MEMORANDUM

DATE: January 13, 2024

TO: Bar Harbor Town Council

FROM: Higgins Pit Solar Project Team
James Smith, Town Manager
Bethany Leavitt, Public Works Director
Sarah Gilbert, Finance Director
Chris Byers, Consultant to the Town of Bar Harbor (Branch Renewable Energy)
Beth Woolfolk, Manager of Renewable Energy Policy and Planning (ACTT)
Corey McVay, Renewable Energy Solutions Coordinator (ACTT)

SUBJECT: **Higgins Pit Solar Project Update and Issues Review**

Summary
The Higgins Pit Solar Project Team (Project Team) will present updates regarding the access road from route 3, cash flow model, development & construction schedule, NEB program decision rationale, and RECs sale considerations at the 1/16/24 Town Council Meeting. Now that the project has signed a Net Energy Billing Agreement that requires the Project to reach Commercial Operation (COD) 24-months after executing the NEB Agreement, time is of the essence to closely track critical path milestones. The NEB Agreement was executed on 12/19/2023, so the COD deadline is 12/19/2025.

This memo provides a detailed breakout of updates to the Project's assumptions, but the cash flow model hinges greatly on the following inputs. These items have the greatest impact to the 30-Year cumulative savings and deserve the most amount of scrutiny in the due diligence process.

1. Construction Costs
2. Tariff Rate Escalator
3. Decision to sell RECs

Overall Schedule

2024	Due Diligence & Permitting
2025	Procurement & Construction

Access Road Option Agreement

The Project Team has been working on an Option and Lease Agreement (Option) to present to the abutting landowner on the east side of the ROW whereby the road and stormwater management features may be constructed on the abutting property as well as allow stormwater runoff to flow from the proposed access road within the 40-foot ROW onto the adjacent downslope property. The draft Option is currently under review by the Town Manager and Town Attorney, and discussions are ongoing with abutters. We hope to have an option in place in the coming days or weeks. As discussed previously, the road cannot be designed or constructed without first obtaining permission from the abutting landowner given that there is not enough upland area within the existing 40-foot ROW to treat the stormwater flowing over the proposed access road's impervious surface.

Civil Design of Access Road From Route 3

The Town has authorized Sundog to advance a roadway and stormwater civil design that utilizes the reconnaissance level natural resource survey provided by WRC on the abutting property and the formal wetland delineation from BRI on the ROW and Town owned property in order to determine the initial feasibility of the roadway construction as contemplated from Route 3. To date, the civil engineer of record has only provided a high-level analysis of the road construction feasibility. The road must include a permanent 16-foot wide travel way with 2-foot shoulders for construction, maintenance, emergency access, and conformance to the Town's Land Use Ordinance. The initial 100-150 feet of the access road from Route 3 will also need

to accommodate a turnaround area for Versant utility vehicles. We have a certain level of confidence from the civil engineer that there may be enough upland area to treat the stormwater, but we need to drill down on this analysis further. The initial roadway and stormwater civil design is expected to be complete at the end of February.

While the requested civil design deliverable will not be permit-level ready due to the fact that Spring 2024 natural resources survey must be completed on this adjacent property and incorporated into the final design, it will provide important insight to determine if this access road strategy is still worth pursuing. This design will also be useful for Sundog to obtain subcontractor quotes to build the access road and refine the overall construction costs. Assuming results are favorable, once a natural resources and vernal pool survey is conducted in April/May 2024, the civil design can be updated and made ready for permitting use.

Cash Flow Model Updates

*See Exhibits A, B & C for updated cash flow models and comparison charts

Since our last update to Council the Project Team has made adjustments and refinements to the cash flow model as new information has been made available to help us better refine the project scope and feasibility. The highlights to these changes are as follows:

- **2024 NEB Rate**
    - On January 1, 2024, the Maine PUC published the 2024 NEB Tariff Rates. Previously the Project Team predicted the medium-class, Versant Bangor Hydro tariff rate to be $0.19/kWh, and the actual 2024 published rate is $0.209/kWh. Each year this rate will be calculated by adding together that year's standard offer rate plus 75% of the delivery rate.

    - Last week, Chris Byers and Beth Woolfolk testified at the State House against anti-NEB legislation introduced by the Energy and Utility Committee (EUT Committee) that would reduce the value of the tariff rate and even retroactively be applied to projects with existing NEB Agreements. The Town should understand that these types of bills will continue to be proposed that may have a financial risk impact on the Project in the future.

- **Annual Solar Production**
    - Sundog has provided a more refined annual solar production model accounting for the smaller project design, slope of the ground, and height of the trees surrounding the proposed Project area that will shade the solar panels. Previously, the Project Team was modeling the solar production using typical industry standard assumptions of expected solar energy production efficiency in the Bar Harbor region. The initial estimated solar production was modeled at 1,558,000 kWh/year in the cash flow model at the last Town Council meeting, but a more detailed, site specific annual solar production model from Sundog now shows a lower production value at 1,399,000 kWh/year.

    - When assessing a site's solar production capability, the solar industry uses the term "yield". A higher yield means that the solar panels are more efficient due to a lack of tree shading, row to row shading, electrical losses, terrain undulations, and a variety of other factors that impact a solar facility's energy production. Yield is measured as [Yield= annual kWh solar production/kW DC system size]. In the case of this Project, the math looks this:

        - 1,399,000 kWh / 1,281 kW DC = 1,092 Yield

        - A typical ground mount project in the Bar Harbor region should expect to see a yield of 1,300. This Project is now projecting to produce approximately 20% less power than a typical ground mount solar project in Bar Harbor. This loss of potential energy production is due to the constrained site and tree shading.

Utility Escalator

- At the last Town Council meeting, the Project Team was asked to more closely examine the annual escalator used for the tariff rate due to the concern that it was too conservative. The tariff escalator used in the model presented in at the last Town Council meeting was 2%.

- The Project Team dug into 20 years of historic data from Versant and the United States Energy Information Administration (EIA).

- The Town has many types of rate class accounts, but dominant the accounts listed in the NEB Agreement are considered "Medium Class M-2". While we focused our analysis as much as possible on the historic changes to the Versant Medium Class M-2 rates, we also more broadly analyzed the entire State of Maine's change in electric rates as well as the Versant Residential rates in order to show a cross-section of data.

- In order to present an apples-to-apples comparative analysis, the research looked at the bundled rates (standard offer & delivery) because these values are used to calculate the tariff rate each year.

- Tariff Rate= Standard Offer + 75% of Delivery (reassessed each year on January 1)

Versant Data

Rate Class	10 Year (2012-2021) Average Percent Change of the Tariff Rate*
Versant Medium M-2*	1.8%

*Tariff Rate was not in existence 2012-2019, but this data recreated what would have been the tariff rate over 10 years.

Rate Class	20 Year (2005-2024) Average Percent Change of the Bundled Rate
Versant Residential	1.4%

United States Energy Information Administration (EIA)

Rate Class	20 Year (2001-2022) Average Percent Change
ME: All Rates + All Utilities	2.1%

- The Project Team also consulted with Sundog on what they use as an annual utility escalator in their return on investment calculations for customer proposals. Sundog uses a 1.5% escalator.

- **While it is true that different projects and consultants use a variety of projected rate escalators, the Project Team is recommending that the Town keep the 2% annual utility escalator when projecting the average increase of the tariff rate year over year**. The most reliable and accurate information in this analysis came from Versant Power's historical data specific to the Town's Medium Class M-2 accounts, but due to the prediction that reliability upgrades are coming to Maine and the trajectory for further electrification, we felt fairly confident that we could maintain the 2% tariff escalator in the cash model.

- The EIA data does span 20 years, but the EIA does not break out data by utility or rate class and results in too broad of an analysis to be used as a primary benchmarking value for the updated cash flow model when considering annual utility rate/tariff rate increases.

- We would note that small percent increases and decreases to the annual tariff rates do create *material* changes to the year-to-year cash flow and 30-year cumulative savings, so it's critical to not overstate these escalators.

  - For example, a 0.5% change to the annual tariff escalator shifts the 30-year cumulative savings by ~$600,000.

  - The table to the right shows the 30-year cumulative savings with and without RECs and using a 2% and 1.5% tariff escalator.

Tariff Escalator	**2%**	**1.5%**
RECs	$2.4 M	$1.8 M
No RECs	$1.2 M	$634 k

- Although a minor change in these estimates (0.5% change) could have a positive long-term outcome, it is possible that it could have an equally impactful negative impact on the Project. Considering the less than anticipated annual revenues then what were initially discussed more than a year ago, the project team agreed it is the fiscally responsible position to project this rate at the moderate rate of 2%.

- **EPC Price**
  - Sundog has provided an updated indicative construction cost for the smaller Project. The total cost of construction has gone down, but the price per watt ($/w) of the smaller system has increased due to a reduction of economies of scale. The latest cost also includes added costs for the access road. Previously the construction cost of the larger project was $3.56M, and the adjusted cost is now reduced to $3.15M.

- **Interconnection Cost Assumptions**
  - Versant has not provided a final cost estimate yet for the smaller Project size, but they did confirm that a re-study was not needed. Sundog has a long list of questions submitted to Versant's engineering team to identify opportunities for cost savings, but we do not have a final answer on the system impact study cost for the smaller 0.998 MW project.

  - A recent recommendation by the PUC staff in a case that sought clarity on Versant's request to collect fees to cover pending UFLS costs recommended that Versant reimburse the project for significant UFLS charges previously collected from that applicant. Although an order has not been issued and Versant has filed a request for additional clarification, we are expecting the PUC commissioners are likely follow the PUC staff recommendation.

  - While not a final answer, we have some reason to believe that this may also result in the system impact study removing the UFLS line item of $454,346 and reducing the overall interconnection upgrades to $655,195 (originally $1,109,541). We have a certain degree of confidence that the Project will see the UFLS charge removed, so we have reduced this projected cost decrease in the cash flow model. The Project's interconnection upgrades are still overbudget by $178,395, but this potentially closes the gap on the high interconnection cost discussed at the last Town Council meeting. Although we are optimistic with this position, we must hear from Versant on how this ruling may impact the Project's system interconnection costs and hope to have some answers on this topic in the next month or so.

- **Versant Annual Operations and Maintenance Cost**

  Because the Project Team made an assumption about the reduced interconnection costs, the Versant O&M cost will also go down. The previous Versant O&M Cost was $25,488 in year 1, and the adjusted value is now $19,056 in year 1. A 2% annual escalator is still applicable.

- **Inverter Warranty Extension-25 years**
  - Sundog has obtained a quote from the inverter manufacturer for an extended warranty out to 25 years. Previously the standard warranty only extended to year 10 which resulted in the need to budget inverter replacements at years 11 and 21. The cost of a 25-year warranty is $27,500 which will save on replacement costs over that time period. We have still budgeted an inflation adjusted cost of $156,310 to replace all the inverters at year 26. The net savings over 30 years is ~$9,600 by obtaining an extended 25-year warranty at COD.

- **Operation and Maintenance Costs (Town Only)**
  - At the last Town Council meeting, the Project Team was asked to review the Town's operation and maintenance costs out of concern that they were too conservative. The Town will be responsible for all vegetation maintenance, road repair, plowing, tree fall cleanup, mowing, and ensuring stormwater management features are in good working condition. Previously the annual total of this work was projected to be $34,400, and after additional review it has been lowered to $24,660 per year. Whether the work is done by Town staff or contractors, the cost must still be accounted for in the model.

- **Account Management**
  - The Town must also account for the cost to conduct routine audits of the energy bills to ensure that accurate tariff credits are being applied to the monthly account statements. Other duties would include managing REC sales audits, and other miscellaneous tasks required with managing this Project. A cost of $3,600/year for this internal support has added to the cash flow with a modest 2% annual inflation adjustor for the wages over time. This assumes (6) hours a month x $50/hour covering wages and benefits expenses.

- **30% Federal Investment Tax Credit (ITC)**
  - The Town is still eligible for the direct pay option to receive the 30% Federal Investment Tax Credit (ITC) payment from the US Treasury Department. At the last Town Council meeting, the ITC was estimated to be $1,080,000, and has since been adjusted to $1,104,359 (+$24,359) based on the latest cost of construction and interconnection upgrades. The Project Team will closely monitor these evolving construction and interconnection costs to inform updates to the ITC value.

- **Construction Contingency Adjustment**
  - Until the final project design is finalized (ex. access road and any changes that may come out of the permitting process), the Project Team has added a ~10% contingency to the construction scope of $300,000 for miscellaneous changes to the Project work. Previously, $150,000 of contingency was included for these miscellaneous changes as well as $202,000 over the life of the project. It was cleaner to show these contingency costs during the construction phase of the Project, and any annual O&M costs would be covered by the O&M columns in the cash flow model.

<u>NEB Program Decision</u>

Since the last Town Council update, a question was raised about the decision to place the Project in the NEB Tariff Program versus the NEB kWh program and whether or not the NEB kWh program would offer a greater benefit to the Project.

- Historically, the Project has always been modeled under the Tariff program. Commonly, commercial customers are eligible for the Tariff program while residential customers are eligible for the kWh program. The PUC confirmed that commercial customers are not excluded to apply under the kWh program, but it is not common given that there is a greater financial benefit under the Tariff program (typically 15% better financial benefit) for commercial customers.

- Under the kWh program, kWh credits only apply to the supply and delivery charges. The Town has many medium class M-2 accounts that include demand charges, and these demand charges would not be eliminated under the kWh program.

- Conversely, the Tariff program provides the Town monetary credits that can be applied to <u>any</u> portion of the bill, including demand charges and other miscellaneous administrative charges on the monthly Versant electric bill.

- The Project Team consulted with Sundog, Branch Renewable Energy, and A Climate to Thrive on this question, and all parties agree that the Tariff program offers the best financial result for the Town.

<u>RECs: Sell or Keep?</u>

- At the last Town Council meeting, the Project Team presented the option for the Town to either sell the Renewable Energy Credits (RECs), or retain them. If the town sells the RECs, then it cannot claim the environmental benefits of the Project as it will have sold those benefits to another entity. If the town retains the RECs and the environmental benefits, the cumulative savings are negative for a period of time regardless of the tariff escalator and would not make the Project a self-supporting enterprise. Put another way, by retaining the RECs, the Town will need to fund this Project by either raising the Town budget, or reducing other existing budget items to compensate the Project.

- Given how critical this decision is to the cash flow model, the Project Team is requesting clarity from the Town Council on its decision-making criteria and thought process on whether or not to sell the RECs.

Financial Analysis Summary (updated 1/13/24)

Cash Flow Positive Year		Previous Values Revision 12/19/23
1. With RECs	Year 12	Year 11
2. Without RECs	Year 15	Year 15

30-Year Cumulative Savings		Previous Values Revision 12/19/23
1. With RECs	$2,421,389	$1,890,112
2. Without RECs	$1,230,739	$563,972

Important Considerations

1. The critical path items that are having the largest impact on the 30-year cumulative savings in the cash flow are:

    a. Site Development and Due Diligence
    b. Construction Costs
    c. Decision to sell RECs

2. As discussed previously at other meetings, the Town is the developer and must balance the risk/reward of this Project. Even if it commences construction on the Project, there are still risks in how the project financials may change during operation. We will continue to provide updates to the Town Council as the Project due diligence evolves in order to best inform the decision-making process.

Exhibit A

Cash Flow Model
With RECs

Exhibit A: Higgins Pit Estimated Cash Flow Model
(With RECs)

		2.0%																				
Year	Year	Price/kWh (based on projected NEB tariff rate)	Estimated Production of 0.99 MW AC Array (kWh)	Estimated Value of Energy Produced	Potential Revenue from RECs (Renewable Energy Credits)	Total Upfront Project Cost	Total Amount Available from Bond	Natural Resources Protection Act In Lieu Fee	Bond Payment	O&M Versant Power	Asset Insurance	Construction & Operations Contingency	Sundog O&M and Equipment Replacement	Account Management	Vegetation Maintenance	Access Road Maintenance	Decommissionig Bond Carrying Cost	Decommissioning Fund Annual Contribution	Federal Rebate (modeled at 30%)	Estimated Annual Net	Estimated Cumulative Net Savings
1	2026	0.2089	1,399,216	$ 292,345	$ 41,976	$ (3,846,195)	$ 4,350,000	$ (49,200)	$ (515,167)	$ (19,056)	$ (17,000)	$ (300,000)	$ (27,500)	$ (3,600)	$ (12,360)	$ (12,300)	$ (2,000)	$ (5,000)		$ (125,056)	$ (125,056)
2	2027	0.2131	1,371,232	$ 292,228	$ 41,137				$ (377,100)	$ (19,437)	$ (17,000)			$ (3,672)	$ (12,607)	$ (12,546)	$ (2,000)	$ (5,000)	$ 1,104,359	$ 988,362	$ 863,306
3	2028	0.2174	1,364,376	$ 296,582	$ 40,931				$ (367,100)	$ (19,826)	$ (17,000)			$ (3,745)	$ (12,859)	$ (12,797)	$ (2,000)	$ (5,000)		$ (102,814)	$ 760,492
4	2029	0.2217	1,357,554	$ 301,002	$ 40,727				$ (357,100)	$ (20,222)	$ (17,000)		$ (6,410)	$ (3,820)	$ (13,117)	$ (13,053)	$ (2,000)	$ (5,000)		$ (95,994)	$ 664,498
5	2030	0.2262	1,350,766	$ 305,486	$ 40,523				$ (342,225)	$ (20,627)	$ (17,000)		$ (6,538)	$ (3,897)	$ (13,379)	$ (13,314)	$ (2,000)	$ (5,000)		$ (77,970)	$ 586,528
6	2031	0.2307	1,344,012	$ 310,038	$ 40,320				$ (332,475)	$ (21,039)	$ (17,000)		$ (6,669)	$ (3,975)	$ (13,646)	$ (13,580)	$ (2,000)	$ (5,000)		$ (65,026)	$ 521,502
7	2032	0.2353	1,337,292	$ 314,658	$ 40,119				$ (322,725)	$ (21,460)	$ (17,000)		$ (6,802)	$ (4,054)	$ (13,919)	$ (13,852)	$ (2,000)	$ (5,000)		$ (52,036)	$ 469,466
8	2033	0.2400	1,330,606	$ 319,346	$ 39,918				$ (313,950)	$ (21,889)	$ (17,000)		$ (6,938)	$ (4,135)	$ (14,198)	$ (14,129)	$ (2,000)	$ (5,000)		$ (39,975)	$ 429,490
9	2034	0.2448	1,323,952	$ 324,104	$ 39,719				$ (306,150)	$ (22,327)	$ (17,000)		$ (7,077)	$ (4,218)	$ (14,482)	$ (14,411)	$ (2,000)	$ (5,000)		$ (28,842)	$ 400,648
10	2035	0.2497	1,317,333	$ 328,934	$ 39,520				$ (297,375)	$ (22,774)	$ (17,000)		$ (7,219)	$ (4,302)	$ (14,771)	$ (14,700)	$ (2,000)	$ (5,000)		$ (16,687)	$ 383,961
11	2036	0.2547	1,310,746	$ 333,835	$ 39,322				$ (287,625)	$ (23,229)	$ (17,000)		$ (7,363)	$ (4,388)	$ (15,067)	$ (14,994)	$ (2,000)	$ (5,000)		$ (3,509)	$ 380,452
12	2037	0.2598	1,304,192	$ 338,809	$ 39,126				$ (277,875)	$ (23,694)	$ (17,000)		$ (7,510)	$ (4,476)	$ (15,368)	$ (15,294)	$ (2,000)	$ (5,000)		$ 9,718	$ 390,170
13	2038	0.2650	1,297,671	$ 343,857	$ 38,930				$ (268,125)	$ (24,168)	$ (17,000)		$ (7,661)	$ (4,566)	$ (15,675)	$ (15,599)	$ (2,000)	$ (5,000)		$ 22,994	$ 413,163
14	2039	0.2703	1,291,183	$ 348,981	$ 38,735				$ (258,375)	$ (24,651)	$ (17,000)		$ (7,814)	$ (4,657)	$ (15,989)	$ (15,911)	$ (2,000)	$ (5,000)		$ 36,319	$ 449,482
15	2040	0.2757	1,284,727	$ 354,180	$ 38,542				$ (248,625)	$ (25,144)	$ (17,000)		$ (7,970)	$ (4,750)	$ (16,309)	$ (16,230)	$ (2,000)	$ (5,000)		$ 49,695	$ 499,177
16	2041	0.2812	1,278,303	$ 359,458	$ 38,349				$ (238,875)	$ (25,647)	$ (17,000)		$ (8,129)	$ (4,845)	$ (16,635)	$ (16,554)	$ (3,000)	$ (5,000)		$ 62,121	$ 561,298
17	2042	0.2868	1,271,912	$ 364,814	$ 38,157				$ (229,125)	$ (26,160)	$ (17,000)		$ (8,292)	$ (4,942)	$ (16,968)	$ (16,885)	$ (3,000)	$ (5,000)		$ 75,599	$ 636,897
18	2043	0.2926	1,265,552	$ 370,249	$ 37,967				$ (219,375)	$ (26,683)	$ (17,000)		$ (8,458)	$ (5,041)	$ (17,307)	$ (17,223)	$ (3,000)	$ (5,000)		$ 89,129	$ 726,027
19	2044	0.2984	1,259,225	$ 375,766	$ 37,777				$ (209,625)	$ (27,217)	$ (17,000)		$ (8,627)	$ (5,142)	$ (17,653)	$ (17,567)	$ (3,000)	$ (5,000)		$ 102,712	$ 828,738
20	2045	0.3044	1,252,929	$ 381,365	$ 37,588				$ (199,875)	$ (27,761)	$ (17,000)		$ (8,800)	$ (5,245)	$ (18,006)	$ (17,919)	$ (3,000)	$ (5,000)		$ 116,348	$ 945,086
21	2046	0.3105	1,246,664	$ 387,047	$ 37,400					$ (28,316)	$ (17,000)		$ (8,976)	$ (5,349)	$ (18,366)	$ (18,277)	$ (3,500)	$ (5,000)		$ 319,663	$ 1,264,749
22	2046	0.1552	1,240,431	$ 192,556.02	$ 37,213					$ (28,883)	$ (17,000)		$ (9,155)	$ (5,456)	$ (18,734)	$ (18,643)	$ (3,500)	$ (5,000)		$ 123,399	$ 1,388,147
23	2047	0.1583	1,234,228	$ 195,425.10	$ 37,027					$ (29,460)	$ (17,000)		$ (9,338)	$ (5,566)	$ (19,108)	$ (19,016)	$ (3,500)	$ (5,000)		$ 124,464	$ 1,512,611
24	2048	0.1615	1,228,057	$ 198,336.93	$ 36,842					$ (30,049)	$ (17,000)		$ (9,525)	$ (5,677)	$ (19,490)	$ (19,396)	$ (3,500)	$ (5,000)		$ 125,541	$ 1,638,153
25	2049	0.1647	1,221,917	$ 201,292.15	$ 36,658					$ (30,650)	$ (17,000)		$ (9,715)	$ (5,790)	$ (19,880)	$ (19,784)	$ (3,500)	$ (5,000)		$ 126,629	$ 1,764,782
26	2050	0.1680	1,215,807	$ 204,291.41	$ 36,474					$ (31,263)	$ (17,000)		$ (134,595)	$ (5,906)	$ (20,278)	$ (20,179)	$ (4,000)	$ (5,000)		$ 2,544	$ 1,767,326
27	2051	0.1714	1,209,728	$ 207,335.35	$ 36,292					$ (31,889)	$ (17,000)		$ (9,910)	$ (6,024)	$ (20,683)	$ (20,583)	$ (4,000)	$ (5,000)		$ 128,538	$ 1,895,864
28	2052	0.1748	1,203,680	$ 210,424.65	$ 36,110					$ (32,526)	$ (17,000)		$ (10,108)	$ (6,145)	$ (21,097)	$ (20,995)	$ (4,000)	$ (5,000)		$ 129,664	$ 2,025,528
28	2053	0.1783	1,197,661	$ 213,559.97	$ 35,930					$ (33,177)	$ (17,000)		$ (10,310)	$ (6,268)	$ (21,519)	$ (21,415)	$ (4,000)	$ (5,000)		$ 130,801	$ 2,156,329
29	2054	0.1819	1,191,673	$ 216,742.02	$ 35,750					$ (33,840)	$ (17,000)		$ (10,516)	$ (6,393)	$ (21,949)	$ (21,843)	$ (4,000)	$ (5,000)		$ 131,950	$ 2,288,279
30	2055	0.1855	1,185,715	$ 219,971.47	$ 35,571					$ (34,517)	$ (17,000)		$ (10,727)	$ (6,521)	$ (22,388)	$ (22,280)	$ (4,000)	$ (5,000)		$ 133,110	$ 2,421,389
Totals				9,103,019	$ 1,190,650			$ (49,200)	$ (5,968,867)	$ (807,583)	$ (527,000)	$ (300,000)	$ (388,652)		$ (523,810)	$ (521,267)	$ (86,500)	$ (155,000)			

Assumptions	Modeled at 30 years to match power guarantee of solar panels	2024 Tariff Rate confirmed.	Energy production based on historical weather data and estiamted solar panel degradation over time per typical specs: year 1 =2% drop and subsequent years= 0.5% drop	NEB tariff rate multiplied by annual kWh	1000 kWh=1 REC 1 REC= $30 estimated	Total project cost estimates based on available design assumptions (assumes selling RECs in MA)	Approved Bond Amount	Calculated based on Maine DEP In Lieu Fee Compensation Worksheet	Information from Town Staff	From Versant system impact study	Based on estimates from Inurance company	Contingency for costs to operate and maintain the system.	Based on Sundog quote, 25 year warranty purchased at year 1, and year 26 inverter replacement	Allocated cost for Town Staff to audit monthly energy bills for accurate bill credits, REC reporting, and any other misc administrative tasks	Based on estimate from Public Works	Based on estimate from Public Works	Annual carry cost required to pay for the bond that must be submitted to the DEP for decommissioning permit	Decommissioning bond is reserved to be used in the case of default, so the town should set aside money each year for the eventual decommissioning of the project.	Direct pay of ITC modeled to be received the year after the project is operational. 30% of EPC cost plus 30% of interconnection cost

Revision: 1/10/24
For Discussion Purposes Only

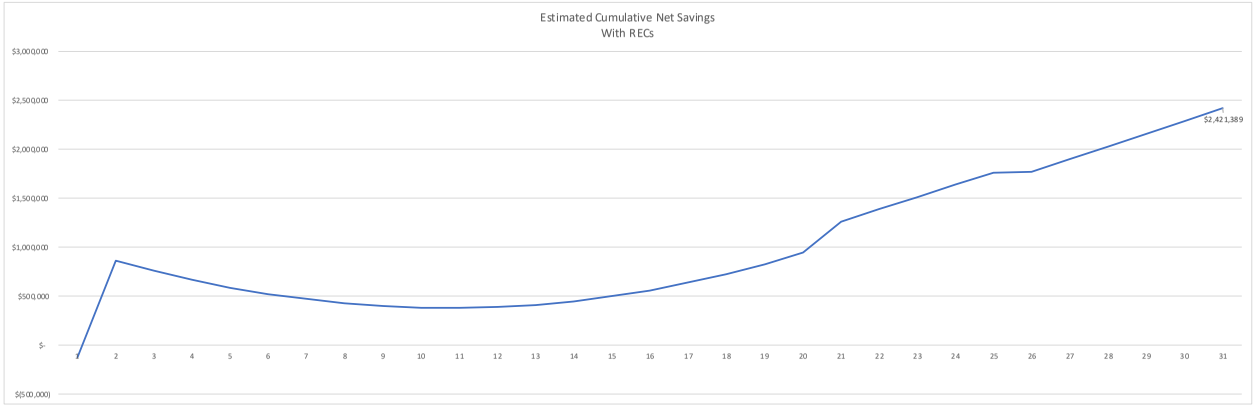

Exhibit B

Cash Flow Model
No RECs

Exhibit B: Higgins Pit Estimated Cash Flow Model
(No RECs)

Year	Year	2.0% Price/kWh (based on projected NEB tariff rate)	Estimated Production of 0.99 MW AC Array (kWh)	Estimated Value of Energy Produced	Total Upfront Project Cost	Total Amount Available from Bond	Natural Resources Protection Act In Lieu Fee	Bond Payment	O&M Versant Power	Asset Insurance	Construction & Operations Contingency	Sundog O&M and Equipment Replacement	Account Management	Vegetation Maintenance	Access Road Maintenance	Decommissionig Bond Carrying Cost	Decommissioning Fund Annual Contribution	Federal Rebate (modeled at 30%)	Estimated Annual Net	Estimated Cumulative Net Savings
1	2026	0.2089	1,399,216	$ 292,345	$ (3,846,195)	$ 4,350,000	$ (49,200)	$ (515,167)	$ (19,056)	$ (17,000)	$ (300,000)	$ (27,500)	$ (3,600)	$ (12,360)	$ (12,300)	$ (2,000)	$ (5,000)		$ (167,032)	$ (167,032)
2	2027	0.2131	1,371,232	$ 292,228				$ (377,100)	$ (19,437)	$ (17,000)			$ (3,672)	$ (12,607)	$ (12,546)	$ (2,000)	$ (5,000)	$ 1,104,359	$ 947,225	$ 780,192
3	2028	0.2174	1,364,376	$ 296,582				$ (367,100)	$ (19,826)	$ (17,000)			$ (3,745)	$ (12,859)	$ (12,797)	$ (2,000)	$ (5,000)		$ (143,745)	$ 636,447
4	2029	0.2217	1,357,554	$ 301,002				$ (357,100)	$ (20,222)	$ (17,000)		$ (6,410)	$ (3,820)	$ (13,117)	$ (13,053)	$ (2,000)	$ (5,000)		$ (136,721)	$ 499,727
5	2030	0.2262	1,350,766	$ 305,486				$ (342,225)	$ (20,627)	$ (17,000)		$ (6,538)	$ (3,897)	$ (13,379)	$ (13,314)	$ (2,000)	$ (5,000)		$ (118,493)	$ 381,234
6	2031	0.2307	1,344,012	$ 310,038				$ (332,475)	$ (21,039)	$ (17,000)		$ (6,669)	$ (3,975)	$ (13,646)	$ (13,580)	$ (2,000)	$ (5,000)		$ (105,346)	$ 275,887
7	2032	0.2353	1,337,292	$ 314,658				$ (322,725)	$ (21,460)	$ (17,000)		$ (6,802)	$ (4,054)	$ (13,919)	$ (13,852)	$ (2,000)	$ (5,000)		$ (92,155)	$ 183,732
8	2033	0.2400	1,330,606	$ 319,346				$ (313,950)	$ (21,889)	$ (17,000)		$ (6,938)	$ (4,135)	$ (14,198)	$ (14,129)	$ (2,000)	$ (5,000)		$ (79,893)	$ 103,839
9	2034	0.2448	1,323,952	$ 324,104				$ (306,150)	$ (22,327)	$ (17,000)		$ (7,077)	$ (4,218)	$ (14,482)	$ (14,411)	$ (2,000)	$ (5,000)		$ (68,561)	$ 35,278
10	2035	0.2497	1,317,333	$ 328,934				$ (297,375)	$ (22,774)	$ (17,000)		$ (7,219)	$ (4,302)	$ (14,771)	$ (14,700)	$ (2,000)	$ (5,000)		$ (56,207)	$ (20,929)
11	2036	0.2547	1,310,746	$ 333,835				$ (287,625)	$ (23,229)	$ (17,000)		$ (7,363)	$ (4,388)	$ (15,067)	$ (14,994)	$ (2,000)	$ (5,000)		$ (42,831)	$ (63,761)
12	2037	0.2598	1,304,192	$ 338,809				$ (277,875)	$ (23,694)	$ (17,000)		$ (7,510)	$ (4,476)	$ (15,368)	$ (15,294)	$ (2,000)	$ (5,000)		$ (29,408)	$ (93,169)
13	2038	0.2650	1,297,671	$ 343,857				$ (268,125)	$ (24,168)	$ (17,000)		$ (7,661)	$ (4,566)	$ (15,675)	$ (15,599)	$ (2,000)	$ (5,000)		$ (15,937)	$ (109,105)
14	2039	0.2703	1,291,183	$ 348,981				$ (258,375)	$ (24,651)	$ (17,000)		$ (7,814)	$ (4,657)	$ (15,989)	$ (15,911)	$ (2,000)	$ (5,000)		$ (2,416)	$ (111,522)
15	2040	0.2757	1,284,727	$ 354,180				$ (248,625)	$ (25,144)	$ (17,000)		$ (7,970)	$ (4,750)	$ (16,309)	$ (16,230)	$ (2,000)	$ (5,000)		$ 11,153	$ (100,369)
16	2041	0.2812	1,278,303	$ 359,458				$ (238,875)	$ (25,647)	$ (17,000)		$ (8,129)	$ (4,845)	$ (16,635)	$ (16,554)	$ (3,000)	$ (5,000)		$ 23,772	$ (76,597)
17	2042	0.2868	1,271,912	$ 364,814				$ (229,125)	$ (26,160)	$ (17,000)		$ (8,292)	$ (4,942)	$ (16,968)	$ (16,885)	$ (3,000)	$ (5,000)		$ 37,442	$ (39,155)
18	2043	0.2926	1,265,552	$ 370,249				$ (219,375)	$ (26,683)	$ (17,000)		$ (8,458)	$ (5,041)	$ (17,307)	$ (17,223)	$ (3,000)	$ (5,000)		$ 51,163	$ 12,008
19	2044	0.2984	1,259,225	$ 375,766				$ (209,625)	$ (27,217)	$ (17,000)		$ (8,627)	$ (5,142)	$ (17,653)	$ (17,567)	$ (3,000)	$ (5,000)		$ 64,935	$ 76,943
20	2045	0.3044	1,252,929	$ 381,365				$ (199,875)	$ (27,761)	$ (17,000)		$ (8,800)	$ (5,245)	$ (18,006)	$ (17,919)	$ (3,000)	$ (5,000)		$ 78,760	$ 155,703
21	2046	0.3105	1,246,664	$ 387,047					$ (28,316)	$ (17,000)		$ (8,976)	$ (5,349)	$ (18,366)	$ (18,277)	$ (3,500)	$ (5,000)		$ 282,263	$ 437,965
22	2046	0.1552	1,240,431	$ 192,556.02					$ (28,883)	$ (17,000)		$ (9,155)	$ (5,456)	$ (18,734)	$ (18,643)	$ (3,500)	$ (5,000)		$ 86,186	$ 524,151
23	2047	0.1583	1,234,228	$ 195,425.10					$ (29,460)	$ (17,000)		$ (9,338)	$ (5,566)	$ (19,108)	$ (19,016)	$ (3,500)	$ (5,000)		$ 87,437	$ 611,588
24	2048	0.1615	1,228,057	$ 198,336.93					$ (30,049)	$ (17,000)		$ (9,525)	$ (5,677)	$ (19,490)	$ (19,396)	$ (3,500)	$ (5,000)		$ 88,699	$ 700,288
25	2049	0.1647	1,221,917	$ 201,292.15					$ (30,650)	$ (17,000)		$ (9,715)	$ (5,790)	$ (19,880)	$ (19,784)	$ (3,500)	$ (5,000)		$ 89,972	$ 790,260
26	2050	0.1680	1,215,807	$ 204,291.41					$ (31,263)	$ (17,000)		$ (134,595)	$ (5,906)	$ (20,278)	$ (20,179)	$ (4,000)	$ (5,000)		$ (33,931)	$ 756,329
27	2051	0.1714	1,209,728	$ 207,335.35					$ (31,889)	$ (17,000)		$ (9,910)	$ (6,024)	$ (20,683)	$ (20,583)	$ (4,000)	$ (5,000)		$ 92,246	$ 848,575
28	2052	0.1748	1,203,680	$ 210,424.65					$ (32,526)	$ (17,000)		$ (10,108)	$ (6,145)	$ (21,097)	$ (20,995)	$ (4,000)	$ (5,000)		$ 93,554	$ 942,129
28	2053	0.1783	1,197,661	$ 213,559.97					$ (33,177)	$ (17,000)		$ (10,310)	$ (6,268)	$ (21,519)	$ (21,415)	$ (4,000)	$ (5,000)		$ 94,872	$ 1,037,001
29	2054	0.1819	1,191,673	$ 216,742.02					$ (33,840)	$ (17,000)		$ (10,516)	$ (6,393)	$ (21,949)	$ (21,843)	$ (4,000)	$ (5,000)		$ 96,200	$ 1,133,201
30	2055	0.1855	1,185,715	$ 219,971.47					$ (34,517)	$ (17,000)		$ (10,727)	$ (6,521)	$ (22,388)	$ (22,280)	$ (4,000)	$ (5,000)		$ 97,538	$ 1,230,739
Totals			9,103,019				$ (49,200)	$ (5,968,867)	$ (807,583)	$ (527,000)	$ (300,000)	$ (388,652)		$ (523,810)	$ (521,267)	$ (86,500)	$ (155,000)			

Assumptions	Modeled at 30 years to match power guarantee of solar panels	2024 Tariff Rate confirmed.	Energy production based on historical weather data and estiamted solar panel degradation over time per typical specs: year 1 =2% drop and subsequent years = 0.5% drop	NEB tariff rate multiplied by annual kWh	Total project cost estimates based on available design assumptions (assumes selling RECs in MA)	Approved Bond Amount	Calculated based on Maine DEP In Lieu Fee Compensation Worksheet	Information from Town Staff	From Versant system impact study	Based on estimates from inurance company	Contingency for costs to operate and maintain the system.	Based on Sundog quote, 25 year warranty purchased at year 1, and year 26 inverter replacement	Allocated cost for Town Staff to audit monthly energy bills for accurate bill credits, REC reporting, and any other misc administrative tasks	Based on estimate from Public Works	Based on estimate from Public Works	Annual carry cost required to pay for the bond that must be submitted to the DEP for decommissioning permit	Decommissioning bond is reserved to be used in the case of default, so the town should set aside money each year for the eventual decommissioning of the project.	Direct pay of ITC modeled to be received the year after the project is operational. 30% of EPC cost plus 30% of interconnection cost

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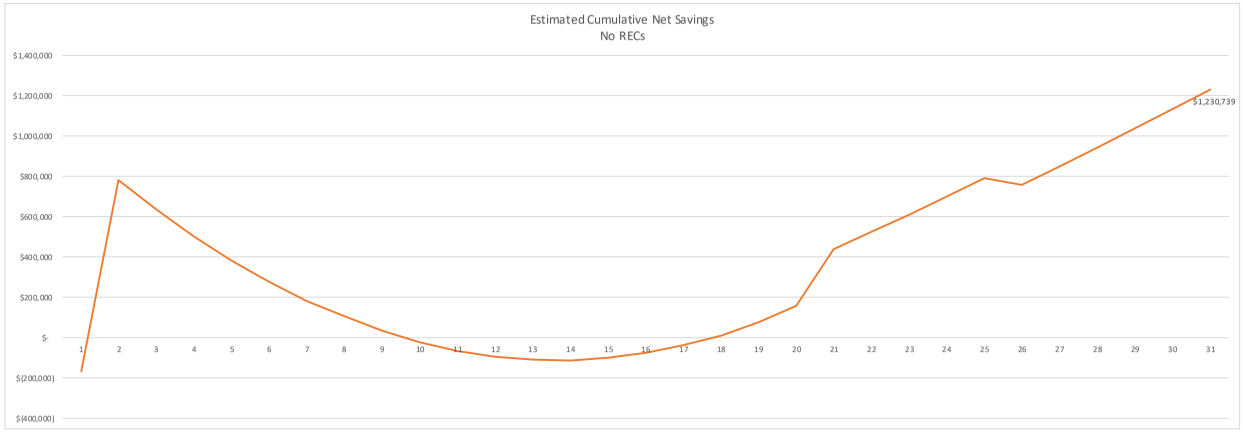
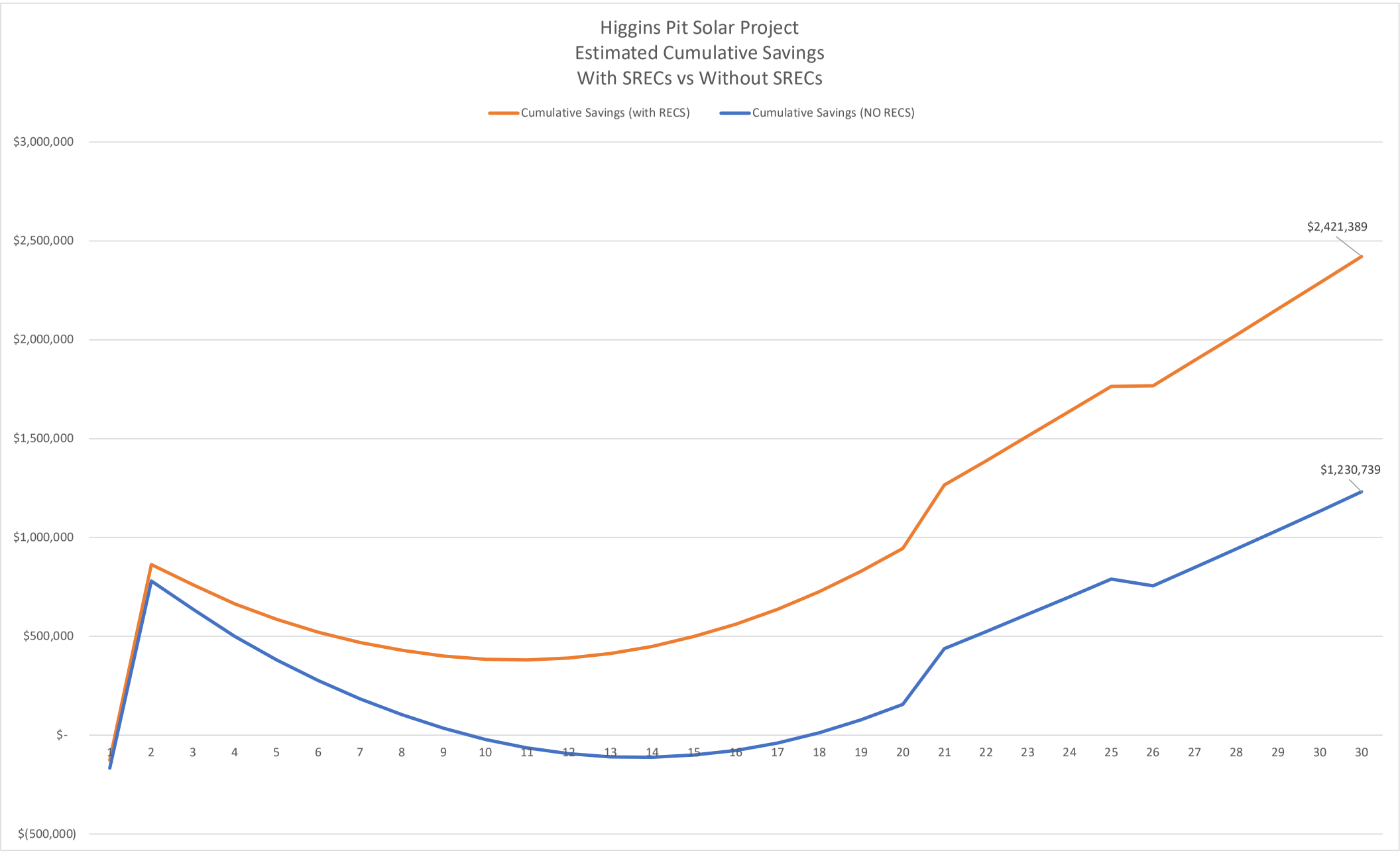


Exhibit C

Comparison Chart
RECs vs No RECs


Higgins Pit Solar Project
Estimated Cumulative Savings
With SRECs vs Without SRECs
Cumulative Savings (with RECS)
Cumulative Savings (NO RECS)
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$-
$(500,000)
$2,421,389
$1,230,739
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 30