

Memo

To: Mike Cortez
CC: Irene Huang
From: Tim Holmes
Date: October 13, 2022
Subject: Updated Proposal
PPA Review

The District's existing solar photovoltaic (PV) system has been decommissioned and is in need of replacement. Staff released a Request for Proposals (RFP) for the system on May 12, 2022, and received one proposal from Forefront Power on June 29. Kenwood Energy's memo dated July 13 summarized the results of the RFP process, and on July 21, 2022, Staff met with the Board to provide an overview of proposals and to make a recommendation on the path forward. During that meeting the Board directed staff to:

1. Update Cash Flows reflecting the final negotiated prices.
2. Finalized the Power Purchase Agreement (PPA) for Board review.
3. Provide a recommendation on Agreement execution.

All three tasks have been completed and are discussed in detail below, and Staff recommends executing the agreements.

FINANCIAL ANALYSIS

Staff worked with Forefront power to identify strategies that could improve the original pricing. Table 1 shows the pricing as presented to the Board and the updated pricing, showing a net reduction in the PPA unit cost.

Table 1

| | Cap Ex | PPA |
|--------------------------|---------------------|------------------|
| PV System kW DC | 1,086 | 1,086 |
| Original Price | \$ 3,861,718 | \$ 0.1335 |
| Updated Price | \$ 4,062,878 | \$ 0.1295 |
| Price Improvement | \$ (201,160) | \$ 0.0040 |

Factors that contributed to the cost changes are:

- The replacement of the existing BP PV system was added to the project, which increased the Capital Expenditure (Cap Ex) cost.

- The Inflation Reduction Act (IRA) increased the Investment Tax Credit (ITC) from 26% to 30%, which improved the PPA pricing.

Table 2 summarizes the results of the cash flows, which are included in Attachment A. One notable item in Att. A is that the cash flow is now positive starting in year 1. Under the old pricing, there was a small negative cash flow in years 1 and 2.

Table 2

| | Cap Ex | PPA |
|--------------------------------|--------------|-----------------|
| Price | \$ 4,062,878 | \$ 0.1295 |
| O&M Responsibility | District | Forefront Power |
| Net Present Value | \$2,065,437 | \$2,530,837 |
| Internal Rate of Return | 5.96% | High |

The PPA option results in a greater financial return (higher IRR and NPV). This is due to the fact that Forefront, as a for-profit company, can take advantage of the ITC on the initial investment and the depreciation of the assets. The potential of a direct ITC payment to the District was not included in the cash flow. Other significant benefits of the PPA are that the installation will not require the expenditure of District reserves, and that Forefront would be responsible for all of the O&M of the system.

INFLATION REDUCTION ACT

The IRA made some significant changes to the ITC, one of which was to make it available to public agencies under certain conditions. While Staff continues to recommend the PPA option over the Cap Ex, the current understanding of the ITC rules are presented here for reference.

- The Inflation Reduction Act (IRA) allows public agencies to:
 - The Direct Pay Option starts in 2024
 - Allows public agencies to receive the 30% tax credit as a refund for costs, i.e.: ~30% of the \$4.1M in cost would be refunded.
 - Purchasing must meet specific domestic manufacturing requirements.
 - Direct Pay might not be 100% of the Investment tax credit
- The IRA adds a new section to Tax Code
 - Adds 6416 to Section 13801 of Tax Code
 - It is tax code, it is complicated
 - It is not fully developed, so new rules and guidelines are expected
 - District should have its Tax/Accounting expert review
- NEM 3 is still looming and timing would need to be balanced

NEXT STEPS

- Execute the PPA Agreements
- Implement Construction – approximately 12 months

Attachment A

Life Cycle Cost Analyses – Cap Ex vs PPA

Assumptions

| | |
|---------------------------------|-------|
| PPA Escalation | 0% |
| Energy Escalation Rate | 4.00% |
| Power Output Degradation | 0.50% |
| Inflation Rate | 4.00% |
| Discount Rate | 2.5% |

| |
|-----|
| PPA |
|-----|

Internal Rate of Return High
Net Present Value \$2,530,837

| Year | PPA Payment | Savings | Net Savings | Discounted Savings | Cumulative Discounted Savings |
|------|----------------|------------|-------------|-----------------------|-------------------------------------|
| 0 | \$0 | \$ - | | | |
| 1 | \$237,916 | \$ 242,088 | \$4,172 | \$4,172 | \$4,172 |
| 2 | \$236,726 | \$250,561 | \$13,835 | \$13,489 | \$17,661 |
| 3 | \$235,543 | \$259,331 | \$23,788 | \$22,613 | \$40,274 |
| 4 | \$234,365 | \$268,407 | \$34,042 | \$31,552 | \$71,827 |
| 5 | \$233,193 | \$277,802 | \$44,608 | \$40,312 | \$112,139 |
| 6 | \$232,027 | \$287,525 | \$55,497 | \$48,899 | \$161,037 |
| 7 | \$230,867 | \$297,588 | \$66,721 | \$57,318 | \$218,355 |
| 8 | \$229,713 | \$308,004 | \$78,291 | \$65,576 | \$283,931 |
| 9 | \$228,564 | \$318,784 | \$90,219 | \$73,678 | \$357,609 |
| 10 | \$227,421 | \$329,941 | \$102,520 | \$81,630 | \$439,239 |
| 11 | \$226,284 | \$341,489 | \$115,205 | \$89,437 | \$528,675 |
| 12 | \$225,153 | \$353,441 | \$128,288 | \$97,104 | \$625,780 |
| 13 | \$224,027 | \$365,812 | \$141,785 | \$104,637 | \$730,416 |
| 14 | \$222,907 | \$378,615 | \$155,708 | \$112,040 | \$842,456 |
| 15 | \$221,793 | \$391,867 | \$170,074 | \$119,317 | \$961,773 |
| 16 | \$220,684 | \$405,582 | \$184,898 | \$126,474 | \$1,088,247 |
| 17 | \$219,580 | \$419,777 | \$200,197 | \$133,516 | \$1,221,763 |
| 18 | \$218,482 | \$434,470 | \$215,987 | \$140,445 | \$1,362,208 |
| 19 | \$217,390 | \$449,676 | \$232,286 | \$147,267 | \$1,509,476 |
| 20 | \$216,303 | \$465,415 | \$249,112 | \$153,986 | \$1,663,462 |
| 21 | \$215,221 | \$481,704 | \$266,483 | \$160,606 | \$1,824,068 |
| 22 | \$214,145 | \$498,564 | \$284,419 | \$167,130 | \$1,991,198 |
| 23 | \$213,075 | \$516,014 | \$302,939 | \$173,563 | \$2,164,761 |
| 24 | \$212,009 | \$534,074 | \$322,065 | \$179,908 | \$2,344,669 |
| 25 | \$210,949 | \$552,767 | \$341,818 | \$186,168 | \$2,530,837 |

Capital Purchase

Internal Rate of Return 6.0%
Net Present Value \$2,065,437

| Year | Cost | O&M | Savings | Net Savings | Discounted Savings | Cumulative Discounted Savings |
|------|---------------|------------|------------|---------------|--------------------|-------------------------------|
| 0 | (\$4,062,878) | | | (\$4,062,878) | (\$4,062,878) | (\$4,062,878) |
| 1 | | (\$16,117) | \$ 242,088 | \$225,972 | \$220,323 | (\$3,842,555) |
| 2 | | (\$16,761) | \$250,561 | \$233,802 | \$222,258 | (\$3,620,297) |
| 3 | | (\$17,432) | \$259,331 | \$241,902 | \$224,209 | (\$3,396,088) |
| 4 | | (\$18,129) | \$268,407 | \$250,282 | \$226,177 | (\$3,169,911) |
| 5 | | (\$18,854) | \$277,802 | \$258,952 | \$228,162 | (\$2,941,749) |
| 6 | | (\$19,608) | \$287,525 | \$267,922 | \$230,164 | (\$2,711,586) |
| 7 | | (\$20,393) | \$297,588 | \$277,202 | \$232,182 | (\$2,479,403) |
| 8 | | (\$21,209) | \$308,004 | \$286,803 | \$234,218 | (\$2,245,185) |
| 9 | | (\$22,057) | \$318,784 | \$296,736 | \$236,272 | (\$2,008,913) |
| 10 | | (\$22,939) | \$329,941 | \$307,012 | \$238,343 | (\$1,770,571) |
| 11 | | (\$23,857) | \$341,489 | \$317,643 | \$240,431 | (\$1,530,140) |
| 12 | | (\$24,811) | \$353,441 | \$328,642 | \$242,537 | (\$1,287,602) |
| 13 | | (\$25,803) | \$365,812 | \$340,021 | \$244,662 | (\$1,042,940) |
| 14 | | (\$26,836) | \$378,615 | \$351,794 | \$246,804 | (\$796,136) |
| 15 | | (\$27,909) | \$391,867 | \$363,973 | \$248,965 | (\$547,171) |
| 16 | | (\$29,025) | \$405,582 | \$376,573 | \$251,144 | (\$296,028) |
| 17 | | (\$30,186) | \$419,777 | \$389,608 | \$253,342 | (\$42,686) |
| 18 | | (\$31,394) | \$434,470 | \$403,094 | \$255,558 | \$212,872 |
| 19 | | (\$32,650) | \$449,676 | \$417,045 | \$257,793 | \$470,665 |
| 20 | | (\$33,956) | \$465,415 | \$431,479 | \$260,047 | \$730,712 |
| 21 | | (\$35,314) | \$481,704 | \$446,411 | \$262,321 | \$993,032 |
| 22 | | (\$36,726) | \$498,564 | \$461,860 | \$264,613 | \$1,257,646 |
| 23 | | (\$38,195) | \$516,014 | \$477,841 | \$266,925 | \$1,524,571 |
| 24 | | (\$39,723) | \$534,074 | \$494,375 | \$269,257 | \$1,793,828 |
| 25 | | (\$41,312) | \$552,767 | \$511,480 | \$271,609 | \$2,065,437 |