



San Francisco Water Power Sewer

Services of the San Francisco Public Utilities Commission

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April 22, 2021

Angela Calvillo
Clerk of the Board
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, CA 94102-4689

Dear Ms. Calvillo

Please see the enclosed Certificates as required under 2018 Proposition A related to the following bond authorizing legislation:

- Power Enterprise: File No. 200836 and Board of Supervisors Ordinance No. 0172-20.
- Power Enterprise: File No. 190546 and Board of Supervisors Ordinance No. 152-19

Should you have any questions, please do not hesitate to contact me.

Best regards,

Richard Morales
Debt Manager
Tel: 415-551-2973

London N. Breed
Mayor

Sophie Maxwell
President

Anson Moran
Vice President

Tim Paulson
Commissioner

Ed Harrington
Commissioner

Newsha Ajami
Commissioner

Michael Carlin
Acting
General Manager

OUR MISSION: To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.





**Certificate of City and County of San Francisco Planning Department Regarding Proposed
Sale of Power Revenue Bonds and Other Forms of Indebtedness in an amount not to exceed \$172,491,176 for
Capital Projects budgeted in Fiscal Years 2018-19, 2019-21, and 2020-21**

I, Lisa M. Gibson, Environmental Review Officer of the Planning Department of the City and County of San Francisco (the Planning Department), hereby certify as follows:

1. As the Environmental Review Officer (ERO) of the Planning Department, I am authorized to certify as to the compliance of the San Francisco Public Utilities Commission (SFPUC) with applicable requirements of the California Environmental Quality Act (CEQA).
2. After consultation with the SFPUC, I understand that the SFPUC proposes to sell Power Revenue Bonds and Other Forms of Indebtedness in an amount not to exceed \$172,491,176.
3. The improvements proposed for financing include those projects described in the following document, attached to this Certificate as Exhibit A.
4. I understand that Section 8B.124 of the City Charter grants authority to the City's Board of Supervisors to approve the issuance of indebtedness, including revenue bonds, by ordinance upon two-thirds vote of its members and under certain conditions. A draft of an ordinance relating to the Bonds is attached hereto as Exhibit B (the Ordinance).
5. I understand that one of the conditions to the Board of Supervisor's authorization of such indebtedness is the delivery of a certificate of the Planning Department regarding the additional projects to be financed.
6. The San Francisco Planning Commission certifies Environmental Impact Reports as they are completed pursuant to CEQA. In addition, the Planning Department approves Initial Study/Mitigated Negative Declarations, and the ERO approves Categorical Exemptions.
7. Based on a preliminary review of the additional Projects and discussions with the SFPUC regarding the requirements for undertaking such additional Projects, I certify that the Projects under the jurisdiction of the SFPUC to be funded with proceeds of the Bonds, as described in the Ordinance, (a) are not considered to be projects under CEQA, (b) are projects under CEQA and a CEQA determination has already been issued, or (c) are projects under CEQA and will undergo CEQA review prior to approval. Pursuant to the provisions of Chapter 31 of the San Francisco Administrative Code, any additional Project to be financed will comply with applicable requirements of CEQA prior to any draw on the Revenue Bonds funds to finance the acquisition or construction of such facilities.

In witness whereof, the undersigned has executed this certification as of this 9th day of April, 2021.

Lisa M. Gibson
Environmental Review Officer

EXHIBIT A

Program	Project Numbers	Project Title	CEQA Compliance
Hetch Hetchy Capital Improvement	10014227	Bay Corridor Transmission Distribution Project	A Categorical Exemption was approved on February May 13, 2019 (2018-016699ENV).
Hetch Hetchy Capital Improvement	10038822	San Francisco Airport Substation	The project scope is currently being defined; environmental review will proceed once the project scope has been identified.
Hetch Hetchy Capital Improvement	10014576	Treasure Island Redevelopment Project	This action was covered in the Treasure Island/Yerba Buena Island Redevelopment Project Final Environmental Impact Report (EIR), which was certified by the Planning Commission April 21, 2011 (Case No. 2007.0903E).
Hetch Hetchy Capital Improvement	10014221	Alice Griffith / Candlestick Point Redevelopment Project	This action was covered in the Candlestick Point-Hunters Point Shipyard Phase II Final Environmental Impact Report (EIR), which was certified by the Planning Commission June 3, 2010 (Case No. 2007.0946E).
Hetch Hetchy Capital Improvement	10034721	Distribution Services Retail – HopeSF/Sunnydale	This action was covered in the Sunnydale-Velasco HOPE SF Master Plan Project FEIR, which was certified by the Planning Commission on July 9, 2015 (Case No. 2010.0305E).
Hetch Hetchy Capital Improvement	10035374	Distribution Services Retail – Potrero	This action was covered in the Potrero HOPE SF Master Plan Project Final Environmental Impact Report (EIR), which was certified by the Planning Commission December 10, 2015 (Case No. 2010.0515E).
Hetch Hetchy Capital Improvement	10034724	Distribution Services Retail – Pier 70	This action was covered in the Pier 70 Mixed-Use District Project Final Environmental Impact Report (EIR), which was certified by the Planning Commission in 2017 (Case No. 2014-001272ENV).
Hetch Hetchy Capital Improvement	10034720	Distribution Services Retail – Mission Rock	This action was covered in the Seawall Lot 337 and Pier 48 Mixed-Use Project Final Environmental Impact Report (EIR), which was certified by the Planning Commission in 2018 (Case No. 2013.0208E).
Hetch Hetchy Capital Improvement	15394	Transbay Transit Center	This action was covered in the Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project Final Environmental Impact Statement/ Final Environmental Impact Report (EIS/EIR) (Case No. 2000.048E).



Stantec Consulting Services Inc.
1340 Treat Blvd, Suite 300, Walnut Creek, CA 94597

**Certificate of the Consulting Engineers
in connection with Section 8B.124 of the Charter of the City and County of San Francisco and
the Indenture of the San Francisco Public Utilities Commission (SFPUC)
authorizing the Sale of Revenue Bonds and / or Other Forms of Indebtedness, including
Commercial Paper**

This Certificate has been prepared by Stantec Consulting Services, Inc., (Stantec), an independent consulting firm, at the request of the San Francisco Public Utilities Commission (SFPUC) in connection with the issuance by the SFPUC of its Revenue Bonds and/or other forms of Indebtedness, including Commercial Paper and State and Federal loans.

The City of San Francisco's Public Utilities Commission (PUC) Power Enterprise (PE) manages bond-funded capital projects. Section 8B.124 of the City Charter requires:

...the Board of Supervisors may take any and all actions necessary to authorize, issue and repay such bonds, including, but not limited to, modifying schedules of rates and charges to provide for the payment and retirement of such bonds, subject to the following conditions:

- (a) Certification by an independent engineer retained by the Public Utilities Commission that:
 - (1) the projects to be financed by the bonds, including the prioritization, cost estimates and scheduling, meet utility standards; and
 - (2) that estimated net revenue after payment of operating and maintenance expenses will be sufficient to meet debt service coverage and other indenture or resolution requirements, including debt service on the bonds to be issued, and estimated repair and replacement costs.

This review was performed for the Power Enterprise to provide the required independent evaluation to comply with the City Charter and to access bond issuances for the following capital projects:

- Bay Corridor Project
- Distribution Services Retail
- San Francisco Airport Substation
- Treasure Island Redevelopment Project
- Alice Griffith / Candlestick Point Redevelopment Project

The findings and conclusions in this Certificate are based on solely Stantec's review of the pertinent portions of following Documents and information provided by the SFPUC:

- Capital Project Budget Summary, October 10, 2020
- CUH87003 – Distribution Interface – New Customers, October 3, 2019
-

April 13, 2021

Certification of Consulting Engineers – SFPUC Bond Financed Projects

- Bay Corridor Transmission and Distribution (BCTD) Capital Project Budget Summary, October 30, 2020
 - SFPUC SA FY21_FY22 Form 10 Hetch Hetchy (Sources and Uses of Funds), September 28, 2020
 - SFPUC Security Mitigation Plan
 - SFO Electrical Capacity Project Status Update, August 12, 2019
 - AIR Electrical Capacity Upgrade Study Presentation, September 23, 2020
 - SFPUC JOC-53R3, SFO Substation MA Major Maintenance, September 9, 2019
 - Discussions with SFPUC staff
1. Based upon our review of the Documents and information noted above and upon conversations and representations of SFPUC staff, the undersigned certifies that the Projects, including prioritization, cost estimates, and scheduling, appear to meet generally accepted utility standards.
 2. Further, the estimated net revenue will be sufficient to meet debt service coverage and other indenture or resolution requirements.

While developing this Certificate, Stantec reviewed the pertinent portions of the Documents (listed above) and consulted with SFPUC staff. This Certification is based on the information provided by the SFPUC. The conclusions and observations contained herein constitute only the opinions of Stantec. The various background documents, statements, and other information supplied by the SFPUC, its employees, and other consultants have been relied upon as being accurate in the performance of these analyses; however, no assurances are given nor warranties implied by Stantec as to the accuracy of such information. Stantec makes no certification and gives no assurances except as explicitly set forth in this document.

Dated this 13th day of April, 2021.

Stantec Consulting Services Inc.



By: _____
W. Anthony Zavanelli, PE, CEM, LEED AP
Principal



Power Financial Projections

March 5, 2021



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

2625 Alcatraz Avenue, #602
Berkeley, CA 94705
Tel 510 653 3399
www.bartlewells.com

TO: San Francisco Public Utilities Commission

DATE: March 5, 2021

ATTN: Mike Brown, Environmental Finance Manager

FROM: Alex Handlers & Douglas Dove, P.E.

RE: Power Financial Projections for Proposition A Compliance

Background

Bartle Wells Associates (BWA) was retained by the San Francisco Public Utilities Commission (SFPUC) to develop financial projections in support of San Francisco Charter Article VIII B, Section 8B.124, as established by Proposition A which was approved by the voters of the City and County of San Francisco in 2018. This section of the Charter a) authorizes the SFPUC to issue revenue bonds and other forms of indebtedness and b) authorizes the Board of Supervisors to take actions necessary for the issuance and repayment of such debt subject to various conditions including *“that estimated net revenue after payment of operating and maintenance expenses will be sufficient to meet debt service coverage and other indenture or resolution requirements, including debt service on the bonds to be issued, and estimated repair and replacement costs.”*

Financial Projections

BWA developed financial projections based on data provided by the SFPUC as well as a number of independent calculations and assumptions which constitute such examination or investigation as is necessary to enable BWA to express an informed opinion as to whether the requirements of Proposition A have been satisfied. Based on the projections, the Power Enterprise will generate net revenues (as defined per the Indenture securing the SFPUC's outstanding Power Revenue Bonds) that are at least 1.25 times Annual Debt Service in each fiscal year from Fiscal Years 2020-21 through 2020-30. In accordance with the requirements of Proposition A, BWA certifies that estimated net revenue after payment of operating and maintenance expenses will be sufficient to meet debt service coverage and other indenture or resolution requirements, including debt service on the bonds to be issued, and estimated repair and replacement costs.

Attached Tables

The attached tables include:

- **Table 1 - SFPUC Hetch Hetchy Water & Power Cash Flow Projections** – This table was developed by Bartle Wells Associates based on information provided by the SFPUC and a number of independent assumptions, and includes projections of future fund balances, revenues, operating and maintenance expenses, debt service, other non-operating expenses, net revenues, and debt service coverage.
- **Table 2 - Cash Flow Assumptions** – This table describes assumptions used in developing the financial projections.
- **Table 3 - 10-Year Capital Improvement Program & Funding Sources** – This table shows projected SFPUC power capital improvements and anticipated sources of funding.
- **Table 4 - Estimated Debt Service** – This table estimates annual debt service on future bonds per each \$100 million of project funding.
- **Table 5 - Projected Bond Issues: Power** – This table shows projected debt issued by fiscal year and calculates annual debt service for each bond issue.
- **Table 6 - Projected Debt Service on Future Financings: Power** – This table projects debt service by fiscal year for each water debt issue and shows a schedule of projected debt payments.
- **Table 7 - Outstanding Debt: Power** – This table shows debt service due on outstanding debt issues.

The tables are based on information provided by the SFPUC as well as a number of independent calculations and assumptions. BWA takes no responsibility for the accuracy of information provided by the SFPUC, nor for any errors or omissions in information provided.

Submitted by: BARTLE WELLS ASSOCIATES

Alex Handlers
Principal/Vice President

Douglas R. Dove, P.E.
President



Table 1 - SFPUC Hetch Hetchy Water & Power Cash Flow Projections

Years 1-5

	Esc/Basis	2020/21	2021/22	2022/23	2023/24	2024/25
Beginning Fund Reserves		38,611,000	77,279,000	77,998,000	75,383,000	69,967,000
Revenues						
Power Sales: Muni General Fund	SFPUC	24,441,000	30,659,000	36,987,000	43,153,000	46,815,000
Power Sales: Airport	SFPUC	43,761,000	45,207,000	50,291,000	55,389,000	60,723,000
Power Sales: Non-Airport Enterprise	SFPUC	40,080,000	45,371,000	47,758,000	53,973,000	56,018,000
Power Sales: Retail Other	SFPUC	8,298,000	8,808,000	10,732,000	16,686,000	19,136,000
Power Sales: Wholesale	SFPUC	10,826,000	18,213,000	14,548,000	11,975,000	10,914,000
Natural Gas & Steam Sales	SFPUC	13,033,000	14,653,000	15,092,000	15,545,000	16,011,000
Interest Income (2% of Beginning Rsrvs)		4,468,000	4,805,000	1,560,000	1,508,000	1,399,000
Other Miscellaneous Income	SFPUC	4,011,000	4,132,000	4,258,000	4,389,000	4,524,000
Programmatic Revenues	SFPUC	7,515,000	4,608,000	4,811,000	5,019,000	5,230,000
Capital Revenues (Non-Debt)	SFPUC	3,837,000	3,851,000	4,509,000	5,314,000	5,661,000
Operating Transfer: Hetchy Assessment	SFPUC	44,242,000	45,815,000	46,846,000	48,357,000	49,926,000
Operating Transfer: CleanPwrSF Loan Repymt	SFPUC	1,800,000	0	0	0	0
<i>Less Water Share of Revenues</i>	SFPUC	<i>(47,649,000)</i>	<i>(49,436,000)</i>	<i>(48,526,000)</i>	<i>(50,077,000)</i>	<i>(51,683,000)</i>
BABs Interest Subsidies (Net of Sequest.)	SFPUC	485,000	459,000	149,000	126,000	102,000
Subtotal		159,148,000	177,145,000	189,015,000	211,357,000	224,776,000
Debt Proceeds: Power		0	94,854,000	0	0	216,114,000
Operation & Maintenance Expenses						
<u>Upcountry</u>						
Personnel	3%	32,514,000	34,782,000	35,825,000	36,900,000	38,007,000
Non-Personal Services	3%	28,092,000	29,211,000	30,087,000	30,990,000	31,920,000
Other Upcountry	3%	17,939,000	18,679,000	19,239,000	19,816,000	20,410,000
<i>Less Water Share of Upcountry O&M</i>	SFPUC	<i>(44,545,000)</i>	<i>(46,518,000)</i>	<i>(47,908,000)</i>	<i>(49,358,000)</i>	<i>(50,854,000)</i>
<u>Downcountry</u>						
Personnel	3%	16,503,000	17,690,000	18,221,000	18,768,000	19,331,000
Non-Personal Services	3%	10,602,000	10,897,000	11,224,000	11,561,000	11,908,000
Power Purchases	SFPUC	9,418,000	8,320,000	11,513,000	15,322,000	14,464,000
Transmission & Distribution Charges	SFPUC	43,424,000	57,105,000	60,331,000	69,331,000	74,511,000
Natural Gas & Steam Purchases	3%	13,033,000	14,653,000	15,093,000	15,546,000	16,012,000
Other Downcountry	3%	18,772,000	19,824,000	20,419,000	21,032,000	21,663,000
Power & Joint O&M Adjustments	3%	0	(2,000,000)	(2,060,000)	(2,122,000)	(2,186,000)
Subtotal		145,752,000	162,643,000	171,984,000	187,786,000	195,186,000
Power Debt Service, Net of Capitalized Interest						
Outstanding Debt: Senior Lien	Debt Sched	2,567,000	2,565,000	2,567,000	2,566,000	2,565,000
Outstanding Debt: Junior Lien	Debt Sched	1,528,000	1,363,000	1,339,000	893,000	868,000
Projected Future Debt: Senior Lien	BWA Est.	-	-	367,000	6,841,000	6,841,000
Subtotal		4,095,000	3,928,000	4,273,000	10,300,000	10,274,000
Non-Operating Expenses						
Programmatic Expenses	SFPUC	18,630,000	14,987,000	11,068,000	11,826,000	12,621,000
Power Projects	SFPUC	4,069,000	4,686,000	4,923,000	7,580,000	7,811,000
<i>Less Water Share of Expenses</i>	SFPUC	<i>(2,750,000)</i>	<i>(2,918,000)</i>	<i>(618,000)</i>	<i>(720,000)</i>	<i>(829,000)</i>
<i>Less Adjustments Power</i>	SFPUC	<i>(27,300,000)</i>	<i>(6,900,000)</i>	<i>0</i>	<i>0</i>	<i>0</i>
Subtotal		(7,351,000)	9,855,000	15,373,000	18,686,000	19,603,000
Total Expenses: Power		142,496,000	176,426,000	191,630,000	216,772,000	225,063,000
Power Revenues Less Expenses		16,652,000	719,000	(2,615,000)	(5,415,000)	(287,000)
Plus Water Share of Revenues Less Expenses		<u>354,000</u>	<u>0</u>	<u>0</u>	<u>(1,000)</u>	<u>0</u>
Total Revenues Less Expenses		17,006,000	719,000	(2,615,000)	(5,416,000)	(287,000)
Plus Fund Reserve Adjustments (per SFPUC)		21,662,000	-	-	-	-
Ending Fund Reserves		77,279,000	77,998,000	75,383,000	69,967,000	69,680,000
Annual Revenues		159,148,000	177,145,000	189,015,000	211,357,000	224,776,000
Add Back Water Share of Revenues		47,649,000	49,436,000	48,526,000	50,077,000	51,683,000
Less Revs Excluded from Coverage Calc		<u>(22,759,000)</u>	<u>(19,709,000)</u>	<u>(20,700,000)</u>	<u>(21,707,000)</u>	<u>(22,501,000)</u>
Revenues for Coverage Calculation		184,038,000	206,872,000	216,841,000	239,727,000	253,958,000
Plus Reserves Budgeted as Revenues		<u>11,300,000</u>	<u>2,000,000</u>	<u>0</u>	<u>500,000</u>	<u>0</u>
Adjusted Revenues for Coverage Calculation		195,338,000	208,872,000	216,841,000	240,227,000	253,958,000
Operating & Maintenance Expenses		145,752,000	162,643,000	171,984,000	187,786,000	195,186,000
Add Back Water Share of O&M Expenses		44,545,000	46,518,000	47,908,000	49,358,000	50,854,000
Plus Programmatic Projects in Coverage Calc		13,557,000	9,723,000	5,601,000	6,154,000	6,738,000
Less Expenses Excluded from Coverage Calc		<u>(13,033,000)</u>	<u>(14,653,000)</u>	<u>(15,092,000)</u>	<u>(15,545,000)</u>	<u>(16,011,000)</u>
Expenses for Coverage Calculation		190,821,000	204,231,000	210,401,000	227,753,000	236,767,000
Net Revenues (Current Basis)		4,517,000	4,641,000	6,440,000	12,474,000	17,191,000
Plus Beginning Fund Rsrvs (Excl Budgeted Reserves)		27,311,000	75,279,000	77,998,000	74,883,000	69,967,000
Net Revenues (Indenture Basis with Reserves)		31,828,000	79,920,000	84,438,000	87,357,000	87,158,000
Annual Debt Service		4,095,000	3,928,000	4,273,000	10,300,000	10,274,000
Debt Service Coverage, Current Basis w/ Rsrvs		1.10	1.18	1.51	1.21	1.67
Debt Service Covg on Senior Debt, Indenture Basis		8.00	30.38	28.78	9.23	9.27

Table 1 - SFPUC Hetch Hetchy Water & Power Cash Flow Projections

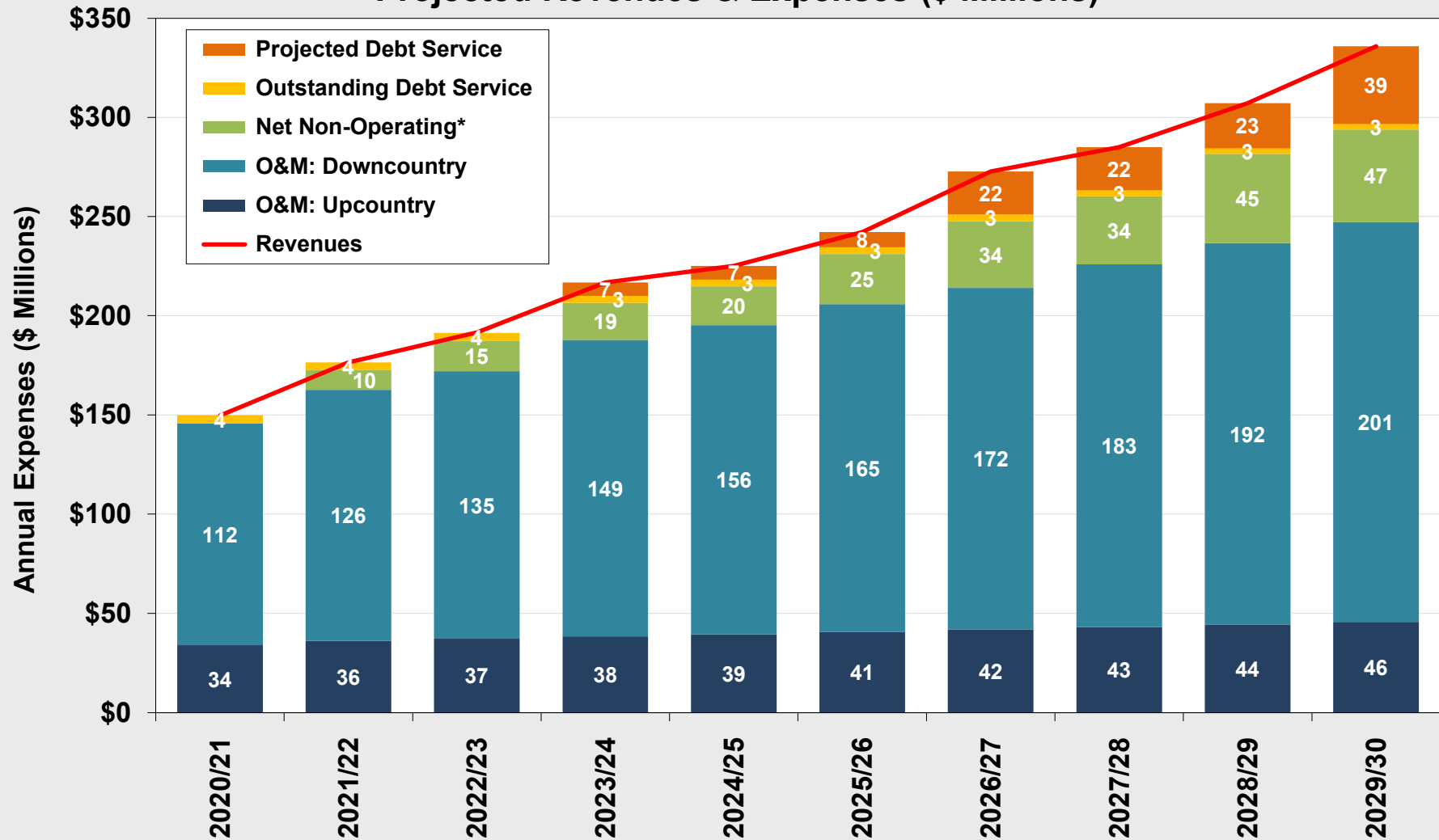
Years 6-10

	2025/26	2026/27	2027/28	2028/29	2029/30
Beginning Fund Reserves	69,680,000	76,101,000	77,606,000	89,383,000	97,787,000
Revenues					
Power Sales: Muni General Fund	50,466,000	54,108,000	57,750,000	61,392,000	65,034,000
Power Sales: Airport	65,801,000	72,380,000	77,117,000	80,211,000	83,882,000
Power Sales: Non-Airport Enterprise	58,189,000	59,934,000	61,732,000	63,584,000	65,492,000
Power Sales: Retail Other	31,748,000	45,634,000	57,553,000	66,726,000	74,911,000
Power Sales: Wholesale	10,464,000	9,302,000	8,833,000	8,766,000	8,784,000
Natural Gas & Steam Sales	16,491,000	16,986,000	17,496,000	18,021,000	18,562,000
Interest Income (2% of Beginning Rsrvs)	1,394,000	1,522,000	1,552,000	1,788,000	1,956,000
Other Miscellaneous Income	4,663,000	4,807,000	4,955,000	5,104,000	5,259,000
Programmatic Revenues	5,360,000	5,494,000	5,633,000	5,774,000	5,920,000
Capital Revenues (Non-Debt)	5,779,000	5,902,000	6,030,000	6,163,000	6,302,000
Operating Transfer: Hetchy Assessment	51,560,000	53,160,000	54,808,000	56,532,000	58,320,000
Operating Transfer: CleanPwrSF Loan Repymt	0	0	0	0	0
<i>Less Water Share of Revenues</i>	<i>(53,365,000)</i>	<i>(55,031,000)</i>	<i>(56,785,000)</i>	<i>(58,595,000)</i>	<i>(60,461,000)</i>
BABs Interest Subsidies (Net of Sequest.)	79,000	55,000	31,000	21,000	16,000
Subtotal	248,629,000	274,253,000	296,705,000	315,487,000	333,977,000
Debt Proceeds: Power	0	0	238,247,000	0	0
Operation & Maintenance Expenses					
<u>Upcountry</u>					
Personnel	39,147,000	40,321,000	41,531,000	42,777,000	44,060,000
Non-Personal Services	32,878,000	33,864,000	34,880,000	35,926,000	37,004,000
Other Upcountry	21,022,000	21,653,000	22,303,000	22,972,000	23,661,000
<i>Less Water Share of Upcountry O&M</i>	<i>(52,394,000)</i>	<i>(53,982,000)</i>	<i>(55,618,000)</i>	<i>(57,305,000)</i>	<i>(59,044,000)</i>
<u>Downcountry</u>					
Personnel	19,911,000	20,508,000	21,123,000	21,757,000	22,410,000
Non-Personal Services	12,265,000	12,633,000	13,012,000	13,402,000	13,804,000
Power Purchases	16,109,000	13,992,000	16,017,000	16,891,000	17,976,000
Transmission & Distribution Charges	80,273,000	87,368,000	93,824,000	100,224,000	106,105,000
Natural Gas & Steam Purchases	16,492,000	16,987,000	17,497,000	18,022,000	18,563,000
Other Downcountry	22,313,000	22,982,000	23,671,000	24,381,000	25,112,000
Additional Power & Joint O&M ?	(2,252,000)	(2,320,000)	(2,390,000)	(2,462,000)	(2,536,000)
Subtotal	205,764,000	214,006,000	225,850,000	236,585,000	247,115,000
Debt Service, Net of Capitalized Interest					
Outstanding Debt: Senior Lien	2,563,000	2,559,000	2,554,000	2,557,000	2,552,000
Outstanding Debt: Junior Lien	843,000	818,000	496,000	190,000	185,000
Projected Future Debt	7,667,000	21,708,000	21,708,000	22,744,000	39,264,000
Subtotal	11,073,000	25,085,000	24,758,000	25,491,000	42,001,000
Non-Operating Expenses					
Programmatic Projects	13,313,000	14,041,000	14,822,000	15,632,000	16,473,000
Power Projects	13,029,000	20,665,000	20,665,000	30,665,000	31,665,000
<i>Less Adjustments to Water</i>	<i>(971,000)</i>	<i>(1,049,000)</i>	<i>(1,167,000)</i>	<i>(1,290,000)</i>	<i>(1,418,000)</i>
<i>Less Adjustments Power</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Subtotal	25,371,000	33,657,000	34,320,000	45,007,000	46,720,000
Total Expenses	242,208,000	272,748,000	284,928,000	307,083,000	335,836,000
Power Revenues Less Expenses	6,421,000	1,505,000	11,777,000	8,404,000	(1,859,000)
Plus Water Share of Revenues Less Expenses	0	0	0	0	(1,000)
Total Revenues Less Expenses	6,421,000	1,505,000	11,777,000	8,404,000	(1,860,000)
Plus Fund Reserve Adjustments (per SFPUC)	-	-	-	-	-
Ending Fund Reserves	76,101,000	77,606,000	89,383,000	97,787,000	95,927,000
Annual Revenues	248,629,000	274,253,000	296,705,000	315,487,000	333,977,000
Add Back Water Share of Revenues	53,365,000	55,031,000	56,785,000	58,595,000	60,461,000
Less Revs Excluded from Coverage Calc	<u>(23,581,000)</u>	<u>(24,197,000)</u>	<u>(24,832,000)</u>	<u>(25,486,000)</u>	<u>(26,160,000)</u>
Revenues for Coverage Calculation	278,413,000	305,087,000	328,658,000	348,596,000	368,278,000
Plus Reserves Budgeted as Revenues	0	0	0	0	0
Adjusted Revenues for Coverage Calculation	278,413,000	305,087,000	328,658,000	348,596,000	368,278,000
Operating & Maintenance Expenses	205,764,000	214,006,000	225,850,000	236,585,000	247,115,000
Add Back Water Share of O&M Expenses	52,394,000	53,982,000	55,618,000	57,305,000	59,044,000
Plus Programmatic Projects in Coverage Calc	7,302,000	7,899,000	8,544,000	9,214,000	9,911,000
Less Expenses Excluded from Coverage Calc	<u>(16,491,000)</u>	<u>(16,986,000)</u>	<u>(17,496,000)</u>	<u>(18,021,000)</u>	<u>(18,562,000)</u>
Expenses for Coverage Calculation	248,969,000	258,901,000	272,516,000	285,083,000	297,508,000
Net Revenues (Current Basis)	29,444,000	46,186,000	56,142,000	63,513,000	70,770,000
Plus Beginning Fund Rsrvs (Excl Budgeted Reserves)	69,680,000	76,101,000	77,606,000	89,383,000	97,787,000
Net Revenues (Indenture Basis with Reserves)	99,124,000	122,287,000	133,748,000	152,896,000	168,557,000
Annual Debt Service	11,073,000	25,085,000	24,758,000	25,491,000	42,001,000
Debt Service Coverage, Current Basis w/ Rsrvs	2.66	1.84	2.27	2.49	1.68
Debt Service Coverage, Indenture Basis	9.69	5.04	5.51	6.04	4.03

Table 2
SFPUC Hetch Hetchy Water & Power
Cash Flow Assumptions

SFPUC Model Basis	Financial projections are based on SFPUC's <i>FY20 Hetch Hetchy Water & Power 10 Year Plan</i> emailed 02/04/21.
Beginning Fund Reserves	Beginning fund reserves based on SFPUC estimates.
Revenues	Revenues are based on SFPUC projections with the exception of interest earnings, which are based on 2% of beginning fund reserves starting FY 2022/23.
Operation & Maintenance Expenses	Most Operation & Maintenance Expenses are based on SFPUC projections for the first two years and subsequently escalate at the annual rate of 3.0% thereafter. Expenses for Power Purchases, Transmission & Distribution, and Programmatic Projects are based on SFPUC projections.
Water Share of Revs & Expenses	Based on SFPUC projections.
Capital Projects	Capital Project expenses and sources of funding are based on SFPUC projections.
Debt Service Assumptions	Debt assumptions are shown on Table 3, which calculates debt service per \$100 million of project funding. Future debt service projections are based on SFPUC estimates of annual debt financing requirements and BWA debt service projections.
Outstanding Debt Service	Outstanding debt service is based on debt service schedules for each issue, as provided by SFPUC, and is shown on a fiscal year basis.
Debt Service Payments	Note that pursuant to the Indenture, as a procedural requirement the SFPUC is required to make monthly prepayments to the trustee of 1/12th principal and 1/6th semi-annual debt service toward each upcoming bond payment. Debt service payments in the cash flow projections reflect the amount coming due each fiscal year; not the amounts procedurally required to be paid each fiscal year.
Net Revenues	Pursuant to the Indenture, Net Revenues are defined as Annual Revenues (excluding interest earnings on any bond funds including the reserve fund, capitalized interest fund, and improvement fund; but including fund reserves available to pay debt service assuming the Commission determined such reserves should be "Revenues" under the Indenture) less Operation and Maintenance Expenses.
Debt Service Coverage, Current Basis	Coverage based on annual Net Revenues for coverage calculation (including fund reserves budgeted as revenues) divided by Annual Debt Service.
Debt Service Coverage, Indenture Basis	Coverage based on annual Net Revenues for coverage calculation including Beginning Fund Reserves but not those budgeted as revenues, divided by Senior Debt Service.

SFPUC Hetch Hetchy Power Projected Revenues & Expenses (\$ Millions)



* Net Non-Operating expenses in 2020/21 are negative due a substantial SFPUC adjustment and are not included on the chart.

Note: Chart shows Power revenues and expenses excluding allocations to Water.

Table 3

SFPUC Hetch Hetchy Water & Power

New Projects

10-Year Capital Improvement Program & Funding Sources

	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
HETCH HETCHY WATER PROJECTS											
Water Infrastructure		33,733,000	65,850,000	46,373,000	43,457,000	18,657,000	12,670,000	12,014,000	12,333,000	12,714,000	13,095,000
Power Infrastructure		10,560,000	49,425,000	23,836,000	18,535,000	13,246,000	7,239,000	17,245,000	6,002,000	6,173,000	16,327,000
Joint Infrastructure		67,181,000	76,116,000	78,562,000	73,856,000	57,297,000	63,233,000	47,895,000	45,292,000	20,880,000	63,909,000
Subtotal		111,474,000	191,391,000	148,771,000	135,848,000	89,200,000	83,142,000	77,154,000	63,627,000	39,767,000	93,331,000
HETCH HETCHY POWER PROJECTS											
Distribution Services Retail		40,415,000	37,652,000	33,852,000	44,502,000	68,827,000	62,727,000	62,727,000	40,352,000	35,257,000	35,257,000
Streetlight Replacement		-	3,815,000	3,815,000	3,815,000	3,815,000	3,815,000	3,815,000	3,815,000	3,815,000	3,815,000
Treasure Island Capital Improvements		4,333,000	1,483,000	2,733,000	1,483,000	1,483,000	1,204,000	1,204,000	1,204,000	1,204,000	1,204,000
Renewable-Generation - Small		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Hetchy Cap and Trade Allowance		1,000,000	886,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
ERAF PUC Utility Acq Assessment		-	-	-	-	-	-	-	-	-	-
Subtotal		46,748,000	44,836,000	42,400,000	51,800,000	76,125,000	69,746,000	69,746,000	47,371,000	42,276,000	42,276,000
TOTAL		158,222,000	236,227,000	191,171,000	187,648,000	165,325,000	152,888,000	146,900,000	110,998,000	82,043,000	135,607,000
FUNDING SOURCES											
<u>Debt</u>											
Power Bonds		89,571,000	131,201,000	101,865,000	103,145,000	107,891,000	91,099,000	92,669,000	47,619,000	28,269,000	61,067,000
Water Bonds		63,965,000	100,102,000	81,726,000	76,692,000	44,404,000	41,125,000	33,567,000	32,714,000	22,110,000	41,854,000
Subtotal		153,536,000	231,303,000	183,591,000	179,837,000	152,295,000	132,224,000	126,236,000	80,333,000	50,379,000	102,921,000
<u>Revenues</u>											
Power Revenue		(781,000)	-	2,200,000	2,200,000	7,300,000	14,813,000	14,685,000	24,552,000	25,413,000	26,291,000
Distributed Antenna System		2,932,000	2,738,000	2,847,000	2,961,000	3,080,000	3,203,000	3,331,000	3,464,000	3,602,000	3,746,000
Power: Cap & Trade Auction Revenue		535,000	886,000	1,233,000	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000
Low Carbon Fuel Standard		2,000,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
Subtotal		4,686,000	4,924,000	7,580,000	7,811,000	13,030,000	20,666,000	20,666,000	30,666,000	31,665,000	32,687,000
TOTAL		158,222,000	236,227,000	191,171,000	187,648,000	165,325,000	152,890,000	146,902,000	110,999,000	82,044,000	135,608,000
Funding Difference	-	-	-	-	-	-	2,000	2,000	1,000	1,000	1,000

Note: Amounts shown reflect capital improvements projected to be budgeted, but not necessarily funded or financed, each year.

Totals may not match due to rounding.

Table 4
SFPUC Hetch Hetchy Water & Power
Estimated Bond Debt Service
Per \$100 Million of Project Funding

Repayment Term		Power Bonds 30 Years	Power Bonds 30 Years	Power Bonds 30 Years
		Years 1 - 3	Years 4 - 6	Years 7 - 10
Funding Target		Per each \$100,000,000	Per each \$100,000,000	Per each \$100,000,000
Assumed Issuance & Payment Dates				
Bond Issuance Date		Oct-1	Oct-1	Oct-1
Principal Payment		Nov-1	Nov-1	Nov-1
Total Debt Issue		\$111,100,000	\$111,850,000	\$113,450,000
Project Funding		\$100,000,000	\$100,000,000	\$100,000,000
Issuance Costs & Reserve Requirement				
Underwriter Discount	0.30%	\$333,000	\$336,000	\$340,000
Issuance Costs	Est.	300,000	300,000	300,000
Reserve Requirement		0	0	0
Capitalized Interest	2.50 Years	10,415,000	11,185,000	12,763,000
Rounding/Contingency		<u>52,000</u>	<u>29,000</u>	<u>47,000</u>
Total		11,100,000	11,850,000	13,450,000
Financing Terms				
Term (Years)		30	30	30
Interest Only (Years)		2.50	2.50	2.50
Principal Amortization (Years)		28	28	28
Est. Average Interest Rate		3.75%	4.00%	4.50%
Annual Debt Service				
Interest Only Period		4,166,000	4,474,000	5,105,000
Principal Amortization Period		6,477,000	6,712,000	7,206,000

Financing costs and interest rates estimated for financial planning purposes.

Table 5
SFPUC Hetch Hetchy Water & Power
Projected Bond Issues: Power

Debt Issuance by FY	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Bond Funding Projections											
Project/Escrow Fund	94,854,000			216,114,000			238,247,000				208,685,000
CP/Interim Financing Costs	10,768,000			5,384,000			5,384,000				7,179,000
Total	105,622,000			221,498,000			243,631,000				215,864,000
Financing Terms											
CIP Project Funding	105,622,000			221,498,000			243,631,000				215,864,000
Total Issue Size	117,350,000			246,080,000			270,670,000				239,820,000
Issuance Date	Oct-1			Oct-1			Oct-1				Oct-1
Issuance Year	2020			2023			2026				2030
Interest Payments	May-1 & Nov-1			May-1 & Nov-1			May-1 & Nov-1				May-1 & Nov-1
Principal Payments (Year 3+)	Nov-1			Nov-1			Nov-1				Nov-1
Average Interest Rate	3.75%			4.00%			4.50%				4.50%
Repayment Term (Years)	30.50			30.50			30.50				30.50
Capitalized Interest (Years)	2.50			2.50			2.50				2.50
Debt Service per \$100M											
Interest Only Period (2.5 Yrs)	4,166,000			4,474,000			5,105,000				5,105,000
Principal Amort Period (28 Yrs)	6,477,000			6,712,000			7,206,000				7,206,000
Annual Debt Service											
Interest Only Period	4,400,000			9,910,000			12,437,000				11,020,000
Principal Amort Period	6,841,000			14,867,000			17,556,000				15,555,000
Cumulative MADS											
	6,841,000			21,708,000			39,264,000				54,819,000

Table 6
SFPUC Hetch Hetchy Water & Power
Projected Debt Service on Future Financings: Power

Fiscal Year Ending June 30	2020/21 Bonds	2021/22 Bonds	2022/23 Bonds	2023/24 Bonds	2024/25 Bonds	2025/26 Bonds	2026/27 Bonds	2027/28 Bonds	2028/29 Bonds	2029/30 Bonds	2030/31 Bonds	Total Net of Cap I
2021	Cap I											0
2022	Cap I											0
2023	367,000	Cap I										367,000
2024	6,841,000	0	Cap I	Cap I								6,841,000
2025	6,841,000	0	0	Cap I	Cap I							6,841,000
2026	6,841,000	0	0	826,000	Cap I	Cap I						7,667,000
2027	6,841,000	0	0	14,867,000	0	Cap I	Cap I					21,708,000
2028	6,841,000	0	0	14,867,000	0	0	Cap I	Cap I				21,708,000
2029	6,841,000	0	0	14,867,000	0	0	1,036,000		Cap I			22,744,000
2030	6,841,000	0	0	14,867,000	0	0	17,556,000	0	Cap I	Cap I		39,264,000
2031	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	Cap I	Cap I	39,264,000
2032	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	Cap I	39,264,000
2033	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	918,000	40,182,000
2034	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2035	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2036	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2037	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2038	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2039	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2040	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2041	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2042	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2043	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2044	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2045	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2046	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2047	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2048	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2049	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2050	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2051	6,841,000	0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	54,819,000
2052		0	0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	47,978,000
2053			0	14,867,000	0	0	17,556,000	0	0	0	15,555,000	47,978,000
2054				14,867,000	0	0	17,556,000	0	0	0	15,555,000	47,978,000
2055					0	0	17,556,000	0	0	0	15,555,000	33,111,000
2056						0	17,556,000	0	0	0	15,555,000	33,111,000
2057							17,556,000	0	0	0	15,555,000	33,111,000
2058								0	0	0	15,555,000	15,555,000
2059									0	0	15,555,000	15,555,000
2060										0	15,555,000	15,555,000
2061											15,555,000	15,555,000
2062												0

Table 7
SFPUC Hetch Hetchy Water & Power
Outstanding Debt: Power

[illegible]