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# Chelan County PUD Rate-Setting Workshop Preview

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**A continuation of ongoing strategic planning**

**May 27, 2008**

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# Goals of June 2<sup>nd</sup> workshop

- Share results of cost of service analysis (COSA)
- Discuss possible rate modifications
  - Independent of rate increase decisions
- Provide time for Board discussion
- Listen to public comment

This is a working session – no rate increase recommendations or Board decisions will be made that night

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# Draft Workshop Agenda

## Part 1

- Opening remarks
- Recap of strategic sessions
- Overview of rate-setting process
- Initial results of cost of service analysis
- Consultant review
- Board discussion
- Public comment
- Break

## Part 2

- Rate design considerations
- Discuss Board rate design philosophies
- Public comment
- Next steps
- Closing remarks

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# Requested Board guidance

**Board decisions that will guide rate-design options:**

## **Rate design philosophies**

- Small, incremental increases over time?
- Phase in rate alignment between customer classes over time?
- Move toward postage stamp concept for Water and WW?
- Modify low-income, senior and disabled discount program?
- Promote conservation?
- Implementation date – January 1 or April 1?

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# Requested Board guidance

**Board decisions that will guide rate-design options:**

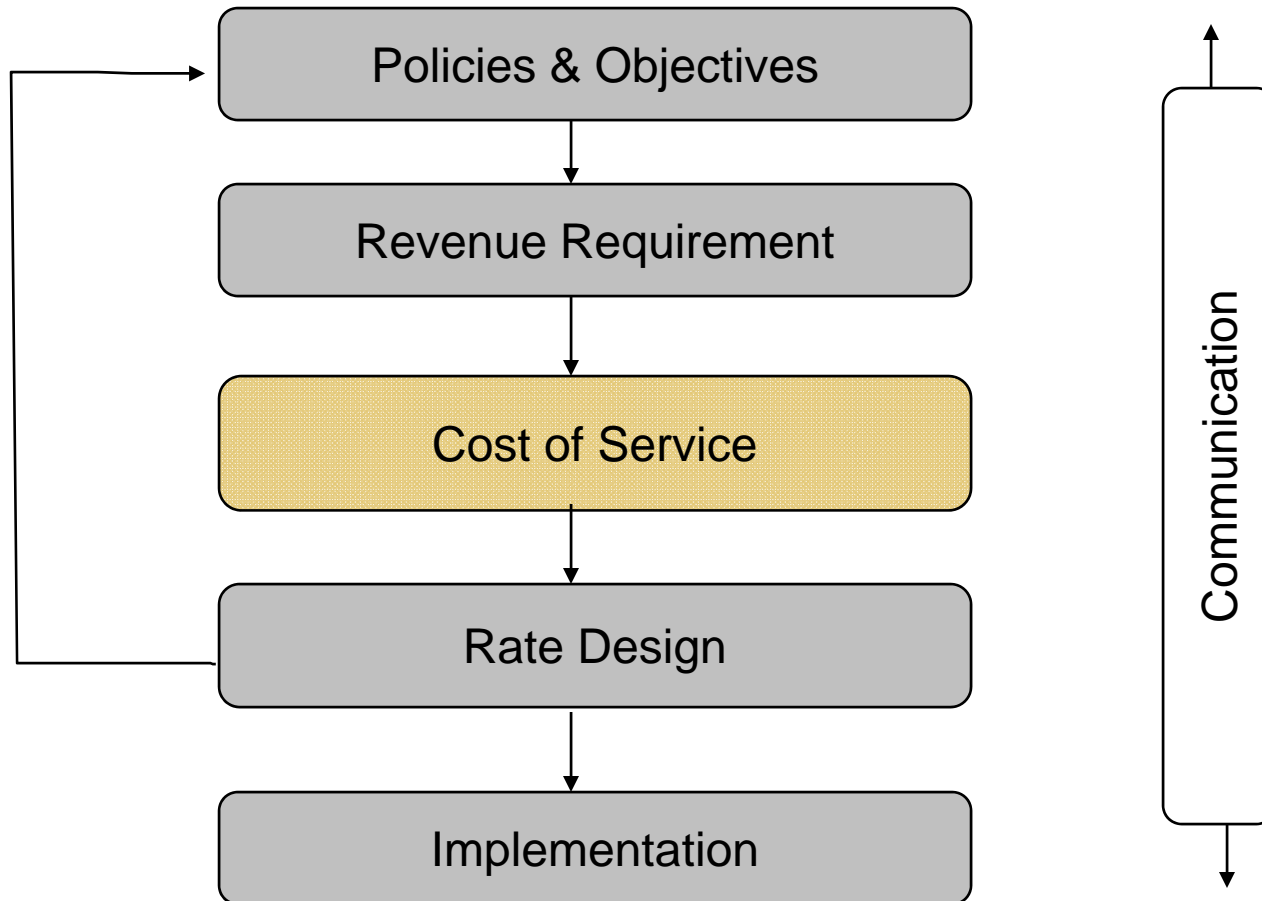
## **Possible modifications (independent of rate increase decisions):**

- Eliminate minimum charge?
- Eliminate demand ratchet?
- Modify irrigation season?
- Streamline methodology for Water and Wastewater rates?
- Streamline interdepartmental rates?
- Modify tiered rates to encourage more conservation?

# Rate-Setting Process Timeline

Process Step	Targeted Timeline
<input checked="" type="checkbox"/> <b>Step 1</b> - Policies & Objectives Identified	Feb. 19, 2008
<input checked="" type="checkbox"/> <b>Step 2</b> - Revenue Requirements (Electric, Water & WW)	Mar. 24, 2008
<input checked="" type="checkbox"/> <b>Step 3</b> - Cost of Services Performed (Electric, Water, WW)	June 2, 2008
<input type="checkbox"/> <b>Step 4a</b> - Rate Design Options (Electric, Water, WW)	June 2008
<input type="checkbox"/> <b>Step 4b</b> - Public Comment	June – Aug. 2008
<input type="checkbox"/> <b>Step 4c</b> - Final Adjustments	July – Aug. 2008
<input type="checkbox"/> <b>Step 5</b> – Board Decision	Aug. 2008
<input type="checkbox"/> <b>Step 6</b> - Testing & Implementation	Sep. – Dec. 2008
<input type="checkbox"/> Communication	Ongoing

# Overview of Rate-Setting Process



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# What is “cost of service”

A method to equitably allocate the revenue requirement of the utility between the classes of service and systems.

(e.g. residential, commercial, etc.) (e.g. water, electric, etc.)

## Why perform a cost of service?

- ❑ Many costs are not accounted for by customer class
- ❑ Many costs are incurred for joint benefit, others are direct
- ❑ Class usage patterns vary
- ❑ Aligns revenue with costs
- ❑ Information for rate design (but not only factor to consider)

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# Cost of Service – Analytical Steps

1. **Costs arranged by major function**
  - production, transmission, distribution, etc
2. **Costs classified into cost components**
  - commodity, delivery, customer
3. **Components allocated to customer classes**
  - residential, commercial, industrial, etc.

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# Cost of Service – Analytical Steps

## **Supply (Commodity) Cost Component**

- Costs primarily driven by the actual quantity consumed or used
- Includes power purchases, water purchases, pumping, treatment, etc. along with a proportionate level of A&G
- Costs are typically assigned to the actual cost of the commodity being consumed or used when designing rates

## **Allocation methodologies**

- General and Admin – assigned based on direct O&M %
- Delivered KWh

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# Cost of Service – Analytical Steps

## **Delivery/Collection (Demand) Cost Component**

- Costs driven by either the maximum demand requirement imposed by the various customers or the number of installed services for the particular utility service being provided
- Includes transmission, distribution, storage, etc. along with a proportionate level of A&G
- The assignment of this cost component varies by service and customer type and can be based on service counts, system usage or system demand

## **Allocation methodologies**

- General and Admin – assigned based on direct O&M %
- Non-coincidental peak
- Frost protection and street lights use alternate direct assignment

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# Cost of Service – Analytical Steps

## **Customer (base) cost component**

- Typically associated to the number of customers
- Varies depending on the actual count and type of service
- Includes customer billing, collections, records, meter reading, service, etc. along with a proportionate level of A&G
- Typically treated as the base charge or minimum rate component when designing rates

## **Allocation methodologies**

- General and Admin – assigned based on direct O&M %
- Customer costs - weighted customer count factor

# Initial results-Electric

## Step 2 – Revenue Requirement

(Initial revenue requirement presented at March 24, 2008 Board meeting and has been updated as of May 6, 2008)

<b>Electric System</b> (amounts in millions)	<b>2009</b>	<b>2010</b>
Rate Revenue	\$ 50.7	\$ 51.2
Commodity/Use Cost	\$(48.3)	\$(52.1)
Delivery/Transport Cost	\$(22.9)	\$(24.7)
Customer/Base Cost	\$ (8.3)	\$ (9.1)
Gross Operating Revenue Requirement	\$(28.8)	\$(34.7)
Other Activity Inc/(Exp)	\$ 8.0	\$ 8.2
Risk Adjusted Wholesale Margin	\$ 20.9	\$ 22.3
Net Rate Revenue Requirement	\$ 0.1	\$ (4.2)
	0.0%	8.2%

# Initial results-Electric

## Step 3 – Cost of Service

(process of taking costs and allocating them to customer classes)

<b>ELECTRIC – 2009 (000's)</b>	Gross Cost of Service	Revenues	Gross Rev Req
Residential	\$41,287	\$23,865	73.0%
Commercial	\$17,981	\$14,955	20.2%
Industrial	\$11,432	\$6,536	74.9%
Irrigation	\$1,961	\$1,182	65.9%
Frost Protection	\$274	\$193	41.8%
St Lights	\$240	\$286	(15.8)%
Inter-departmental	\$704	\$533	32.0%
CTCI – 95/00	\$5,682	\$3,170	79.2%
<b>TOTAL</b>	<b>\$79,561</b>	<b>\$50,720</b>	<b>56.9%</b>

# Initial results-Electric

## **Risk adjusted wholesale margin and other**

- Wholesale surplus less allocated costs to generate power less risk adjustment to limit potential surcharge to 14% or less 90% of the time
- Other activity primarily includes debt costs and interest income
- This is a category unique to our utility

## **Allocation methodologies**

- Wholesale margin between systems – gross operating margin/(deficit) “based on need while still closing the gaps”
- System wholesale margin between customer class – net margin/(deficit)

# Cost of Service Analysis – Electric

<b>Electric 2009 (000's)</b>	<b>Current Revenue</b>	<b>Gross Cost of Service</b>	<b>Gross Rev. Req. %</b>	<b>Non Operating Activity</b>	<b>Risk Adjusted Wholesale</b>	<b>Net Revenue Req.</b>	<b>%</b>
Residential	\$23,865	\$41,287	73.0%	\$3,657	\$13,706	\$(59)	0.2%
Commercial	\$14,955	\$17,981	20.2%	\$2,311	\$712	\$(3)	0.0%
Industrial	\$6,536	\$11,432	74.9%	\$990	\$3,889	\$(17)	0.3%
Irrigation	\$1,182	\$1,961	65.9%	\$178	\$599	\$(2)	0.2%
Frost Protection	\$193	\$274	41.8%	\$29	\$52	\$(0)	0.1%
St Lights	\$286	\$240	(15.8)%	\$44	\$0	\$89	(31.3)%
Inter-Dept	\$533	\$704	32.0%	\$111	\$59	\$(0)	0.0%
CTCI – 95/00	\$3,170	\$5,682	79.2%	\$662	\$1,842	\$(8)	0.2%
	<b>\$50,720</b>	<b>\$79,561</b>	<b>56.9%</b>	<b>\$7,982</b>	<b>\$20,859</b>	<b>\$0</b>	<b>0.0%</b>

- Not a recommendation for specific rate increases
- Cost of service analysis provides information for rate design, not only factor to consider

# Cost of Service Analysis – Electric

<b>Electric 2010 (000's)</b>	<b>Current Revenue</b>	<b>Gross Cost of Service</b>	<b>Gross Rev. Req. %</b>	<b>Non Operating Activity</b>	<b>Risk Adjusted Wholesale</b>	<b>Net Revenue Req.</b>	<b>%</b>
Residential	\$24,152	\$44,629	84.8%	\$3,745	\$14,040	\$2,692	11.1%
Commercial	\$15,115	\$19,442	28.6%	\$2,364	\$1,647	\$316	2.1%
Industrial	\$6,562	\$12,357	88.3%	\$1,005	\$4,020	\$770	11.7%
Irrigation	\$1,209	\$2,116	75.0%	\$183	\$607	\$117	9.6%
Frost Protection	\$198	\$295	49.5%	\$30	\$57	\$10	5.5%
St Lights	\$292	\$262	(10.4)%	\$46	\$0	\$(76)	(26.1)%
Inter-Dept	\$546	\$776	42.2%	\$115	\$97	\$18	3.4%
CTCI – 95/00	\$3,170	\$6,029	90.2%	\$668	\$1,838	\$353	11.1%
	<b>\$51,244</b>	<b>\$85,906</b>	<b>67.6%</b>	<b>\$8,156</b>	<b>\$22,306</b>	<b>\$4,200</b>	<b>8.2%</b>

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# Rate-setting process initial results-Water and Wastewater

**Same process performed for Water and  
Wastewater**

# Cost of Service Analysis – Water

<b>Water 2009 (000's)</b>	Current Revenues	Gross Cost of Service	Gross Rev. Req. %	Non Operating Activity	Risk Adjusted Wholesale	Net Revenue Req.	%
Residential	\$2,754	\$2,917	5.9%	\$(199)	\$145	\$217	7.9%
Commercial	\$1,344	\$1,510	12.4%	\$(95)	\$104	\$157	11.7%
	<b>\$4,098</b>	<b>\$4,427</b>	<b>8.0%</b>	<b>\$(294)</b>	<b>\$249</b>	<b>\$374</b>	<b>9.1%</b>

<b>Water 2010 (000's)</b>	Current Revenues	Gross Cost of Service	Gross Rev. Req. %	Non Operating Activity	Risk Adjusted Wholesale	Net Revenue Req.	%
Residential	\$2,850	\$3,191	12.0%	\$(375)	\$240	\$476	16.7%
Commercial	\$1,380	\$1,643	19.1%	\$(177)	\$148	\$292	21.2%
	<b>\$4,230</b>	<b>\$4,834</b>	<b>14.3%</b>	<b>\$(552)</b>	<b>\$388</b>	<b>\$768</b>	<b>18.1%</b>

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# Cost of Service Analysis – Wastewater

<b>Wastewater 2009 (000's)</b>	<b>Current Revenues</b>	<b>Gross Cost of Service</b>	<b>Gross Rev. Req. %</b>	<b>Non Operating Activity</b>	<b>Risk Adjusted Wholesale</b>	<b>Net Revenue Req.</b>	<b>%</b>
Residential	\$291	\$593	103.9%	\$(16)	\$225	\$93	32.2%
Commercial	\$122	\$151	23.7%	\$(7)	\$25	\$11	8.6%
Industrial	\$28	\$53	88.4%	\$(2)	\$19	\$8	27.6%
	<b>\$441</b>	<b>\$797</b>	<b>80.7%</b>	<b>\$(25)</b>	<b>\$269</b>	<b>\$112</b>	<b>25.4%</b>

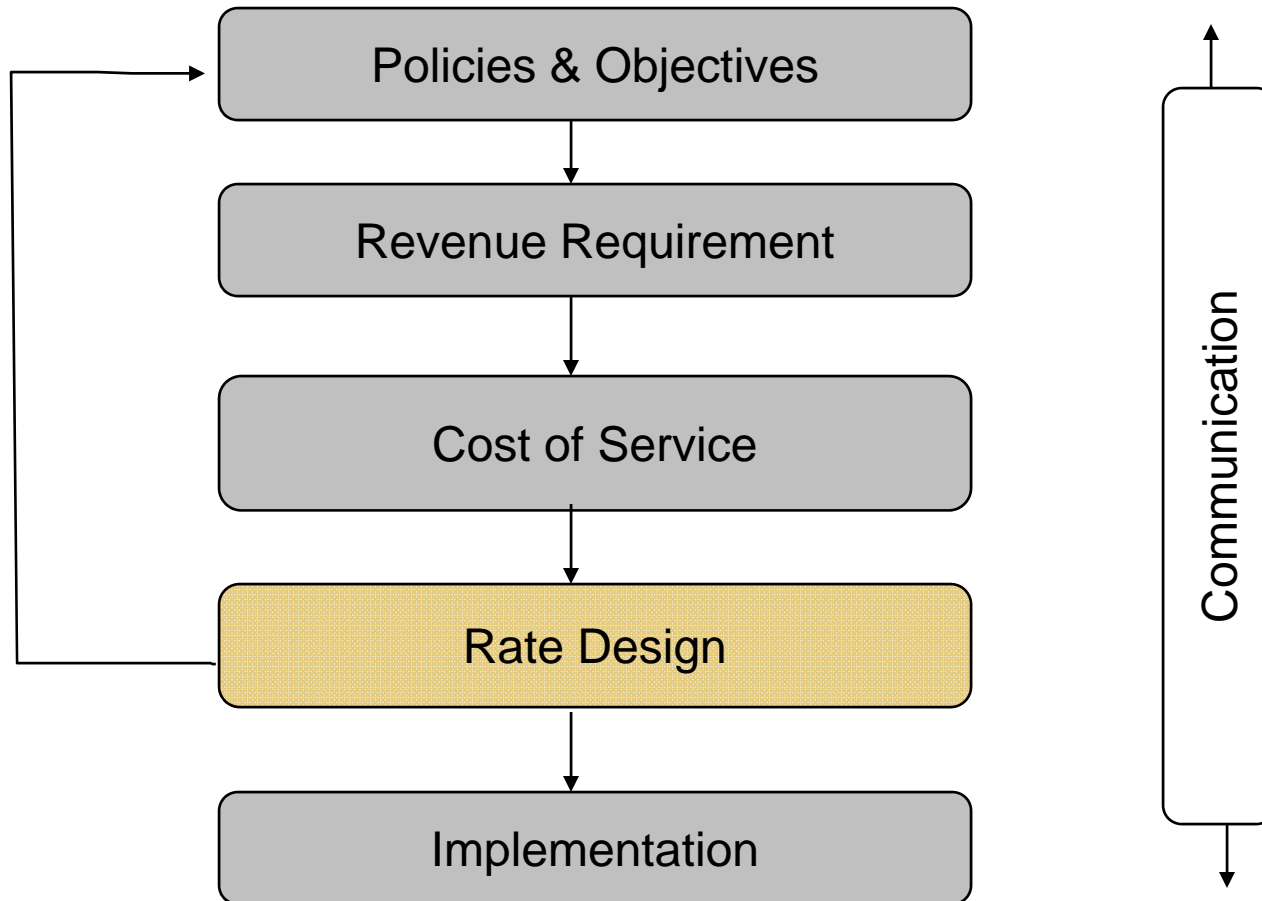
<b>Wastewater 2010 (000's)</b>	<b>Current Revenues</b>	<b>Gross Cost of Service</b>	<b>Gross Rev. Req. %</b>	<b>Non Operating Activity</b>	<b>Risk Adjusted Wholesale</b>	<b>Net Revenue Req.</b>	<b>%</b>
Residential	\$294	\$611	107.8%	\$(25)	\$199	\$143	48.6%
Commercial	\$124	\$153	23.8%	\$(11)	\$23	\$17	13.6%
Industrial	\$28	\$54	91.6%	\$(3)	\$17	\$12	41.9%
	<b>\$446</b>	<b>\$818</b>	<b>83.4%</b>	<b>\$(39)</b>	<b>\$239</b>	<b>\$172</b>	<b>38.5%</b>

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# Open discussion

# Overview of Rate-Setting Process



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# Requested Board guidance

**Guidance requested to help develop potential rate design options:**

## **Rate design philosophies**

- Small, incremental increases over time?
- Phase in rate alignment between customer classes over time?
- Move toward postage stamp concept for Water and WW?
- Modify low-income, senior and disabled discount program?
- Promote conservation?
- Implementation date – January 1 or April 1?

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# Requested Board guidance

**Guidance requested to help develop potential rate design options:**

## **Consideration of rate design modifications (independent of rate increase decisions):**

- Eliminate minimum charge?
- Eliminate demand ratchet?
- Modify irrigation season?
- Streamline methodology for Water and Wastewater rates?
- Streamline interdepartmental rates?
- Modify tiered rates to encourage more conservation?

# Rate Design Philosophies- Electric

<b>ELECTRIC</b>	2009 Rev. Req.	2010 Rev. Req.
Residential	0.2%	11.1%
Commercial	0.0%	2.1%
Industrial	0.3%	11.7%
Irrigation	0.2%	9.6%
Frost Protection	0.1%	5.5%
St Lights	(31.3)%	(26.1)%
Inter-departmental	0.0%	3.4%
CTCI – 95/00	0.2%	11.1%
<b>TOTAL</b>	<b>0.0%</b>	<b>8.2%</b>

- Small, incremental increases over time?
- Phase in rate alignment between customer classes over time?
- Modify low-income, senior and disabled discount program?
- Implement Jan. 1 or Apr. 1?

- Cost of service analysis provides information for rate design
- Not the only factor to consider (also consider goals, objectives and )
- Not a recommendation for specific rate increases

# Rate Design Philosophies- Water

	2009 Rev. Req.	2010 Rev. Req.
<b>WATER</b>		
Residential	7.9%	16.7%
Commercial	11.7%	21.2%
<b>TOTAL</b>	<b>9.1%</b>	<b>18.1%</b>

- Cost of service analysis provides information for rate design
- Not the only factor to consider (also consider goals, objectives and )
- Not a recommendation for specific rate increases

- Small, incremental increases over time?
- Phase in rate alignment between customer classes over time?
- Modify low-income, senior and disabled discount program?
- Implement Jan. 1 or Apr. 1?

# Rate Design Philosophies- Wastewater

<b>WASTEWATER</b>	2009 Rev. Req.	2010 Rev. Req.
Residential	32.2%	48.6%
Commercial	8.6%	13.6%
Industrial	27.6%	41.9%
<b>TOTAL</b>	<b>25.4%</b>	<b>38.5%</b>

- Small, incremental increases over time?
- Phase in rate alignment between customer classes over time?
- Modify low-income, senior and disabled discount program?
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# Eliminate minimum base charge

- Typically associated with some base usage
- Electric residential example (base-\$7.20 min-\$12.85)
- Counter to conservation goals
- Confusing for customers
- Less than ½% of the retail revenues
- ~4,000 charges < \$1.00 & ~500 charges < \$0.10

Consideration – Eliminate the monthly minimum charge from the electric rate schedules

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# Modify irrigation season

- Seasonal rates designed to match billing with the actual use of the service
- Billing and collection activity limited to a smaller period reducing cost to the end user
- Current design reduces advantage of seasonal rate by extending the need to continue the billing process in October and initiating it prior to May

Consideration – Limit the season to May-September with any incidental demand or usage during the off season billed during the initial period of the season

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# Modify tiered rate structure

- Current tiered rate structure implemented 10 years ago to promote conservation
- Top tier rate of less than 3 cents is minimal incentive for conservation
- Tiers can also benefit low income households

Consideration – Adjust tiered design to enhance support of conservation, low income customers and provide basis for allocation of wholesale benefits to the residential class

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# Streamline Water and Wastewater Rates

- Currently multiple rates for each class (by location)
- Increases complexity and administrative burden
- Not aligned in an integrated fashion
- Key component of ability to control future costs and improve future flexibility of rate design

Consideration – Move to a common “postage stamp” rate concept for water and wastewater services regardless of specific location

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# Eliminate Demand ratchet

- Industrial and commercial rates have an additional demand charge component called a “ratchet”
- The demand ratchet is a way of factoring in the highest demand that occurs during the year
- The demand “ratchet” is currently applied in two different ways, to two classes of customers

Consideration – Remove demand ratchet and bill based on the actual demand for the period

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# Streamline interdepartmental rates

- Needed for tracking purposes
- Used to determine full costing by system and programs
- Opportunity to simplify and streamline

Consideration – Pursue opportunities to simplify and streamline rates used for internal District charges

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Open discussion

Thank you