



King Co. Wastewater Treatment Division

Capacity Charge Review Study

MWPAAC Refresher 2

May 2, 2024

Agenda

Introduction

Alternative capacity charge methodologies

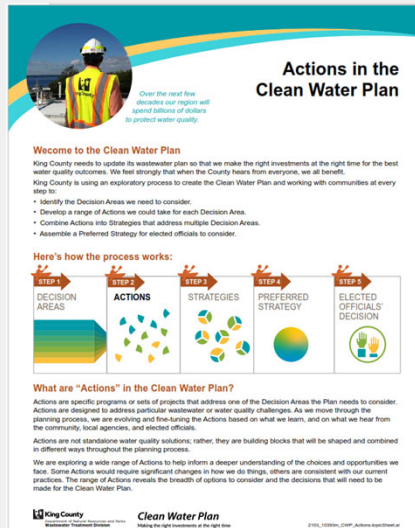
System Buy-in Approach

Incremental Approach

Combined Approach

Next steps





Why is WTD performing this study?

- Current capacity charge methodology “expires” in 2030
- RWSP Update being completed that will help identify capital needs over the next 40 years
 - Update was relaunched in March after more than 2 years of pause
- Some imbalances in the approach due to the structure
- 2016 Auditor’s report recommended a more transparent model

King County Auditor’s Office
 Kymber Waltmunson, King County Auditor

**Wastewater Capacity Charge:
 Unclear Whether Growth Is Paying for Growth**

Peter Heineccius

Government Accountability & Oversight Committee
 August 23, 2016

Goals of alternative capacity charge methodology

- Develop a more transparent calculation
- Based on the value of system assets (existing and future)
- Existing and future capacity will determine costs per RCE
- A more predictable charge that is less dependent on historical revenues and discount rate
- Transition to a new methodology that accounts for current system investments and capacity, and future expanded capacity investments

Capacity Charge Methodology: Alternatives



Typical Fee Calculation Methodologies

- Buy-In Approach
 - › Focuses on existing facilities with available capacity to serve new customers
 - › Analysis based on fixed asset records
- Incremental/Marginal Cost Approach
 - › Focuses on additional facilities required to meet anticipated growth
 - › Analysis based on capital improvement plan
- Combined Approach

System Development Charges

A system development charge (SDC) is a one-time charge paid by a new water system customer for system capacity. It is also assessed to existing customers requiring increased system capacity. The receipts from this charge are used to finance the development of growth-related or capacity-related water facilities and are an important funding/financing source for these facilities.

Although a one-time charge, SDCs are not always paid up front. Some states require utilities to offer an option to pay the SDC in installments if the fee is over a certain amount. Utilities often offer such an option with the potential for financing terms that allow for installment payments spread over several months or years.

The development of the appropriate level of SDCs provides utilities and policymakers with a cost-based analysis of the value of existing and planned capacity that is available or will be developed to serve and accommodate new capacity demands. By understanding the costs of providing capacity, policymakers can make an informed decision concerning the equity of allocating system capacity costs between existing and new customers.

Utilities make investments in capacity-related facilities that will provide service to new development in advance of when the new development occurs. Typically, the capacity-related facilities are constructed in fairly large increments, and the new customers that this capacity is intended to serve will typically connect to the system over many years. As a result of the size of the capacity expansion and the timing of when customers connect to the system, the timing of receipts generated from the SDCs is rarely synchronized with the construction of the capacity-related facility. Therefore, SDCs provide an equitable method for recovering the costs of system capacity additions from those who will use the increased capacity; although in most cases, some portion of the capacity-related costs must still be recovered from user rates and charges assessed to all customers due to the aforementioned timing issues.

In general, SDCs are based on the costs for major backbone infrastructure components that are necessary to provide service to all customers, including source-of-supply facilities, raw water transmission, treatment facilities, pumping facilities, storage tanks, and major treated-water transmission mains (e.g., "general benefit" facilities; see

System Buy-In Approach

- Existing assets have capacity to serve new customers
 - › New customers “Buy-In” to existing capacity
 - › Establishes a cost per RCE of capacity in existing system
- Investment in assets based on original costs plus carrying costs
 - › Per RCW 35.58.570
- Exclude outstanding debt to prevent “double-charging”
- Exclusion of grant-funded assets

Sample Fee Calculation

Original Cost of Eligible Assets + Carrying Costs

Less:

- Grant Funded / Donated
- Outstanding Debt Principal

= Net System Assets (\$)

÷ Existing System Capacity (RCE)

= **Capacity Charge (\$/RCE)**

System Buy-in Adjustments

- Exclude Vashon Island and Carnation treatment facilities
- Exclude grant-funded assets
- Should recover the core/"backbone" system assets
 - › Exclude small equipment and vehicles
- Asset management adjustment – add CIP replacement project costs; remove related retired asset cost

Incremental Cost Approach

- Assigns cost of future capacity expansion to new customers
- CIP projects evaluated for portion that supports growth
 - › Utilizing current adopted CIP
 - › Project-specific allocations of upsizing share by project
 - › RWSP will inform updates
- Based on future RCE's added to system

Sample Fee Calculation

Total Capital Improvements Projects

Identify Growth Capacity Share of Projects

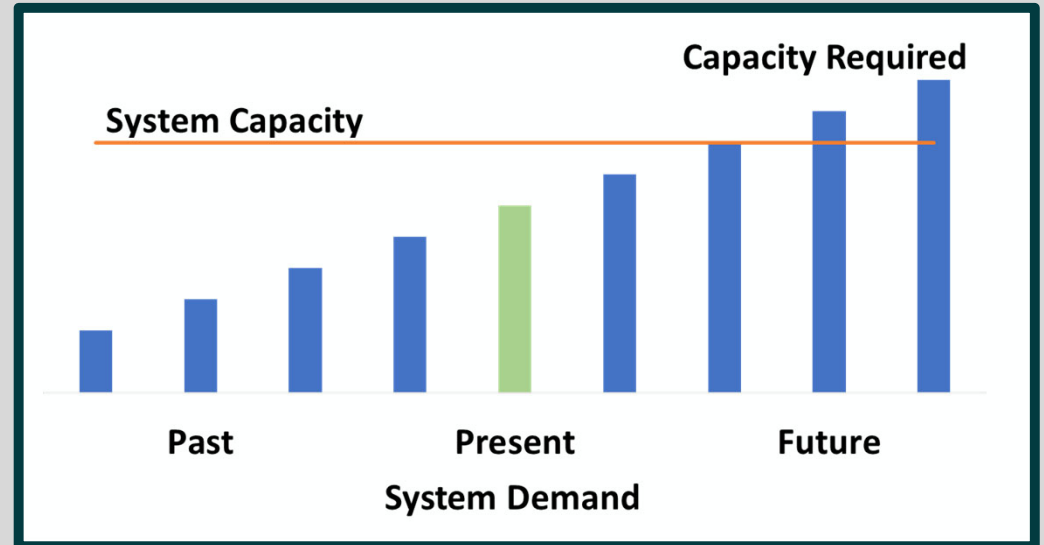
= Incremental Capacity Cost (\$)

÷ Capacity Provided by New Assets (RCE)

= **Capacity Charge (\$/RCE)**

Combined Methodology

- System Buy-in + Incremental Cost
- Existing assets have capacity to serve new customers
- Recognizes additional growth-related facilities in capital improvement plan



Example Calculations

System Buy-in Approach

	Treatment Plants	Conveyance	CSO/Regulatory
Adjusted Asset Investments	\$ 110	\$ 50	\$ 25
Less Outstanding Debt Principal	-10	-20	-10
Net Asset Investment	\$ 100	\$ 30	\$ 15
Total System Capacity (RCEs)	100	120	150
Capacity Charge per RCE	\$ 1.00	\$ 0.25	\$ 0.10
Total Capacity Charge (\$/RCE)			\$ 1.35

Incremental Approach Summary

- The RCEs added by future growth-related projects will be informed by Clean Water Plan strategies

	Treatment Plants	Conveyance	CSO/Regulatory
Growth-related Project Costs	\$ 200	\$ 50	\$ 15
Added RCE Capacity	50	40	50
Capacity Charge per RCE	\$ 4	\$ 1.25	\$ 0.30
Total Capacity Charge (\$/RCE)			\$ 5.55

- Methodology allows for straightforward evaluation of how Clean Water Plan strategies will affect capacity charges

Combined Approach Calculation

	Treatment	Conveyance	CSO/Regulatory	Total
<u>Costs</u>				
Buy-In (Assets)	\$ 100	\$ 30	\$ 15	
Incremental (CIP)	\$ 200	\$ 50	\$ 15	
Total	\$ 300	\$ 80	\$ 30	
<u>Available Capacity (RCEs)</u>				
Existing	100	120	150	
Added	50	40	50	
Total	150	160	200	
Cost/Capacity (\$/RCE)	\$ 2	\$ 0.50	\$ 0.15	\$ 2.65

Next Steps



Consider MWPAAC feedback and refine alternative capacity charge calculations

- Raftelis will refine the model for calculating the industry-accepted capacity charge alternatives using currently available information
- Models will be updated with additional and refined data inputs for capital costs and future RCEs

Q&A



Thank you!