



Behavioral Economics in Practice

Mickey Lee, Project Manager

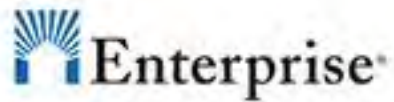
MBA BPI

Portland Oregon

With background support from
Reema Vashi, Sr. Project Manager, Multifamily Division
Energy Trust of Oregon

About

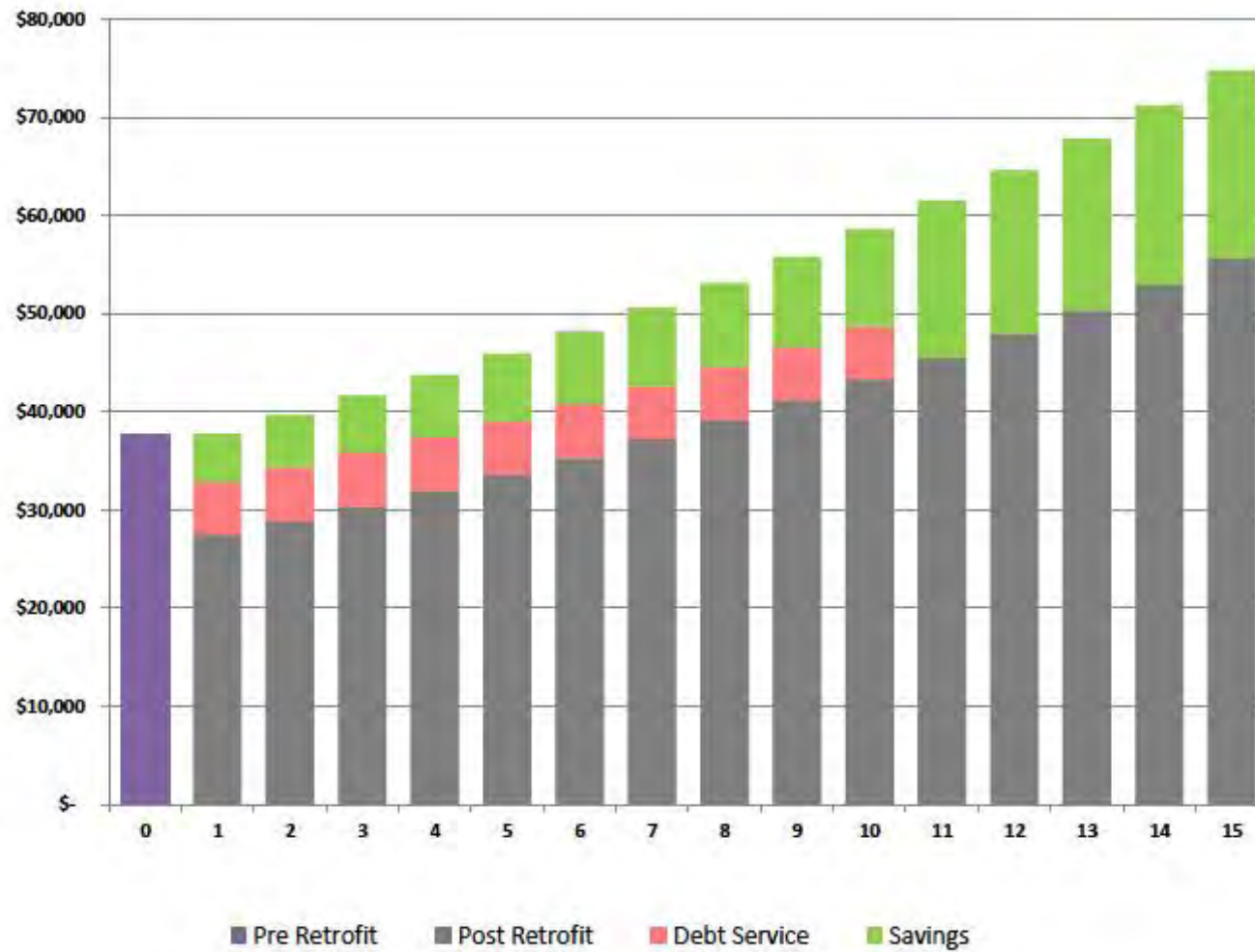
MPowerOregon™



MPowerOREGONSM

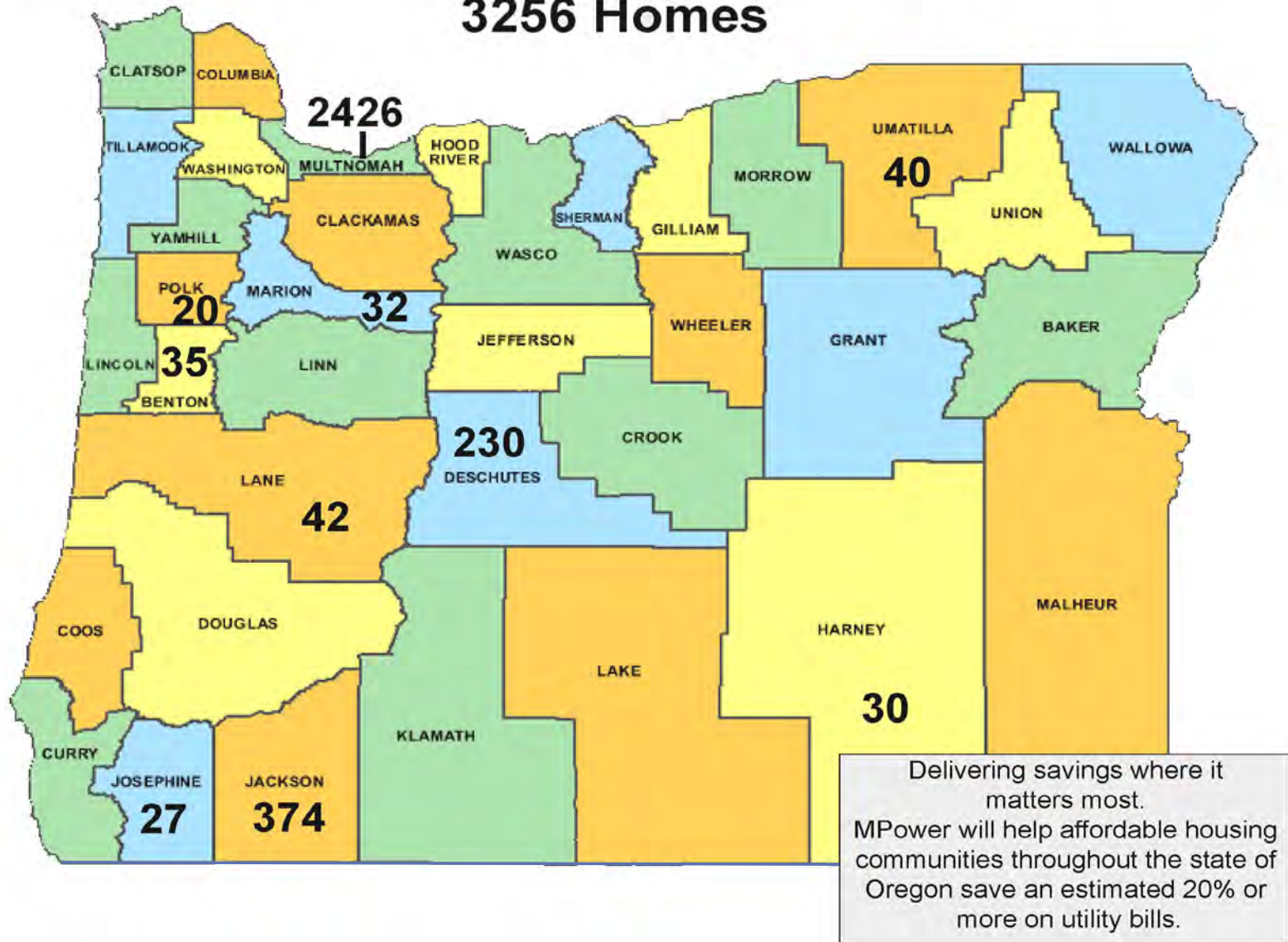


15 Year Utility Cost and Savings Cash Flow



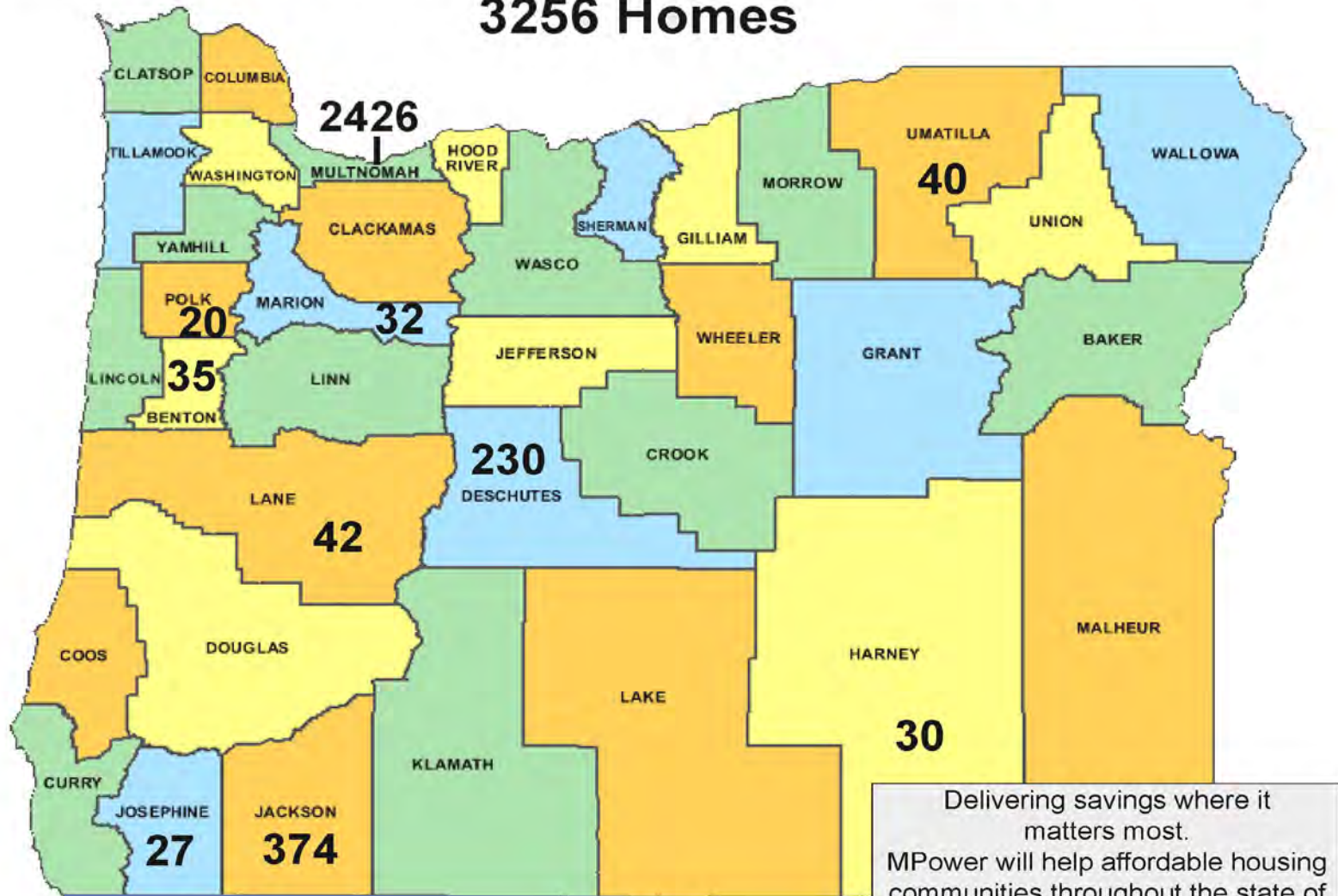
MPower Project Pipeline 2014-2015

3256 Homes



MPower Project Pipeline 2014-2015

3256 Homes



City of Portland population = 650,000

Affordable housing units in the state = 650,000

Committed Owners and Sponsors



[illegible]

Affordable vs. Market rate

Common Barriers

- Lack of Info
- Lack of Control
- Owner pays some if not all utilities

Unique Barriers

- Basic needs are primary
- Trust is king
- Technology can be a challenge
- Language

Helpful Traits

- Larger sense of community
- Naturally keep costs down based on scarcity when paying own bills

Stages of Engagement

- Gain trust



Stages of Engagement

- Gain trust
- Educate



Educate
Together

Stages of Engagement

- Gain trust
- Educate
- Incentivize



Stages of Engagement

- Gain trust
- Educate
- Incentivize
- Take Action and Commit

**TAKE
ACTION!**

Working with Owners

Assess

Inform & Install

Monitor



Assess

**RESIDENT
SURVEY**



Owner/sponsor representative can choose which programs to focus on and get more in-depth than the following examples



ENERGY

Do you have the ability to control the temperature in your home? ☐ Yes ☐ No

**If you answered “yes” to the question above,
in the winter what temperature do you typically keep you home at?** _____

Do you turn off your air conditioner when you leave your home? ☐ Yes ☐ No ☐ N/A

What forms of transportation do you use most to get around? *(check all that apply for work, home, fun)*

- | | | |
|-----------------------------|----------------------------------|----------------------------|
| <input type="radio"/> Car | <input type="radio"/> Motorcycle | <input type="radio"/> Bike |
| <input type="radio"/> Train | <input type="radio"/> Subway | <input type="radio"/> Bus |

Other forms of transport: _____



WATER

Do you notify property maintenance staff of leaky faucets and toilets? ☐ Yes ☐ No

Are you interested in faucet fixtures that use less water? ☐ Yes ☐ No

Do you turn off the faucet when you brush your teeth? ☐ Yes ☐ No



RECYCLING

How familiar are you with your city or town's recycling requirements?

- ☐ Very familiar ☐ Somewhat familiar ☐ Not at all familiar

Which of these do you recycle?

- ☐ Metal ☐ Plastic ☐ Paper ☐ None

How many disposable plastic bottles do you estimate you use each week? _____



HEALTHY LIVING

Are you interested in learning about non-toxic cleaning products? ☐ Yes ☐ No

Are you interested in learning about strategies to eliminate pests without the use of harmful chemicals? ☐ Yes ☐ No

Are you interested in learning more about healthy food, gardening and other activities? ☐ Yes ☐ No

Culture and Sense of Place

- Do you feel safe? If not what would make you feel safer?
- Energy reduction is important to all of us for different reasons. Why is it important to you and how does your family work to save energy?
- What would you change about your community if you could and why?



Hands On Tools



Shower Coach 5 Minute Shower Timer
MODEL # N2146



**SAVE
ENERGY**

**Turn off
lights
when not
in use**



Construction

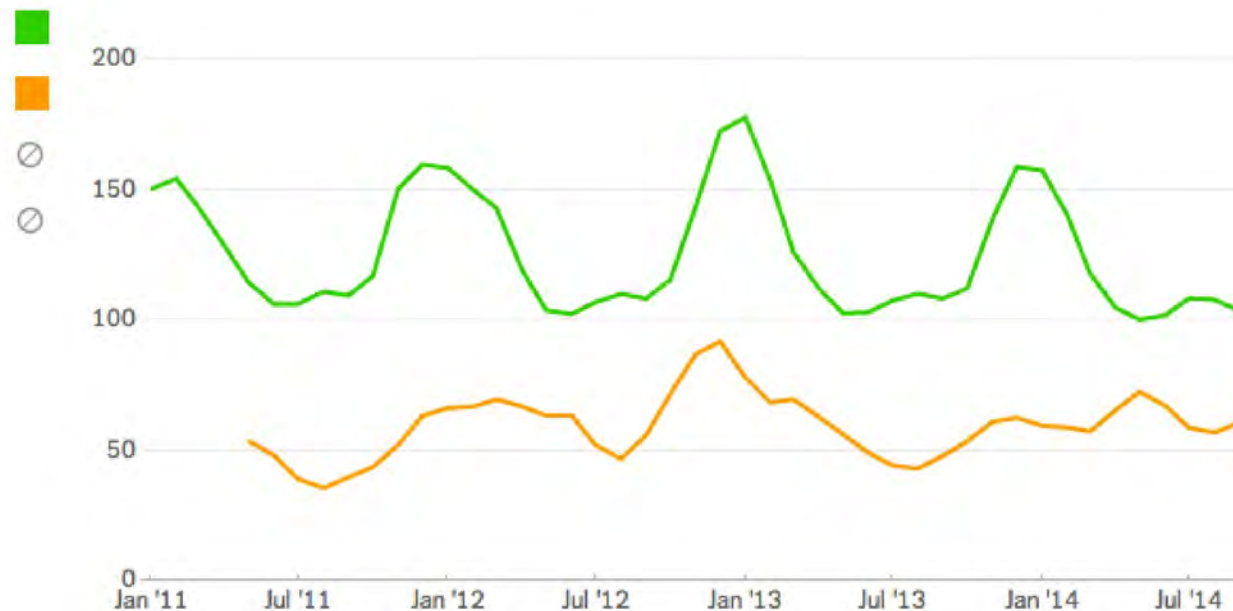


Monitor wegowise

Detailed Data per Month (Deselect All)

Click a square to show or hide an item on the graph

Click & drag to zoom in



Full-Year Sum

or detailed data

c #0003584... 43.8K

#943205 22K

#2970737600 Not included in total reports

#2995667900 Not included in total reports

erties owned by other users

Tenant Engagement and Installation of Sub-metering Case Study



Results

2011- 2013

	CCF's p/day			% difference from 2011 to 2012	% difference from 2012 to 2013
	2011	2012	2013		
Jan		3.7	2.8		
Feb	5.5	3.8	3.1	32%	17%
Mar	5.6	3.7	3.5	34%	6%
Apr	5.5	3.7	3.8	32%	-1%
May	6.9	3.0	3.4	56%	-12%
June	5.8	2.5	5.1	57%	-106%
Jul	6.2	2.9	5.3	54%	-84%
Aug	6.2	2.9	3.8	54%	-33%
Sept	5.4	3.2	3.6	42%	-15%
Oct	5.1	3.1	3.3	39%	-5%
Nov	3.8	2.4	3.2	36%	-30%
Dec	3.5	2.7			

Measured only Feb-Nov for all 3 years.

Sub meters installed

Low flow toilets installed

Irrigation split installed

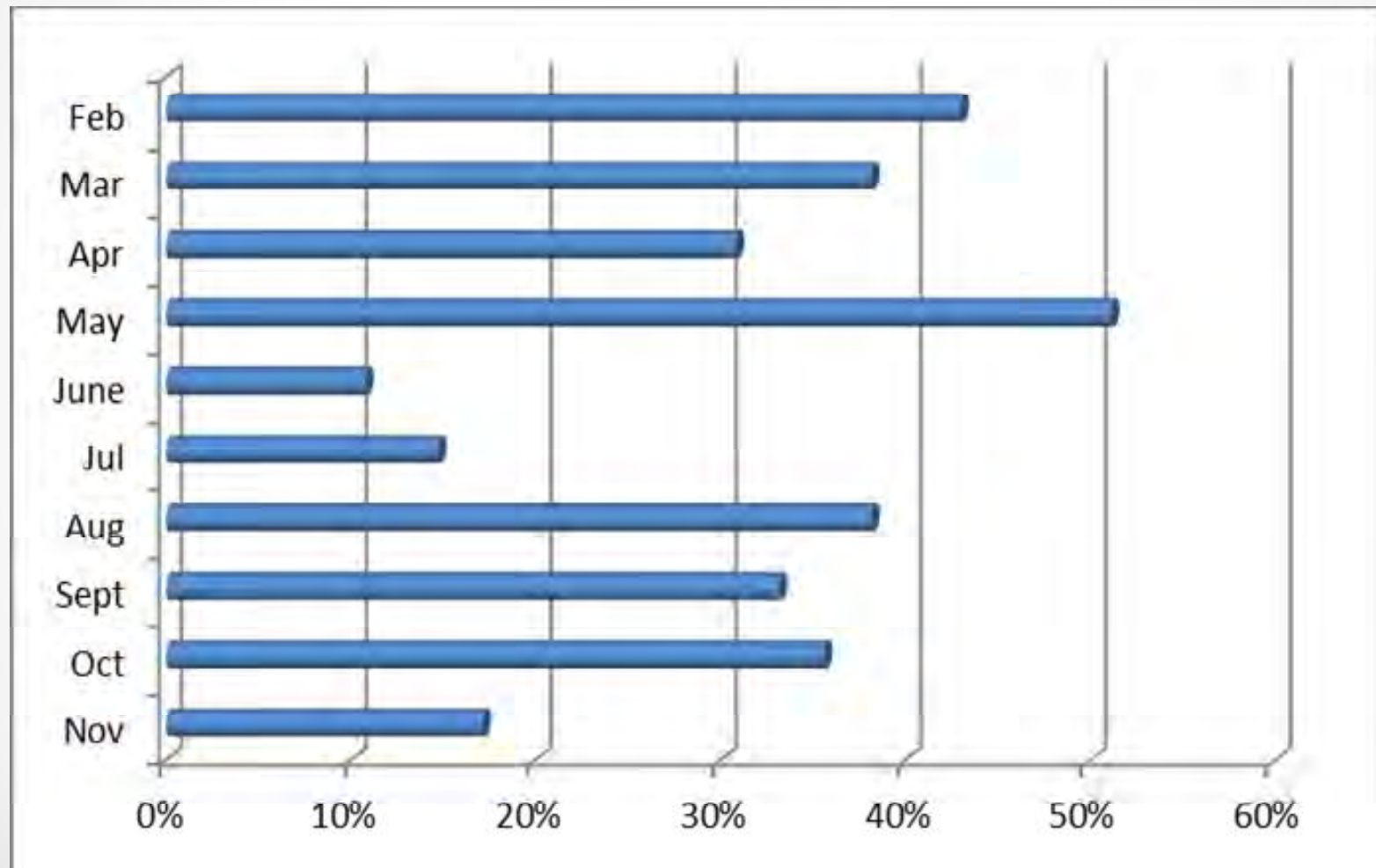
39% Difference after install yet b4 toilets installed.

14% additional difference after install yet b4 irrigation

-30% Difference after install due to "neighbor borrowing"

Same Property

Overall Savings from 2011 - 2013



Next property, same owner, anything different?



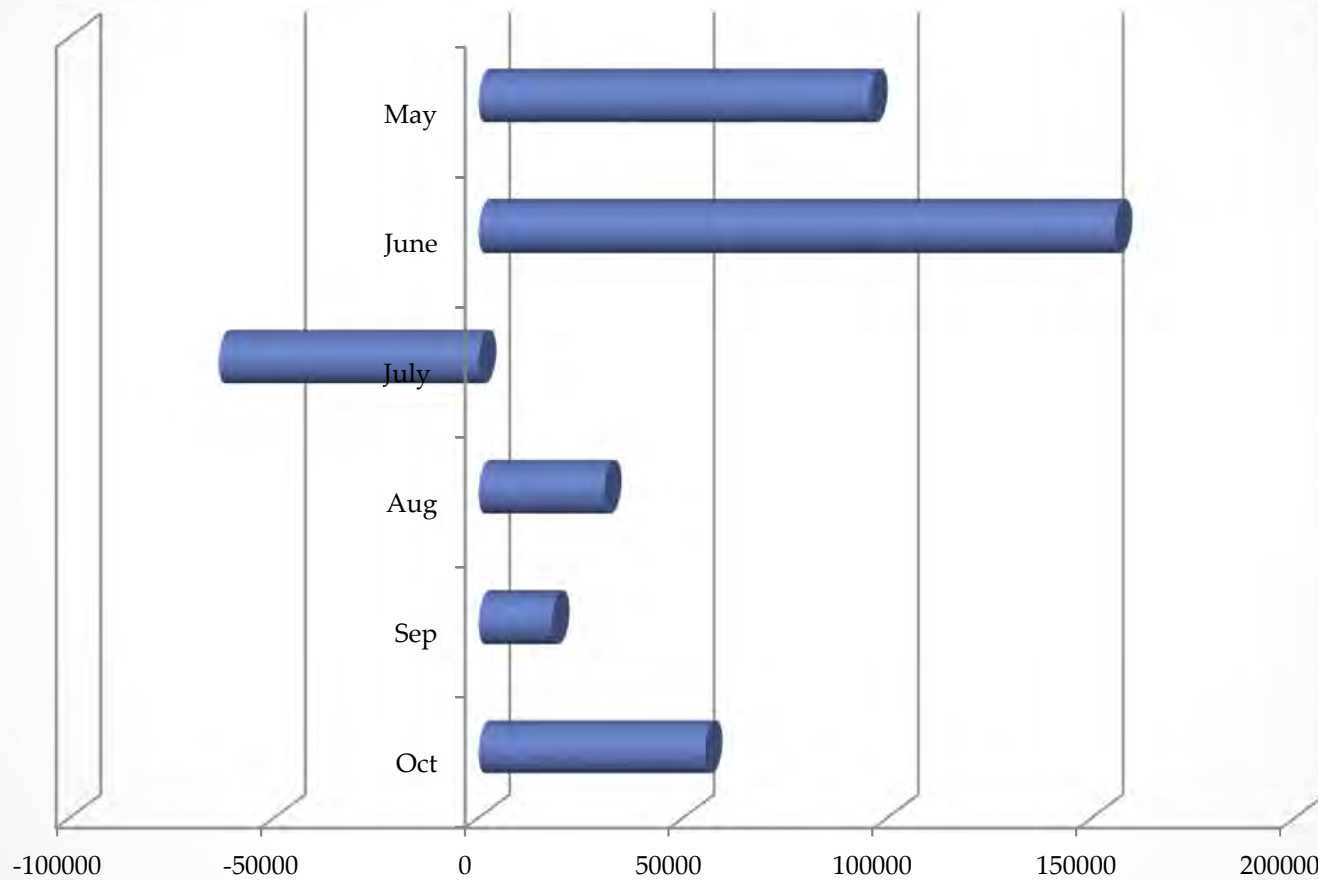
Next property, same owner, anything different?



- 70 units
- Language barrier
- Cultural differences – large families
- Water water water
- 6+ month install
- Carrot – washers

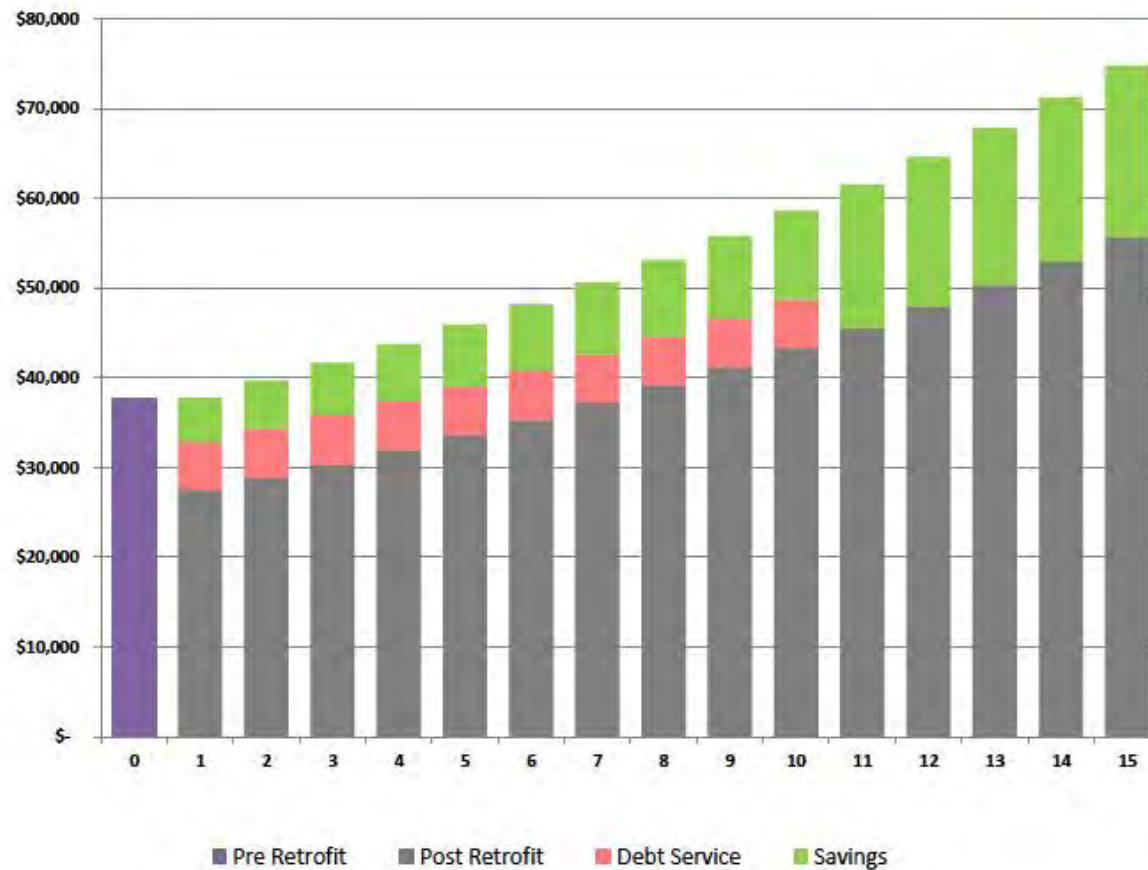
Advanced Notice

Tenants told in late May early June

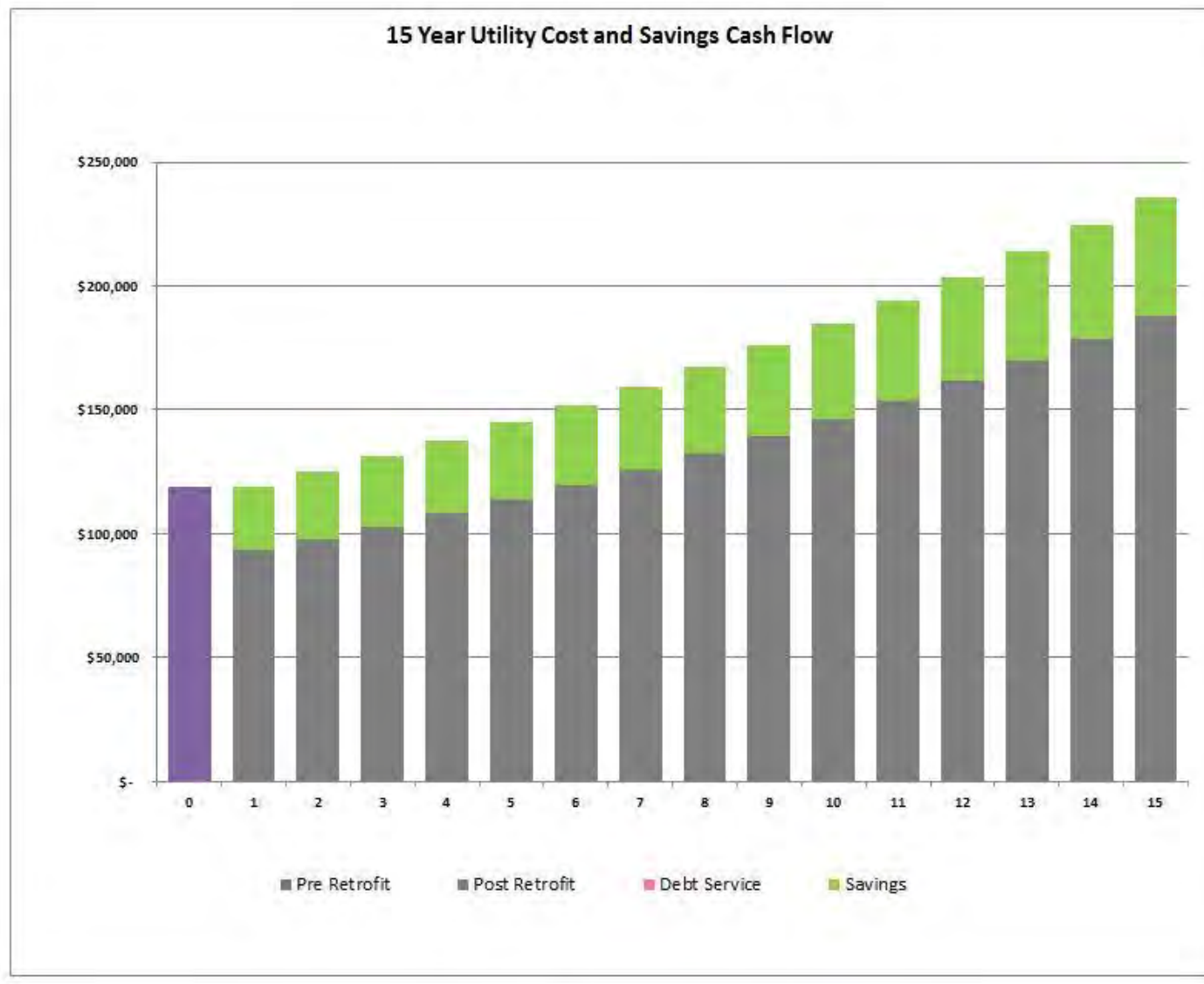


Property Projections

15 Year Utility Cost and Savings Cash Flow



Projected savings for Tenants



Applying Behavioral Economics for Underserved Communities

Common Mistake: In the effort to *deeply* understand our customers, we often *lose focus* of what we are really trying to accomplish.

MARKET BARRIERS



- Lack of Capital
- Lack of Education & Info
- Complex Processes and Forms
- Cultural or Language Barriers
- Lack of Resources

Vs.

COGNITIVE BARRIERS



- Lack of Self Control
- Future Discounting
- Decoy Effect & Framing
- Choice Overload
- Social Norming

Program, Technology, Tools &
Interventions

Design Techniques,
Positioning, & Graphics



Contact Info

MP **WEROREGON™**

Mickey Lee

mickeyl@mpoweroregon.com

503.501.5543



Reema Vashi

reema.vashi@lmco.com

503.278.3076