Watertown Public Schools

Solar Photovoltaic Options Analysis

BEACON
INTEGRATED SOLUTIONS

February 25, 2020

Discussion Topics

- Solar Projects Key Financial Drivers
- Solar Incentive Programs in MA
- Beacon Analysis Assumptions
- Beacon Preliminary Findings
- Questions and Next Steps

Solar Projects Key Financial Drivers

- Massachusetts Solar Incentive Program
  - Solar Massachusetts Renewable Target "SMART" Program
- Benefits and Costs
  - SMART Program Incentives – Based on Block, Size and Adders
  - Avoided Cost Benefits – Actual reduction in purchase of electricity from Grid
  - Net Metering Benefits – Sale of any excess/exported solar generation to Eversource
  - Power Purchase Costs – Purchase of solar generation from 3rd Party
- Financial Benefits Available Only to Taxable Entities
  - Federal Investment Tax Credits
  - Accelerated Depreciation

Regulatory Update

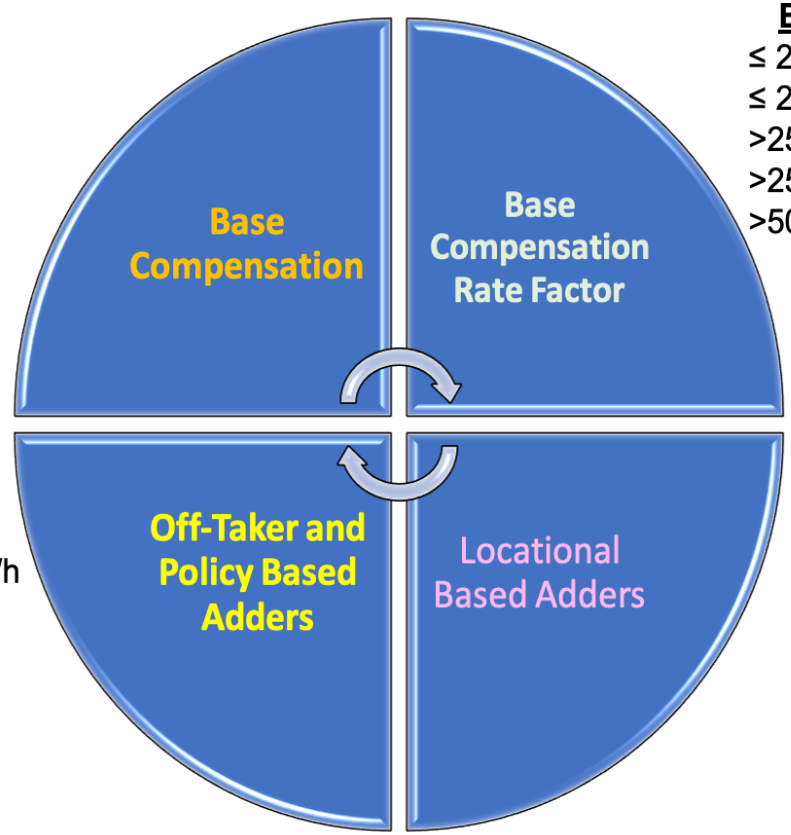
SMART Program

- The SMART program is a paradigm shift from the predecessor SREC program. It is structured as a utility tariff with a **fixed** incentive for energy (net metering and on-bill credits) and environmental attributes. Renewable Energy Credits become the "property" of the local utility.
- The SMART program is a 1600-megawatt program implemented in eight 200-megawatt Capacity Blocks.
- The total SMART program capacity is distributed across the utility territories based on their capacity requirements.
- The SMART program is implemented as a declining Block utility tariff, with each subsequent Capacity Block receiving a 4% reduction in benefits.
- The SMART program incentive structure includes a Base Compensation incentive plus Adders and Subtractors.
- The SMART Program launched on November 26, 2018.

SMART Program

Compensation Determinants

Adder capacity tranches are 80 MW per tranche except for CSS which declines to 60 MW after tranche 1.



Base Compensation Rate Factor

≤ 25 kW AC Low Income = 230% Adder
≤ 25 kW AC = 200% Adder
>25 kW AC to 250 kW AC = 150% Adder
>250 kW AC to 500 kW AC = 125% Adder
>500 kW AC to 1000 kW AC = 110% Adder

Off-Taker Based Adders

CSS: Add $0.05/kWh
Low Income: Add $0.03/kWh
Low Income CSS: Add $0.06/kWh
Public Project: Add $0.02/kWh

Policy Based Adders

Energy Storage: Adder varies
Trackers: Add $0.01/kWh

Locational Based Adders

Building Mounted: Add $0.02/kWh
Floating: Add $0.03/kWh
Brownfield: Add $0.03/kWh
Landfill: Add $0.04/kWh
Canopy/Carport: Add $0.06/kWh
Agricultural: Add $0.06/kWh

SMART Compensation Rates

Base Compensation Incentive and Adders by Block and Tranche

Summary of Base Compensation Rates by Generation Unit Capacity, and Capacity Block											
Electric Distribution Company	**Generation Unit Capacity**	**Base Compensation Rate Factor**	**Term Length**	**Block 1**	**Block 2**	**Block 3**	**Block 4**	**Block 5**	**Block 6**	**Block 7**	**Block 8**
Eversource East d/b/a Eversource Energy [6]	Low income less than or equal to 25 kW AC	230%	10-year	$0.39100	$0.37536	$0.36035	$0.34593	$0.33209	$0.31881	$0.30606	$0.29382
	Less than or equal to 25 kW AC	200%	10-year	$0.34000	$0.32640	$0.31334	$0.30081	$0.28878	$0.27723	$0.26614	$0.25549
	Greater than 25 kW AC to 250 kW AC	150%	20-year	$0.25500	$0.24480	$0.23501	$0.22561	$0.21658	$0.20792	$0.19960	$0.19162
	Greater than 250 kW AC to 500 kW AC	125%	20-year	$0.21250	$0.20400	$0.19584	$0.18801	$0.18049	$0.17327	$0.16634	$0.15968
	Greater than 500 kW AC to 1,000 kW AC	110%	20-year	$0.18700	$0.17952	$0.17234	$0.16545	$0.15883	$0.15247	$0.14638	$0.14052
	Greater than 1,000 kW AC to 5,000 kW AC	100%	20-year	$0.17000	$0.16320	$0.15667	$0.15041	$0.14439	$0.13861	$0.13307	$0.12775

Summary of Compensation Rate Adder Values by Type and Adder Tranche															
Adder Type [1]	**Generation Unit Type**	**Adder Tranche and Value ($/kWh) [2]**													
		Adder Tranche 1 (80 MW)	**Adder Tranche 2 (80 MW)**	**Adder Tranche 3 (80 MW)**	**Adder Tranche 4 (80 MW)**	**Adder Tranche 5 (80 MW)**	**Adder Tranche 6 (80 MW)**	**Adder Tranche 7 (80 MW)**	**Adder Tranche 8 (80 MW)**	**Adder Tranche 9 (80 MW)**	**Adder Tranche 10 (80 MW)**	**Adder Tranche 11 (80 MW)**	**Adder Tranche 12 (80 MW)**	**Adder Tranche 13 (80 MW)**	**Adder Tranche 14 (80 MW)**
Location Based	Building Mounted Solar Tariff Generation Unit	$0.02000	$0.01920	$0.01843	$0.01769	$0.01699	$0.01631	$0.01566	$0.01503	$0.01443	$0.01385	$0.01330	$0.01276	$0.01225	$0.01176
	Floating Solar Tariff Generation Unit	$0.03000	$0.02880	$0.02765	$0.02654	$0.02548	$0.02446	$0.02348	$0.02254	$0.02164	$0.02078	$0.01994	$0.01915	$0.01838	$0.01765
	Solar Tariff Generation Unit on a Brownfield	$0.03000	$0.02880	$0.02765	$0.02654	$0.02548	$0.02446	$0.02348	$0.02254	$0.02164	$0.02078	$0.01994	$0.01915	$0.01838	$0.01765
	Solar Tariff Generation Unit on an Eligible Landfill	$0.04000	$0.03840	$0.03686	$0.03539	$0.03397	$0.03261	$0.03131	$0.03006	$0.02886	$0.02770	$0.02659	$0.02553	$0.02451	$0.02353
	Canopy Solar Tariff Generation Unit	$0.06000	$0.05760	$0.05530	$0.05308	$0.05096	$0.04892	$0.04697	$0.04509	$0.04328	$0.04155	$0.03989	$0.03829	$0.03676	$0.03529
	Agricultural Solar Tariff Generation Unit	$0.06000	$0.05760	$0.05530	$0.05308	$0.05096	$0.04892	$0.04697	$0.04509	$0.04328	$0.04155	$0.03989	$0.03829	$0.03676	$0.03529
Off-taker Based	Low Income Property Solar Tariff Generation Unit	$0.03000	$0.02880	$0.02765	$0.02654	$0.02548	$0.02446	$0.02348	$0.02254	$0.02164	$0.02078	$0.01994	$0.01915	$0.01838	$0.01765
	Low Income Community Shared Solar Tariff Generation Unit	$0.06000	$0.05760	$0.05530	$0.05308	$0.05096	$0.04892	$0.04697	$0.04509	$0.04328	$0.04155	$0.03989	$0.03829	$0.03676	$0.03529
	Public Entity Solar Tariff Generation Unit	$0.02000	$0.01920	$0.01843	$0.01769	$0.01699	$0.01631	$0.01566	$0.01503	$0.01443	$0.01385	$0.01330	$0.01276	$0.01225	$0.01176
Energy Storage [3]	Energy Storage Adder	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable
Solar Tracking	Solar Tracking Adder	$0.01000	$0.00960	$0.00922	$0.00885	$0.00849	$0.00815	$0.00783	$0.00751	$0.00721	$0.00693	$0.00665	$0.00638	$0.00613	$0.00588
		Adder Tranche 1 (80 MW)	**Adder Tranche 2 (60 MW)**	**Adder Tranche 3 (60 MW)**	**Adder Tranche 4 (60 MW)**	**Adder Tranche 5 (60 MW)**	**Adder Tranche 6 (60 MW)**	**Adder Tranche 7 (60 MW)**	**Adder Tranche 8 (60 MW)**	**Adder Tranche 9 (60 MW)**	**Adder Tranche 10 (60 MW)**	**Adder Tranche 11 (60 MW)**	**Adder Tranche 12 (60 MW)**	**Adder Tranche 13 (60 MW)**	**Adder Tranche 14 (60 MW)**
Off-taker Based	Community Shared Solar Tariff Generation Unit [4]	$0.05000	$0.04800	$0.04608	$0.04424	$0.04247	$0.04077	$0.03914	$0.03757	$0.03607	$0.03463	$0.03324	$0.03191	$0.03064	$0.02941

SMART Program

Compensation Calculation

- **Standalone Solar Project:**
  - Solar Incentive Compensation Payment =

    (Base Compensation Rate + Compensation Rate Adders – Greenfield Subtractor) * total kWh generated – Value of Energy Generated.
  - Value of Energy:
    - Net Metered Project = equal to the total monthly value of the net metering credit.
    - Alternative On-Bill Credit = Value of Utility Basic Service Charge.
    - Non Net Metered Project = total kWh generated * Qualified Facility Rate (wholesale).
- **Behind-the-Meter Project:**
  - Solar Incentive Compensation Payment =

    (Base Compensation Rate + Compensation Rate Adders – Greenfield Subtractor) * total kWh generated – (Project Meter's Distribution kWh charge + transmission kWh charge + transition kWh charge + 3-year average Basic Service kWh charge).

SMART Capacity And Current Status

- Eversource East (aka NStar Electric) Program Capacity:

EVERSOURCE East Program Capacity (MW AC)		
Project Category	**Per Block**	**Total**
Capacity for Small Projects (≤25 kW AC)	18.03	146.422
Capacity for Large Projects (>25 kW AC)	73.211	585.688
Total SMART Capacity	91.241	732.110

- Post SMART Program Launch for Large Projects *(as of 02/24/2020):*
  - Total Capacity Allocated: 187.771 megawatts AC
  - Total Capacity Pending: 16.581 megawatts AC
  - Total Capacity Remaining: 381.337 megawatts AC
  - Capacity for Adders are all in Tranche 1 except for:
    - Building Mounted – Tranche 2
    - Community Shared Solar – Tranche 11
    - Energy Storage – Tranche 5

SMART Program Expansion

Eversource Energy (East and West)

- Four additional Capacity Blocks (9-12):
  - Eversource East and West Large Capacity Blocks will remain separate until Block 8 for each East and West is fully subscribed.
  - Capacity Blocks 9-12 will be merged allowing for Solar projects in Eversource East and West to draw from the same Capacity Blocks.
  - Compensation Rates for each Capacity Block will remain separate for Eversource East and West.
- Expanded Capacity behind Eversource:
  - Total expanded Block Capacity of ~429 MW AC (of a total of 800 MW AC).
  - Four new Capacity Blocks, each equal to 107.249 MW AC.
    - ~21.45 MW per Capacity Block for Small ≤ 25 kW systems.
    - ~85.8 MW per Capacity Block for Large > 25 kW ≤ 5000 kW systems.

SMART Program Modifications

Exclusively for Public Entities

- Public Entity Changes:
  - Increase Public Entity adder from $0.02/kWh to $0.04/kWh.
  - Public Entity projects can qualify for SMART at least six months earlier:
    - Applications for SMART qualification can be filed after a public entity has made an award.
    - Public Entity projects will be granted an 18-month reservation period to achieve project completion.
    - Extensions to the reservation period are allowed by regulation including an automatic 6-month extension and then a ”good cause” extension.
  - Public Entity projects qualify under Land Use Category 1 (no Greenfield subtractor).

SMART Program Modifications

Increase Behind-the-Meter Installations

- Behind-the-Meter (BTM) Systems:
  - Future Capacity Blocks decline by 2% per Block.
  - Change the calculation for Value of Energy allowing for improved economic value to all projects:
    - Retail rate to adjust retail rate (65% times 3 year average of retail + 35% times 3 year average supply).
    - Increase the SMART incentive payment by reducing the Value of Energy subtractor.
    - Eliminate the risk of negating the SMART incentive in a declined Capacity Block.
  - Exported energy compensated at the Alternative On-Bill Credit (AOBC) rate (retail supply) versus Qualified Facilities (QF) rate (wholesale).

Beacon Analysis Overview

Assumptions

- Assumptions:
  - Electricity Utilization:
    - Solar utilization in buildings, export to Grid and purchase from Grid
    - Demand reduction
  - Financial Benefits:
    - SMART Compensation Incentives, Avoided Costs, Net Metering Credits
  - Cost Considerations:
    - Total Finance Cost (Debt) and Interest Rate
    - Annual Operations and Maintenance Cost
    - Annual Insurance Cost
    - Capital Replacement Cost

Beacon Analysis Overview

Findings

- Considerations:
  - Town-Owned:
    - SMART Compensation Incentives
    - Borrowing rate
    - Annual escalation for operations and maintenance, and insurance
    - Actual avoided cost
    - Actual demand savings
  - Third-Party Owned:
    - SMART Compensation Incentives
    - ITC and Accelerated Depreciation
    - Power Purchase Rate and Annual Escalation
- Conclusion:
  - Third-Party ownership provides greater benefits to Town and lower risk.

Cunniff Elementary School Assumptions

Electricity Sources

	Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Usage	68,016	53,397	55,749	48,740	54,740	52,546	56,035	56,060	53,804	52,521	50,678	56,508	658,794
Solar Generation	16,004	18,564	34,309	67,305	73,822	75,274	80,401	75,041	56,931	41,401	26,522	20,894	586,467
Solar Used in Building	14,404	16,708	29,162	40,383	46,529	47,291	51,552	51,575	43,043	36,765	23,870	18,805	420,087
Electricity Bought from Grid	53,612	36,689	26,587	8,357	8,211	5,255	4,483	4,485	10,761	15,756	26,808	37,703	238,707
Electricity Sold to Grid	1,600	1,856	5,146	26,922	27,293	27,983	28,848	23,466	13,888	4,636	2,652	2,089	166,380
% of Usage Served by Solar	21.2%	31.3%	52.3%	82.9%	85.0%	90.0%	92.0%	92.0%	80.0%	70.0%	47.1%	33.3%	65%
% of Solar Sold to Grid	10.0%	10.0%	15.0%	40.0%	37.0%	37.2%	35.9%	31.3%	24.4%	11.2%	10.0%	10.0%	23%
% of Solar Used in Building	90.0%	90.0%	85.0%	60.0%	63.0%	62.8%	64.1%	68.7%	75.6%	88.8%	90.0%	90.0%	77%
% Demand Reduction	0.0%	0.0%	0.0%	5.0%	15.0%	15.0%	32.5%	32.5%	20.0%	0.0%	0.0%	0.0%	10%

Cunniff Elementary School Assumptions

General

	BEACON ASSUMPTIONS		
	Value	Annual Escalator	Year
Estimated Capital Cost to Town	$1,794,829	-	-
Town Borrowing Rate	5.0%	-	25
Annual Debt Service Level Payments	$127,348	-	25
First Year Transaction Costs	$15,000	-	1
Capital Replacement Cost	$22,435	1.25% of cost	10 and 20
Annual Eversource Budget	-	1.00%	25
Annual Operations/Maintenance	$6,210	2.00%	$0.0125/watt
Annual Insurance	$7,452	1.50%	$0.015/watt
RATE ASSUMPTIONS			
Electricity Supply Rate	$0.1100	1.00%	G-3
SMART Incentive	$0.1580	SMART Block 4	20
Avoided Cost Rate	$0.1445	1.00%	25
Net Metering Credit Rate	$0.1268	1.00%	25
Solar Firm Power Purchase Rate	$0.1100	1.00%	25
PROJECT COST DETAIL ASSUMPTIONS			
PROJECT TYPE	Rooftop	Canopy	Total
Capacity kW DC	253.3	243.5	496.8
Capacity kW AC	242.1	232.9	475.0
Project Cost $/kW DC	$3,000	$4,250	$3,613
First Year Generation (kWh)	298,967	287,500	586,467
Annual Consumption (kWh)	-		658,794

Cunniff Elementary School Findings

Summary Findings

	BENEFITS TO WATERTOWN	
	Town Owned	3rd Party Owned
PROJECT COSTS		
Total Debt Service	$3,198,688	-
Total Operations/Maintenance Cost	$198,908	-
Total Capital Replacement Cost	$44,871	-
Total Insurance Cost	$224,030	-
Total Payments to Solar Firm under PPA	$0	$1,712,320
Total Project Costs	$3,666,497	
PROJECT REVENUES/SAVINGS		
SMART Revenues	$1,793,929	$0
Net Metering Revenues	$560,064	$560,064
Avoided Cost Savings	$1,611,716	$1,611,716
Total Project Revenues/Savings	$3,965,710	$2,171,780
25 Year Net Benefit from Solar PV	$299,213	$459,460

Cunniff Elementary School Findings

First Year Benefits and Costs

ESTIMATED FIRST YEAR BUDGET COST IMPACTS		
	Town Owned	3rd Party Owned
Estimated Payment to Eversource Before Solar	$144,824	$144,824
Estimated Avoided Cost Savings from Solar	($60,721)	($60,721)
Estimated SMART Payments from Solar	($92,655)	$0
Estimated Net Metering Credit Payments from Solar	($21,100)	($21,100)
Estimated Net Payment to Eversource After Solar	($29,653)	$63,002
Estimated Power Purchase Payments for Solar	$0	$64,511
Estimated Operating and Debt Service Payments	$156,010	$0
Estimated Net Electricity Cost After Solar	$126,357	$127,514
Estimated First Year Savings After Solar	$18,467	$17,310

Cunniff Elementary School Findings

Benefits and Costs Over 25 Years

	TOWN ANNUAL BENEFITS		NET ELECTRICITY COST AFTER SOLAR	
	Behind the Meter		Behind the Meter	
Year	Town Owned*	3rd Party Owned	Town Owned*	3rd Party Owned
1	$18,467	$17,310	$126,357	$127,514
2	$33,173	$17,396	$113,099	$128,876
3	$32,879	$17,482	$114,856	$130,253
4	$32,585	$17,568	$116,627	$131,644
5	$32,291	$17,655	$118,413	$133,049
6	$31,997	$17,743	$120,215	$134,469
7	$31,703	$17,831	$122,031	$135,903
8	$31,408	$17,919	$123,863	$137,352
9	$31,113	$18,008	$125,710	$138,816
10 **	$8,383	$18,097	$150,009	$140,295
11	$30,523	$18,186	$129,453	$141,789
12	$30,226	$18,276	$131,349	$143,299
13	$29,929	$18,367	$133,262	$144,824
14	$29,632	$18,458	$135,191	$146,365
15	$29,333	$18,549	$137,138	$147,922
16	$29,034	$18,641	$139,102	$149,495
17	$28,733	$18,733	$141,084	$151,084
18	$28,432	$18,826	$143,084	$152,690
19	$28,129	$18,919	$145,102	$154,312
20 **	$5,389	$19,013	$169,574	$155,950
21	($50,993)	$19,107	$227,705	$157,606
22	($50,907)	$19,201	$229,387	$159,278
23	($50,825)	$19,296	$231,090	$160,968
24	($50,747)	$19,392	$232,814	$162,675
25	($50,673)	$19,488	$234,561	$164,400
TOTAL	$299,213	$459,460	$3,791,076	$3,630,829

LEGEND:	
* After Debt	** Inverter replacement cost included
Blue	SMART+Avoided Costs+Net Metering
Green	Avoided Costs+Net Metering
Orange	Avoided Costs+Net Metering+PPA Payments

Hosmer Elementary School Assumptions

Electricity Sources

	Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Usage	108,906	85,162	86,448	74,023	82,057	79,400	88,560	88,653	81,749	79,368	78,442	89,713	1,022,481
Solar Generation	27,256	31,554	57,846	111,819	123,059	125,593	134,232	125,309	95,638	69,775	44,993	35,559	982,632
Solar Used in Building	24,531	28,398	49,169	70,446	72,210	71,460	84,132	84,220	69,487	63,494	39,593	32,003	689,144
Electricity Bought from Grid	84,375	56,764	37,279	3,577	9,847	7,940	4,428	4,433	12,262	15,874	38,849	57,710	333,337
Electricity Sold to Grid	2,726	3,155	8,677	41,373	50,848	54,133	50,100	41,089	26,152	6,281	5,399	3,556	293,488
% of Usage Served by Solar	22.5%	33.3%	56.9%	95.2%	88.0%	90.0%	95.0%	95.0%	85.0%	80.0%	50.5%	35.7%	69%
% of Solar Sold to Grid	10.0%	10.0%	15.0%	37.0%	41.3%	43.1%	37.3%	32.8%	27.3%	9.0%	12.0%	10.0%	24%
% of Solar Used in Building	90.0%	90.0%	85.0%	63.0%	58.7%	56.9%	62.7%	67.2%	72.7%	91.0%	88.0%	90.0%	76%
% Demand Reduction	0.0%	0.0%	0.0%	5.0%	15.0%	15.0%	32.5%	32.5%	20.0%	0.0%	0.0%	0.0%	10%

Hosmer Elementary School Assumptions

General

	BEACON ASSUMPTIONS		
	Value	Annual Escalator	Year/Term
Estimated Capital Cost to Town	$3,039,693	-	-
Town Borrowing Rate	5.0%	-	25
Annual Debt Service Level Payments	$215,674	-	25
First Year Transaction Costs	$15,000	-	1
Capital Replacement Cost	$37,996	1.25% of cost	10 and 20
Annual Eversource Budget	-	1.00%	25
Annual Operations/Maintenance	$10,365	2.00%	$0.0125/watt
Annual Insurance	$12,438	1.50%	$0.015/watt
RATE ASSUMPTIONS			
Electricity Supply Rate	$0.1100	1.00%	G-3
SMART Incentive	$0.1221	SMART Block 4	20
Avoided Cost Rate	$0.1444	1.00%	25
Net Metering Credit Rate	$0.1268	1.00%	25
Solar Firm Power Purchase Rate	$0.1350	1.00%	25
PROJECT SIZE AND COST DETAIL ASSUMPTIONS			
PROJECT TYPE	Rooftop	Canopy	Total
Capacity kW DC	387.5	441.7	829.2
Capacity kW AC	354.4	403.9	758.3
Project Cost $/kW DC	$3,000	$4,250	$3,666
First Year Generation (kWh)	459,232	523,400	982,632
Annual Consumption (kWh)	-		1,022,481

Hosmer Elementary School Findings

Summary Findings

	BENEFITS TO WATERTOWN	
	Town Owned	3rd Party Owned
PROJECT COSTS		
Total Debt Service	$5,406,842	-
Total Operations/Maintenance Cost	$331,994	-
Total Capital Replacement Cost	$75,992	-
Total Insurance Cost	$373,924	-
Total Payments to Solar Firm under PPA	$0	$3,521,061
Total Project Costs	$6,188,752	
PROJECT REVENUES/SAVINGS		
SMART Revenues	$2,333,306	$0
Net Metering Revenues	$987,931	$987,931
Avoided Cost Savings	$2,641,897	$2,641,897
Total Project Revenues/Savings	$5,963,134	$3,629,828
25 Year Net Benefit from Solar PV	($225,618)	$108,767

Hosmer Elementary School Findings

First Year Benefits and Costs

ESTIMATED FIRST YEAR BUDGET COST IMPACTS		
	Town Owned	3rd Party Owned
Estimated Payment to Eversource Before Solar	$222,790	$222,790
Estimated Avoided Cost Savings from Solar	($99,533)	($99,533)
Estimated SMART Payments from Solar	($119,998)	$0
Estimated Net Metering Credit Payments from Solar	($37,220)	($37,220)
Estimated Net Payment to Eversource After Solar	($33,960)	$86,037
Estimated Power Purchase Payments for Solar	$0	$132,655
Estimated Operating and Debt Service Payments	$253,477	$0
Estimated Net Electricity Cost After Solar	$219,516	$218,693
Estimated First Year Savings After Solar	$3,274	$4,098

Hosmer Elementary School Findings

Benefits and Costs Over 25 Years

	TOWN ANNUAL BENEFITS		NET ELECTRICITY COST AFTER SOLAR	
	Behind the Meter		Behind the Meter	
Year	Town Owned*	3rd Party Owned	Town Owned*	3rd Party Owned
1	$3,274	$4,098	$219,516	$218,693
2	$17,957	$4,118	$207,061	$220,900
3	$17,640	$4,138	$209,629	$223,130
4	$17,321	$4,159	$212,220	$225,382
5	$17,002	$4,180	$214,834	$227,657
6	$16,682	$4,200	$217,473	$229,955
7	$16,361	$4,221	$220,135	$232,276
8	$16,039	$4,242	$222,823	$234,620
9	$15,715	$4,263	$225,535	$236,987
10**	($22,606)	$4,284	$266,269	$239,379
11	$15,063	$4,305	$231,036	$241,794
12	$14,734	$4,327	$233,826	$244,234
13	$14,404	$4,348	$236,642	$246,698
14	$14,071	$4,369	$239,485	$249,187
15	$13,736	$4,391	$242,356	$251,701
16	$13,399	$4,413	$245,254	$254,240
17	$13,059	$4,435	$248,180	$256,805
18	$12,716	$4,457	$251,135	$259,395
19	$12,371	$4,479	$254,119	$262,012
20**	($25,974)	$4,501	$295,129	$264,654
21	($87,991)	$4,523	$359,838	$267,324
22	($87,848)	$4,546	$362,413	$270,020
23	($87,710)	$4,568	$365,021	$272,743
24	($87,579)	$4,591	$367,663	$275,493
25	($87,454)	$4,613	$370,339	$278,271
TOTAL	**($225,618)**	**$108,767**	**$6,517,933**	**$6,183,547**

LEGEND:	
* After Debt	** Inverter replacement cost included
Blue	SMART+Avoided Costs+Net Metering
Green	Avoided Costs+Net Metering
Orange	Avoided Costs+Net Metering+PPA Payments

Financial Conclusions

- Third-Party Ownership provides greater long-term economic benefits.

Location	1st Year Benefit to Town		25-Year Benefit to Town	
	Town-Owned	3rd-Party Owned	Town-Owned	3rd-Party Owned
Cunniff Elementary School	$18,467	$17,310	$299,213	$459,460
Hosmer Elementary School	$3,274	$4,098	($225,618)	$108,767
Both Projects	$21,741	$21,408	$73,595	$568,228

Conclusions – Risk Considerations

- Optimizing SMART Program incentives improves overall project economics under both ownership models.
- Town-Ownership Model Risks:
  - Capital cost and periodic replacement cost
  - Long-term Town debt is required
  - Annual Operations, Maintenance and Insurance cost requirements
  - Financial implications of performance risk due to downtime or outage
- Third-Party-Ownership Model Risks:
  - Financing risk, including ITC
  - Power Purchase rate uncertainty
  - Project construction coordination
  - Potential tax-exempt borrowing implications
  - Financial implications of performance risk due to downtime or outage

Questions

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