

San Francisco Public Utilities Commission
10 Year Capital Plan
FY 2022-23 Capital Budget
FY 2022-23 Bond Financing Authorization

Capital Planning Committee

March 21, 2022

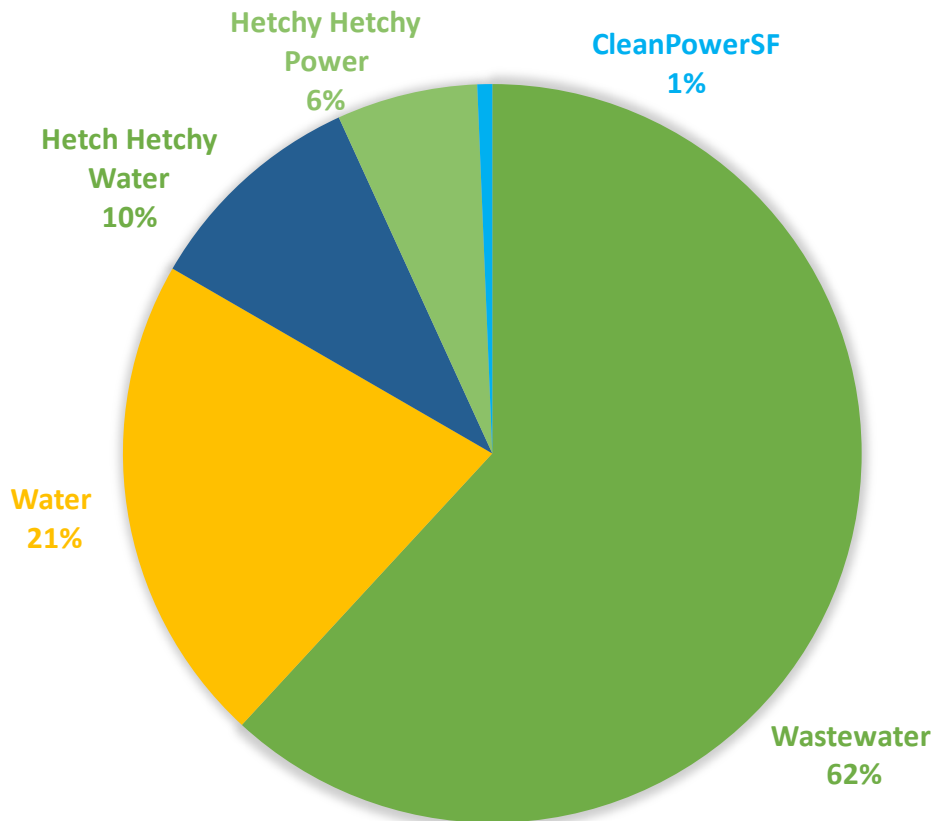
Charles Perl, Deputy CFO

Steve Ritchie, AGM Water Enterprise

Greg Norby, AGM Wastewater Enterprise

Barbara Hale, AGM Power Enterprise

FY 2022-23 to FY 2031-32 10-Year Capital Plan



\$9.9 Billion

- Goals: deliverability and affordability to the ratepayer in the long term.
- Projected expenditures have grown significantly due to cost increases, expanding scope and identified investment needs.
- Deliverability review highlighted a mismatch between project planning and execution capacity.
- Decided to only proposed a one-year capital budget for FY 2022-23 as we continue to work on refining capital plan.
- Capital plan is not balanced beyond FY 2022-23, and has an unfunded portion.
- Over the next year we will work to refine our capital plan, and expect to propose a balanced capital plan and FY 2023-24 capital budget at this point next year.



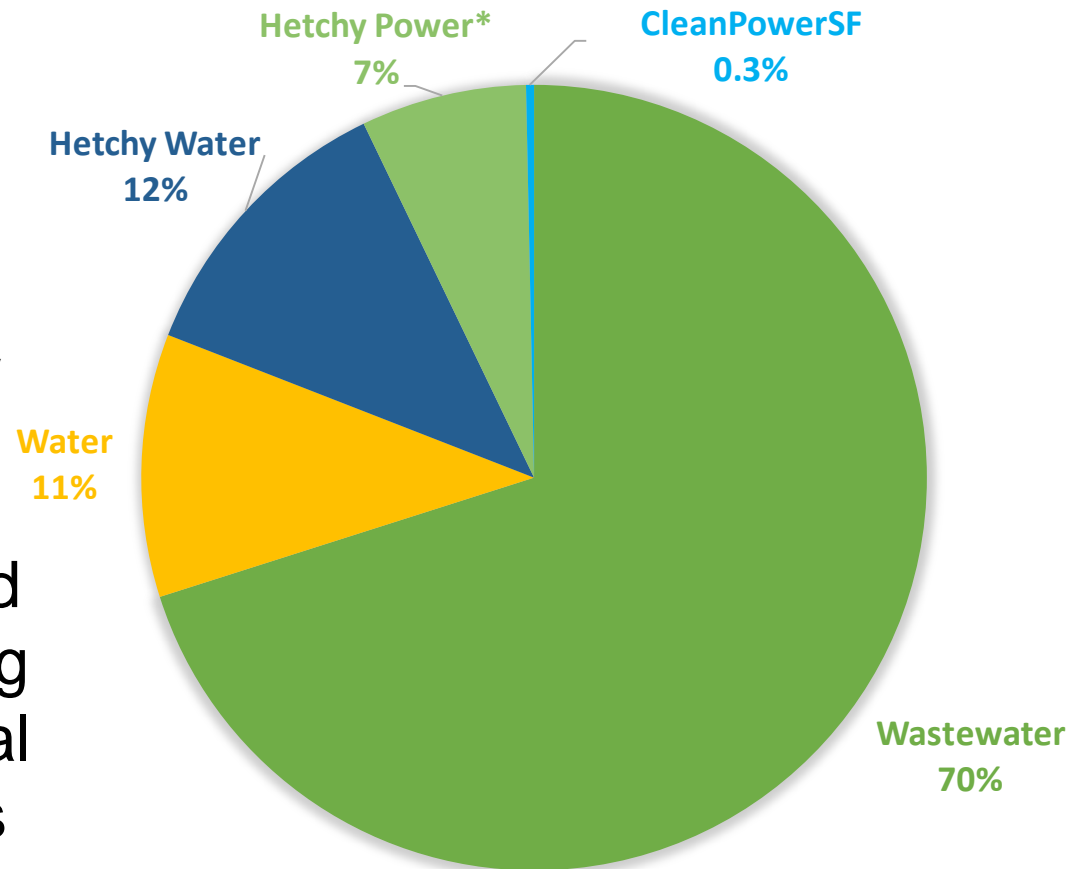
FY 2022-23 to FY 2031-32 10-Year Capital Plan

10-Year Capital Plan (Millions)	FYE 2023- 2032 Uses	FYE 2023- 2032 Sources	Unfunded amount	Unfunded %
Wastewater	6,127.2	5,152.3	(974.9)	15.9%
Water	2,128.0	1,917.8	(210.3)	9.9%
Hetchy Hetchy Water	974.4	974.4	-	0%
Hetchy Hetchy Power	611.1	506.7	(104.4)	17.1%
CleanpowerSF	64.5	64.5	-	0%
Totals	9,905.2	8,615.7	(1,289.6)	13.0%

FY 2022-23 Capital Budget

- One year budget only
 - FY 2022-23 Supplemental for Water, Wastewater, Hetch Hetchy Water and Power and CleanPowerSF
 - FY 2022-23 Bond Financing Authorization for Water, Wastewater, and Hetch Hetchy Water and Power
- We focused on spending down existing appropriated balances before requesting new funding. Supplemental includes de-appropriations and re-appropriations as a result.

FY 2022-23 Capital Budget



\$1,131.4 Million*

* Includes \$1.2M Low Carbon Fuel Standard Fund not included in the Power supplemental.

FY 2022-23 Capital Budget

Enterprise (Millions)	Project Cost	Financing Cost	Total Budget
Wastewater	687.4	105.6	793.0
Water	111.3	11.2	122.5
Hetchy Water	114.9	20.2	135.1
Hetchy Power*	66.2	10.9	77.1
CleanPowerSF	3.7	-	3.7
Totals	983.5	147.9	1,131.4

Hetch Hetchy
Water and
Power together

* \$66.2M Hetchy Power funding includes \$1.2M Low Carbon Fuel Standard Fund.



FY 2022-23 Bond Financing Authorization

Enterprise(Millions)	Project Cost	Financing Cost	Total Bond Authorization
Wastewater Bond	598.6	105.6	704.2
Water Bond	120.2	21.2	141.4
Hetchy Power Bond	119.9	21.0	140.9
Totals	838.7	147.8	986.5

Racial Equity in the Capital Program

SFPUC is committed to Racial Equity

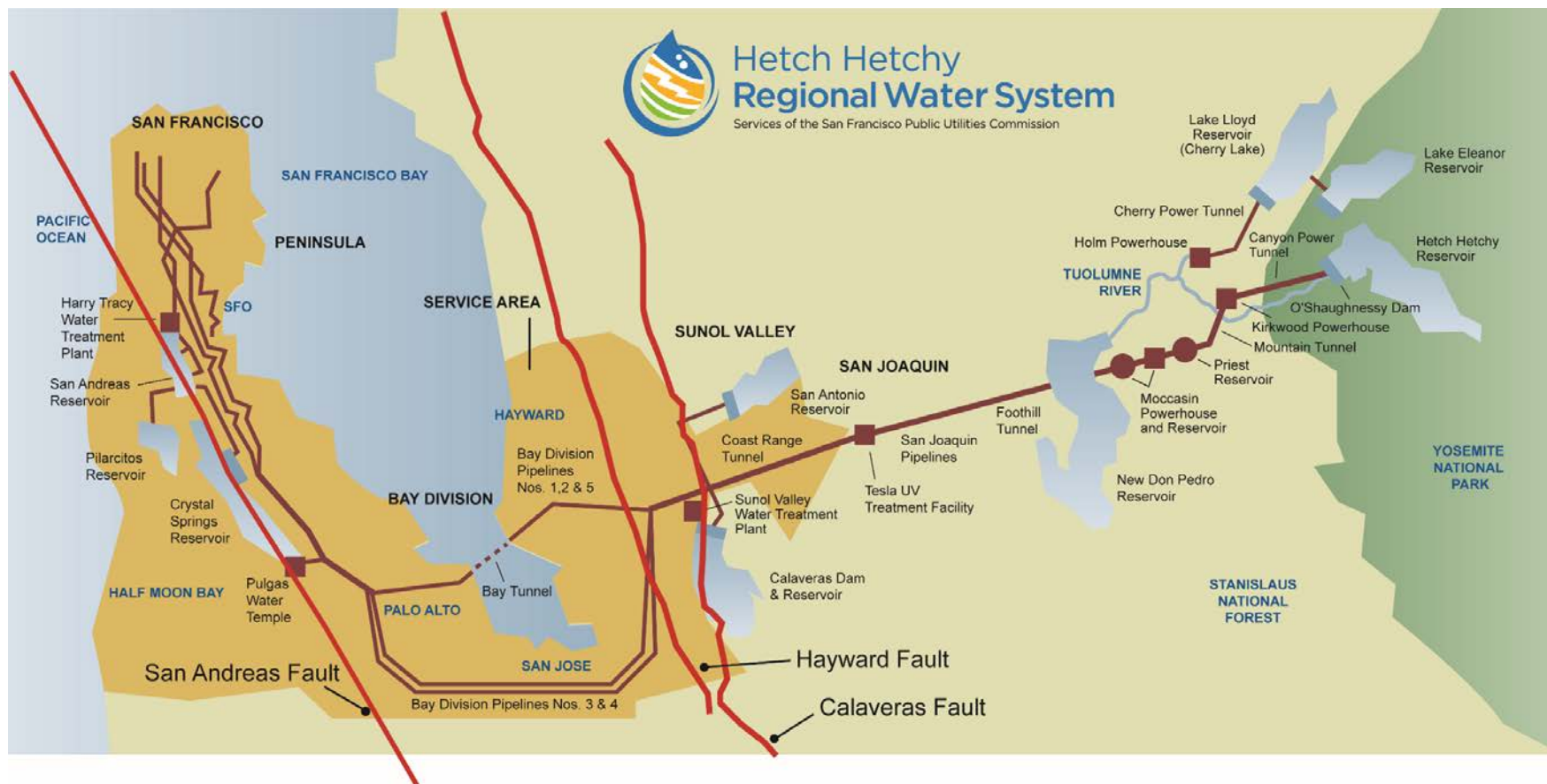
- Commission's Racial Justice Resolution
- Racial Equity Action Plan
- Environmental Justice and Community Benefits policies

Examples:

- Community outreach and engagement
- Social Impact Partnership
- Major infrastructure investments in Bayview/Hunters Points through SSIP, community benefits include the South East Community Center
- Affordability and access programs, customer assistance program
- Workforce development initiatives
- Project Labor Agreement (PLA), Local Hiring
- Affordable Housing Transmission and Distribution Project supporting HOPE SF
- Low-Income Inverter Replacement Program/Low-Income Solar Inverter Replacement Program
- Secondary Land Use program
- Drink Tap program

Water Enterprise Capital Budget

System Schematic with Faultlines





FY 2022-23 Water Capital Budget

Program/Project (Millions)	FY 2022-23 <i>Budget</i>
Regional Costs	\$ 47.6
Local Costs	63.7
Financing Cost	11.2
Total WTR Budget	\$ 122.5



Regional Water Capital Improvement Program Key Projects

Water Treatment

- Sunol Valley Water Treatment Plant projects

Water Transmission

- Four major pipeline repair, replacement and rehabilitation projects

Buildings and Grounds

- Millbrae Yard improvement projects

Storage Projects

- Pilarcitos and San Andreas (not fully funded)

Sunol Valley Water Treatment Plant





Local Water Capital Improvement Program Key Projects

Local Water Conveyance

- Water Pipeline Replacement projects
- Lead Component Services Replacement

Buildings and Grounds

- New CDD Headquarters at 2000 Marin

Other projects

- Lake Merced Water Level Restoration (Joint project with Daly City)

New CDD Headquarters at 2000 Marin





FY 2022-23 Hetchy Water Capital Budget

Program/Project (Millions)	FY 2022-23 <i>Budget</i>
Hetchy Up-country (Water)	\$ 45.7
Hetchy Up-country (Power)	44.1
Hetchy Up-country (Joint)	25.1
Financing Cost	20.2
Total HHW Budget	\$ 135.1



Hetch Hetchy Water Capital Improvement Program Key Projects

Water

- San Joaquin Pipeline Valve and Safe Entry Improvements
- Mountain Tunnel Improvements Project (Water portion)

Power

- Electric Transmission Lines 7&8 upgrades
- Moccasin Powerhouse and GSU Rehabilitation Project
- Electric Transmission Lines Clearance Mitigations
- Moccasin Powerhouse Bypass Upgrade

Joint

- Mountain Tunnel Improvements Project (Joint portion)
- Bridge Replacement (two bridges)
- Moccasin Old Powerhouse Hazard Mitigation
- Moccasin Dam & Reservoir Long Term Improvements
- O'Shaughnessy Dam Outlet Works Phase 1

San Joaquin Pipeline Valve and Safe Entry Projects – New 66” Butterfly Valve



Mountain Tunnel Improvements Project – New Access Shaft



WASTEWATER ENTERPRISE CAPITAL BUDGET

Greg Norby, Assistant General
Manager
Wastewater Enterprise
March 21, 2022





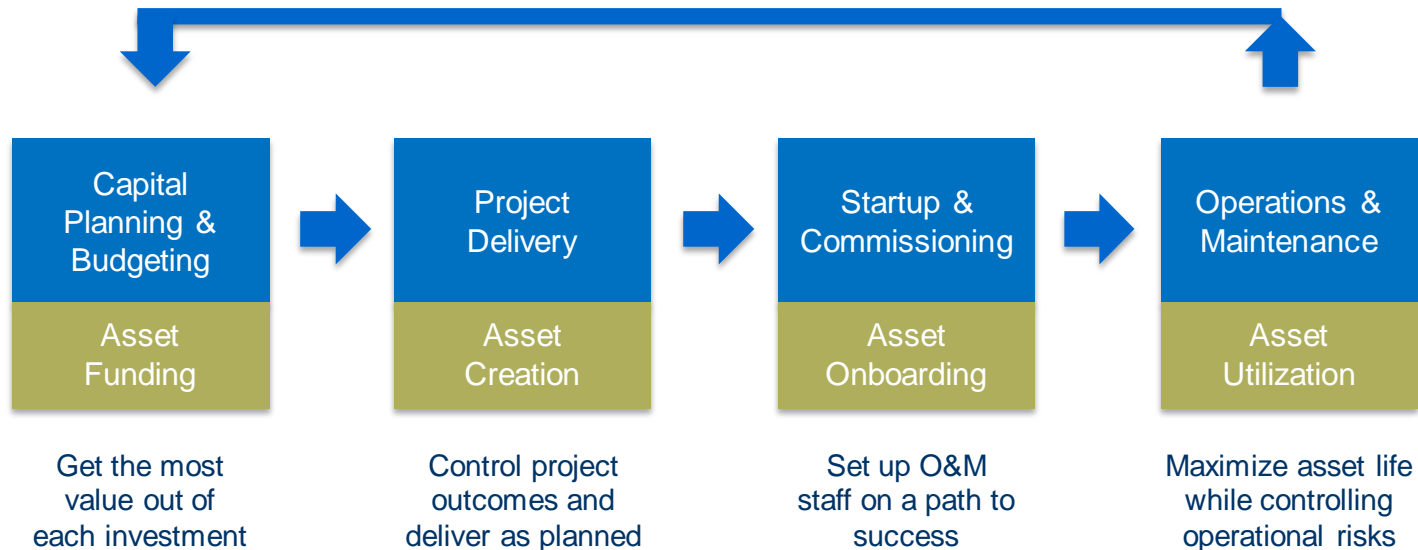
Wastewater Enterprise (WWE) Capital Priorities

In alignment with funding principles:

- ***Address legal or regulatory mandate***
 - *Clean Water Act, Clean Up and Abatement Order*
- ***Protect life safety and enhance resilience, including racial equity***
 - *Flood resiliency, Port resiliency work*
- ***Ensure asset preservation and sustainability***
 - *Asset management lifecycle*



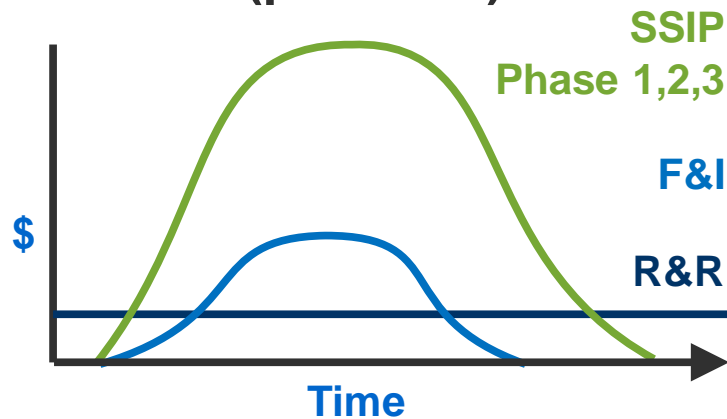
An integral part of the never-ending asset lifecycle



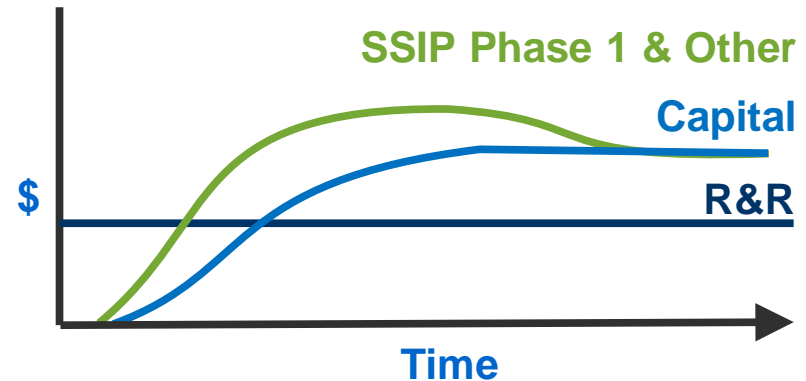
SFPUC Commission adopted Asset Management Policy, December 22, 2020

Move from one-time large investments to more sustainable strategic capital planning

One-time large investment (previous)



Adaptive Management (moving forward)



Sewer System Improvement Program (SSIP) Facilities & Infrastructure (F&I) Renewal and Replacement (R&R)



FY 2022-23 Wastewater Capital Budget

Program/Project (Millions)	FY 2022-23 <i>Budget</i>
Sewer System Improvement Program	\$ 583.1
Renewal and Replacement	103.1
Treasure Island	0.2
WW Facilities & Infrastructure	1.0
Financing Cost	105.6
Total WWE Budget	\$ 793.0

SEP Biosolids Digester Facilities Project

Project Cost: Increased from \$1,681M to \$2,373M

- Significant impact to proposed WW CIP total and annual appropriation.
- The forecasted Project Cost now encompasses an independent cost-to-complete estimate, considering anticipated market conditions and schedule impacts.
- Schedule extended by 23 months due to suspension of bidding activities in 2021, site logistics/ construction sequencing and competitive bid procurement process.



Digester facility excavation

Project Schedule:



R&R Collection System

10yr CIP Budget:

Reduced in early years for affordability and expanding from \$1,657M to \$2,840M for efficiency

- Includes small diameter, large diameter and transport/storage boxes
- Increasing condition assessment
- Transition to trenchless technologies
- Restructuring to balance various program objectives and track outcomes to align with the [WWE] asset management program



Power Enterprise Capital Budget

Capital Priorities

Acquisition Analysis

- Funding financial, technical, regulatory, and legal analysis and City staff time needed to further the project

Redevelopment

- Additional capital funds requested to extend service to Mission Rock, Pier 70, Phase 2 of Alice Griffith/Candlestick Point, and various Affordable Housing projects

Core Customers

- Additional capital funds requested for Grid connections, Pedestrian Lighting, Holiday and Festival Pole Use, and various Streetlight projects

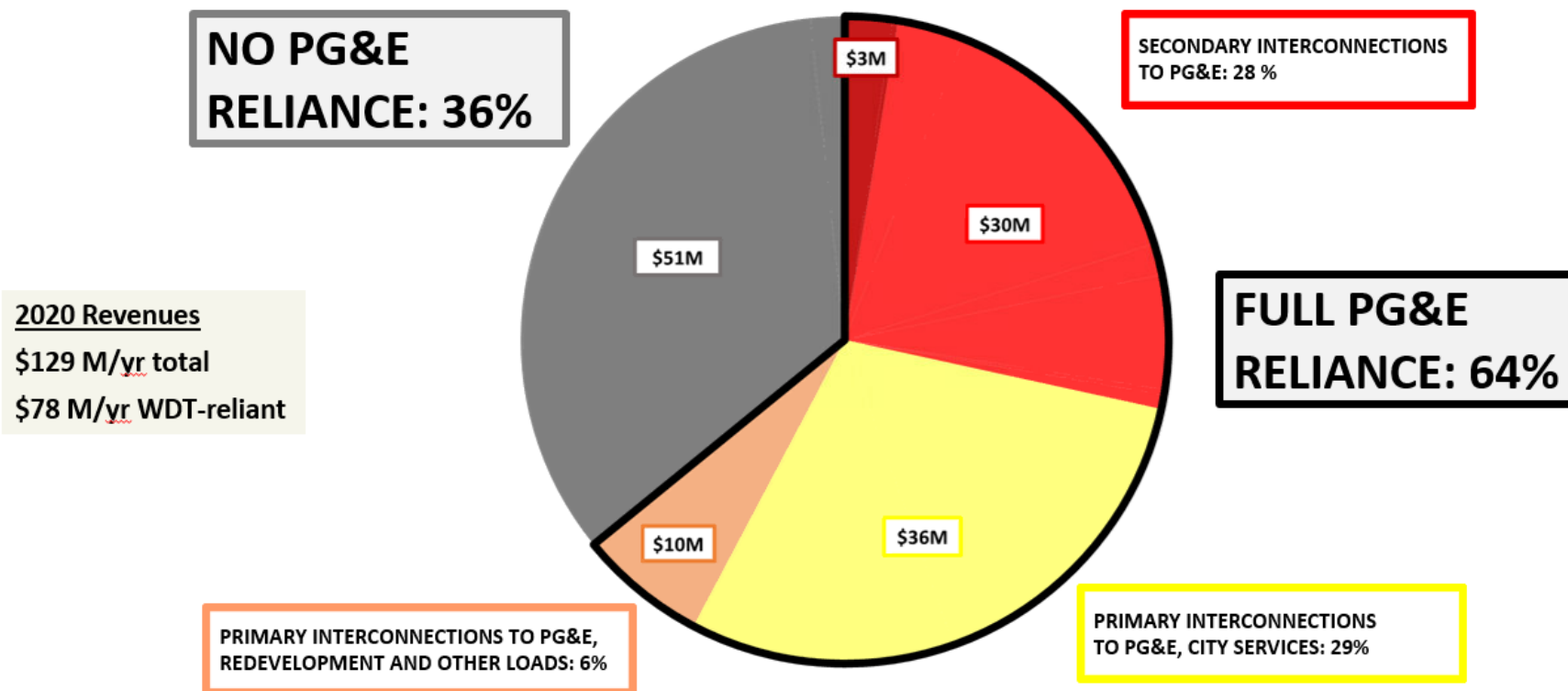
Local Generation

- Distributed Energy Resources for Hetch Hetchy customers and a Local Renewable Energy Program for CleanPowerSF

Key Challenges: WDT3 Costs – Hetchy

- Wholesale Distribution Tariff #3 (“WDT3”) proposed doubling annual distribution charges from \$10 million annually to at least \$20 million
- Elimination of service to unmetered loads (i.e. streetlights & traffic signals)
- Elimination of service to secondary loads

FY2020 Loads and Revenues



Strategic Grid Investment

Functionally Relevant

- Reduces reliance on PG&E for distribution service
- Avoids duplication of existing PG&E facilities
- Improves electrical system reliability + resilience

Economically Justifiable

- Favorable expectations for load growth and timing of new revenues
- Can serve customers threatened by costs and terms of PG&E's WDT

Technically Viable

- Includes grid modernization to facilitate electrification, DG, and storage
- Reasonable timeline for completion

Socially Responsible

- Compatible with SF economic growth, equity, and sustainability goals
- Serves a City Department or Agency
- Benefits are shared across communities



FY 2022-23 Hetchy Power and CleanPowerSF Capital Budget

Program/Project (Millions)	FY 2022-23 <i>Budget</i>
Hetchy Power*	\$ 66.2
CleanPowerSF	3.7
Financing Cost	10.9
Total HHP and CLSP Budget	\$ 80.8

* \$66.2M Hetchy Power funding includes \$1.2M Low Carbon Fuel Standard Fund.



San Francisco
Water
Power
Sewer

Featured Projects



Grid Connections – connect customers to SFPUC owned and operated distribution and transmission infrastructure

Local Renewable Energy Program – development of new renewable energy and storage projects on select City sites by CleanPowerSF



SFO Substation Improvements – needed to continue to serve SFO and anticipated load increases from 55 MW to 110MW

Streetlights – various projects to repair, replace, install, and enhance the SFPUC's 30,000 streetlights



Questions?