



Beta Version 0.8.1	File #:	Appraiser Indicated Value:	\$18,000.00	\$2.25 /watt
03/05/20 7:43:11 AM	NA	Report Prepared By:	Brentley Martin	

Subject Property Data

Address:	33 Twinleaf Ln				
City:	Sidney	State:	ME	Zip Code:	04330
Property Type:	Residential	PV Project Type:	Existing	PV Ownership:	Owned



Cost Approach Method | Physical Age / Life | Depreciated Cost

Source:	User 1-1-18 ME	Gross Replacement Cost New:	\$17,040.00	\$2.13 /watt
Life:	30	Straight Line Depreciation:	\$568.00	\$0.07 /watt/yr
Age:	1	Accumulated SL Depreciation:	\$568.00	\$0.07 /watt
Additional Depreciation:	Functional Obsolescence		\$2,400.00	\$0.30 /watt
Additional Depreciation:	Other Depreciation - Roof Reserve		\$1,200.00	\$0.15 /watt
Estimated Depreciated Value	Cost Approach:		\$12,872.00	\$1.61 /watt

Income Approach Method | Energy Value DCF

Solar Resource		O & M Expense		Utility Rate	
System Size Watts:	8,000	Inverter Size Watts:	6,000	NREL Utility Co:	Central Maine Power Co
Module Warranty Yrs:	30	Inverter Warranty Yrs:	10	NREL Utility Rate:	6.94 ¢/kWh
System Age Yrs:	1	Inverter Age Yrs:	1	User Provided Utility Rate:	16.00 ¢/kWh
Remaining Yrs:	29	Inverter Replaced:	No	Utility Rate Used:	16.00 ¢/kWh
Derate Factor:	0.77	Inverter Replacement Cycle Yrs:	15	EIA Escalation Rate:	2.55% CAGR
Degradation Rate:	0.50%	Inverter Replacement Cost		User Provided Esc Rate:	1.00% CAGR
Array Tilt:	33.7 °	Survey Data:	55 ¢/W	Escalation Rate Used:	1.00% CAGR
Array Azimuth:	215 °	User Provided:	80 ¢/W	Comments:	
Annual kWh Est:	8,149	Replacement Cost Used:	80 ¢/W		
		O & M Exp (future):	\$6,400.00		
		O & M Exp (discounted):	\$3,573.68		

Cost of Capital		WACC Used + Risk Premium = Discount Rate →		Estimated Energy Value / Income Approach		
Fannie Mae Date:	March 4, 2020		200 Basis Points	5.00%	\$18,013.29	\$2.25 /watt
Fannie Mae Rate:	30 Yr 90 day 2.46%	3.00%	125 Basis Points	4.25%	\$19,820.93	\$2.48 /watt
User Provided Interest Rate:	3.00%		50 Basis Points	3.50%	\$21,881.86	\$2.74 /watt

Estimate of Accumulated Energy Production / Income Approach

Year	Annual kWh	Low Estimated Value		Avg Estimated Value		High Estimated Value	
		Annual Value	Accumulated Value	Annual Value	Accumulated Value	Annual Value	Accumulated Value
1	8,108	0.00	0.00	0.00	0.00	0.00	0.00
2	8,068	1,290.80	1,290.80	1,290.80	1,290.80	1,290.80	1,290.80
3	8,027	1,235.36	2,526.16	1,244.24	2,535.05	1,253.26	2,544.06
4	7,986	1,182.26	3,708.42	1,199.34	3,734.38	1,216.78	3,760.84
5	7,945	1,131.42	4,839.85	1,156.02	4,890.40	1,181.33	4,942.18
6	7,905	1,082.74	5,922.59	1,114.24	6,004.64	1,146.89	6,089.06
7	7,864	1,036.12	6,958.71	1,073.94	7,078.57	1,113.41	7,202.48
8	7,823	991.49	7,950.20	1,035.06	8,113.64	1,080.89	8,283.37
9	7,782	948.75	8,898.95	997.57	9,111.21	1,049.29	9,332.65
10	7,742	907.83	9,806.78	961.41	10,072.62	1,018.58	10,351.24
11	7,701	868.65	10,675.43	926.54	10,999.16	988.75	11,339.98
12	7,660	831.14	11,506.57	892.91	11,892.07	959.76	12,299.74
13	7,619	795.22	12,301.79	860.47	12,752.54	931.60	13,231.34
14	7,579	760.84	13,062.63	829.18	13,581.72	904.23	14,135.57
15	7,538	727.92	13,790.55	799.02	14,380.74	877.65	15,013.22
16	7,497	696.40	10,913.28	769.92	11,576.98	851.82	12,291.36
17	7,456	666.23	11,579.51	741.87	12,318.85	826.72	13,118.08
18	7,416	637.35	12,216.86	714.81	13,033.66	802.35	13,920.43
19	7,375	609.70	12,826.56	688.72	13,722.38	778.66	14,699.09
20	7,334	583.24	13,409.80	663.56	14,385.94	755.66	15,454.75
21	7,293	557.90	13,967.70	639.31	15,025.25	733.31	16,188.06
22	7,253	533.65	14,501.35	615.91	15,641.16	711.60	16,899.66
23	7,212	510.44	15,011.79	593.36	16,234.52	690.51	17,590.17
24	7,171	488.22	15,500.00	571.62	16,806.14	670.02	18,260.19
25	7,130	466.95	15,966.95	550.65	17,356.79	650.12	18,910.31
26	7,090	446.59	16,413.55	530.43	17,887.22	630.79	19,541.11
27	7,049	427.11	16,840.66	510.94	18,398.16	612.02	20,153.13
28	7,008	408.47	17,249.13	492.15	18,890.32	593.79	20,746.91
29	6,967	390.62	17,639.75	474.04	19,364.36	576.07	21,322.99
30	6,927	373.54	18,013.29	456.57	19,820.93	558.87	21,881.86

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