Draft

Cost Analysis:
Proposed Imported Water Pipeline Project

June 10, 2024

CleanEnergyCapital

Contents

Section 1 Executive Summary

Clean Energy Capital

- Clean Energy Capital ("CEC") is a municipal advisor specialized in water project financing.
- Over the past 15 years, we have developed multiple independent cost evaluations for water infrastructure projects in California.
- We have additionally supported the financing and implementation of water projects and have familiarity with the major forms of public, private, and capital markets financing.
- We are a registered Municipal Advisor with the SEC and the MSRB, and bear a fiduciary obligation to our municipal clients.

Scope of Engagement / Definition of Project

- The Indian Wells Valley Water District (the “District”) engaged CEC in 2024 to develop a cost estimate and cost scenarios for the proposed Imported Water Pipeline Project (the “Project”).

- The Project is a proposed conveyance facility (pipeline, pump stations, storage tanks, and appurtenant facilities) to convey treated water from an Antelope Valley-East Kern Water Agency (“AVEK”) pipeline in California City to a new Terminus Tank in the vicinity of Ridgecrest.

- The Project was originally identified in a Groundwater Sustainability Plan published by the Indian Wells Valley Groundwater Authority (the “GA”) in 2020.

- The Project is currently under development by the GA.

Sources of Information

- Construction and operating cost inputs were drawn primarily from the PDR.
  - Cost estimates for the Project have recently been set forth in the October 2023 Preliminary Design Report developed for the GA by Provost & Pritchard Consulting Group (the "Provost & Pritchard PDR").
  - We note that Krieger & Stewart has reviewed these estimates and finds them reasonable.

- CEC has worked with District staff to quantify and include additional Project components:
  - Cost of water acquisition,
  - Costs of upstream conveyance to the AVEK pipeline in California City, and
  - Costs of downstream integration of the new water supply into District facilities.

- CEC has developed an illustrative project timeline, plan of finance, and financial inputs such as borrowing cost and rates of escalation.

Methodology

- Proforma Financial Model
  - Cost of water estimated are derived from an excel-based proforma financial model (the “Proforma Model”) developed by CEC.
  - The Proforma Model sets forth inputs and assumptions, mathematical calculations, and quantitative results. It is fully transparent.

- Water Unit Cost
  - We define Water Unit Cost as the all-in cost per acre foot for delivered water, expressed in 2024 dollars.
  - We calculate Water Unit Cost as the present value of the cost of water in the first year of Project operations (assumed to be 2030).

- No Estimate of Ratepayer Impact
  - Our analysis looks are the cost of water delivered via the Project, in $/AF and $million per annum
  - We have not undertaken a cost allocation to District ratepayers and potential third parties, pending further development and specification of allocation alternatives

Limitations of Analysis

- Limited independent review of development and construction cost inputs
  - Clean Energy Capital has relied on the accuracy of information set forth in the PDR and provided to us by the District.

- No guarantee of results
  - In supplementing the information provided to us, CEC has made estimates that we consider reasonable.
  - We have taken care to produce a mathematically accurate analysis.
  - Our assumptions and computations have been set forth fully and transparently in our work product.
  - We are, however, unable to guarantee our cost estimates, as actual costs will be subject to factors beyond our control.

- No review by the Groundwater Authority
  - While the District has provided a draft of our analysis to the Groundwater Authority, we have not received comments from the Groundwater Authority, and our analysis does not incorporate their feedback.

Initial Findings – Unit Cost of Water

Unit Cost of Water (2024$/AF)

As a function of Annual Water Volume and WRDA Grant Funding

	Water Deliveries: 1,500 AFY	Water Deliveries: 3,000 AFY	Water Deliveries: 6,431 AFY
WRDA Grant - $0mm	18,916	10,734	7,124
WRDA Grant - $150mm	12,488	7,520	5,625
WRDA Grant - $307mm	6,750	4,586	4,143

- Comparison to District's costs:
  - District ratepayers pay an all-in cost of approximately $2,100 / AF, inclusive of water production and facilities
  - Current cost of water production alone may range from $250 - $350 / AF

Initial Findings – Annual Cost of Water

Annual Cost (2024$)

As a function of Annual Water Volume and WRDA Grant Funding

	Water Deliveries: 1,500 AFY	Water Deliveries: 3,000 AFY	Water Deliveries: 6,431 AFY
WRDA Grant - $0mm	$28,373,000	$32,202,000	$45,817,000
WRDA Grant - $150mm	$18,732,000	$22,560,000	$36,176,000
WRDA Grant - $307mm	$10,125,000	$13,759,000	$26,642,000

- Comparison to District's annual budget
  - To provide a comparator for the above annual cost estimates, we note that the District's FY2024 budget includes $12.5 million in operating costs, excluding payments to the GA
- Capital versus O&M allocation
  - The breakout of annual cost between Capital Cost (eligible for tax recovery) and O&M Cost (more typically recovered through rates) varies among scenarios
  - For the middle scenario (3,000 AFY with $150mm WRDA), approximately 56% of the Annual Cost is Capital Cost (Debt Service) and 44% is O&M.

Section 2 Key Inputs and Assumptions

Development and Construction Costs

Direct Costs of Imported Water Pipeline (2023$000s)		Source
Imported Water Pipeline (2023 $000s)		
Pipeline Construction	158,830	PDR
SCE Service Procurement	10,000	PDR
Contingency	31,706	PDR
Costs as set forth in PDR	200,536	PDR
Land Mitigation	180	Indian Wells
Construction Water/Water Trucks	6,000	Indian Wells
Contingency - 20% on Additional Costs	1,236	Indian Wells
Planning/Design – 12.5% of Pipeline Construction Cost	19,854	Indian Wells
Construction Management & Inspection – 12.5% of Pipeline Construction Cost	19,854	Indian Wells
Direct Costs of Imported Water Pipeline (2023 $000s)	247,660	

- We note that the escalated value of direct costs is approximately **$307 million**

Water Acquisition Costs

- Table A Water Acquisition Rights
  - Acquisition Cost of Table A water rights has been included as part of the Capital Cost of the Project
  - The Acquisition Cost has been estimated by multiplying required water rights with an assumed unit cost of $10,000/AF, as shown in the following table:

	Water Deliveries: 1,500 AFY	Water Deliveries: 3,000 AFY	Water Deliveries: 6,431 AFY
Annual Water Deliveries (AFY)	1,500	3,000	6,431
Reliability	60%	60%	60%
Water Rights to be Acquired (AFY)	2,500	5,000	10,718
Cost of Water Right (2023 $/AF)	10,000	10,000	10,000
Cost of Acquisition (2023 $000s)	25,000	50,000	107,183

Upstream and Downstream Capital Costs

- Upstream Capital Costs
  - The current capacity of the California City Feeder is about 3,900 AFY which would be adequate should the Indian Wells import 1,500 or 3,000 AFY of water deliveries. In these cases, no additional upstream capital cost are modeled
  - If Indian Wells needs to import 6,431 AFY of water deliveries, the current capacity of the California City Feeder would be inadequate and an additional 10 mile water transmission pipeline would need to be built
  - Capital Cost of $35mm (2023$) has been estimated by Indian Wells for this 10 mile of pipeline and is included in the scenario of 6,431 AFY of water deliveries

- Downstream Capital Costs
  - Refers to the cost of pipeline and related infrastructure required for the District to receive and distribute water to retail users
  - Capital Cost of $15mm (2023$) has been estimated by Indian Wells for this Retail Distribution Infrastructure
  - Retail Distribution Infrastructure could be replaced by Injection Wells after undertaking detailed cost-benefit and technical feasibility analysis of the later option.

Project Timing and Cost Escalation

- As the base year for cost inputs is 2023, the Development Costs have been escalated to beginning of the Construction Period and Construction costs have been escalated to the midpoint of the Construction Period

- Project Timing:

Proforma Model Assumption	Value
Commencement of Construction (Year)	2027
Construction Duration	3 years
Commencement of Operations (Year)	2030

- Escalation Rates:

Proforma Model Assumption	Value
Construction Cost Escalation Rate	4.0%
Electricity Price Escalation Rate	4.0%
Non-Electricity O&M Escalation Rate	4.0%
Present Value Discount Rate	4.5%

Escalated Costs Including Water Acquisition

	Water Deliveries: 1,500 AFY	Water Deliveries: 3,000 AFY	Water Deliveries: 6,431 AFY	Source
Imported Water Pipeline (2023 $000s)	247,660	247,660	247,660	
Upstream Costs (2023 $000s)	-	-	35,000	Indian Wells
Downstream Costs (2023 $000s)	15,000	15,000	15,000	Indian Wells
Water Rights (2023 $000s)	25,000	50,000	107,183	Indian Wells
Capital Cost (2023 $000s)	**287,660**	**312,660**	**404,843**	
Escalation from 2023 to 2024 ($000s)	11,506	12,506	16,194	CEC
Capital Cost (2024 $000s)	**299,166**	**325,166**	**421,037**	
Development Cost Escalation ($000s)	8,792	12,039	20,244	CEC
Construction Cost Escalation ($000s)	44,155	44,155	49,976	CEC
Escalated Capital Cost ($000s)	**352,113**	**381,360**	**491,257**	

Plan of Finance

- Development Period
  - Funded by GA from grants to date
  - Capitalized into Project costs going forward

- Construction Period
  - Capital Cost along with Interest During Construction (IDC), Costs of Issuance, and Debt Service Reserve Fund to be funded with WRDA Grant, WIFIA, and Senior Debt
  - WRDA Grant – Key input variable, ranging from $0 - $307 million
  - WIFIA Loan – Maximum 49% of total capitalization, 30 years amortization period, and 4.00% rate of interest (Note that total Federal funding cannot exceed 80%)
  - Senior Debt – As needed to complete Project capitalization, 30 years amortization period, and 5.00% rate of interest

- Operations Period
  - Funded through revenues from operations

Sources and Uses of Funds – $150mm WRDA Grant

	Water Deliveries: 1,500 AFY	Water Deliveries: 3,000 AFY	Water Deliveries: 6,431 AFY
Sources of Funds			
Initial WIFIA Loan	186,109	203,369	268,226
Additional WIFIA Loan for IDC	11,167	12,202	16,094
Senior Debt	43,706	61,670	129,174
WRDA Grant	150,000	150,000	150,000
Total Sources of Funds	390,982	427,242	563,494
Uses of Funds			
Escalated Development and Construction Cost	352,113	381,360	491,257
Capitalized IDC - WIFIA Loan Interest	11,167	12,202	16,094
Capitalized IDC - Senior Debt Interest	6,556	9,251	19,376
WIFIA Loan DSRF	11,408	12,467	16,442
Senior Debt DSRF	2,843	4,012	8,403
Costs of Issuance	6,894	7,951	11,922
Total Uses of Funds	390,982	427,242	563,494

Operations and Maintenance Costs

- Methodology
  - Cost inputs have been sourced from Preliminary Design Report and District's cost estimate worksheet
  - As the base year for Cost inputs is 2023, the O&M Costs have been escalated to the first year of operations (2030) using an escalation rate of 4%
  - Placeholders have been put for costs that are identified but not yet estimated

- Major Cost Heads
  - Electricity Cost – Arrived by multiplying the unit rate with the energy consumption per AF of water delivery
  - Staff Cost – Arrived by multiplying number of full-time staff equivalents with the annual salary per staff (including all benefits)
  - Repair and Maintenance – Estimated at 1.5% of the Capital Cost
  - Contingency and Miscellaneous – To account for any unforeseen variations in the cost heads and costs not identified in the estimates

AVEK Charges

- The Project will convey treated water from the AVEK pipeline in California City to a new Terminus Tank in the vicinity of Ridgecrest.

- AVEK charges refer to the annual charges payable to AVEK for SWP water treated and transported by AVEK to that Project's entry point in California City.

- We estimate AVEK Charges of $1,100 / AF in 2023 dollars, comprising:
  - $752/AF Treated Water Delivery Rate as set forth in AVEK's published schedules
  - $23/AF surcharge for supplementary infrastructure
  - $325/AF additional charges to account for additional AVEK cost recovery

- We assume that AVEK will pay applicable State Water Project (SWP) charges and pass through these charges. The key components of the SWP charges are the Transportation Charge, Delta Water Charge and Water System Revenue Bond Surcharge (taken from TABLE B-24, SWP Bulletin 132-23, Appendix B). Subject to further review, we assume these charges are included in our all-in AVEK cost estimate.

Operations and Maintenance Costs

	Water Deliveries - 1,500 AFY	Water Deliveries - 3,000 AFY	Water Deliveries - 6,431 AFY	Source
Imported Water Pipeline (2030 $000s)				
Electricity Cost	589	1,178	2,526	PDR, Indian Wells
Repair & Maintenance	3,715	3,715	3,715	CEC Estimate
Staff Cost	1,579	1,579	1,579	CEC Estimate
Contingency and Miscellaneous	1,500	1,500	1,500	CEC Estimate
	7,383	7,972	9,320	
Upstream Conveyance (2030 $000s)				
Electricity Cost	-	-	1,000	CEC Estimate
Repair & Maintenance	-	-	525	CEC Estimate
Staff Cost	-	-	526	CEC Estimate
Contingency and Miscellaneous	-	-	1,000	CEC Estimate
	-	-	3,051	
Downstream Infrastructure (2030 $000s)				
Electricity Cost	-	-	-	Indian Wells
Repair & Maintenance	225	225	225	Indian Wells
Staff Cost	263	263	263	Indian Wells
Contingency and Miscellaneous	100	100	100	Indian Wells
	588	588	588	
SWP Charges (2030 $000s)	-	-	-	Indian Wells
AVEK Charges (2030 $000s)	2,170	4,341	9,305	Indian Wells
Total O&M Cost (2030 $000s)	**10,142**	**12,901**	**22,265**	

Section 3 Key Results

Annual Cost and Unit Cost of Water

D. Annual Cost in First Year of Operations ($000s)

Case 1 - Low Water Volume		Case 2 - Mid Water Volume		Case 3 - High Water Volume	
First Operating Year	2030	First Operating Year	2030	First Operating Year	2030
Full Grant - $307mm		**Full Grant - $307mm**		**Full Grant - $307mm**	
Water Deliveries (AFY)	1,500	Water Deliveries (AFY)	3,000	Water Deliveries (AFY)	6,431
Nominal Cost		Nominal Cost		Nominal Cost	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	10,142	O&M	12,901	O&M	22,265
Debt Service	3,043	Debt Service	5,016	Debt Service	12,430
Total ($000s)	13,185	Total ($000s)	17,918	Total ($000s)	34,694
Unit Cost (Nominal $/AF)	8,790	Unit Cost (Nominal $/AF)	5,973	Unit Cost (Nominal $/AF)	5,395
Present Value Cost (2024)		Present Value Cost (2024)		Present Value Cost (2024)	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	7,788	O&M	9,907	O&M	17,097
Debt Service	2,337	Debt Service	3,852	Debt Service	9,545
Total ($000s)	10,125	Total ($000s)	13,759	Total ($000s)	26,642
Unit Cost (PV $/AF)	**6,750**	**Unit Cost (PV $/AF)**	**4,586**	**Unit Cost (PV $/AF)**	**4,143**
Base Case Grant - $150mm		**Base Case Grant - $150mm**		**Base Case Grant - $150mm**	
Water Deliveries (AFY)	1,500	Water Deliveries (AFY)	3,000	Water Deliveries (AFY)	6,431
Nominal Cost		Nominal Cost		Nominal Cost	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	10,142	O&M	12,901	O&M	22,265
Debt Service	14,252	Debt Service	16,478	Debt Service	24,845
Total ($000s)	24,393	Total ($000s)	29,380	Total ($000s)	47,110
Unit Cost (Nominal $/AF)	16,262	Unit Cost (Nominal $/AF)	9,793	Unit Cost (Nominal $/AF)	7,325
Present Value Cost (2024)		Present Value Cost (2024)		Present Value Cost (2024)	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	7,788	O&M	9,907	O&M	17,097
Debt Service	10,944	Debt Service	12,654	Debt Service	19,079
Total ($000s)	18,732	Total ($000s)	22,560	Total ($000s)	36,175
Unit Cost (PV $/AF)	**12,488**	**Unit Cost (PV $/AF)**	**7,520**	**Unit Cost (PV $/AF)**	**5,625**

Annual Cost and Unit Cost of Water (cont.)

D. Annual Cost in First Year of Operations ($000s)					
Case 1 - Low Water Volume		**Case 2 - Mid Water Volume**		**Case 3 - High Water Volume**	
First Operating Year	2030	First Operating Year	2030	First Operating Year	2030
No Grant		**No Grant**		**No Grant**	
Water Deliveries (AFY)	1,500	Water Deliveries (AFY)	3,000	Water Deliveries (AFY)	6,431
Nominal Cost		Nominal Cost		Nominal Cost	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	10,142	O&M	12,901	O&M	22,265
Debt Service	26,808	Debt Service	29,034	Debt Service	37,401
Total ($000s)	36,950	Total ($000s)	41,936	Total ($000s)	59,666
Unit Cost (Nominal $/AF)	24,633	Unit Cost (Nominal $/AF)	13,979	Unit Cost (Nominal $/AF)	9,278
Present Value Cost (2024)		Present Value Cost (2024)		Present Value Cost (2024)	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	7,788	O&M	9,907	O&M	17,097
Debt Service	20,586	Debt Service	22,295	Debt Service	28,720
Total ($000s)	28,373	Total ($000s)	32,202	Total ($000s)	45,817
Unit Cost (PV $/AF)	**18,916**	**Unit Cost (PV $/AF)**	**10,734**	**Unit Cost (PV $/AF)**	**7,124**

Section 4 Supplemental Data

Additional Analysis

- Downstream Delivery Alternatives
  - CEC's cost estimate assumes water deliveries to District customers
  - Alternative delivery options could include conveyance to a suitable reinjection site, and reinjection into the valley's groundwater basin

- Potential Electricity Infrastructure Costs
  - CEC's cost estimate assumes that electric power for pumping is purchased as prevailing rates for uninterrupted industrial supply
  - Cost estimates do not include potential infrastructure investment requirements for energy delivery to the remote locations of pumping stations
  - Environmental considerations, including the designation of Desert Tortoises as endangered, could increase electricity infrastructure (and other) Project costs

- Renewal and Replacement Costs
  - CEC's cost estimate assumes ordinary O&M costs, but does not include accruals for Project replacement at end of useful life
  - While we consider this approach appropriate, a move conservative analysis could add R&R accruals to unit cost and annual cost estimates

Water Resource Development Act (WRDA) Grants

- **Water Resource Development Act (WRDA)**
  - Administered by US Army Corps of Engineers (USACE)
  - Provides cost-share grants and technical assistance to local governments and municipalities
  - Aims to develop water-related infrastructure that aid economic growth, flood and storm risk management, and ecosystem restoration programs
  - Originally started in 1992, bipartisan support for reauthorization every two years (Congress currently developing WRDA 2024)

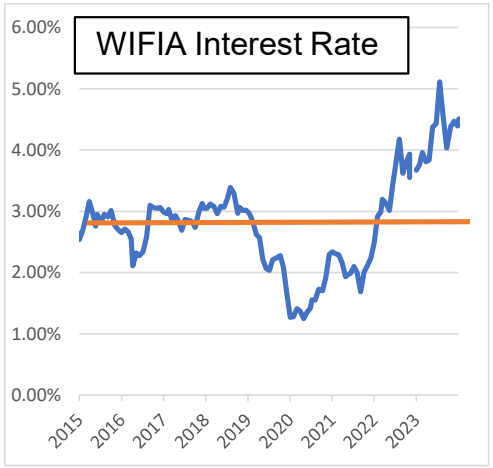
- WRDA is annually appropriated to qualified projects by USACE
- No borrowing costs, repayment, or interest charges (grant funding)
- Grant size ranges from ~$5M to $300M+, average grant ~$25M

- Imported Water Pipeline Project would likely be eligible for the Environmental Infrastructure (EI) Assistance program under WRDA

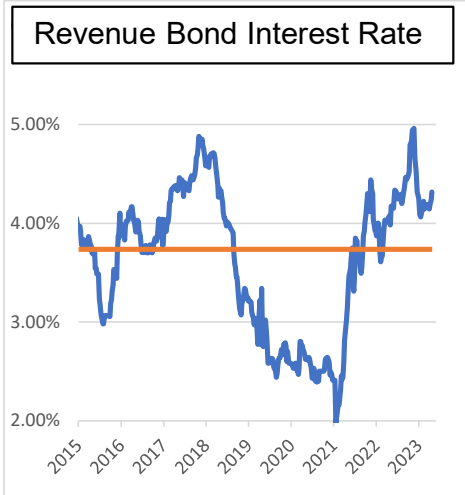
IWVGA Borrowing Cost / Borrowing

- The proposed WIFIA Loan and Revenue Bond issuance will require principal repayment with interest charges
  - WIFIA interest rate = 30-year US Treasury rate (as long as borrower has an investment grade credit rating; 'BBB-' or better)
  - Revenue Bond interest rate can be estimated using Revenue Bond Index (RBI) published by The Bond Buyer
- The RBI estimates the interest rate for revenue bonds issued by a 'AA'-rated entity
  - The rate can be adjusted using a premium to reflect the collective credit rating of IWVGA (all members)
  - We added a 0.50% premium to the RBI to estimate the interest rate of revenue bonds issued by IWVGA
- Both WIFIA and Revenue Bond rates for this analysis are estimated as the average of the current market rate and the 10-year historical average rate

IWVGA Member	Credit Rating
Indian Wells Valley WD	**A+** (Fitch)
County of Kern	**A1** (Moody's)
County of Inyo	No current rating
County of San Bernadino	**Aa1** (Moody's)
City of Ridgecrest	No current rating



Estimated WIFIA Interest Rate		
	Rate	*Weighting*
Most Recent Rate	4.51%	50%
10-Year Historical Average	2.83%	50%
Weighted Average	3.67%	
Variance	-0.84%	



Estimated IWVGA Bond Interest Rate		
	Rate	*Weighting*
Indicative Current Market Pricing	4.50%	50%
10-Year Historical Average RBI	3.74%	50%
Weighted Average	4.12%	
Premium to reflect "BBB" Rating	*+0.50%*	
Adjusted Interest Rate	4.62%	
Variance	-0.38%	

Water Volumes

- The Imported Water Pipeline Project contemplates an acquisition of Table A SWP water from SWP contractors
- Table A SWP water deliveries are subject to a reduced allocation by DWR depending on annual hydrological conditions
- Therefore, the actual SWP water yield to IWVGA per AF acquired is subject to varying reliability

- <u>Historical delivery reliability average:</u>
  - 1997-2024 = 58.9%
  - 2008-2024 = 44.4%
- <u>Future delivery reliability estimates</u>:
  - 2025-2035 = 60.0% (each year)

Year	% Allocation	Year	% Allocation
1997	100%	**2011**	80%
1998	100%	**2012**	65%
1999	100%	**2013**	35%
2000	90%	**2014**	5%
2001	39%	**2015**	20%
2002	70%	**2016**	60%
2003	90%	**2017**	85%
2004	65%	**2018**	35%
2005	90%	**2019**	75%
2006	100%	**2020**	20%
2007	60%	**2021**	5%
2008	35%	**2022**	5%
2009	40%	**2023**	100%
2010	50%	**2024**	30%

**Historical Table A Water Allocations from DWR*

Groundwater Production Estimate

Water Use Sector (DWR)	Water User	No Action Baseline WY 2023 note	No Action Baseline WY 2023 (AFY)	Reported Groundwater Pumping WY 2023 note	Reported Groundwater Pumping WY 2023 (AFY)	Estimated Groundwater Pumping WY 2023 note	Estimated Groundwater Pumping WY 2023 (AFY)
Urban	IWVWD	2	6,628	1	4,266	3	5,443
Urban	City/County	2	425	1	35	3	173
Industrial	Searles Valley Minerals	2	2,907	1	2,514	3	2,575
Other - Federal	U.S. Navy	2	2,041	4	1,377	4	1,377
Agriculture	Meadowbrook Farms	2	12,303	1	3,642	1	3,642
Agriculture	Mojave Pistachio	2	6,891	1	3,523	1	3,523
Agriculture	Simmons Farm	2	931	1	0	1	0
Agriculture	Sierra Shadows	2	765	1	114	3	244
Agriculture	Quist Farms	2	685	1	272	3	489
Agriculture	Other Small Ag	2	957	1	151	3	211
Other - Co-Ops/Mutuals/Community Services District	Other - Co-Ops/Mutuals/Community Services District	2	544	1	150	3	634
Other - Domestic	Domestic	2	832		0	2	832
			35,909				19,141

Notes:

1 Production reported to IWVGA for volumetric production fees and/or transient pool records. (Not all required pumpers report production.)

2 Estimated from GSP 'No Action' Baseline analysis.

3 Missing data estimated from best available data sources.

4 Data provided by Navy to the IWVGA via letter on November 7, 2023.

Source: Attachment G, WY 2023 Draft Annual Report, GA

AVEK Charges

- The Imported Water Pipeline will convey treated water from AVEK pipeline in California City to a new Terminus Tank in the vicinity of Ridgecrest. AVEK charges refer to the annual charges payable to AVEK for SWP water treated and transported by AVEK to that point in California City
- The charges to be paid to AVEK have been taken from their published schedule
- Additional Charges amounting to 3% of the above charges have been added to account for Supplementary Infrastructure

Water Delivery Rates & Charges

FY 2024

Antelope Valley - East Kern Water Agency

Effective July 1, 2023

Municipal & Industrial Water Delivered to Customer Under Terms of Water Service Agreement

Treated Water Delivery Rate $/Acre-Ft	Untreated Water Delivery Rate $/Acre-Ft
752.00	518.00

Agricultural Water Delivered to Customer Under Terms of Water Service Agreement from California Aqueduct through Customer-Owned Facilities

Untreated Water Delivery Rate $/Acre-Ft
501.00

Agricultural Water Delivered to Customer Under Terms of Water Service Agreement from Agency-Owned Facilities

Treated Water Delivery Rate $/Acre-Ft	Untreated Water Delivery Rate $/Acre-Ft
727.00	507.00

Treatment & Delivery of Mojave Water Agency (MWA) Allocation

Treated Water Delivery Rate $/Acre-Ft
1,822.00

Municipal & Industrial Water Delivered to Acton Service Area

Treated Water Delivery Rate $/Acre-Ft
805.00

SWP Charges related to AVEK

- The SWP Charges allocated to AVEK have been taken from TABLE B-24, SWP Bulletin 132-23, Appendix B

- The key components of the SWP Unit Charge are Transportation Charge, Delta Water Charge and Water System Revenue Bond Surcharge

- For cost modelling purpose, all the charges mentioned are assumed to be variable and are charged according to the volume of water deliveries

Note: It remains to be confirmed if these charges are in addition to the AVEK charges mentioned in the previous slide or these charges are included in the AVEK charges

TABLE B-24 FZ Equivalent Unit Charge for Water Supply for Each Contractor[1]—FREEZE (in dollars per acre-foot)

Project Service Area and SWP Water Contractor	Transportation Charge					Delta Water Charge	Water System Revenue Bond Surcharge	Total Equivalent Unit Charge
	Capital Cost Component	Minimum OMP&R Component	Off-Aqueduct Component	Variable OMP&R Component	Total			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
FEATHER RIVER AREA								
Yuba City	0.00	0.00	0.00	0.00	0.00	164.81	16.17	180.98
Butte	0.00	0.00	0.00	0.00	0.00	336.32	30.21	366.52
Plumas	40.82	8.34	0.00	0.00	49.16	70.95	9.86	129.96
Feather River Area	8.97	1.83	0.00	0.00	10.81	203.84	19.66	234.31
NORTH BAY AREA								
Napa	183.55	96.90	4.95	15.98	301.38	42.40	16.27	360.05
Solano	98.33	66.71	4.84	10.77	180.66	43.69	11.74	236.09
North Bay Area	127.92	77.20	4.88	12.58	222.58	43.24	13.31	279.13
SOUTH BAY AREA								
Alameda-Zone 7	141.94	69.73	9.12	22.18	242.98	43.64	8.86	295.48
Alameda County	31.15	36.26	7.38	14.13	88.91	30.19	4.71	123.82
Santa Clara	25.13	25.91	6.49	11.67	69.20	19.63	3.19	92.02
South Bay Area	45.18	34.75	7.06	13.79	100.79	25.27	4.36	130.42
SAN JOAQUIN VALLEY AREA								
Kings	6.72	10.20	3.89	8.64	29.45	36.31	3.80	69.56
Dudley Ridge	5.64	5.96	3.34	5.02	19.96	20.25	2.09	42.29
Empire	2.49	5.79	2.57	4.71	15.55	23.35	1.77	40.67
Kern	10.16	11.89	5.01	7.28	34.36	24.98	2.73	62.07
Oak Flat	2.37	3.20	2.05	3.29	10.91	21.76	1.78	34.45
Tulare	5.94	6.29	3.29	4.81	20.34	21.46	2.21	44.01
San Joaquin Valley Area	9.42	10.95	4.74	6.89	32.00	24.40	2.64	59.04
CENTRAL COASTAL AREA								
San Luis Obispo	570.75	389.59	17.05	109.54	1,086.94	249.85	60.65	1,397.44
Santa Barbara	1,242.93	336.45	20.50	95.10	1,694.99	100.32	75.27	1,870.58
Central Coastal Area	1,122.72	345.95	19.89	97.68	1,586.24	127.07	72.66	1,785.96
SOUTHERN CALIFORNIA AREA								
AVEK	61.18	62.60	34.17	66.44	224.40	55.14	9.66	289.20
Coachella	87.11	107.63	44.32	83.27	322.33	51.00	10.84	384.18
Crestline	178.83	174.37	37.88	78.68	469.76	85.72	21.27	576.75
Desert	55.83	60.68	53.79	44.91	215.21	32.46	7.13	254.80
Littlerock	109.48	111.07	33.14	64.41	318.11	96.13	16.64	430.88
Mojave	210.84	243.23	35.36	146.92	636.35	156.97	35.20	828.52
Palmdale	66.14	71.47	42.50	104.03	284.13	67.13	10.71	361.97
San Bernardino	347.35	243.81	31.58	86.57	709.30	93.24	24.61	827.15
San Gabriel	129.15	129.18	49.26	50.72	358.31	59.03	14.89	432.23
San Gorgonio	1,697.34	704.23	33.34	254.11	2,689.02	143.39	37.80	2,870.21
Santa Clarita	62.63	66.95	25.44	48.56	203.58	46.20	11.96	261.73
Metropolitan	94.04	82.64	40.02	46.58	263.29	48.08	11.35	322.73
Ventura	329.57	292.62	24.05	148.96	795.22	185.74	43.92	1,024.88
Southern California Area	100.57	88.43	39.59	51.46	280.06	50.72	11.83	342.60
ALL AREAS	58.85	49.56	20.57	27.79	156.77	37.03	7.30	201.10

[1] Hypothetical charges, which, if assessed on all Table A water delivered to date, all surplus water delivered prior to May 1, 1973, and all Table A water estimated to be delivered during the remainder of the project repayment period (Table B-5B), would provide a sum at the end of the period financially equivalent to all Transportation Charge and Delta Water Charge payments required under a water supply contract, considering interest at the Project Interest Rate, 4.580 percent per annum.

Section 5 Proforma Model

Indian Wells Valley Water District

Celebrating more than 60 years of service to our customers and the community

Imported Water Pipeline Project

Water Unit Cost Assessment

DISCLAIMER REGARDING FORWARD-LOOKING STATEMENTS

THIS PROFORMA FINANCIAL MODEL MAY CONTAIN "FORWARD-LOOKING STATEMENTS." ANY SUCH STATEMENTS ARE NOT GUARANTEES OF FUTURE PERFORMANCE AND UNDUE RELIANCE SHOULD NOT BE PLACED ON THEM. ANY SUCH FORWARD-LOOKING STATEMENTS NECESSARILY INVOLVE KNOWN AND UNKNOWN RISKS AND UNCERTAINTIES, WHICH MAY CAUSE ACTUAL PERFORMANCE AND FINANCIAL RESULTS IN FUTURE PERIODS TO DIFFER MATERIALLY FROM PROJECTIONS. THERE CAN BE NO ASSURANCE THAT FORWARD-LOOKING STATEMENTS WILL PROVE TO BE ACCURATE, AS ACTUAL RESULTS AND FUTURE EVENTS COULD DIFFER MATERIALLY FROM THOSE ANTICIPATED IN SUCH STATEMENTS.

Draft

June 10, 2024

Prepared by:

CleanEnergyCapital

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Inputs

A. Project Timeframe, Escalation Rates, Discount Rates

	Value	Unit	Source of Data
Timing Inputs			
Commencement of Construction (Year)	2027		CEC Preliminary Estimate
Construction Duration	3	Years	CEC Preliminary Estimate
Commencement of Operations (Year)	2030		CEC Preliminary Estimate
Base Year for Cost Inputs	2023		Preliminary Design Report
Rate Inputs			
Construction Cost Escalation Rate	4.0%		CEC Preliminary Estimate
Electricity Price	0.17	$/kWh	Indian Wells
Base Year for Electricity Cost Inputs	2024		CEC Preliminary Estimate
Electricity Price Escalation Rate	4.0%		CEC Preliminary Estimate
Non-Electricity O&M Escalation Rate	4.0%		CEC Preliminary Estimate
Present Value Discount Rate	4.5%		CEC Preliminary Estimate

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Inputs

B. Infrastructure Cost Heads

1. Imported Water Pipeline

	Value	Unit	Source of Data
Development Cost			
Planning/Design Cost	12.5%	of Construction Cost	Indian Wells
	19,854	2023 $000s	Indian Wells
Construction Management & Inspection	12.5%	of Construction Cost	Indian Wells
	19,854	2023 $000s	Indian Wells
Total Development Cost	39,708		
Construction Cost			
Conveyance/Treatment	158,830	2023 $000s	Preliminary Design Report
SCE Service Procurement	10,000	2023 $000s	Preliminary Design Report
Contingency	31,706	2023 $000s	Preliminary Design Report
	200,536		
Land Mitigation	180	2023 $000s	Indian Wells
Construction Water/Water Trucks	6,000	2023 $000s	Indian Wells
District System Upgrades	0	2023 $000s	Indian Wells
Contingency (20% of the above costs)	1,236	2023 $000s	Indian Wells
Total Construction Cost	207,952		
Total Capital Cost	247,660	2023 $000s	Calculated

2. Upstream Conveyance

	Value	Unit	Source of Data
Development Cost			
Planning/Design Cost	3,000	2023 $000s	Placeholder
Construction Management & Inspection	3,000	2023 $000s	Placeholder
Total Development Cost	6,000		
Construction Cost			
Pipeline	27,000	2023 $000s	Placeholder
Other Components	2000	2023 $000s	Placeholder
Total Construction Cost	29,000		
Total Capital Cost	35,000	2023 $000s	Calculated

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Inputs

3. Downstream Infrastructure

	Value	Unit	Source of Data
a) Retail Distribution			
Development Cost			
Planning/Design Cost	1,500	2023 $000s	Placeholder
Construction Management & Inspection	1,500	2023 $000s	Placeholder
Total Development Cost	3,000		
Construction Cost			
Conveyance/Treatment	10,000	2023 $000s	Placeholder
Others	2000	2023 $000s	Placeholder
Total Construction Cost	12,000		
Total Capital Cost	15,000	2023 $000s	Calculated
b) Reinjection			
Development Cost			
Planning/Design Cost	3,000	2023 $000s	Placeholder
Construction Management & Inspection	2,000	2023 $000s	Placeholder
Total Development Cost	5,000		
Construction Cost			
Pipeline	8,000	2023 $000s	Placeholder
Others	12,000	2023 $000s	Placeholder
Total Construction Cost	20,000		
Total Capital Cost	25,000	2023 $000s	Calculated

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Inputs

C. Acquisition of Table A Water Rights

	Value	Unit	Source of Data
1. Table A Water Rights			
Yield from SWP	60%		CEC Prelim Estimate
Upfront Payment for Water Acquisition	10,000	2023 $/AF	Indian Wells
Delivery volumes (AFY)	Water Rights		
1,500	2,500	AFY	
3,000	5,000	AFY	
6,431	10,718	AFY	

D. Financing Assumptions

	Value	Unit	Source of Data
WRDA Grant Limit - Base Case	150,000	$000s	Indian Wells
Tranche 1 - WIFIA Loan			
Percent of Overall Capitalization	49.0%		CEC Preliminary Estimate
Amortization Period	30	years	CEC Preliminary Estimate
Interest Rate	4.00%		CEC Preliminary Estimate
Months of Capitalized Interest	18		CEC Preliminary Estimate
Costs of Issuance	3.0%		CEC Preliminary Estimate
DSRF Requirement	1.0	years	CEC Preliminary Estimate
Tranche 2 - Senior Debt			
Percent of Overall Capitalization	51.0%		CEC Preliminary Estimate
Amortization Period (Years)	30	years	CEC Preliminary Estimate
Interest Rate	5.00%		CEC Preliminary Estimate
Months of Capitalized Interest	36		CEC Preliminary Estimate
Costs of Issuance	3.0%		CEC Preliminary Estimate
DSRF Requirement (years)	1.0	years	CEC Preliminary Estimate

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Inputs

E. Operations & Maintenance Costs

1. Imported Water Pipeline

	Value	Unit	Source of Data
Power Consumption	1,826	kWh/AF	Preliminary Design Report
Repair and Maintenance			
Capital Cost of the Project	247,660	2023 $000s	Calculated above
Repair and Maintenance	1.50%	of Capital Cost	CEC Preliminary Estimate
Administration and Operations Staff			
Full Time Equivalents	6		CEC Preliminary Estimate
Annual Compensation	200,000	2023 $s	CEC Preliminary Estimate
Contingency and Miscellaneous	1,500	2023 $000s	Placeholder - 1st year of operations

2. Upstream Conveyance

	Value	Unit	Source of Data
Power Cost for various Water Deliveries			
1,500 AFY	0	$000s	Not Applicable
3,000 AFY	0	$000s	Not Applicable
6,431 AFY	1,000	$000s	Placeholder - 1st year of operations
Repair and Maintenance			
Capital Cost	35,000	2023 $000s	Calculated
Repair and Maintenance	1.50%	of Capital Cost	CEC Preliminary Estimate
Administration and Operations Staff			
Full Time Equivalents	2		CEC Preliminary Estimate
Annual Compensation	200,000	2023 $s	CEC Preliminary Estimate
Contingency and Miscellaneous	1,000	2023 $000s	Placeholder - 1st year of operations

Imported Water Pipeline Project
Water Unit Cost Assessment
Modeling Inputs

3. Downstream Infrastructure

	Value	Unit	Source of Data
a) Retail			
Power Cost for various Water Deliveries			
1,500 AFY	0	$000s	Indian Wells
3,000 AFY	0	$000s	Indian Wells
6,431 AFY	0	$000s	Indian Wells
Repair and Maintenance			
Capital Cost of the Project	15,000	2023 $000s	Calculated
Repair and Maintenance	1.50%	of Capital Cost	CEC Preliminary Estimate
Administration and Operations Staff			
Full Time Equivalents	1		Indian Wells
Annual Compensation	200,000	2023 $s	Indian Wells
Contingency and Miscellaneous	100	2023 $000s	Indian Wells
b) Reinjection			
Power Costs	0	$000s	Placeholder
Repair and Maintenance			
Capital Cost of the Project	25,000	2023 $000s	Calculated above
Repair and Maintenance	1.50%	of Capital Cost	CEC Preliminary Estimate
Administration and Operations Staff			
Full Time Equivalents	1		CEC Preliminary Estimate
Annual Compensation	200,000	2023 $s	CEC Preliminary Estimate
Contingency and Miscellaneous	1,500	2023 $000s	Placeholder

Imported Water Pipeline Project
Water Unit Cost Assessment
Modeling Inputs

4. SWP Charges

	Value	Unit	Source of Data
Fixed Charges			
Total Fixed Charges	0		CEC Preliminary Estimate
Variable Charges			
Transportation Charge - Capital Component	61	2023 $/AF	TABLE B-24, SWP Bulletin 132-23
Transportation Charge - Minimum OMP&R Component	63	2023 $/AF	TABLE B-24, SWP Bulletin 132-23
Transportation Charge - Off-Aqueduct Component	34	2023 $/AF	TABLE B-24, SWP Bulletin 132-23
Delta Water Charge	55	2023 $/AF	TABLE B-24, SWP Bulletin 132-23
Water System Revenue Bond Surcharge	10	2023 $/AF	TABLE B-24, SWP Bulletin 132-23
Transportation Charge - Variable OMP&R Component	66	2023 $/AF	TABLE B-24, SWP Bulletin 132-23
	0	*Assumed to be included in the AVEK charges*	

5. AVEK Charges

	Value	Unit	Source of Data
Treated Water Delivery Rate	752	2023 $/AF	AVEK published Water Delivery Rates & Cha
Additional Charges for Supplementary Infrastructure	3%	of above	Indian Wells
	23	2023 $/AF	
Additional Charges - Miscellaneous	325	2023 $/AF	Indian Wells
	1,100		
Fixed Charges	0	2023 $/AF	Placeholder
Variable Charges	1,100	2023 $/AF	

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Inputs

F. Cost Allocation

	Value	*Unit*	*Source of Data*
Indian Wells's Direct Beneficial Use of the Project			
Retail Distribution	100%		CEC Prelim Estimate
Reinjection	20%		Placeholder

G. Scenarios

Variable 1: Water Volume	Acquired	Yield	Unit
Scenario 1	2,500	1,500	AFY
Scenario 2	5,000	3,000	AFY
Scenario 3	10,718	6,431	AFY

Variable 2: WRDA Grant	Funding Received	
No Grant	0	$000s
Partial (75:25 share of the Pipeline's Construction Cost)	150,000	$000s
Full (100:0 share of the Pipeline's Escalated Capital Cost)	307,000	$000s

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Outputs

A. Capital Budget (2024 $000s)

Case 1 - Low Water Volume		Case 2 - Mid Water Volume		Case 3 - High Water Volume	
Escalation Factor from Base Year	1.040	Escalation Factor from Base Year	1.040	Escalation Factor from Base Year	1.040
Escalated Costs as of:	2024	Escalated Costs as of:	2024	Escalated Costs as of:	2024
B1. Imported Water Pipeline		**B1. Imported Water Pipeline**		**B1. Imported Water Pipeline**	
Development Cost	41,296	Development Cost	41,296	Development Cost	41,296
Construction Cost	216,270	Construction Cost	216,270	Construction Cost	216,270
Total	257,566	Total	257,566	Total	257,566
B2. Upstream Conveyance		**B2. Upstream Conveyance**		**B2. Upstream Conveyance**	
Development Cost		Development Cost		Development Cost	6,240
Construction Cost		Construction Cost		Construction Cost	30,160
Total		Total		Total	36,400
B3. Downstream Infrastructure		**B3. Downstream Infrastructure**		**B3. Downstream Infrastructure**	
Development Cost	3,120	Development Cost	3,120	Development Cost	3,120
Construction Cost	12,480	Construction Cost	12,480	Construction Cost	12,480
Total	15,600	Total	15,600	Total	15,600
C1. Acquisition of Table A Water Rights		**C1. Acquisition of Table A Water Rights**		**C1. Acquisition of Table A Water Rights**	
Development Cost	26,000	Development Cost	52,000	Development Cost	111,471
Construction Cost	0	Construction Cost	0	Construction Cost	0
Total	26,000	Total	52,000	Total	111,471
Total Development and Construction Costs		**Total Development and Construction Costs**		**Total Development and Construction Costs**	
Development Cost	70,416	Development Cost	96,416	Development Cost	162,126
Construction Cost	228,750	Construction Cost	228,750	Construction Cost	258,910
Total	299,166	Total	325,166	Total	421,037

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Outputs

Case 1 - Low Water Volume	
Financial Closing (Year)	2027
Sources of Funds	
WIFIA Loan	
Initial WIFIA Loan	186,109
Additional WIFIA Loan for IDC	11,167
Total	197,276
Senior Debt	43,706
WRDA Grant	150,000
Total Sources of Funds	390,982
Uses of Funds	
Development and Construction	
Development Cost	79,208
Construction Cost	272,905
Total	352,113
Capitalized Interest During Construction (IDC)	
WIFIA Loan Interest	11,167
Senior Debt Interest	6,556
Total	17,722
Debt Service Reserve Fund	
WIFIA Loan DSRF	11,408
Senior Debt DSRF	2,843
Total	14,252
Costs of Issuance	6,894
Total Uses of Funds	390,982

Case 2 - Mid Water Volume	
Financial Closing (Year)	2027
Sources of Funds	
WIFIA Loan	
Initial WIFIA Loan	203,369
Additional WIFIA Loan for IDC	12,202
Total	215,572
Senior Debt	61,670
WRDA Grant	150,000
Total Sources of Funds	427,242
Uses of Funds	
Development and Construction	
Development Cost	108,455
Construction Cost	272,905
Total	381,360
Capitalized Interest During Construction (IDC)	
WIFIA Loan Interest	12,202
Senior Debt Interest	9,251
Total	21,453
Debt Service Reserve Fund	
WIFIA Loan DSRF	12,467
Senior Debt DSRF	4,012
Total	16,478
Costs of Issuance	7,951
Total Uses of Funds	427,242

Case 3 - High Water Volume	
Financial Closing (Year)	2027
Sources of Funds	
WIFIA Loan	
Initial WIFIA Loan	268,226
Additional WIFIA Loan for IDC	16,094
Total	284,320
Senior Debt	129,174
WRDA Grant	150,000
Total Sources of Funds	563,494
Uses of Funds	
Development and Construction	
Development Cost	182,370
Construction Cost	308,887
Total	491,257
Capitalized Interest During Construction (IDC)	
WIFIA Loan Interest	16,094
Senior Debt Interest	19,376
Total	35,470
Debt Service Reserve Fund	
WIFIA Loan DSRF	16,442
Senior Debt DSRF	8,403
Total	24,845
Costs of Issuance	11,922
Total Uses of Funds	563,494

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Outputs

C. Annual O&M Budget in First Year of Operations ($000s, nominal)

Case 1 - Low Water Volume		Case 2 - Mid Water Volume		Case 3 - High Water Volume	
Operating Year	2030	Operating Year	2030	Operating Year	2030
Water Deliveries (AFY)	1,500	Water Deliveries (AFY)	3,000	Water Deliveries (AFY)	6,431
Annual Operating Budget (nominal $000s)		Annual Operating Budget (nominal $000s)		Annual Operating Budget (nominal $000s)	
E1. Imported Water Pipeline		**E1. Imported Water Pipeline**		**E1. Imported Water Pipeline**	
Electricity Consumption (KwH/annum)	2,738,801	Electricity Consumption (KwH/annum)	5,477,602	Electricity Consumption (KwH/annum)	11,742,153
Escalated Electricity Price ($/kWH)	0.22	Escalated Electricity Price ($/kWH)	0.22	Escalated Electricity Price ($/kWH)	0.22
Electricity Cost ($000s)	589	Electricity Cost ($000s)	1,178	Electricity Cost ($000s)	2,526
Repair and Maintenance ($000s)	3,715	Repair and Maintenance ($000s)	3,715	Repair and Maintenance ($000s)	3,715
Administration and Operations Staff ($000s)	1,579	Administration and Operations Staff ($000s)	1,579	Administration and Operations Staff ($000s)	1,579
Contingency and Miscellaneous ($000s)	1,500	Contingency and Miscellaneous ($000s)	1,500	Contingency and Miscellaneous ($000s)	1,500
Total ($000s)	7,383	Total ($000s)	7,972	Total ($000s)	9,320
E2. Upstream Conveyance		**E2. Upstream Conveyance**		**E2. Upstream Conveyance**	
Electricity Cost ($000s)		Electricity Cost ($000s)		Electricity Cost ($000s)	1,000
Repair and Maintenance ($000s)		Repair and Maintenance ($000s)		Repair and Maintenance ($000s)	525
Administration and Operations Staff ($000s)		Administration and Operations Staff ($000s)		Administration and Operations Staff ($000s)	526
Contingency and Miscellaneous ($000s)		Contingency and Miscellaneous ($000s)		Contingency and Miscellaneous ($000s)	1,000
Total ($000s)		Total ($000s)		Total ($000s)	3,051
E3. Downstream Infrastructure		**E3. Downstream Infrastructure**		**E3. Downstream Infrastructure**	
Electricity Cost ($000s)	0	Electricity Cost ($000s)	0	Electricity Cost ($000s)	0
Repair and Maintenance ($000s)	225	Repair and Maintenance ($000s)	225	Repair and Maintenance ($000s)	225
Administration and Operations Staff ($000s)	263	Administration and Operations Staff ($000s)	263	Administration and Operations Staff ($000s)	263
Contingency and Miscellaneous ($000s)	100	Contingency and Miscellaneous ($000s)	100	Contingency and Miscellaneous ($000s)	100
Total ($000s)	588	Total ($000s)	588	Total ($000s)	588
E4. SWP Charges		**E4. SWP Charges**		**E4. SWP Charges**	
Fixed Charges ($000s)	0	Fixed Charges ($000s)	0	Fixed Charges ($000s)	0
Variable Charges ($000s)	0	Variable Charges ($000s)	0	Variable Charges ($000s)	0
Total ($000s)	0	Total ($000s)	0	Total ($000s)	0
E5. AVEK Charges		**E5. AVEK Charges**		**E5. AVEK Charges**	
Fixed ($000s)	0	Fixed ($000s)	0	Fixed ($000s)	0
Variable ($000s)	2,170	Variable ($000s)	4,341	Variable ($000s)	9,305
Total ($000s)	2,170	Total ($000s)	4,341	Total ($000s)	9,305
Total Annual Operating Budget ($000s)	**10,142**	**Total Annual Operating Budget ($000s)**	**12,901**	**Total Annual Operating Budget ($000s)**	**22,265**

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Outputs

D. Annual Cost in First Year of Operations ($000s)

Case 1 - Low Water Volume		Case 2 - Mid Water Volume		Case 3 - High Water Volume	
First Operating Year	2030	First Operating Year	2030	First Operating Year	2030
Full Grant - $307mm		**Full Grant - $307mm**		**Full Grant - $307mm**	
Water Deliveries (AFY)	1,500	Water Deliveries (AFY)	3,000	Water Deliveries (AFY)	6,431
Nominal Cost		Nominal Cost		Nominal Cost	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	10,142	O&M	12,901	O&M	22,265
Debt Service	3,043	Debt Service	5,016	Debt Service	12,430
Total ($000s)	13,185	Total ($000s)	17,918	Total ($000s)	34,694
Unit Cost (Nominal $/AF)	8,790	Unit Cost (Nominal $/AF)	5,973	Unit Cost (Nominal $/AF)	5,395
Present Value Cost (2024)		Present Value Cost (2024)		Present Value Cost (2024)	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	7,788	O&M	9,907	O&M	17,097
Debt Service	2,337	Debt Service	3,852	Debt Service	9,545
Total ($000s)	10,125	Total ($000s)	13,759	Total ($000s)	26,642
Unit Cost (PV $/AF)	**6,750**	**Unit Cost (PV $/AF)**	**4,586**	**Unit Cost (PV $/AF)**	**4,143**
Base Case Grant - $150mm		**Base Case Grant - $150mm**		**Base Case Grant - $150mm**	
Water Deliveries (AFY)	1,500	Water Deliveries (AFY)	3,000	Water Deliveries (AFY)	6,431
Nominal Cost		Nominal Cost		Nominal Cost	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	10,142	O&M	12,901	O&M	22,265
Debt Service	14,252	Debt Service	16,478	Debt Service	24,845
Total ($000s)	24,393	Total ($000s)	29,380	Total ($000s)	47,110
Unit Cost (Nominal $/AF)	16,262	Unit Cost (Nominal $/AF)	9,793	Unit Cost (Nominal $/AF)	7,325
Present Value Cost (2024)		Present Value Cost (2024)		Present Value Cost (2024)	
Annual Cost ($000s)		Annual Cost ($000s)		Annual Cost ($000s)	
O&M	7,788	O&M	9,907	O&M	17,097
Debt Service	10,944	Debt Service	12,654	Debt Service	19,079
Total ($000s)	18,732	Total ($000s)	22,560	Total ($000s)	36,175
Unit Cost (PV $/AF)	**12,488**	**Unit Cost (PV $/AF)**	**7,520**	**Unit Cost (PV $/AF)**	**5,625**

Imported Water Pipeline Project

Water Unit Cost Assessment

Modeling Outputs

No Grant	
Water Deliveries (AFY)	1,500
Nominal Cost	
Annual Cost ($000s)	
O&M	10,142
Debt Service	26,808
Total ($000s)	36,950
Unit Cost (Nominal $/AF)	24,633
Present Value Cost (2024)	
Annual Cost ($000s)	
O&M	7,788
Debt Service	20,586
Total ($000s)	28,373
Unit Cost (PV $/AF)	**18,916**

No Grant	
Water Deliveries (AFY)	3,000
Nominal Cost	
Annual Cost ($000s)	
O&M	12,901
Debt Service	29,034
Total ($000s)	41,936
Unit Cost (Nominal $/AF)	13,979
Present Value Cost (2024)	
Annual Cost ($000s)	
O&M	9,907
Debt Service	22,295
Total ($000s)	32,202
Unit Cost (PV $/AF)	**10,734**

No Grant	
Water Deliveries (AFY)	6,431
Nominal Cost	
Annual Cost ($000s)	
O&M	22,265
Debt Service	37,401
Total ($000s)	59,666
Unit Cost (Nominal $/AF)	9,278
Present Value Cost (2024)	
Annual Cost ($000s)	
O&M	17,097
Debt Service	28,720
Total ($000s)	45,817
Unit Cost (PV $/AF)	**7,124**