



SOLAR PROCUREMENT UPDATE

Prepared by:
ARC Alternatives
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Prepared for:
Cameron Park Community Services District



Background

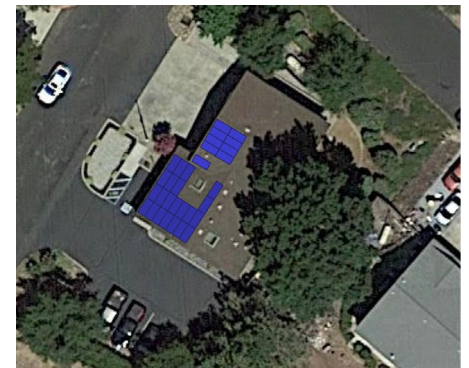
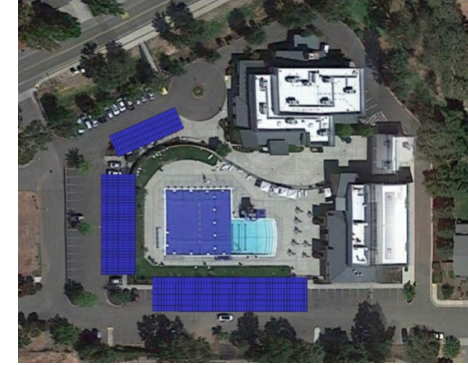
- Cameron Park Community Services District released a pricing solicitation on June 8, 2020 for solar projects at three District facilities.
- The pricing solicitation was sent to 40 potential solar vendors and the District received pricing proposals back from four vendors

This presentation includes the following:

- Summary of what was asked for in the pricing solicitation
- Overview of proposals received
- Overview of financial modeling results

What the District Asked For

- Cash purchase and Power Purchase Agreement (PPA) pricing for solar at the following locations:
 - Community Center
 - Fire Station 89
 - Fire Station 88
- Energy production targets specified, not system size
- Preferred system locations, consistent with Feasibility Study, identified in solicitation



Proposal Summary

- Proposals were received from four vendors (SunWorks, Cal Solar, SolarNorcal, Brighton Energy)
- SunWorks, Cal Solar, and Brighton Energy provided 25-year Power Purchase Agreements (PPAs) SolarNorcal provided a 10-year monthly lease payment structure with a cash purchase of the systems after 10 years
- Cash purchase pricing was provided for each site by all vendors, SunWorks did not provide PPA pricing for Fire Station 88 due to the small system size

	SunWorks	SolarNorcal	Cal Solar	Brighton Energy
System Type(s)	Carport, Roof	Carport, Roof	Carport, Roof	Carport, Roof
Racking	MBL Carport	I-Beam frames, 9' min clearance	SunPower/Solaire	Baja Carports
Panel Manufacturer	Waaree, REC	Hanwha	SunPower	Panasonic
Panel Size	380W, 295W	420W	470W	330W
Inverters	Solectria PVI 36TL, Fronius	SMA Core, SolarEdge, Solis	SMA Core, SolarEdge	Fronius
System Monitoring	Locus	Also Energy	Not identified	Fronius
Total Capacity (kW DC)	287	266	261	262.31
Est. First Year Production (kWh)	476,176	413,356	414,857	392,707
System Yield (kWh/kW)	1,659	1,553	1,589	1,497
Capital Cost	\$937,915	\$769,803	\$857,767	\$682,006
Cost Per Watt (\$/W)	\$3.26	\$2.89	\$3.28	\$2.60
O&M Cost – 5yr.	\$20,113	\$18,390	\$17,300	\$14,494
PPA Term	25 yrs	20 yrs	N/A	25 yrs
PPA Rate (\$/kWh)	\$0.1810	\$0.1980, \$0.2370, \$0.2640	N/A	\$0.2080, \$0.2100, \$0.24000
PPA Escalation Rate	0%	0%, optional 2%	N/A	0%, optional 1-2%

Financial Modeling Results – Solar Savings

Proposer	Proposed Solar Capacity (kW-DC)	First Year Values				Life Cycle Values			
		First Year Solar Production (kWh)	First Year Usage Offset	First Year Utility Savings <i>before costs</i> [1]	First Year Bill Offset Percent	Life Cycle Solar Production (kWh)	Life Cycle Usage Offset	Life Cycle Utility Savings <i>before Costs</i> [1]	Life Cycle Bill Offset Percent
SunWorks	287	476,176	102%	\$111,026	91%	11,216,782	96%	\$4,138,327	87%
Solar Norcal	266	413,356	88%	\$99,723	82%	9,736,988	83%	\$3,745,548	79%
Cal Solar	261	414,857	89%	\$100,255	82%	9,772,352	84%	\$3,765,095	79%
Brighton Energy	262	392,707	84%	\$96,176	79%	9,250,585	79%	\$3,604,540	76%

[1] Utility bill savings or revenue generated by the installed systems (either first year or life cycle) before considering project costs.

- SunWorks proposal has the highest production and revenue targeting nearly 100% offset for all three sites
- Brighton Energy's proposed systems represent the smallest production values and corresponding offsets

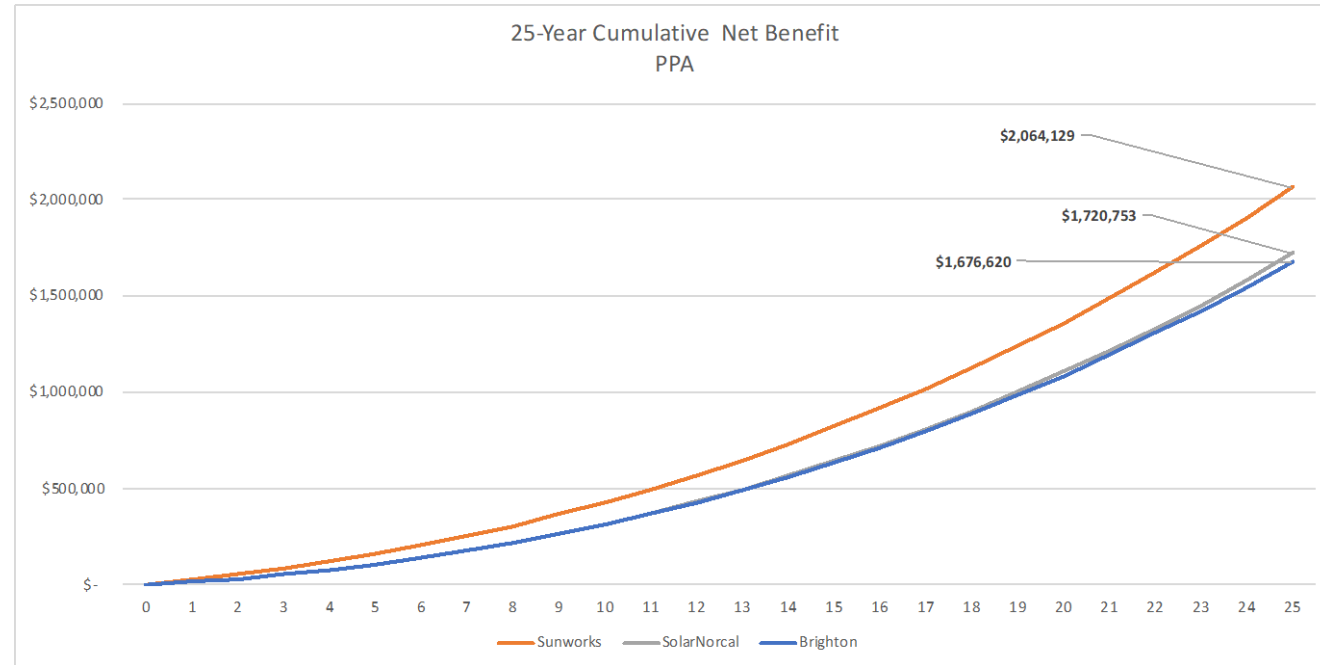
Financial Modeling Results – PPA

SunWorks	Proposed Solar Capacity (kW-DC)	PPA Rate (\$/kWh)	First Year Net Benefit	Life Cycle Net Benefit
Community Center	219	\$ 0.181	\$ 18,160	\$ 1,619,301
Fire Station 89	62	\$ 0.181	\$ 6,037	\$ 444,828
Fire Station 88	6	Did not propose	n/a	n/a
TOTAL	287		\$ 24,197	\$ 2,064,129

- Pricing for 25-year 0% escalation rate
- SunWorks proposes the lowest PPA rate in conjunction with the highest estimated production, resulting in the largest overall net benefit
- Cal Solar did not propose a PPA

SolarNorcal	Proposed Solar Capacity (kW-DC)	PPA Rate (\$/kWh)	First Year Net Benefit	Life Cycle Net Benefit
Community Center	205	\$ 0.198	\$ 13,303	\$ 1,397,867
Fire Station 89	50	\$ 0.237	\$ 576	\$ 272,704
Fire Station 88	10	\$ 0.264	\$ (112)	\$ 50,182
TOTAL	266		\$ 13,766	\$ 1,720,753

Brighton Energy	Proposed Solar Capacity (kW-DC)	PPA Rate (\$/kWh)	First Year Net Benefit	Life Cycle Net Benefit
Community Center	198	\$ 0.208	\$ 10,936	\$ 1,282,378
Fire Station 89	55	\$ 0.191	\$ 4,397	\$ 374,368
Fire Station 88	9	\$ 0.189	\$ 817	\$ 62,685
TOTAL	262		\$ 16,149	\$ 1,719,431



Cash Purchase Cost Overview – Financing Not Included

Brighton Energy	Proposed Solar Capacity (kW-DC)	Upfront System Cost	5-Year O&M Costs	Life Cycle O&M Costs
Community Center	198	\$ 514,800	\$ 10,941	\$ 54,704
Fire Station 89	55	\$ 144,040	\$ 3,061	\$ 15,306
Fire Station 88	9	\$ 23,166	\$ 492	\$ 2,462
TOTAL	262	\$ 682,006	\$ 14,494	\$ 72,471
	\$/W	\$ 2.60		

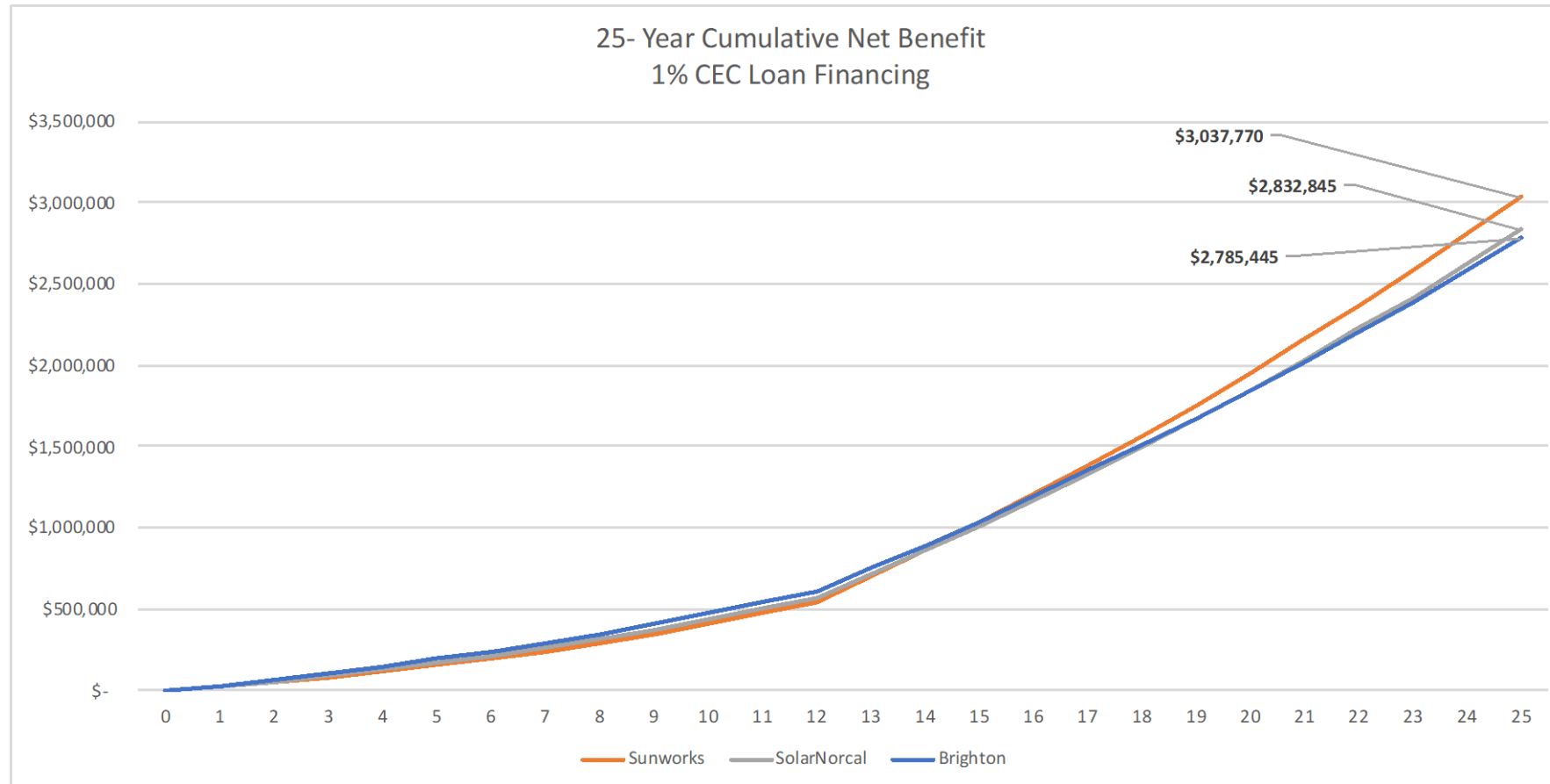
SolarNorcal	Proposed Solar Capacity (kW-DC)	Upfront System Cost	5-Year O&M Costs	Life Cycle O&M Costs
Community Center	205	\$ 574,601	\$ 14,365	\$ 71,825
Fire Station 89	50	\$ 161,169	\$ 4,025	\$ 20,125
Fire Station 88	10	\$ 34,033	\$ -	\$ -
TOTAL	266	\$ 769,803	\$ 18,390	\$ 91,950
	\$/W	\$ 2.90		

Cal Solar	Proposed Solar Capacity (kW-DC)	Upfront System Cost	5-Year O&M Costs	Life Cycle O&M Costs
Community Center	197	\$ 615,777	\$ 12,000	\$ 72,000
Fire Station 89	54	\$ 208,995	\$ 3,300	\$ 19,800
Fire Station 88	10	\$ 32,995	\$ 2,000	\$ 12,000
TOTAL	261	\$ 857,767	\$ 17,300	\$ 103,800
	\$/W	\$ 3.28		

SunWorks	Proposed Solar Capacity (kW-DC)	Upfront System Cost	5-Year O&M Costs	Life Cycle O&M Costs
Community Center	219	\$ 612,000	\$ 12,067	\$ 60,335
Fire Station 89	62	\$ 293,515	\$ 5,028	\$ 25,140
Fire Station 88	6	\$ 32,400	\$ 3,018	\$ 15,090
TOTAL	287	\$ 937,915	\$ 20,113	\$ 100,565
	\$/W	\$ 3.27		

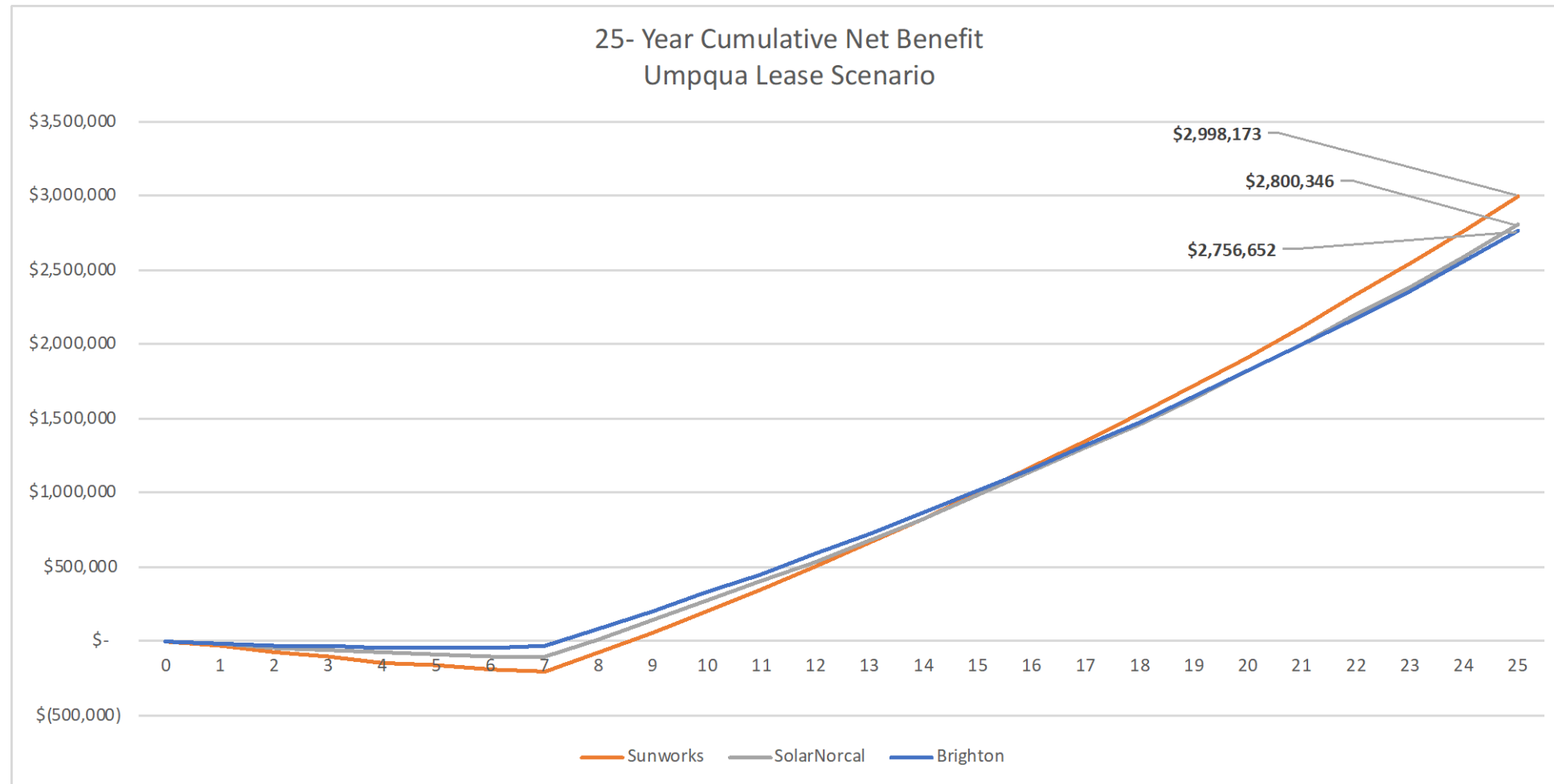
- Overview of cash purchase costs without financing
- Lowest cost cash purchase proposer is Brighton
- O&M costs inline across the board
- *Cal Solar not evaluated further due to system costs on a \$/W basis and lack of detail in their response*

Financial Modeling Results – CEC 1% Loan Scenario



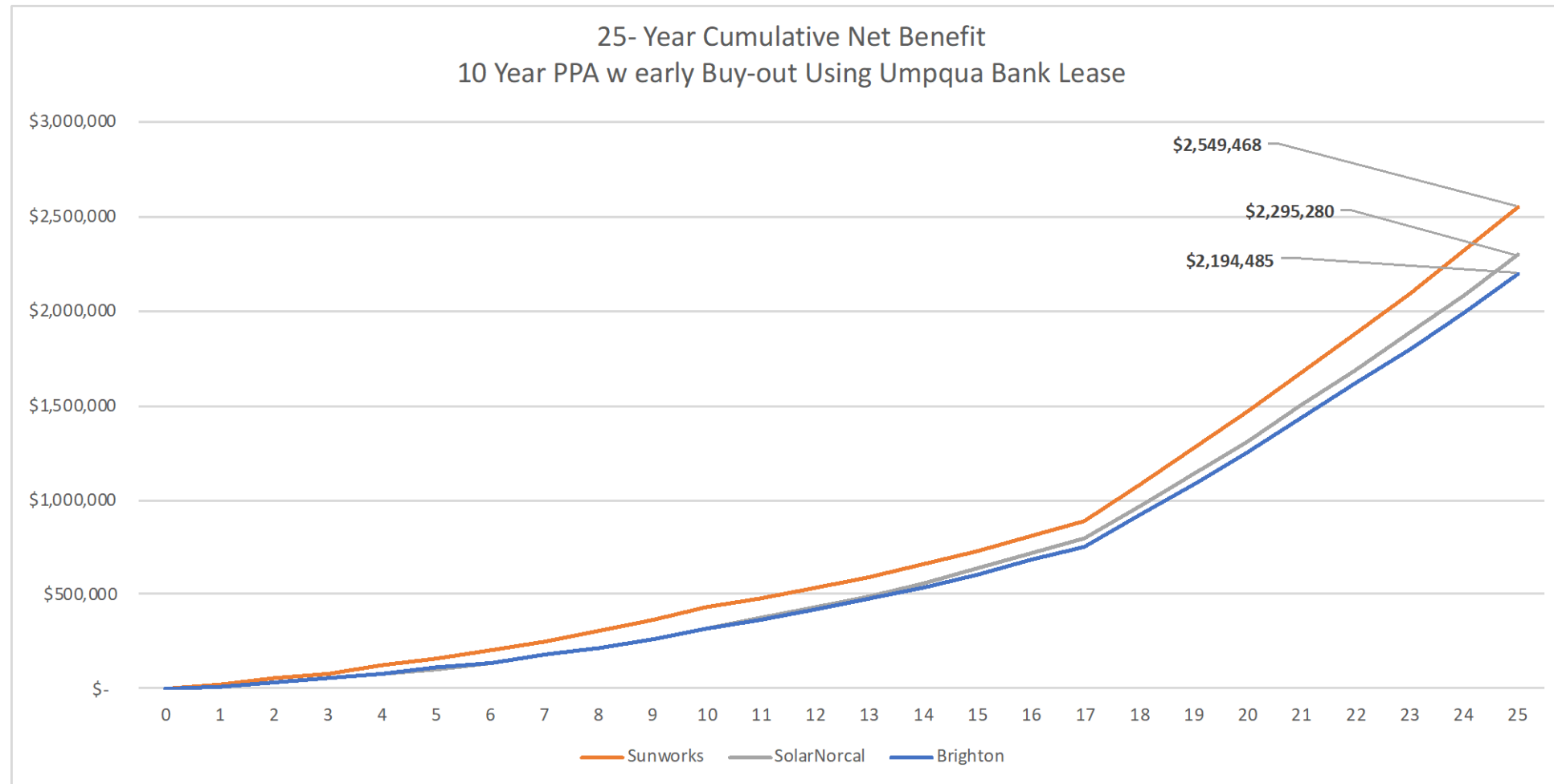
- Roughly \$13M in CEC funding still available, loan max is \$3M
- Competitive program based on first come first serve basis
- Assumed 12 year payback period
- Due to larger proposed system sizes and production, SunWorks has highest net benefit

Financial Modeling Results – Umpqua Lease Scenario



- Each proposer runs negative cumulative net benefit until year 7 when lease payments end
- Financing rate of 2.96% for 7 years

Financial Modeling Results – Early PPA Buyout w/ Umpqua Lease Scenario



- PPA buyout costs assumed for each proposer, would be determined before contract execution
- Financing rate of 2.96% for 7 years after year 10

Net Benefit Comparison

- The table below shows the cumulative 25-year net benefit for the four scenarios analyzed
- All figures are presented as 25-year totals and include 25 years of O&M

First Year Net Benefit				
Proposer	PPA	CEC Loan	Umpqua Lease	Early PPA Buyout W/ Umpqua Lease
SunWorks	\$ 24,197	\$ 23,671	\$ (41,509)	\$ 24,197
SolarNorcal	\$ 13,766	\$ 27,649	\$ (25,848)	\$ 13,766
Brighton Energy	\$ 16,149	\$ 31,903	\$ (15,493)	\$ 14,332

25-Year Net Benefit				
Proposer	PPA	CEC Loan	Umpqua Lease	Early PPA Buyout W/ Umpqua Lease
SunWorks	\$ 2,064,129	\$ 3,037,770	\$ 2,998,173	\$ 2,549,468
SolarNorcal	\$ 1,720,753	\$ 2,832,845	\$ 2,800,346	\$ 2,295,280
Brighton Energy	\$ 1,719,431	\$ 2,785,445	\$ 2,756,652	\$ 2,194,485

- The PPA option has a lower overall cumulative net benefit but does not have the district incur debt and results in year one positive net benefit

Next Steps

- Finalize vendor recommendation based on committee input
- Present findings and recommendation to Board

If board approves selection and moving forward

- Negotiate contract
- Return to Board with:
 - Negotiated contract
 - Government Code 4217 findings
 - Updated financial plan and cash flow