AGENDA
CITIZENS UTILITY ADVISORY BOARD

Wednesday, September 3, 2014
6:00pm

JOHNSON CREEK FACILITY CONFERENCE ROOM
6101 SE JOHNSON CREEK BLVD.

I.	CONSENT AGENDA	CUAB Board
	A. Approve Minutes from June 4, 2014 meeting	
II.	REPORT	
	A. ESCO presentation – Water meter replacement	Consultant
III.	DISCUSSION	
	A. Water rate structure	ALL
IV.	MATTERS FROM THE BOARD	CUAB Members
V.	FUTURE MEETING DATE/AGENDA ITEMS	ALL
	Next regular meeting: October 1, 2014	
VI.	ADJOURN	

CUAB MEETING MINUTES
Wednesday, June 4, 2014
Johnson Creek Facility Conference Room
6101 SE Johnson Creek Blvd.

Members Present
Vincent Alvarez, Chair
Kevin Hasey, Vice-Chair
Michael Osborne

Members Absent
Greg Deane

Guests Present
Joel Bergman (interested in joining)

Staff Present
Gary Parkin, Public Works Director

I. CALL TO ORDER

The meeting began at 6:35 p.m.

Public Comment: Joel introduced himself.

II. CONSENT AGENDA

The May 7, 2014, meeting minutes were approved.

III. REPORT

A. Water rate structure

The Board is in agreement that generally the current rate structure is not a problem. Education on water use (bill stuffers) is important and looking to tweak the structure by transferring additional fixed costs to the variable portion of the rate is okay. Next steps: look at original rate study, continue analysis with better estimates of usage.

IV. DISCUSSION

A. Field trip plans were discussed.

The CUAB wanted to look at a treatment plant near the City. Gary will check out the Gresham Wastewater plant or Clackamas River Water Plant.

V. MATTERS FROM THE BOARD

A. None

VI. FUTURE MEETING DATE/AGENDA ITEMS

Next meeting: July 2, 2014. Plan the field trip, review water rate structure implications for the City.

VII. ADJOURN

The meeting ended at 8:08 p.m.

Vince Alvarez, Chair

Gary Parkin, Scribe

City of Milwaukie

Citizens Utility Advisory Board

September 3rd, 2014

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MILWAUKIE
Dogwood City of the West

AGENDA

1. Common Challenges
2. What is Energy Savings Performance Contracting?
3. The Roadmap
4. The Feasibility
5. Water Meters
6. Funding, Financing & Accountability

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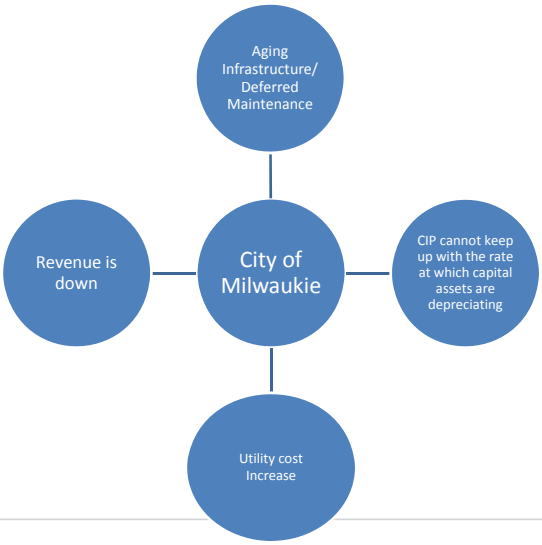
What we do

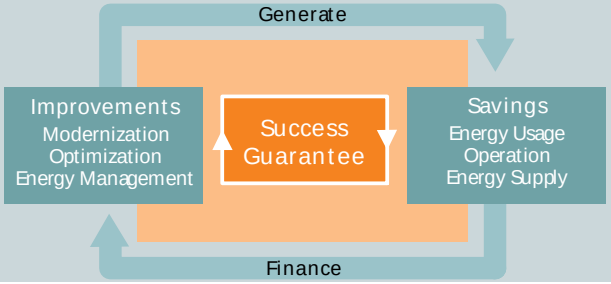
Help our clients reduce their operating costs while improving their infrastructure in a budget neutral or cash flow positive manner.

Challenges



Proven Program

- Make facility & infrastructure improvements
- Reduce energy use and associated expenses
- Your savings and recovered water loss finance your improvements
- ESCO guarantees savings, performance of equipment and cost of improvements



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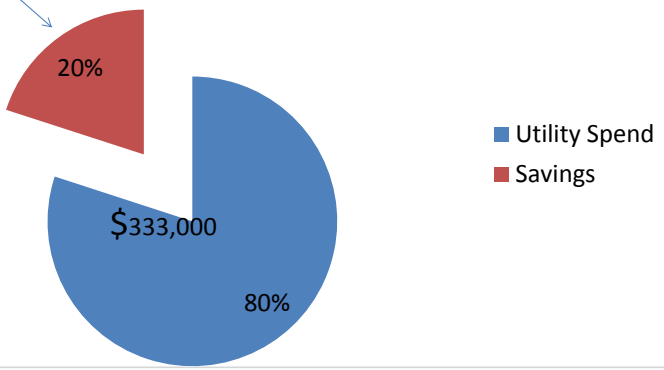
How it is Funded

This Savings funds improvements

Utility



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What is Energy Savings Performance Contracting

- A partnership built on mutually agreed upon goals
- A Financing Vehicle
- Form of Procurement – Design Build/Collaborative
- Risk Mitigation
- ESCO will Guarantee
  - Performance of Equipment
  - Guarantee the Savings
  - Guarantee the Cost of Measures

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Self Funded Projects*

1. **Buildings/ Parks**
   - Lighting Upgrades
   - HVAC Upgrades
   - Control Systems
   - Plumbing Upgrades (fixtures & irrigation)
   - Electrical Upgrades
   - Trash Compactor/Garbage

2. **Utilities**
   - Street Lighting
   - Automated Water Meters
   - Water Treatment and Pumping
   - Waste Water Treatment

3. **Transportation**
   - Compressed Natural Gas & Fleet Conversion

4. **Renewables**
   - Landfill Gas
   - Solar Photovoltaics
   - Solar Hot Water
   - Wind
   - Biomass

* Structured as budget-neutral with annual savings >= annual costs over the life of equipment.

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Road Map

Feasibility → **Project Development** → **Delivery & installation** → **Regular measurement & verification**

- Determines your energy use
- Identifies areas to maximize energy savings
- Understand what challenges staff are having with existing systems

- Determines improvements that maximize impact
- ESCO is determining savings and cost of measures.
- Identifying Funding/ Incentives and Financing for City

- New equipment
- Improvement measures begin to generate savings and revenue
- ESCO has full responsibility for successful project implementation
- Project website keep citizens updated

- Ensures savings goals are maximized

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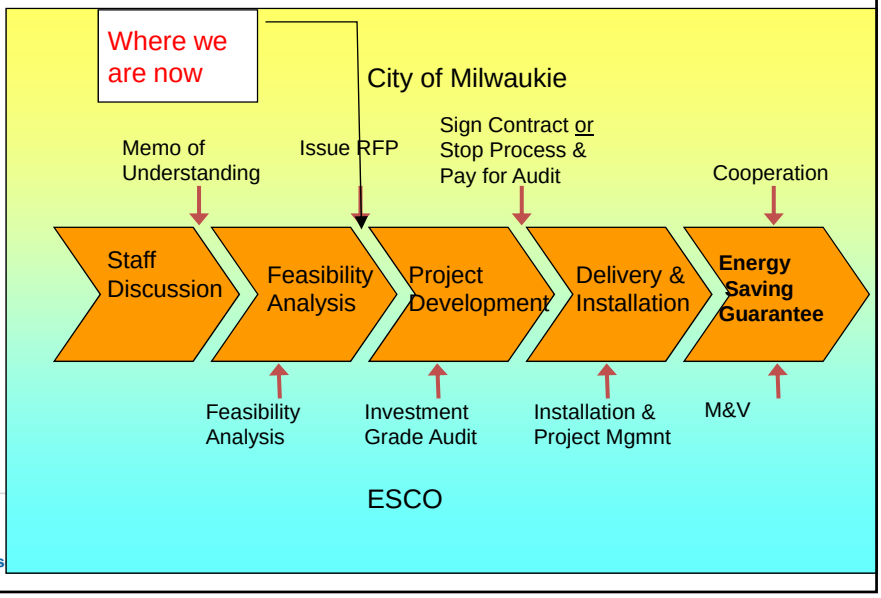
Performance Contracting Process Overview



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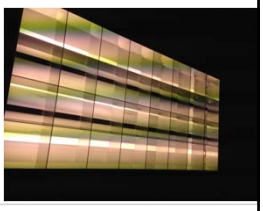
Feasibility is a high level look to determine if ESPC would work

- Public Safety Building
- Public Works
- Library
- Water Meters
- City Hall
- 40th & Harvey Building
- 17 Pumps for water and sewer

Facilities

- Relocate HVAC Air Intake at JCB
- Replace Main AHU at Library
- Re-roof 40th and Harvey Office Bld
- Replace lighting in Fleet Shop at JCB
- Interior Lighting Upgrades at Library & Occupancy Sensors
- Replace Windows at the Library
- Install Emergency Generator at City Hall
- Replace HVAC system at City Hall



Water Division

- Motor replacement & Controls for Pumps at Well Sites (33 Pumps in City)
- VFD at Well Sites
- Soft Starts

1. 7 Operating Wells
2. 2 Booster Pump Stations
3. 4 Motors and Pumps

- 9 Buildings for Water Department
- Water Meters

Water Meters

- Average life of meter is 20 years
- Eliminate contract labor costs for meter re-reads, inaccurate billings (440 service tickets) which has an impact on Operating Budget ($65,000)
- Improve the accuracy of the City's meter infrastructure, ensuring that customers are billed for the water they consume.
- Capture water and sewer revenues currently lost due to unregistered water consumption.
- Eliminate contract labor costs for meter reading ($50,000), and greatly reduce (if not eliminate) manual re-reads, inaccurate billings and other issues associated with the current meter reading system, and
- Dramatically reduce the need for ongoing meter replacement for the next ten years.

Inventory

6991 Meters in the City of Milwaukie

Meter Size	Amount
5/8”	5,682
3/4”	480
1”	282
1 ½”	130
2”	167
3”	16
4”	7
Unknown	227

Age of Meters

Quantity	Year of Meter Installed	Age of Meter
3237	1980	35 Years old
57	1986-1995	29 Years to 20 Years old
456	1996	19 Years old
1242	1997	18 Years old
470	1998	17 Years old

Finding the true accuracy

Age	Amount to be Tested
2010-2014	None
2009-2005	16
2004-2000	16
1999-1995	72
1994-1990	2
1989- Prior	101
Total # of Meters to Be Tested	207

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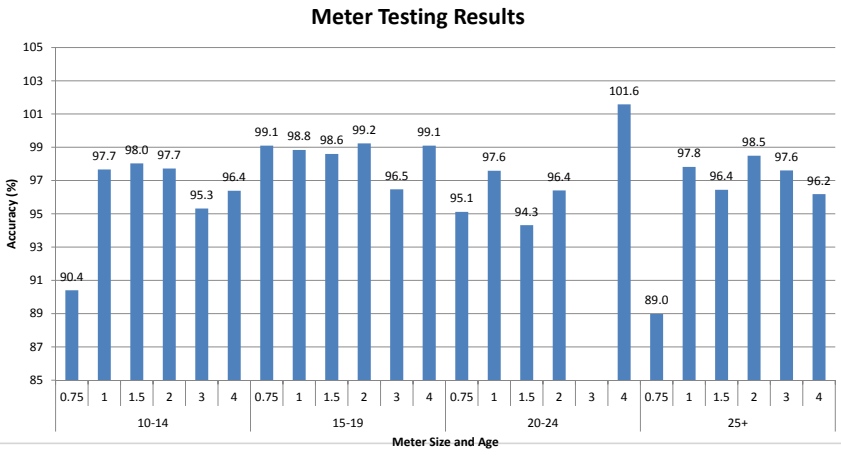
Determining the accuracy



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Accuracy of New Meters pay for Upgrades – Radio Transmission

Fiscal Year	Enhanced Revenue	Reduction of Meter Reader
2014	$381,390	$50,000
2015	$381,390	$50,000
2016	$381,390	$50,000
2017	$381,390	$50,000
2018	$381,390	$50,000
2019	$381,390	$50,000
2020	$381,390	$50,000
2021	$381,390	$50,000
2022	$381,390	$50,000
2023	$381,390	$50,000

10 Years of Enhanced Revenue	Estimated Budget for Radio Transmission Meter Reading
$3,813,900	$3,800,000

Based on Meter accuracy improvement of 4%

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Accuracy of New Meters pay for Upgrades – Cellular Transmission

Fiscal Year	Enhanced Revenue	Cellular cost *
2014	$381,390	$72,196
2015	$381,390	$72,196
2016	$381,390	$72,196
2017	$381,390	$72,196
2018	$381,390	$72,196
2019	$381,390	$72,196
2020	$381,390	$72,196
2021	$381,390	$72,196
2022	$381,390	$72,196
2023	$381,390	$72,196

10 Years of Enhanced Revenue	Estimated Budget for Cellular Transmission Meter Reading
$3,813,900	$3,550,000

***Cost based on utilizing existing cellular tower infrastructure and rate of .89 cents per month per meter.**

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Budget to upgrade to Radio transmission

Install Data Collectors throughout city for meters to transmit information

CONS
- Additional infrastructure cost ($250,000)
- Additional annual maintenance cost for data collectors ($6000)

PROS
- Eliminate cellular cost ($72,196 annually)

Budget to upgrade to cellular transmission

Utilize existing cell tower infrastructure throughout city for meters to transmit information

CONS
- $72,196 annual cost for transmission or increase of $21,796 (eliminate annual meter reading cost)

PROS
- No need to install data collectors throughout city
- In the event of a natural disaster or heavy storm, cellular is usually the first communication to come back on line

Increase is minimal

Current Water	Current Sewer
$25.35	$53.10

New Water	New Sewer
$26.36	$55.22

- Reduction in estimated bills and meter reading errors
- Reduced need to access customer property for re-read
- Conservation enforcement

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Process Comparison

Project Detail	Traditional Process	Self-Performed	ESCO Process
Contractor Procurement	Mulitple contracts	Mulitple Contracts	One contract
Upfront audit costs	High	Maybe	Low
Internal Resource Cost	Medium	High	Low
Single contract	No	No N/A	Yes
Change Orders	Medium	Yes	Low-None
Local Contractors	Yes	Not required	Yes
Measurement and Verify	Not required	Low	Required
Installation cost (Hard Costs)	Medium	No	Medium
Energy Savings Guarantee	No	**Cannot determine**	Yes
Project Duration	**23 months**	Low	**14 months**
Total Project Cost	Medium		Medium

Example:7 buildings (approximately 700,000 square feet)

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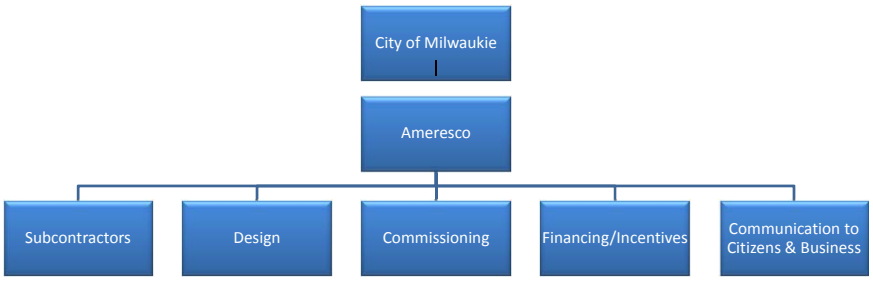
Single Source of Accountability



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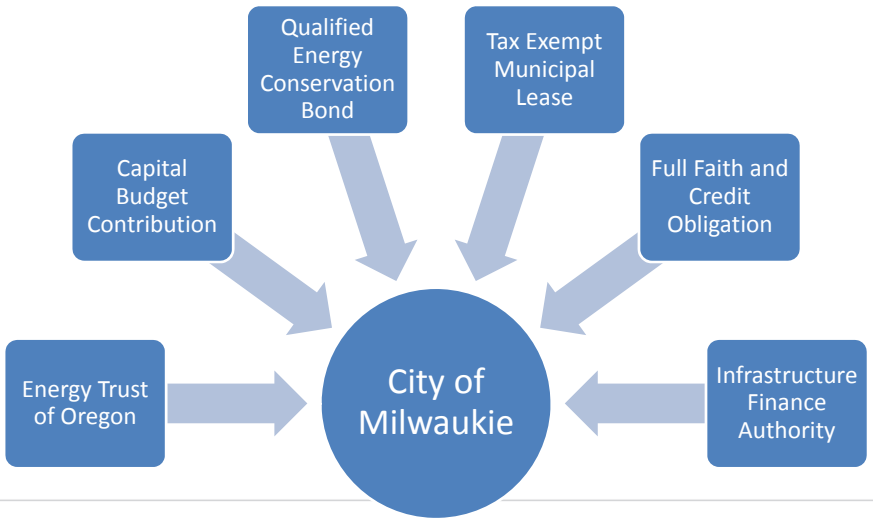
Funding and Financing



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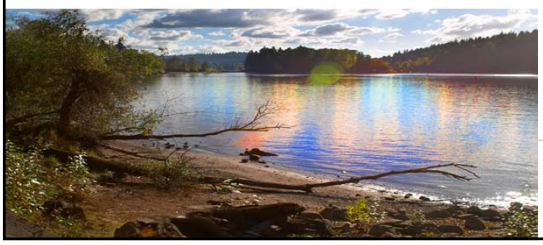
Selecting an ESCO

- Oregon Department of Energy (ODOE)
- 6 Pre Approved ESCO's
- RFP/RFQ Already Developed by ODOE
- Select and ESCO either based on the written response or after interviewing them



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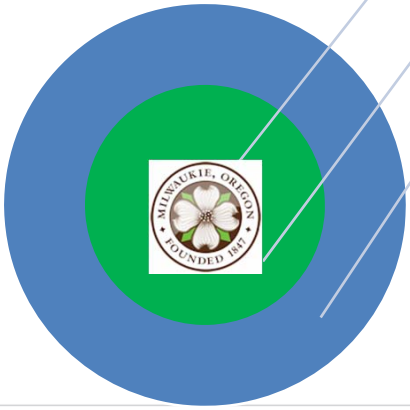
Why this Program for City of Milwaukie



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City of Milwaukie

Sustainability Plan

1. Reduce energy consumption of electricity and gas consumption by 5% from 2006 levels
2. Reduce Greenhouse gas emissions to 10% below 2007 levels in keeping with US Mayors ‘ Climate Protection Agreement.

2014 City Council Goals

1. Determine other revenue streams **(Ongoing)**
2. Funding to prevent loss of services **(Ongoing)**
3. Capital infrastructure of public buildings and ongoing maintenance **(Aspirational)**

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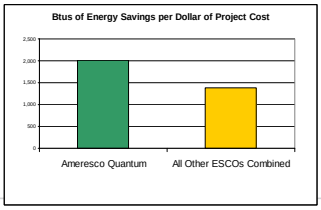
- Only Independent ESCO on Pre- Approved List
- Ability to Provide True Open Book Pricing
- Our Total System Evaluation helps identify higher than average savings = Utility Rebates/ Incentives



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Experience in the Northwest

City of Redmond

Multnomah County

Reed College 3 Phases of Work

Portland Public Schools 6 Phases of Work

City of Longview

City of Renton

City of Olympia

Commitment

"The City of Gallipolis had diverse and complicated needs. Ameresco stayed with us and demonstrated significant commitment to our community. Ameresco showed considerable competence financially allowing us to accomplish more projects, meet our goals and implement a project that was affordable for our community. Ameresco was willing to attend public meetings and help us educate the community and demonstrate the value of the projects being proposed. We were pleased to work with them on this project."

– C. Joseph Woodall

City Manager, City of Gallipolis

REFERENCES AVAILABLE

An energy savings performance contract is an agreement between an energy services company (ESCO) and a building owner. Oregon defines it as a public contract between a state agency and a qualified energy service company for the identification, evaluation, recommendation, design and construction of energy conservation measures, including a design-build contract, that guarantee energy savings or performance. (ORS 279A.010)

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