

SFPUC FY 2023-24 to FY 2032-33 10-Year Capital Plan

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Capital Planning Committee
January 23, 2023

Agenda

1. Capital Planning Approach
2. SFPUC Cost Drivers
3. Constraining Costs
4. Summary SFPUC Capital Plan
5. Wastewater Capital Plan
6. Water Capital Plan
7. Hetchy Water Capital Plan
8. Hetchy Power Capital Plan

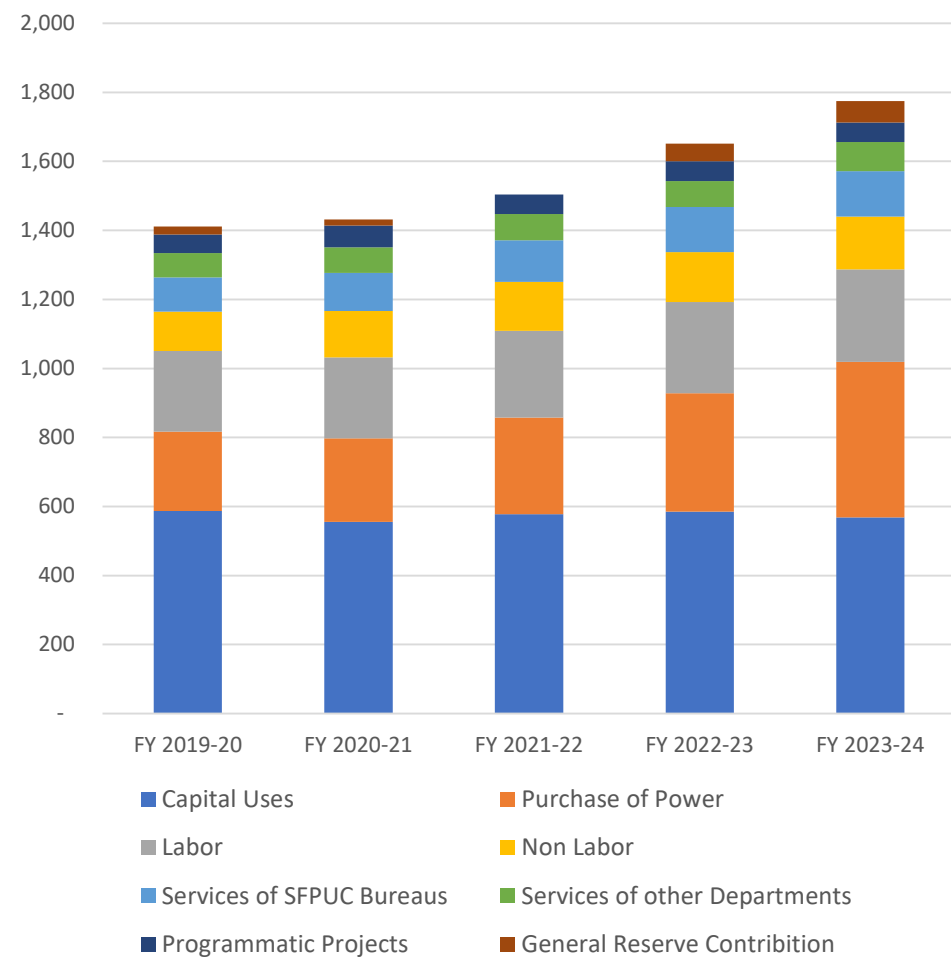


Capital Planning Approach

- SFPUC required by Charter Section 8B.123 to review, update and adopt long term capital plan
- Last year's capital plan was partially unfunded, and only a one-year FY 2022-23 Capital Budget was adopted
- This year's goal: develop a balanced FY 2023-24 capital budget and a balanced 10-Year Capital Plan that meets agency's needs, informed by deliverability and ratepayer affordability factors
- Over the past year, agency-wide project to right-size capital plans
- Commission will adopt Capital Plan and FY 2023-24 Budget on Feb 14, 2023.
- Four FY 2023-24 Capital budget supplementals and associated bond financing authorizations will be approved by Mayor and Board
- Ongoing multi-year project to improve capital planning and delivery process

Key operating budget growth drivers

Drivers of budget growth: last 5 years



- Capital uses now take up around 30 cents of every SFPUC revenue dollar and are projected to rise to 50 cents over the next 10 years, driven by Wastewater

- By enterprise:

	% Capital FY23-24	% Capital FY 32-33
Water	48%	51%
Wastewater	54%	66%
HHWP	3%	18%

- Power Purchase expenses are the second major cost driver, which also puts growing pressure on Power’s budget

Constraining costs

- Keep utilities affordable for our customers
 - Over the past ten years, Water and Wastewater rates have both increased by over 75%
 - Forthcoming financial plans project annual Wastewater rate increases of >9%, and increase in combined Water/Wastewater bill of 90% over next 10 years
 - Capital represents largest, and growing share of operating costs
 - Growing power purchase costs put further pressure on Power's budget
 - Uncertainty about future regulatory obligations which may significantly impact Wastewater's budget
- Rightsizing for Deliverability
 - Historic mismatch between budgets and actual spending has led to large, growing unspent balances carrying forward each year
 - Not addressing this creates multiple financial risks for the agency

Hard choices to constrain costs

\$million	Last Year CIP: Uses	This Year CIP: Uses	Difference
Water	2,127.9	2,263.9	136.0
Wastewater	6,127.0	4,879.3	(1,247.6)
Hetchy-Water	974.4	976.9	2.5
Hetchy-Power	611.0	595.5	(15.5)
CleanPowerSF	64.5	73.0	8.5
Total	9,905.0	8,788.7	(1,116.2)

- \$8.8 Billion, balanced capital plan, 11% reduction from \$9.9 Billion last year
- Represents the many hard choices we made as an agency to constrain capital spending, taking in account our ability to spend the money and to keep our rate growth affordable in the long term:
 - Carefully reviewing construction schedules and adjusting for realistic deliverability
 - Planning for use of unspent prior appropriations before requesting new funds
 - Reducing costs in the out years to offset cost increases and investment needs in near term
 - Diligent project prioritization process, including risk assessment
 - Taking into account regulatory risks that may necessitate major additional unforeseen costs



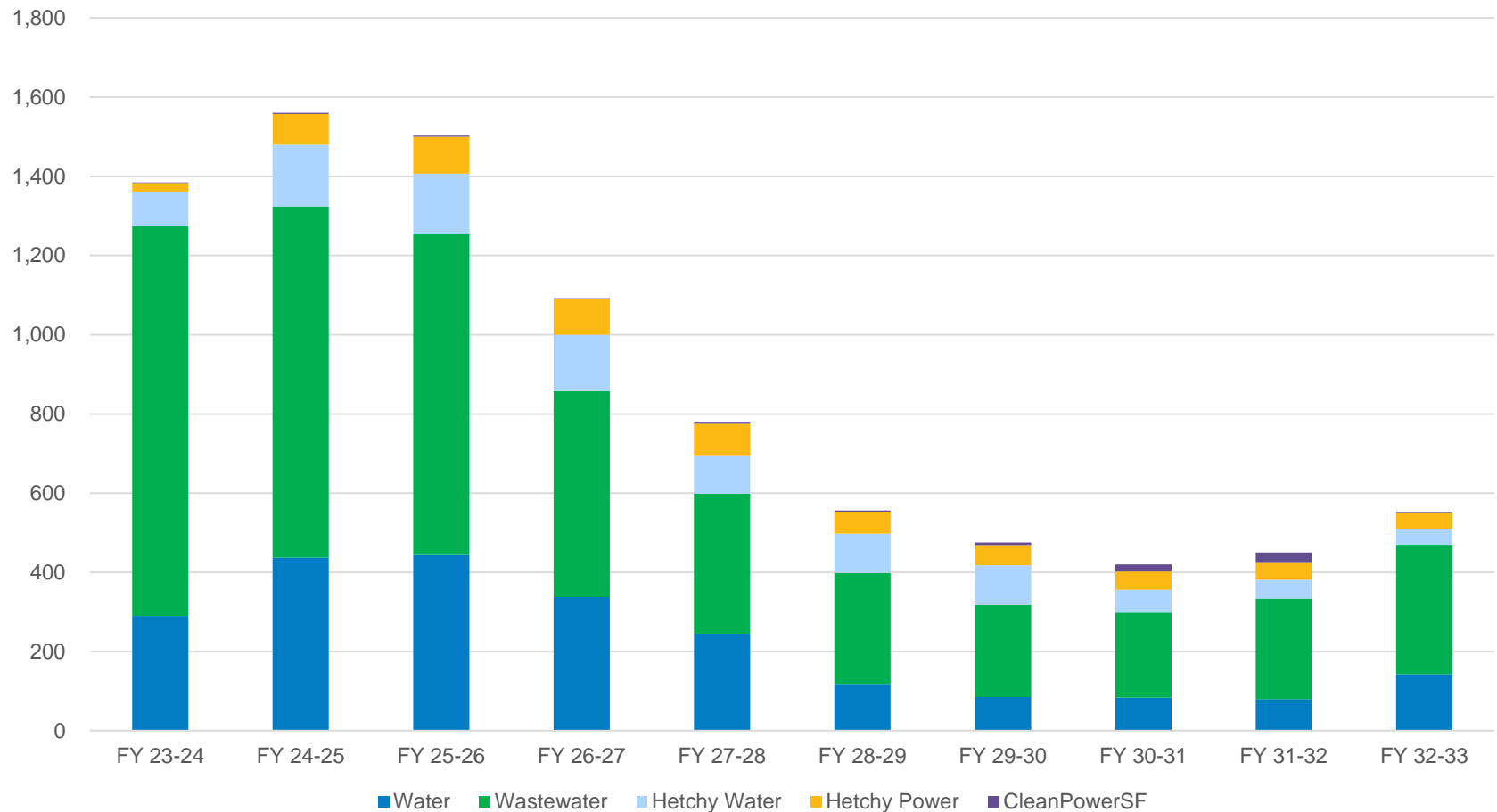
Proposed 10 Year Capital Plan

\$million	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	Total
Uses											
Water	290.0	437.3	443.7	337.4	245.4	118.2	85.3	83.7	80.4	142.6	2,263.9
Wastewater	985.5	894.5	818.4	521.1	353.6	280.5	232.6	214.7	253.2	325.2	4,879.4
Hetchy Water	85.9	155.6	152.6	141.6	94.6	99.6	100.0	57.5	47.4	42.3	976.9
Hetchy Power	21.5	77.7	92.7	89.1	81.5	55.0	48.8	46.1	43.1	40.0	595.5
Clean PowerSF	1.6	2.9	3.0	3.0	3.1	3.3	8.9	18.1	26.3	2.8	73.0
Total Uses	1,384.5	1,568.1	1,510.3	1,092.2	778.2	556.5	475.6	420.2	450.3	552.9	8,788.7
Sources											
Revenue Funded*	154.3	217.7	230.5	222.1	216.3	234.6	241.2	237.5	256.4	225.1	2,235.6
Debt Funded	1,230.2	1,350.4	1,279.8	870.1	561.9	322.0	234.4	182.7	193.9	327.7	6,553.1
Total Sources	1,384.5	1,568.1	1,510.3	1,092.2	778.2	556.5	475.6	420.2	450.3	552.9	8,788.7

*25% revenue funding

Proposed 10 Year Capital Plan

10-Year Capital Plan: \$8.8 Billion

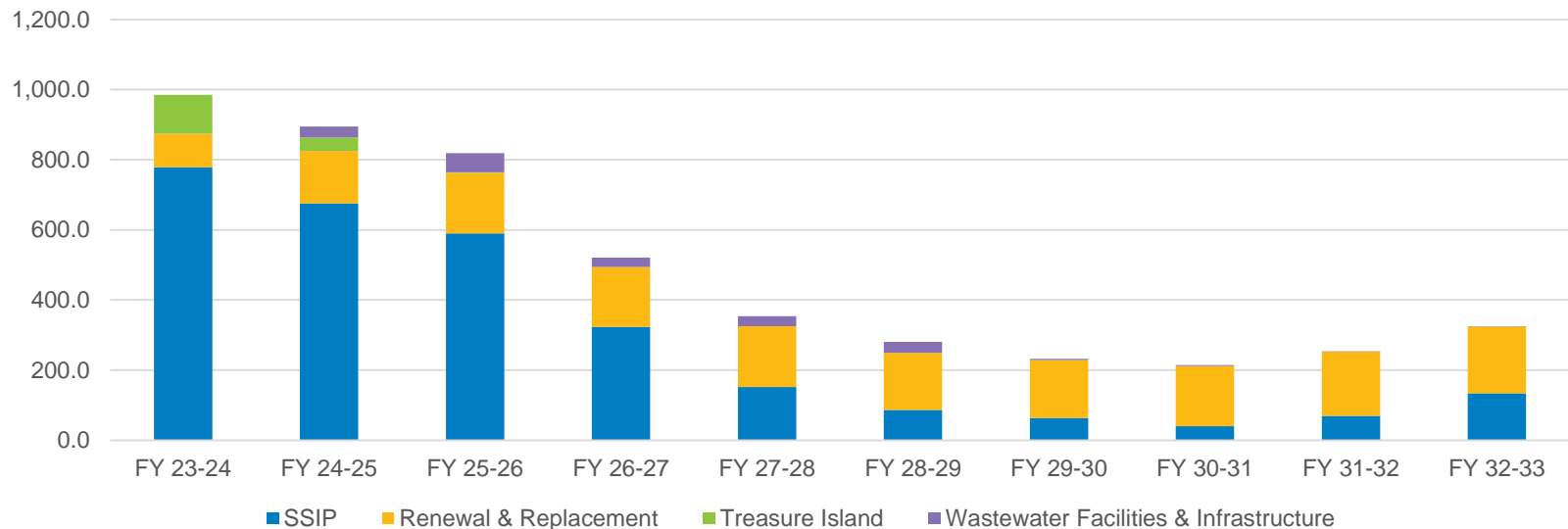


Wastewater Capital Plan Summary



Wastewater 10 Year Capital Plan

Wastewater/\$million	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	Total
SSIP	778.5	676.0	590.2	323.9	151.7	86.7	63.3	40.4	69.3	133.7	2,913.8
Renewal & Replacement	95.3	148.7	172.1	170.7	174.0	163.0	165.2	171.5	183.7	191.1	1,635.4
Treasure Island	111.7	39.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	152.6
Wastewater Facilities & Infrastructure	0.0	30.8	54.2	26.5	27.9	30.8	4.1	2.8	0.2	0.5	177.7
Total Wastewater	985.5	894.5	818.5	521.1	353.6	280.5	232.7	214.7	253.2	325.2	4,879.4





SEP Biosolids Digester Facilities Project

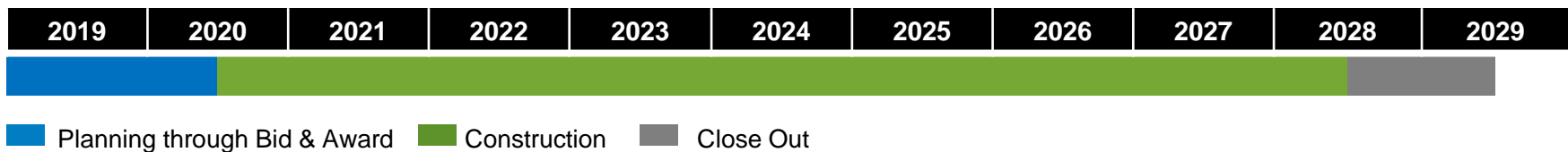
Total Project Budget: \$ 2,373 M

10 year CIP request: \$999 M

- Significant impact to proposed WW Capital Plan total and annual appropriation.
- Construction bid and award of most of the major biosolids facilities are completed.
- Construction of the digester vessels, solids pretreatment facility and chemical feed and No. 2 water facilities are underway.



Project Schedule:

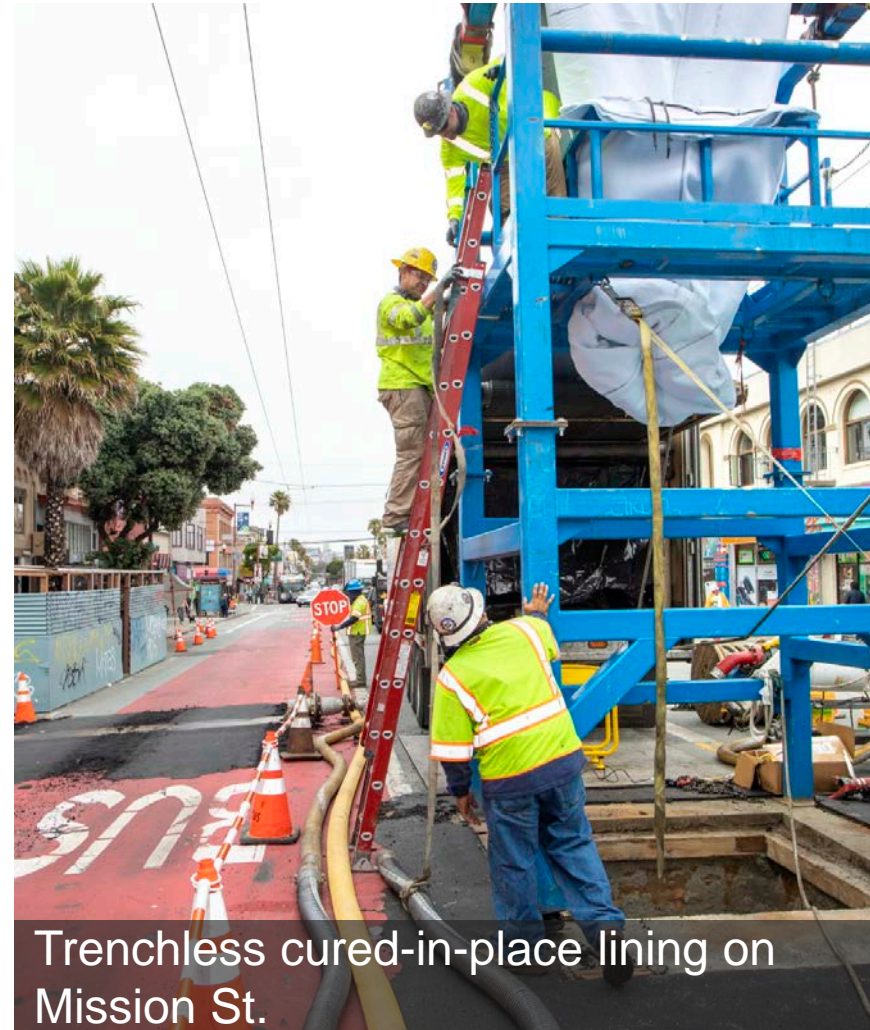




R&R Collection System

10-Year CIP Budget: \$ 1,330 M

- Includes small and large diameter gravity sewers, and condition assessment of transport/storage boxes
- Expand use of trenchless technologies
- Repurposed a portion of sewer main replacement to pilot accelerated sewer main spot repairs
- Re-evaluating state of system and determining future open cut sewer replacement targets to align with the system's updated risk profile and WWE asset management program





Folsom Area Stormwater Improvements

Total Project Budget: \$ 320 M

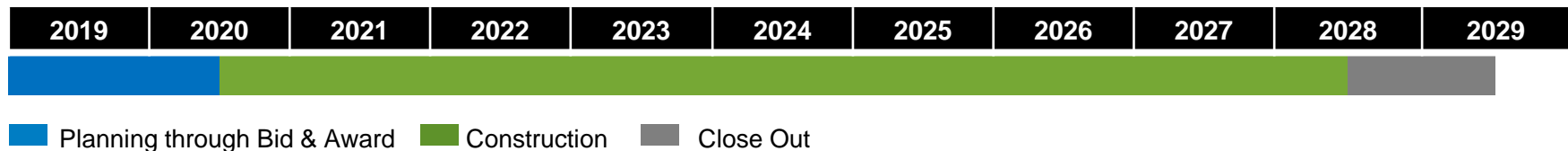
10-Year CIP Request: \$ 250 M

- Cost increase is based on 65% engineer's estimate; refined geotechnical information led to a more expensive shoring methodology and a higher tunneling cost
- Scope of work has been divided into four separate contracts
- Mandated by the San Francisco Bay Regional Water Quality Control Board Clean-Up and Abatement Order



Flood response in the Folsom area (2014)

Project Schedule:





Lower Alemany Area Stormwater Improvements

Total Project Budget: \$ 299 M

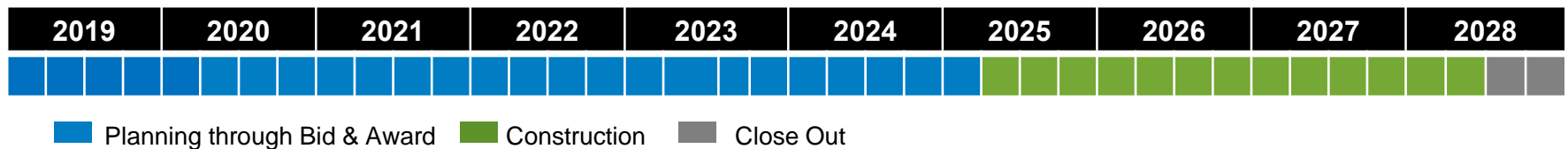
10-Year CIP Request: \$ 269 M

- Project completed Planning Phase in 2022 and will initiate Design Phase in January 2023
- Project scope consists of construction of 5,650 LF of tunnel and 1,000 LF box sewer to convey flows to Islais Creek Transport/Storage Box
- Mandated by the San Francisco Bay Regional Water Quality Control Board Clean-Up and Abatement Order



Flooding in Lower Alemany Area

Project Schedule:



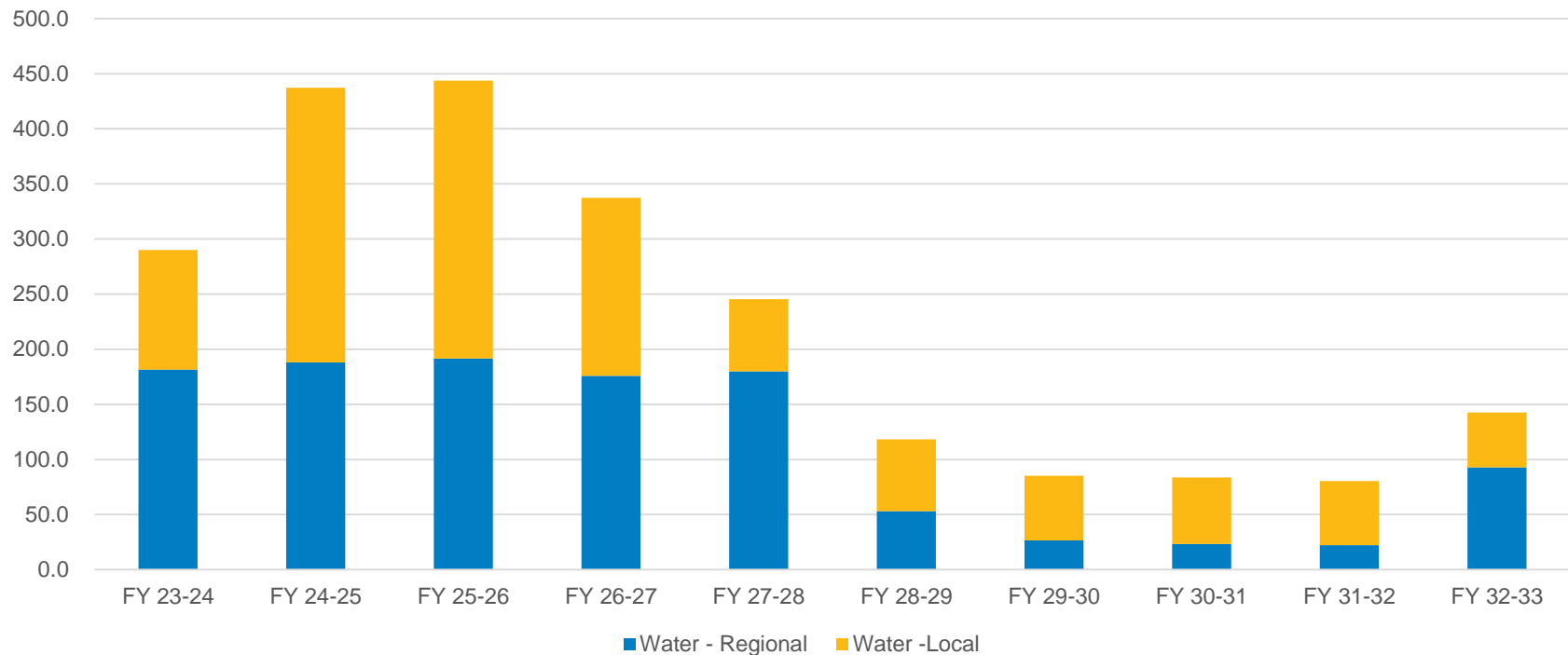
Water Capital Plan Summary

Our Water System Spanning the Width of California



Water 10 Year Capital Plan

\$million	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	Total
Water - Regional	181.5	188.0	191.5	176.0	180.0	53.1	26.6	23.5	22.1	92.9	1,135.3
Water -Local	108.5	249.3	252.1	161.4	65.4	65.0	58.7	60.2	58.3	49.7	1,128.6
Total - Water	290.0	437.3	443.7	337.4	245.4	118.2	85.3	83.7	80.4	142.6	2,263.9





Regional Water 10-Year Capital Plan

Key Projects (millions of \$)

Water Treatment

- Sunol Valley Water Treatment Plant projects (below)
- Ozone Treatment.....\$189.4
- Short Term Treatment Improvements.....\$ 54.7
- Polymer Feed Facility.....\$13.0

Water Transmission

- Bay Division Line 4 Pre-stressed Concrete Cylinder Repair...\$ 49.0
- Crystal Springs Line 2, Reach 5 Lining Replacement.....\$ 17.6
- Crystal Springs Line 2, Reaches 2 & 3 Rehabilitation.....\$ 74.4
- Palo Alto Pipeline Replacement.....\$ 70.0
- San Antonio Pump Station Upgrades.....\$ 16.3



Regional Water 10-Year Capital Plan

Key Projects (millions of \$)

Buildings and Grounds

- Millbrae Yard Improvements.....\$224.1

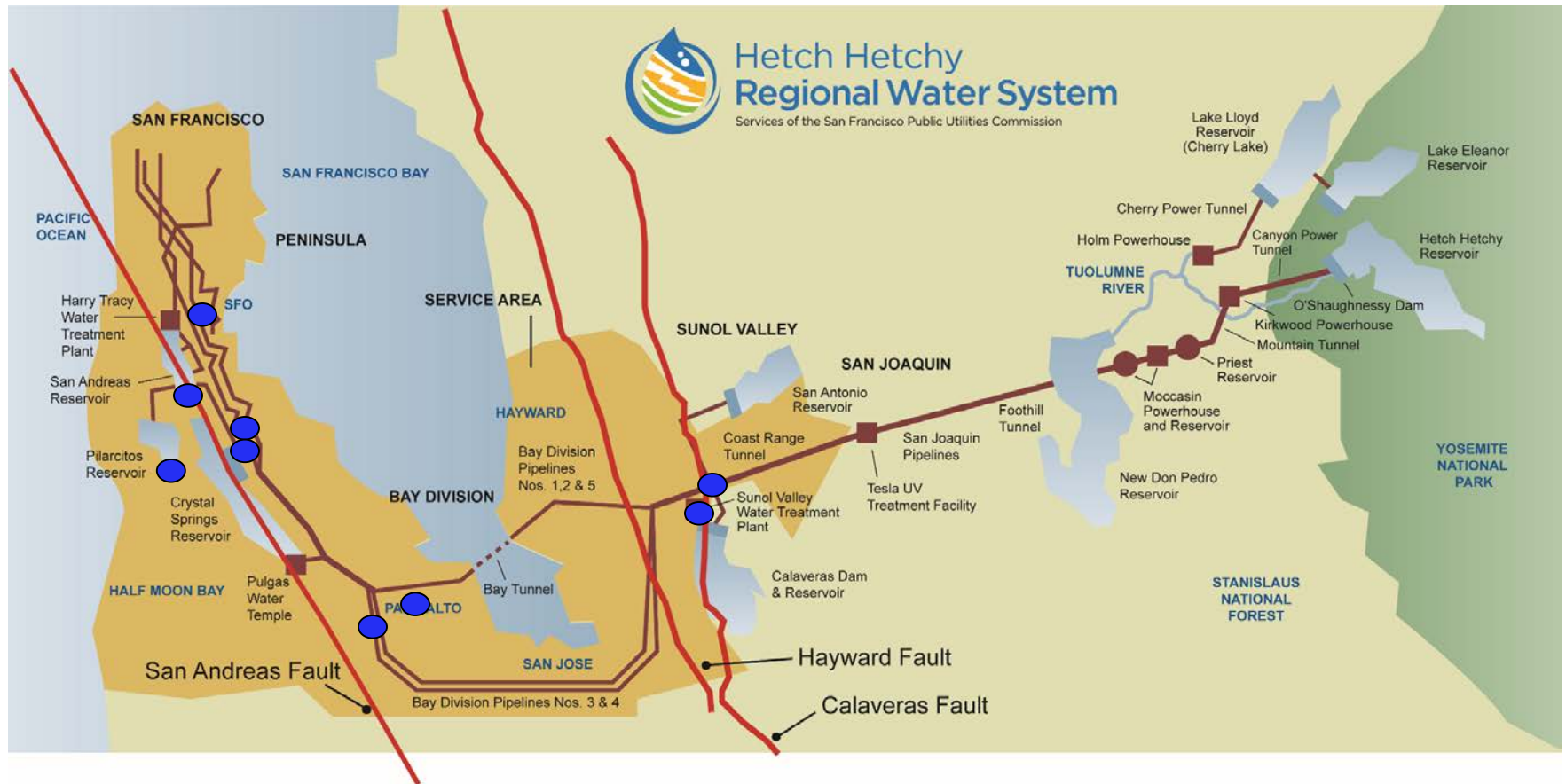
Storage and Water Supply Projects

- Pilarcitos Dam Improvements.....\$ 23.3
- San Andreas Dam Improvements.....\$ 26.6

Water Supply Projects

- Purified Water and Other Alternative Supply Projects.....\$ 82.7

Regional Project Locations





Local Water 10-Year Capital Plan

Key Projects (millions of \$)

Local Water Conveyance

- Water Pipeline Replacement projects.....\$420.9
- Lead Component Services Replacement.....\$ 37.8

Buildings and Grounds

- New City Distribution Headquarters 2000 Marin....\$343.6

Other projects

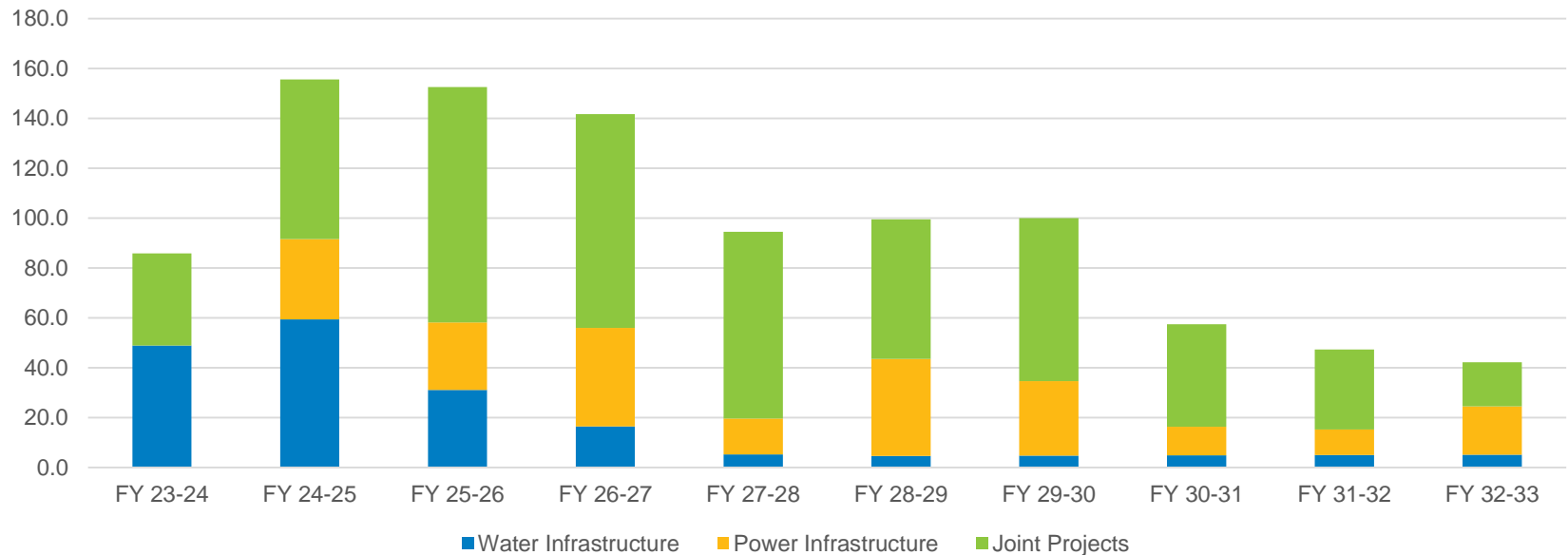
- Reservoir Roof Coatings.....\$ 10.4
- 525 Golden Gate Water Reuse Project.....\$ 12.4
- Lake Merced Water Level Restoration.....\$ 10.0
- Automated Meter projects.....\$ 39.8
- San Francisco Purified Water/Reuse.....\$ 7.4

Hetch Hetchy Water Capital Plan Summary



Hetchy Water 10 Year Capital Plan

Hetchy Water/\$million	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	Total
Water Infrastructure	48.9	59.4	31.1	16.4	5.3	4.7	4.8	4.9	5.0	5.1	185.6
Power Infrastructure	0.0	32.2	27.1	39.6	14.4	38.9	29.8	11.5	10.3	19.4	223.3
Joint Projects	37.0	64.0	94.4	85.6	74.9	56.0	65.3	41.1	32.1	17.7	568.1
Total - Hetchy Water	85.9	155.6	152.6	141.6	94.6	99.6	100.0	57.5	47.4	42.3	976.9





Hetch Hetchy Water 10-Year Capital Plan

Key Projects (millions of \$)

Water

- San Joaquin Pipeline Life Extension and Valve/Safe Entry Projects....\$111.9
- Mountain Tunnel Improvements Project (Water portion).....\$ 55.1

Power

- Electric Transmission Line Life Extension & Clearance Mitigation.....\$ 84.7
- Moccasin Powerhouse, Transformers, & Switchyard Rehabilitation....\$ 21.9
- Moccasin & Kirkwood Powerhouse Bypass Upgrades.....\$ 38.2

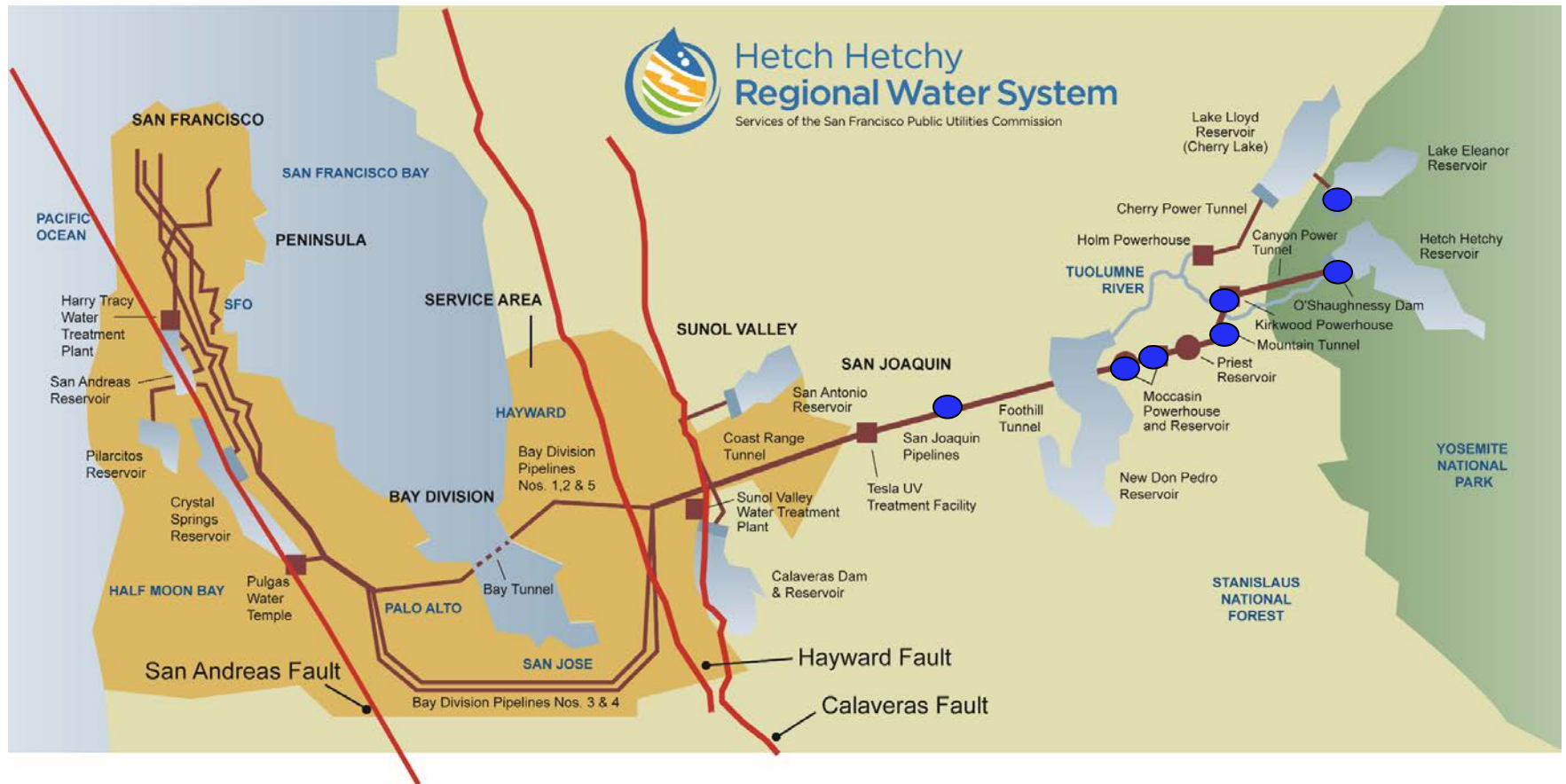
Joint

- Mountain Tunnel Improvements Project (Joint portion).....\$ 12.9
- Bridge Replacement (two bridges).....\$ 23.0
- Moccasin Old Powerhouse Hazard Mitigation.....\$ 13.6
- Moccasin Dam & Reservoir Long Term Improvements.....\$ 63.8
- O'Shaughnessy Dam Outlet Works Phase I.....\$ 14.6
- O'Shaughnessy Dam Outlet Works Phase II.....\$ 98.0
- Moccasin Engineering and Records Building.....\$ 60.5



San Francisco
**Water
Power
Sewer**

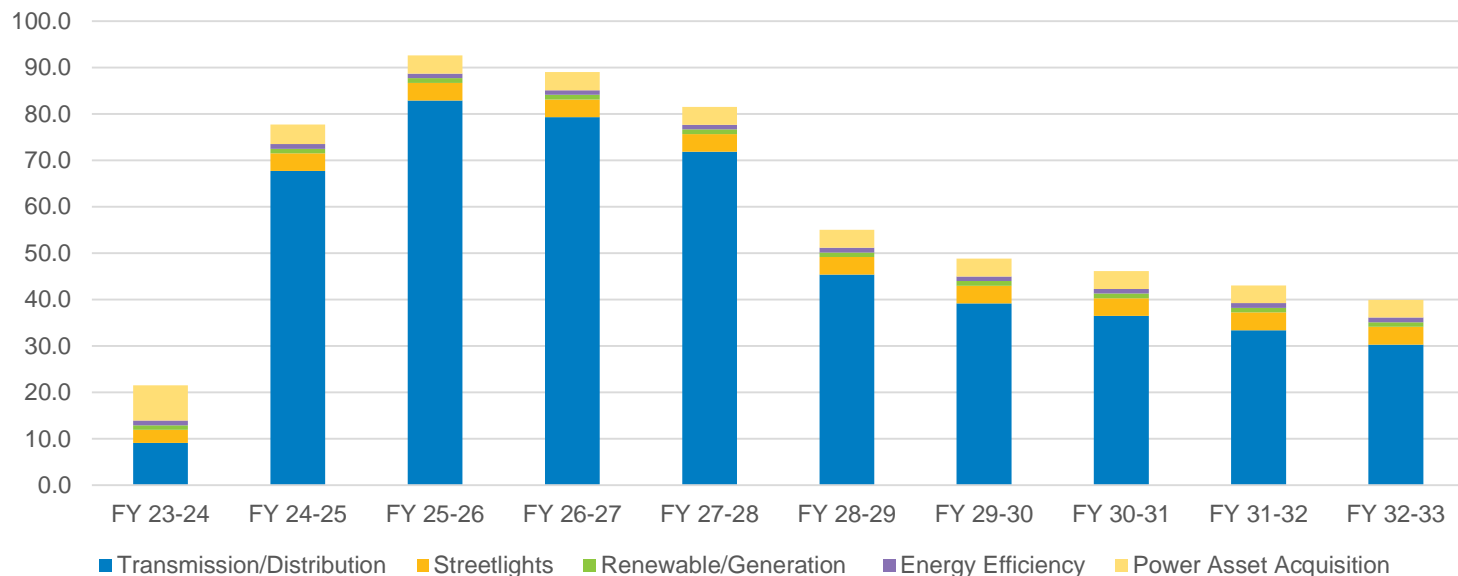
Hetch Hetchy Project Locations



Power Capital Plan Summary

Hetchy Power 10 Year Capital Plan

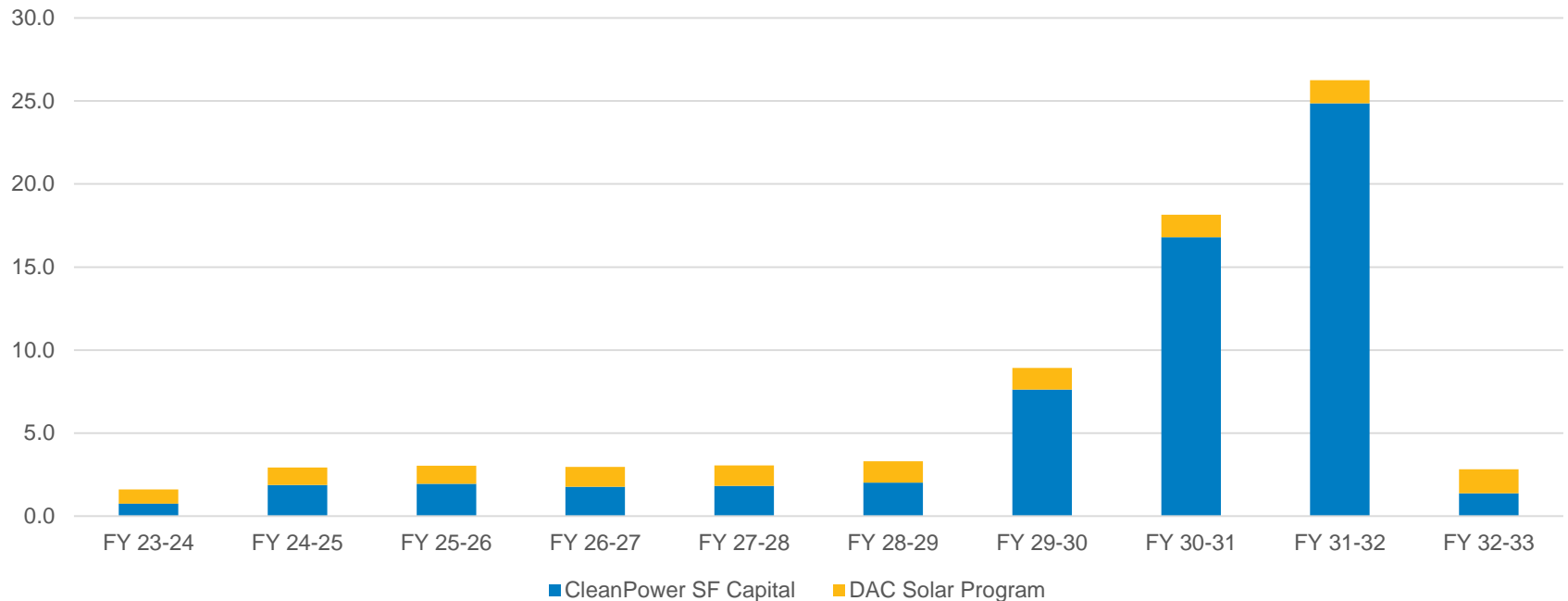
Hetchy Power /\$million	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	Total
Transmission/Distribution	9.1	67.7	82.9	79.3	71.9	45.4	39.2	36.5	33.4	30.3	495.7
Streetlights	2.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	37.2
Renewable/Generation	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0
Energy Efficiency	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0
Power Asset Acquisition	7.6	4.2	3.9	3.9	3.8	3.8	3.8	3.8	3.8	3.8	42.7
Total- Hetchy Power	21.5	77.7	92.7	89.1	81.5	55.0	48.8	46.1	43.1	40.0	595.5





CleanPowerSF 10 Year Capital Plan

CleanPower SF/ \$million	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	Total
CleanPower SF Capital	0.8	1.9	1.9	1.8	1.8	2.0	7.6	16.8	24.9	1.4	60.8
DAC Solar Program	0.8	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4	12.2
Total	1.6	2.9	3.0	3.0	3.1	3.3	8.9	18.1	26.3	2.8	73.0





- FY24 Request: No new funds requested, spending down prior year balances
- 10-Year Request: **\$176.4M**
- Includes Treasure Island/Yerba Buena Island, Alice Griffith, Pier 70, Mission Rock, and HopeSF (Potrero and Sunnydale)

***Redevelopment Projects** provide underground electric distribution systems enabling the SFPUC to provide electric services to various new citywide developments within San Francisco.*

Retail Distribution



- FY24 Request: **\$8.4M**
- 10-Year Request: **\$276.4M**
- Includes SFO substation, SFMTA electrification, and other retail distribution connections

Retail Distribution Projects benefit Power retail customers by increasing independence from PG&E's control of the distribution grid, easing customer connections, and more easily implementing grid connected innovations.

Local Renewable Energy Program

- FY24 Request: **\$0.8M**
- 10-Year Request: **\$48.8M**
- Leverages SFPUC reservoir sites to develop new renewable energy and battery storage projects for CleanPowerSF customers.



***Local Renewable Energy Program**
invests in local clean energy and
related job opportunities.*

- FY24 Request: **\$2.8M**
- 10-Year Request: **\$37.2M**
- Includes streetlight replacement and repairs, pole assessments and rehabilitation, and Distributed Antenna Services Program



Streetlights maintain 25,500 streetlights and correct inadequate lighting, making streets safer and pedestrian-friendly.

Public Power Expansion

- FY24 Request: **\$7.6M**
- 10-Year Request: **\$42.7M**
- Assessment of acquiring PG&E's electrical assets in San Francisco and readying for operation of the acquired system



Public Power Expansion will enable the City to achieve independence from PG&E, establish local accountability for electric ratepayers in San Francisco, and facilitate investment in infrastructure to further decarbonization and grid resiliency efforts.