Provides regionally vetted savings estimates – used by WA Dept. Commerce

Regional studies show measure saving less than previously assumed

- 2015 – Weatherization (insulation and windows) savings reduced ~40%
- 2017 – DHP savings reduced by ~40%

Measure	2014 TRC B/C Ratio	2016 TRC B/C Ratio	2018 TRC B/C Ratio
Insulation Only Project	1.96	1.84	1.84
SP Windows Only Project	1.83	1.06	1.06
DP Windows Only Project (<u>removed 2016</u>)	1.03	0.47	0.47
Ductless Heat Pump (<u>will be removed 2018</u>)	1.10	1.10	0.65

Greatest impact on low-income measures because we pay 100% of the cost

Double pane windows and ductless heat pumps

- ✓ Cost effective for non-low income
- ✓ Not cost effective for low-income

Measure	TRC B/C ratio	Non-Low Income		Low-Income	
		What we pay	UCT B/C ratio	What we pay	UCT B/C ratio
Insulation project	1.84	\$2,600	3.03	\$5,320	1.45
Single pane windows project	1.06	\$1,500	1.77	\$3,225	0.93
Double pane windows project	0.47	\$750	1.58	\$3,225	0.49
Ductless heat pump project	0.65	\$500	3.84	\$3,900	0.42

What does this mean?

Single family DHPs will be removed from our low-income program

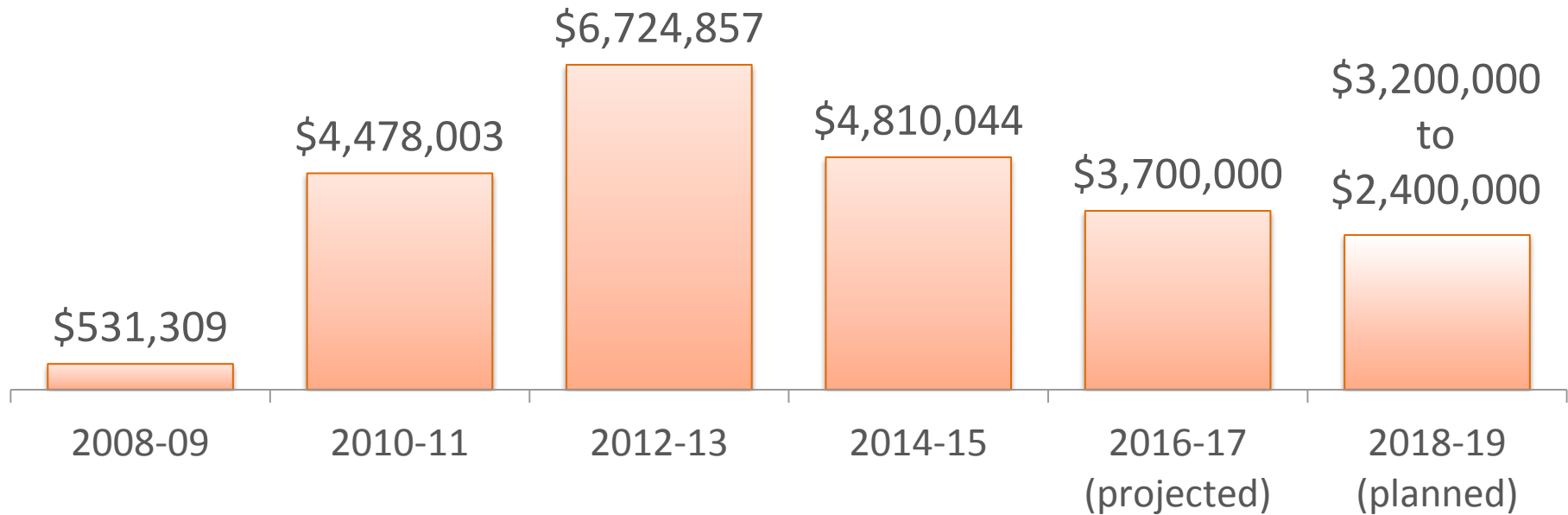
- No longer cost effective

Tacoma Power maintains a core low-income weatherization program

- Insulation, air sealing, and pipe insulation
- Duct sealing
- Single pane windows

Expect to see lower numbers in future years

Tacoma Power's low-income conservation spending is decreasing



2008-2013	2014-2017	2018 – Beyond
Rapid spending increase <ul style="list-style-type: none"> Ramp up for I-937 ARRA Funds 	Spending decline <ul style="list-style-type: none"> ARRA funds exhausted Windows removed 2016 	Continued decline <ul style="list-style-type: none"> DHPs removed Past success limits future projects

[1] Spending for entire service territory; LI spending for City of Tacoma is typically 81% of total spending

NEW LOW-INCOME PROGRAMS FOR 2018-19

New low-income program ideas

Ideas included in the current draft of the 2018-19 Conservation Plan

- Targeted at rental housing program
- Targeted manufactured home program
- Personalized approach to high use weatherization projects

Ideas under consideration, but needing additional research

- Provide an energy score for rental housing
- Alternative low-income certification criteria

Targeted rental housing program

Rental housing is different

- Landlords realize a benefit when tenants receive energy conservation grants
- Landlords have asked for programs with “desirable” measures that attract tenants
 - Windows
 - Ductless heat pumps
 - Energy Star doors
- Landlords have asked for less certification paperwork



What the rental housing program looks like

Hybrid between Conservation Rebates and Low-Income Grants

- Pay 100% of the cost for insulation (similar to low-income)
- Pay a rebate for “desirable” measures (similar to non-low income)
- No low-income certification – if it’s a rental it qualifies

Meets landlord needs – easy to participation with desirable measures

Risks and barriers

- Despite asking for this type of program, building owners may not participate without the utility paying 100% of the project cost – **program uptake may be low**

Targeted manufactured home program

Manufactured homes are different

- Residents predominantly low-income
- Legal ownership of the home can be complicated
- Home values can be very low
- Manufactured home parks offer economy of scale



What we learned with our pilot at Franklin Pierce Estates

- Most tenants meet our low-income requirement
- Significant number of non-English speaking residents
- Leverage economy of scale – making DHPs cost effective

What the manufactured home program looks like

Direct installation of all cost effective measures

- Ductless heat pumps
- Showerheads and pipe insulation
- LED Lighting

Certify the MFG home park, not individuals within the park

- Long-term park plan – not scheduled for redevelopment with long-term leases
- Strong low-income indicators; homes built before 1996 and valued under \$80,000

Risks and barriers

- Evaluation of savings needs to be complete
- Projects may be difficult to coordinate

Personalized approach to weatherization

Our program misses some projects

- Some projects are good projects but do not fit our program

What a personalized approach could look like

- Use software to model energy savings for individual projects
- Offer a grant based on calculated savings (up to our cost effective limit)



Risks and barriers

- Won't be able to serve every customer – likely a time consuming process
- Projects may be beyond the scope of energy conservation
- Difficulty accurately calculating and reporting savings

What could 2018-19 look like?

- Maintains our core weatherization program
 - Insulation, air sealing, pipe insulation, and single pane windows
 - More customers could be served with a less rigorous certification process
- Adds several new pilots and programs
 - Rental housing program (includes low-income certified and pilot with landlord share)
 - Apartment double pane windows pilot
 - MFG home direct install
- Analysis assumes high levels of customer uptake for budget setting.

Low-Income Program	Incentive Budget	# of Customers	TRC B/C Ratio	UCT B/C Ratio
Single family weatherization	\$829,000	240	1.11	0.97
Rental housing (2-4 units)	\$1,132,800	380	0.92	1.08
Apartment windows pilot	\$196,300	250	0.47	1.09
Manufactured homes	\$1,096,300	500	1.22	1.08
Estimated Totals:	\$3,254,400	1,370		

LOW-INCOME IDEAS THAT NEED ADDITIONAL RESEARCH

Provide prospective tenants an energy score

Require landlords to present prospective tenants an energy audit

- Property audited by a third party
- Tacoma Power incentives to “buy down” audit cost – won’t cover 100% of the cost
- Audit results provided to prospective tenants

Implementation will require significant coordination

- City of Tacoma’s Landlord-Tenant Program
- City of Tacoma’s Tax and Licensing
- Amendment to City Code to add a mandatory Environmental and Conservation Disclosure Ordinance

Under development – expect to hear more early next year

Alternative low-income certification criteria

Our certification process is rigorous

- Follows Washington Department of Commerce weatherization guidelines
 - 200% of federal poverty or 60% of state median income – higher than other assistance programs
- Identification for each family member to document household size
- Income documents for the last three months

Many customers don't complete the certification process

- Process requires significant paperwork and record keeping – some don't have that
- Multifamily complexes are incredibly difficult
- Customers earning \$1 over our threshold don't qualify
- Flipside: Some customers who shouldn't qualify are able to qualify

What creating alternative low-income certification could look like

Neighborhood certification approach

- Certify geographic regions based on census data
 - Limited time grants for all customers in the target area

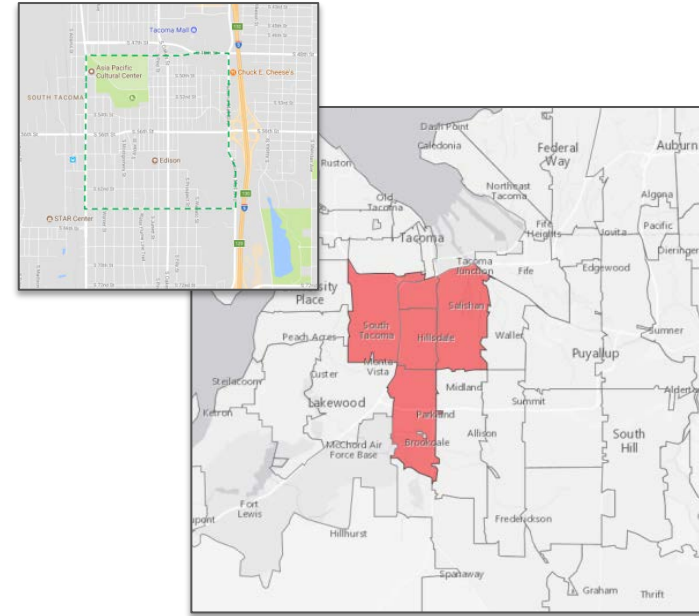
Removes certification barriers

Helps near low-income

Risks and barriers

- Non-low income customers will receive program funds
- Serving low-income customers who fall outside the new criteria

Under development – more analysis is needed



In summary

- 1. We need to remove DHP from our program because savings are lower than originally thought**
- 2. We will fall short of Environmental Action Plan low-income spending targets by about \$900,000 (\$3.4M vs. \$2.5M)**
 - Targets were set based on artificially high 2011-2014 spending rates
 - Removal of double pane windows had a bigger impact than expected
 - Will reset the target in 2018
- 3. We have a number of ideas to build upon our successful low-income program to continue helping our low-income community**

DISCUSSION AND FEEDBACK

Thank you