

Demand Charges & Decoupling



Presentation to Review Panel
September 9, 2013

Where We Are & Preliminary Proposals

✓ Residential Rates

- BSC at 75% of MC of customer service.
- Low Income Program at 50% subsidy.

✓ Energy Efficiency

- Time of Use Rates for Medium Network.
- Base Service Charge (BSC) at 100% of MC of customer service for all non-residential customers.

□ Demand Charges

□ Decoupling



Today's Agenda

- Introduce concept of "Infrastructure Charge"
 - Can be charged per kVA capacity, or per-meter

- Large/HD: new demand/infrastructure option
 - Customer bill impacts by industry

- Medium, Small: Per-meter infrastructure charge
 - Bill Impacts

- Decoupling Intro

Infrastructure Charges

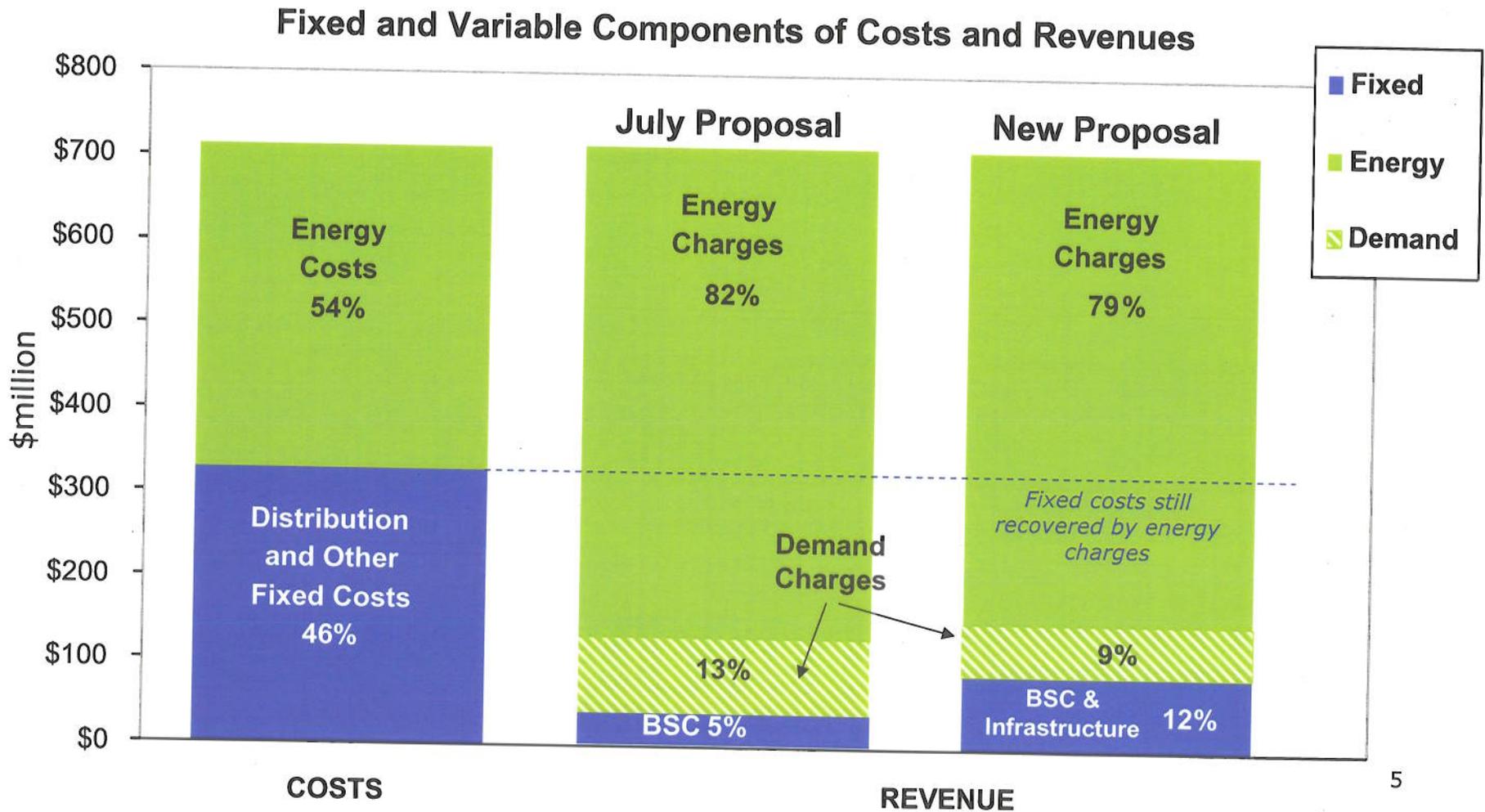
- Proposal: Collect 50% of distribution MC for all General Service classes through a combination of demand and infrastructure charges.
 - Combination of charges (kW, kVA, per-meter) would be different for each class.

- **kW Demand Charges** depend on the metered peak use.
 - Controllable by customer.

- **Infrastructure Charges** are fixed.
 - **Per-Meter Charges** just like BSC, but collects for fixed distribution costs.
 - Per-meter charges make sense for (smaller) standardized service connections.
 - Simple, and on rate schedules, can be combined with BSC.

 - **kVA Charges** increase with size of service connection.
 - kVA is determined by number and size of transformers needed for the service connection.
 - Makes sense for (larger) service connections because they are customized.
 - Can roll customer costs (formerly in BSC) into this charge, since they are minimal.

Fixed Cost Recovery With Infrastructure Charges



Infrastructure Charge Example: Sacramento (SMUD)

- Since 2012, all SMUD customers pay a per-meter infrastructure charge that covers 50% of all customer and distribution MC*.
 - Policy path is to increase the infrastructure charge each year such that it will eventually cover 100% of the MC.

- SMUD Commercial Rates:
 - System Infrastructure Fixed Charge
 - \$12 - \$96.70/month depending on rate class
 - Site Infrastructure Charge (replaces demand charge) based on 12 month max kW or installed capacity
 - \$2.55 to \$6.80/kW depending on rate class.
 - TOU kWh Energy Rates

- SMUD Residential Rates:
 - System Infrastructure Fixed Charge of \$12/month
 - TOU kWh Energy Rates

** Includes wires, transformers, service drops, meters, meter reading, billing and customer service. Substations excluded.*

SCL New Proposal, by Rate Class

- **Large/High Demand:** kW and kVA charges collect 50% of distribution MC.
 - 35% collected with kW demand charge and 15% collected with kVA infrastructure charge. (Original proposal was 25%/25%)

- **Medium:** kW and per meter charges collect 50% of distribution MC.
 - 35% collected with kW demand charge and 15% collected with per-meter infrastructure charge. (Original proposal was 25%/25%)

- **Small:** Per-meter charge collects 50% of distribution MC.

- **Combine charges for simplicity:** collect fixed cost elements (customer service costs and distribution costs) in one charge.
 - Roll Base Service Charge (BSC) into kVA capacity charge for Large/HD customers.
 - For Small/Medium, combine BSC into Infrastructure charge.

Large/HD Rate Design Proposal

Example Rate Schedule

Large General Service - City (LGC)

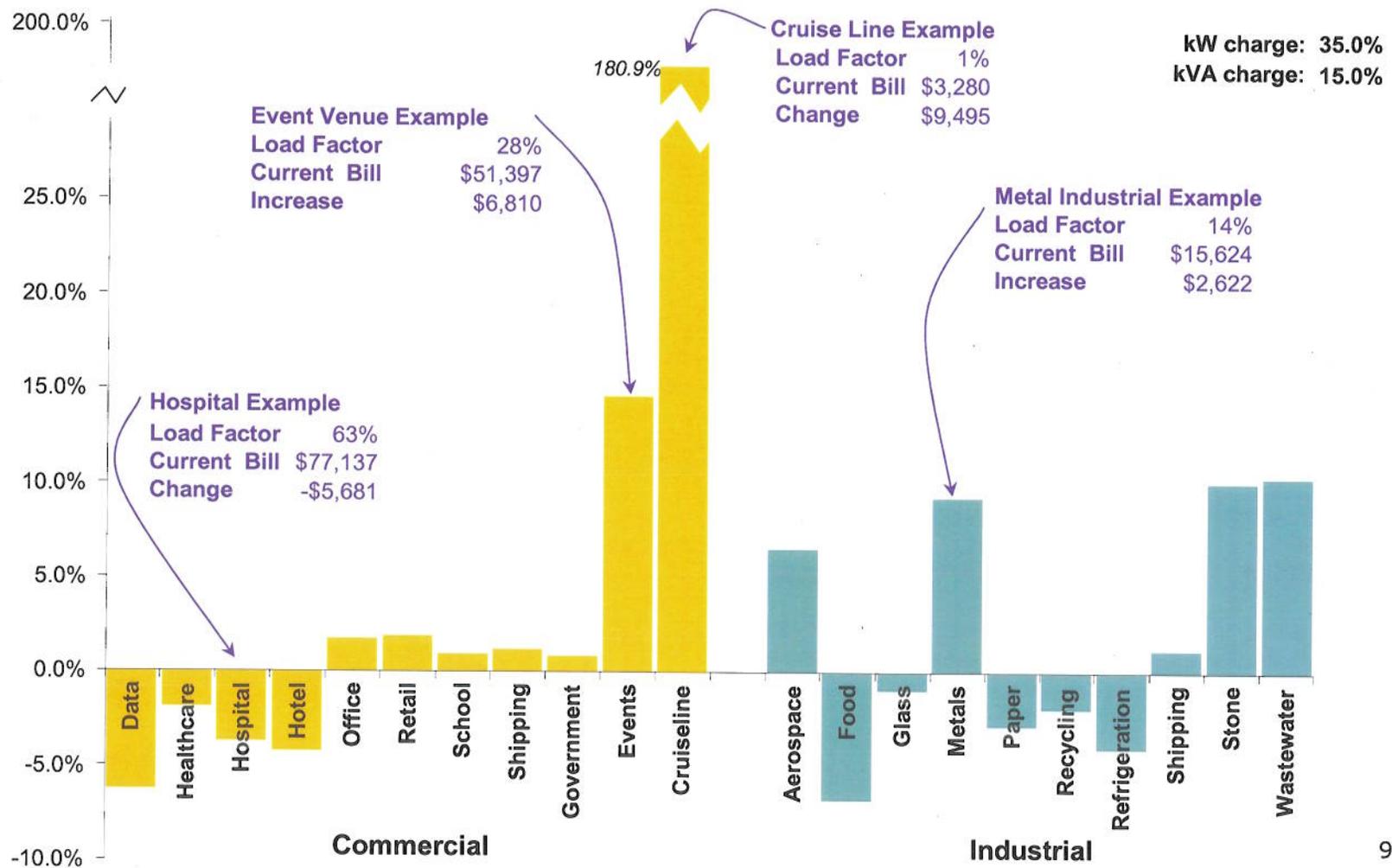
	2013 Rates	Proposed
Number of meters: 71		
Energy Peak (\$/kWh)	\$0.0657	\$0.0527
Energy Off-peak(\$/kWh)	\$0.0438	\$0.0351
Demand Peak (\$/kW)	\$1.52	\$4.29
Demand Off-Peak (\$/kW)	\$0.23	\$0.23
Infrastructure (\$/kVA)	\$0.00	\$0.70

Peak demand charge designed to collect 35% of distribution MC.

Infrastructure charge designed to collect 100% of customer service MC plus 15% of distribution MC.

Remainder of revenue requirement is collected by energy charges, split 60/40 peak/off peak

Lg/HD Bill Impacts by Industry



Medium and Small GS: Per Meter Infrastructure Charge

Demand charge designed to collect 35% of distribution MC.

Infrastructure charge collects 100% of customer service MC and 15% of distribution MC.

Infrastructure charge collects 100% of customer service MC + 100% of distribution MC.

Medium General Service - City (MDC)

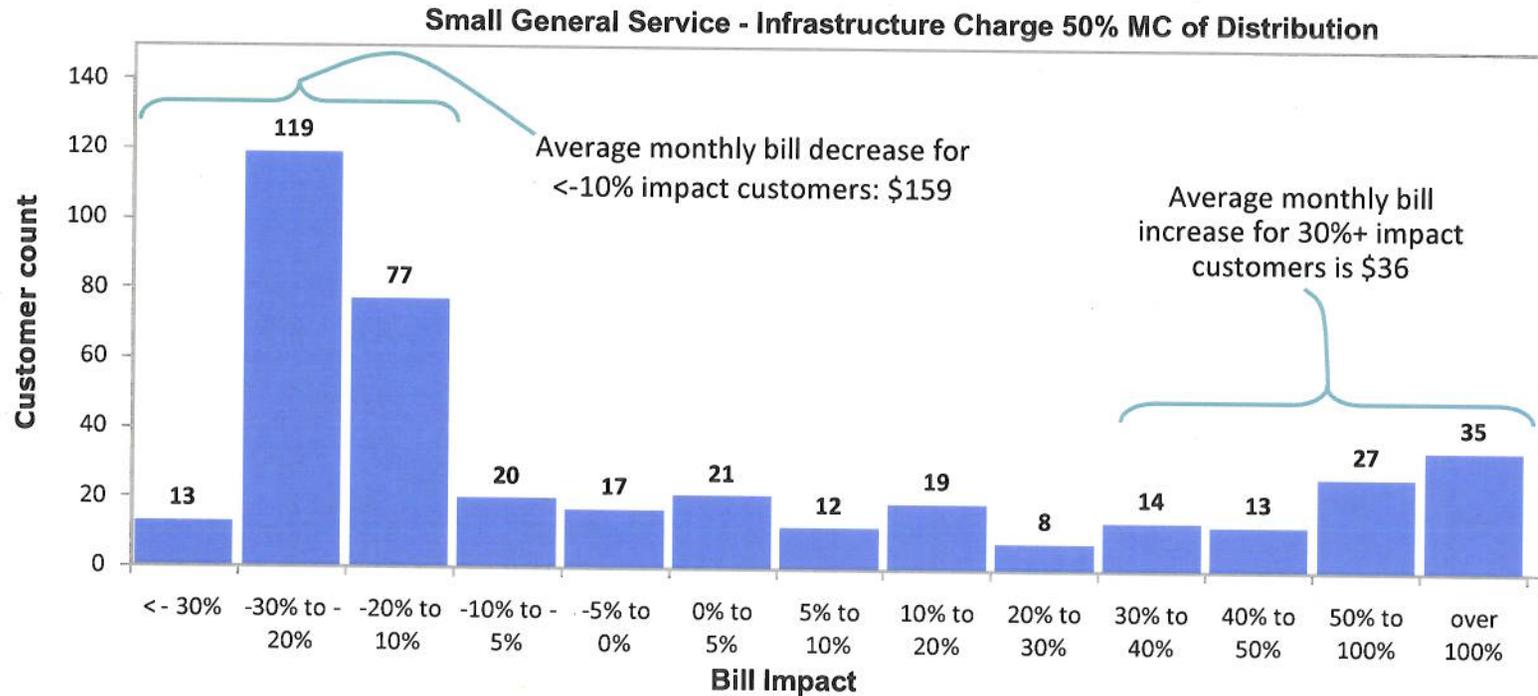
	2013 Rates	Proposed
Energy (\$/kWh)	\$0.0566	\$0.0461
Demand (\$/kW)	\$2.13	\$4.18
Infrastructure (\$/day)	\$0.00	\$10.07

Small General Service - City (SMC)

	2013 Rates	Proposed
Energy (\$/kWh)	\$0.0566	\$0.0497
Infrastructure (\$/day)	\$0.00	\$1.66

Rest of revenue requirement collected by energy charge.

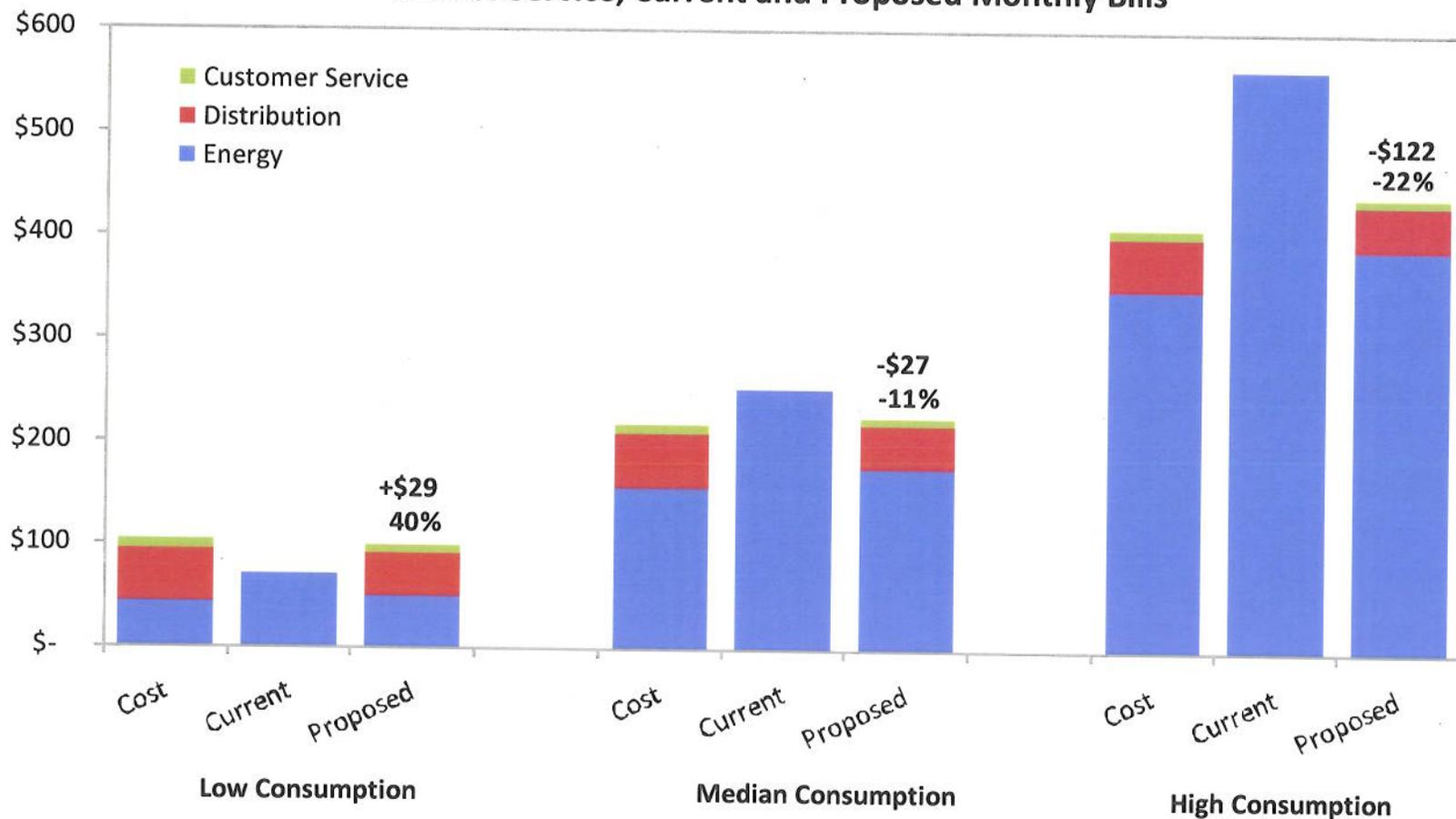
Small GS Impacts of Per-Meter Infrastructure Charge



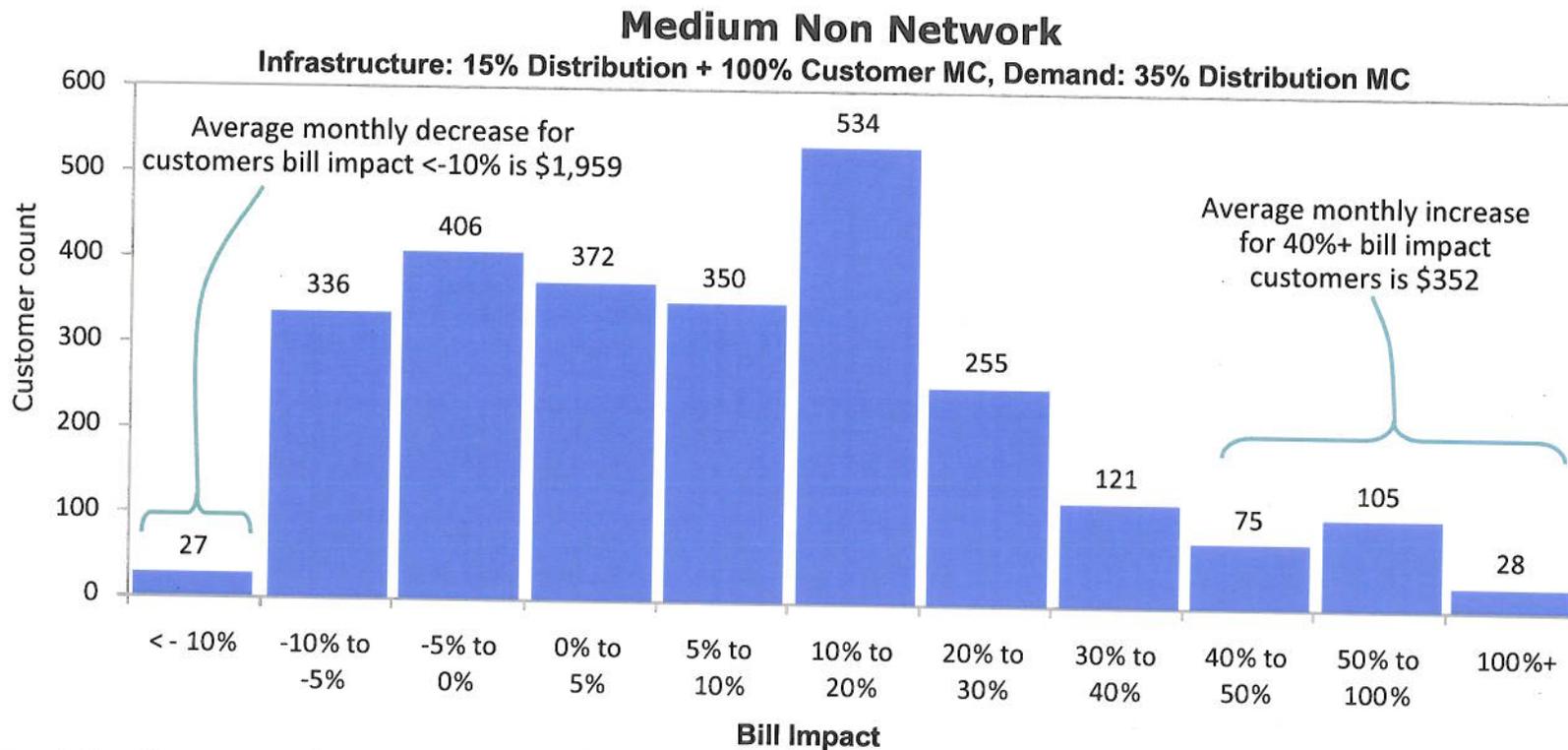
- Average customer will see no impact.
 - Higher-use customers would see minor bill decreases.
- High % bill impacts for very low use customers.
 - Very low-use customers currently have very small City Light bills, which makes the % impacts appear high. In reality the dollar impact is not large.

Proposed Rate Design Comes Closer to Collecting Costs of Service

Small General Service Customers:
Cost of Service, Current and Proposed Monthly Bills



Medium General Service Bill Impacts



- Similar results as Small GS
 - High % bill impacts (not as big in \$'s) for very low use customers.
 - Also tend to have low load factors.
 - Average customer will see no impact
 - Higher-use customers would see minor bill decreases.

Infrastructure Charge Summary

- Per-meter infrastructure charge collects for fixed distribution and customer costs for Small and Medium customers.
 - Simple and stable charge, easily understood and implemented.
 - Costs of providing basic services are more equitably reflected across customer bills.
 - Combine with BSC (also per-meter) for simplicity.

- Proposal would yield high % bill impacts for very low use customers, but most customers will not see a large change.
 - Very low-use customers pay very little for City Light services, since rates are heavily based on kWh charges.
 - Dollar impacts are not extreme as bill impact %'s appear to indicate.
 - Rate impacts will be unnoticed by average customer.
 - Higher-use customers will see bill decreases.

Decoupling



What is Decoupling?

- Decoupling is a rate mechanism that separates cost recovery from the volume of energy actually sold.
 - On a periodic basis, revenues are “trued up” to the predetermined revenue requirement via a rate adjustment.
 - Examples of utilities that have decoupling: PSE, LADWP, PG&E.
- Benefits of decoupling
 - **Efficiency**: removes disincentive for conservation since revenues no longer dependent on customer consumption.
 - **Financial stability**: decoupling essentially guarantees collection of the revenue requirement.
 - Reduces regulatory lag- without an immediate rate adjustment, changes in revenue would be absorbed via debt management, affecting rates in the longer term.
- Downside of decoupling: less rate stability for customers.
- Next Meeting: A presentation and discussion on how decoupling might work at SCL