

REVISED: January 11, 2018

ELECTRIC COMMITTEE
414 High Street, City Hall
Seaford, DE

January 11, 2018

4:00 p.m. – Councilman Dan Henderson calls the meeting to order.

Councilman Henderson calls for a motion to do New Business 2 first to accommodate Mr. Downes' schedule, as he has to leave by 5 p.m.

New Business:

1. Present information on the DEMEC bond issue to be sold in early 2018 and Seaford's anticipated monthly payment for the Pine Street Substation and Distribution Improvements currently in construction.
2. David Downes, Downes Associates to present the 2018 PCAC Relevelization, Impacts, & DPL/DEC Rate Comparisons.
3. Present the status of the funds being set aside for the Pine Street Substation & Distribution Improvements debt.
4. Present the status of the expenditures for the Pine Street Substation & Distribution Improvements with DEMEC.
5. Update Pine Street Substation Progress
6. Update Distribution Improvements Progress
7. Present the status of the Advanced Metering Infrastructure with American Public Power project.

Old Business:

1. Discuss status of obtaining appraisal for purchasing 2.3± acres of land for the switching structure needed for the second tie-point with the Delmarva Power 69kV line out of their north substation.
2. Solar Array update on output production and sale of Solar Renewable Energy Credits (SRECs) and debt service.

NOTE: Agenda shall be subject to change to include or delete Additional items (including executive session) which arise at the time of the meeting. (29 Del. C. S1004 (e) (3))

Posted TNT

Seaford Infrastructure Projects

Current Budget Summary¹ (\$000)

Infrastructure Project Estimates:

Project Component	Principal Vendors	Base Amount	Contingencies	Total Budget	Original Budget
Transformers	VA Transformer	903	-	903	1,500
Breakers	Siemens, WESCO	335	17	352	420
Control Building	RPS, Inc.	618	31	649	760
Substation Construction	AUI, Inc.	1,801	180	1,982	1,700
Distribution Construction	AUI, Inc.	1,243	124	1,367	1,550
Supplemental Materials	Hamby Young	971	49	1,019	1,200
Design & Engineering	Downes	693	35	728	680
Contingency & Other	Various	191	10	201	1,190
GROSS FINANCING REQUIREMENT		6,755	445	7,200	9,000
Seaford Prepaid for Design Engineering				(330)	
Seaford Accumulation of Reserves for Down Payment				(777)	
NET FINANCING REQUIREMENT				6,094	

Advanced Metering Infrastructure (AMI) Project Estimates:

Project Component	Principal Vendors	Base Amount	Contingencies	Total Budget	Original Budget
Contracts & Amendments	DEMEC, Inc.	1,274	105	1,379	1,379
NET FINANCING REQUIREMENT		1,274	105	1,379	1,379

Grand Total - Estimated Financing Requirements for All Projects \$7,473

¹All figures are estimates and are subject to change based on project requirements and market conditions

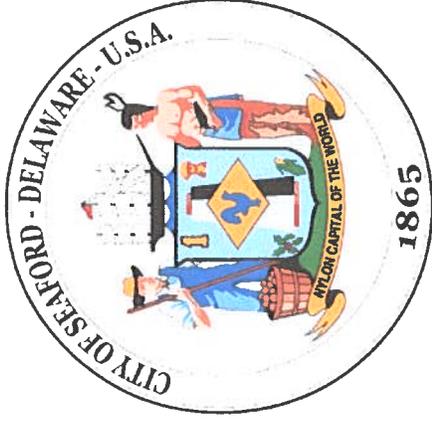
Seaford Infrastructure Projects

Financing Summary¹

	Infrastructure Project	Advanced Metering Project (AMI)	Total
Project Financing (\$000)	6,094	1,379	7,473
Costs of Issuance (\$000)	109	26	135
Total Financing (\$000)	6,202	1,406	7,608
Term (Years)	20	10	Mixed
True Interest Cost (TIC)	3.68%	2.76%	3.57%
Estimated Annual PPA (\$000)	488.9	190.1	
First Ten Years			679.7
Last Ten Years			488.3
Estimated Monthly PPA (\$000)	40.7	15.8	
First Ten Years			56.6
Last Ten Years			40.7
Estimated PPA as function of kWh sales (\$/kWh)			
First Ten Years			0.00620
Last Ten Years			0.00445

¹ All figures are estimates and are subject to change based on project requirements and market conditions

City of Seaford



2018 PCAC Relevelization, Impacts, & DPL/DEC Rate Comparisons

December 19, 2017

CONTENTS

2018 PCAC Relevelization & Impacts

- 1) *\$72.37 /MWh 2018 DEMEC Wholesale Cost Impact*
- 2) *2018 PCAC Forecast & Current PCAC Status*
- 3) *2018 Potential PCAC Relevelization Rate Impacts*
- 4) *DP&L Residential Retail Rate Comparison*
- 5) *DEC Residential Retail Rate Comparison*
- 6) *Debt Service Collection*

City of Seaford

January 2018 PCAC Relevelization & Rate Impact

(A)	(B)	(C)	(D)	(E)
	February 2017 PCAC Relevelization	January 2018 PCAC Relevelization		
1 Wholesale Metered kWh	116,357,520	113,049,483		
2 Retail Sales kWh	109,661,284	106,793,670		
3 12 Month Line Losses %	5.8%	5.5%		
4				
5 Wholesale Purchases kWh	119,686,509	116,283,829		
6 Wholesale Costs	\$9,171,577	\$8,415,461		\$0.07237
7				
8 Permanent GOM Increase for Debt Service Collection via Embedded Reduction w/o Base Rate Reduction	\$675,032	\$0.006156	\$657,380	\$0.006156
9				
10				
11 Embedded Power Supply Costs	\$9,674,647	\$0.088223	\$9,421,658	\$0.088223
12 "Perfect" PCAC	(\$503,070)	(\$0.00459)	(\$1,006,197)	(\$0.00942)
13 Out of Period Adjustment	\$221,295	\$0.00202	(\$64,391)	(\$0.00060)
14 PCAC to be Billed	(\$281,776)	(\$0.00257)	(\$1,070,588)	(\$0.01002)
15 Net Rate Impact to Customers	2.2%		(5.3%)	

City of Seaford, DE FOR BILLING MONTHS Feb 2017 - Jan 2019
Monthly Recovery of Power Cost i.e. Usage Months Jan 2017 - Dec 2018

(A) Usage Month/Year	(B) Power Supply Cost	(C) Debt Service Collection	(D) Retail Sales (kWh)	(E) Power Cost Recovery /kWh in Rates	(F) Power Cost Recovery In Rates (\$)	(G) Power Cost Adjustment PCAC / KWH	(H) Power Cost Recovery in PCAC	(I) Net Recovery of Power Cost	(J) Cumulative Power Cost Recovery
		\$0.006156			(D) x (E)		(D) x (G)	(F)+(H)-(B) prior month	
Historical									
1 Jan 2017	\$798,043	\$60,717	9,863,631	\$0.088223	\$870,199	(\$0.00296)	(\$29,227)	\$42,929	(\$221,295)
2 Feb 2017	\$677,311	\$52,536	8,534,629	\$0.088223	\$752,951	(\$0.00257)	(\$21,930)	\$53,710	(\$178,366)
3 Mar 2017	\$743,477	\$52,002	8,447,918	\$0.088223	\$745,301	(\$0.00257)	(\$21,707)	(\$19,884)	(\$124,655)
4 Apr 2017	\$637,792	\$48,673	7,907,161	\$0.088223	\$697,593	(\$0.00257)	(\$20,318)	\$39,484	(\$144,539)
5 May 2017	\$673,702	\$48,603	7,895,803	\$0.088223	\$696,591	(\$0.00257)	(\$20,288)	\$2,601	(\$105,056)
6 Jun 2017	\$796,178	\$58,547	9,511,141	\$0.088223	\$839,101	(\$0.00257)	(\$24,439)	\$18,485	(\$102,455)
7 Jul 2017	\$915,999	\$68,165	11,073,560	\$0.088223	\$976,943	(\$0.00257)	(\$28,454)	\$32,490	(\$83,970)
8 Aug 2017	\$846,737	\$62,717	10,188,581	\$0.088223	\$898,867	(\$0.00257)	(\$26,180)	\$25,950	(\$51,480)
9 Sep 2017	\$723,254	\$53,721	8,727,240	\$0.088223	\$769,943	(\$0.00257)	(\$22,425)	\$24,265	(\$25,530)
10 Oct 2017	\$667,560	\$50,101	8,139,156	\$0.088223	\$718,061	(\$0.00257)	(\$20,914)	\$29,587	(\$1,265)
11 Nov 2017 est.	\$666,869	\$51,422	8,353,689	\$0.088223	\$736,988	(\$0.00257)	(\$21,465)	\$46,654	\$28,322
12 Dec 2017 est.	\$708,760	\$50,175	8,151,161	\$0.088223	\$719,120	(\$0.00257)	(\$20,944)	(\$10,585)	\$74,975
13 Total	\$8,857,684	\$657,380	106,793,670		\$9,421,658		(\$278,289)	\$285,685	\$64,391
Forecast/Update									
15 Jan 2018 est.	\$758,201	\$60,717	9,863,631	\$0.088223	\$870,199	(\$0.01002)	(\$98,881)	\$13,117	\$77,508
16 Feb 2018 est.	\$643,496	\$52,536	8,534,629	\$0.088223	\$752,951	(\$0.01002)	(\$85,558)	\$23,897	\$101,404
17 Mar 2018 est.	\$706,359	\$52,002	8,447,918	\$0.088223	\$745,301	(\$0.01002)	(\$84,689)	(\$45,747)	\$55,657
18 Apr 2018 est.	\$605,950	\$48,673	7,907,161	\$0.088223	\$697,593	(\$0.01002)	(\$79,268)	\$12,375	\$68,032
19 May 2018 est.	\$640,067	\$48,603	7,895,803	\$0.088223	\$696,591	(\$0.01002)	(\$79,154)	(\$22,630)	\$45,402
20 Jun 2018 est.	\$756,428	\$58,547	9,511,141	\$0.088223	\$839,101	(\$0.01002)	(\$95,348)	(\$12,674)	\$32,728
21 Jul 2018 est.	\$870,268	\$68,165	11,073,560	\$0.088223	\$976,943	(\$0.01002)	(\$111,011)	(\$4,335)	\$28,393
22 Aug 2018 est.	\$804,464	\$62,717	10,188,581	\$0.088223	\$898,867	(\$0.01002)	(\$102,139)	(\$7,735)	\$20,657
23 Sep 2018 est.	\$687,145	\$53,721	8,727,240	\$0.088223	\$769,943	(\$0.01002)	(\$87,489)	(\$4,691)	\$15,966
24 Oct 2018 est.	\$634,232	\$50,101	8,139,156	\$0.088223	\$718,061	(\$0.01002)	(\$81,594)	\$2,235	\$18,201
25 Nov 2018 est.	\$635,475	\$51,422	8,353,689	\$0.088223	\$736,988	(\$0.01002)	(\$83,744)	\$17,768	\$35,969
26 Dec 2018 est.	\$673,375	\$50,175	8,151,161	\$0.088223	\$719,120	(\$0.01002)	(\$81,714)	(\$35,969)	\$0
27 Total	\$8,415,461	\$657,380	106,793,670		\$9,421,658		(\$1,070,588)	(\$64,391)	\$0
28									
29									
30									
PCAC	Jan 17	Feb 17 - Dec 17	Jan 18 - Dec 18						0.0%
	(\$0.00296)	(\$0.00257)	(\$0.01002)						

Check: % of Power Supply Cost: 0.0%



City of Seaford

2018 Retail Rate Impacts

	(A) Current 2017 Average Rates	(B) Proposed 2018 Average Rates	(C) Average Rate Impacts From Proposed 2018 Rates	(D) Average Rate Impacts From Proposed 2018 Rates
1	Out of Period PS Cost Adj.	\$221,295	(\$285,686)	(1.9%)
2	PCAC	(\$0.00257)	(\$0.00746)	
3				
4	Res	\$0.15293	(\$234,233)	(4.9%)
5	Com-ND	\$0.16809	(\$45,885)	(4.4%)
6	SGS	\$0.15338	(\$80,496)	(4.9%)
7	MGS	\$0.14094	(\$219,621)	(5.3%)
8	LGS-S	\$0.12091	(\$92,732)	(6.2%)
9	LGS-P	\$0.11292	(\$138,668)	(6.6%)
10	Total	\$0.14009	(\$811,635)	(5.3%)

City of Seaford

Residential Rate Comparison with DPL

Residential Rate Comparison with DPL

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Seaford Rates with 2018 PCAC Incl. \$72.37 DEMEC		DPL Current Rates			DPL Proposed Distribution Rates			
1	Min. Bill	\$15.00							
2	Cust. Charge	\$8.75	\$11.82	Cust. Charge		\$13.51	Cust. Charge		
3	First 45 kWh	\$0.160000	\$0.036711	Dist. Charge		\$0.039397	Dist. Charge		
4	Next 705 kWh	\$0.152817	\$0.069567	Summer SOS					
5	Over 750 kWh	\$0.128631	\$0.072808	Winter SOS					
6			\$0.071728	Annualized SOS					
7			\$3.081774	Transmission SOS					
8	Green Energy	\$0.000178	\$0.000356	Green Energy Fund					
9			\$0.000095	Low Income Charge					
10			\$0.009068	Renewable Portfolio					
11	2018 PCAC	(\$0.01002)	(\$0.002258)	PCA					

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Retail Sales (kWh)	Seaford 2018 Rates	DPL Current Rates	Amount DPL is (less)/more than Seaford		DPL Proposed Increase	DPL w/ Proposed Dist. Rates	Amount DPL is (less)/more than Seaford	
16	0	\$15.00	\$11.82	(\$3.18)	(21.2%)	\$1.69	\$13.51	(\$1.49)	(9.9%)
17	50	\$16.22	\$18.49	\$2.26	14.0%	\$1.82	\$20.31	\$4.09	25.2%
18	100	\$23.37	\$25.15	\$1.78	7.6%	\$1.96	\$27.11	\$3.74	16.0%
19	150	\$30.52	\$31.82	\$1.30	4.3%	\$2.09	\$33.91	\$3.39	11.1%
20	200	\$37.67	\$38.48	\$0.81	2.2%	\$2.23	\$40.71	\$3.04	8.1%
21	300	\$51.96	\$51.81	(\$0.15)	(0.3%)	\$2.50	\$54.31	\$2.34	4.5%
22	400	\$66.26	\$65.14	(\$1.12)	(1.7%)	\$2.76	\$67.91	\$1.65	2.5%
23	500	\$80.56	\$78.47	(\$2.08)	(2.6%)	\$3.03	\$81.51	\$0.95	1.2%
24	600	\$94.86	\$91.81	(\$3.05)	(3.2%)	\$3.30	\$95.11	\$0.25	0.3%
25	700	\$109.15	\$105.14	(\$4.02)	(3.7%)	\$3.57	\$108.71	(\$0.45)	(0.4%)
26	800	\$122.24	\$118.47	(\$3.77)	(3.1%)	\$3.84	\$122.31	\$0.07	0.1%
27	900	\$134.12	\$131.80	(\$2.32)	(1.7%)	\$4.11	\$135.91	\$1.79	1.3%
28	1,000	\$146.00	\$145.13	(\$0.87)	(0.6%)	\$4.38	\$149.51	\$3.51	2.4%
29	1,250	\$175.69	\$178.46	\$2.76	1.6%	\$5.05	\$183.50	\$7.81	4.4%
30	1,500	\$205.39	\$211.78	\$6.40	3.1%	\$5.72	\$217.50	\$12.11	5.9%
31	1,750	\$235.09	\$245.11	\$10.03	4.3%	\$6.39	\$251.50	\$16.42	7.0%
32	2,000	\$264.78	\$278.44	\$13.66	5.2%	\$7.06	\$285.50	\$20.72	7.8%
33	2,500	\$324.17	\$345.09	\$20.92	6.5%	\$8.41	\$353.50	\$29.33	9.0%
34	3,000	\$383.57	\$411.75	\$28.18	7.3%	\$9.75	\$421.50	\$37.93	9.9%
35	3,500	\$442.96	\$478.40	\$35.45	8.0%	\$11.09	\$489.50	\$46.54	10.5%

Notes:

- 1) DPL DE SOS rates recently became effective on October 1, 2017
- 2) DPL Distribution Rate Increases were filed August 17, 2017 and are under review by the Delaware PSC
- 3) DPL Rates for this class include a 175 hours usage determinant for Transmission Costs

City of Seaford

Residential Rate Comparison with DEC

Residential Rate Comparison with DEC

	(A)	(B)	(C)	(D)	(E)
	Seaford Rates with 2018 PCAC Incl. \$72.37 DEMEC		DEC Current Rates		
1	Min. Bill	\$15.00			
2	Cust. Charge	\$8.75	\$14.00	Cust. Charge	
3	First 45 kWh	\$0.160000	\$0.024140	Dist. Charge	
4	Next 705 kWh	\$0.152817	\$0.069390	Summer SOS	
5	Over 750 kWh	\$0.128631	\$0.064390	Winter SOS < 700 kWh	
6			\$0.049090	Winter SOS > 700 kWh	
7					
8					
9					
10	Green Energy	\$0.000178	\$0.000178	Renewable Portfolio	
11	2018 PCAC	(\$0.01002)	\$0.016000	PCA	

	(A)	(B)	(C)	(D)	(E)
	Retail Sales (kWh)	Seaford 2018 Rates	DEC Current Rates	Amount DEC is (less)/more than Seaford	
16	0	\$15.00	\$14.00	(\$1.00)	(6.7%)
17	50	\$16.22	\$19.32	\$3.10	19.1%
18	100	\$23.37	\$24.64	\$1.27	5.4%
19	150	\$30.52	\$29.96	(\$0.56)	(1.8%)
20	200	\$37.67	\$35.27	(\$2.39)	(6.4%)
21	300	\$51.96	\$45.91	(\$6.05)	(11.6%)
22	400	\$66.26	\$56.55	(\$9.71)	(14.7%)
23	500	\$80.56	\$67.19	(\$13.37)	(16.6%)
24	600	\$94.86	\$77.82	(\$17.03)	(18.0%)
25	700	\$109.15	\$88.46	(\$20.69)	(19.0%)
26	800	\$122.24	\$98.08	(\$24.16)	(19.8%)
27	900	\$134.12	\$107.70	(\$26.42)	(19.7%)
28	1,000	\$146.00	\$117.31	(\$28.68)	(19.6%)
29	1,250	\$175.69	\$141.36	(\$34.33)	(19.5%)
30	1,500	\$205.39	\$165.40	(\$39.99)	(19.5%)
31	1,750	\$235.09	\$189.45	(\$45.64)	(19.4%)
32	2,000	\$264.78	\$213.49	(\$51.29)	(19.4%)
33	2,500	\$324.17	\$261.58	(\$62.60)	(19.3%)
34	3,000	\$383.57	\$309.66	(\$73.90)	(19.3%)
35	3,500	\$442.96	\$357.75	(\$85.21)	(19.2%)

Notes:

1) DEC DE SOS rates recently became effective on March 1, 2017

City of Seaford

Debt Service Revenue Collection

	(A)	(B)	(C)	(D)	(E)
	Usage Month	Retail Sales (kWh)	\$/kWh Debt Service Collection Rate	Monthly Debt Service Collection	Cumulative Debt Service Collection
1	January 2016	9,682,478	\$0.002148	\$20,801.94	\$20,801.94
2	February 2016	10,032,388	\$0.001883	\$18,887.52	\$39,689.46
3	March 2016	8,112,240	\$0.002141	\$17,366.42	\$57,055.89
4	April 2016	7,621,235	\$0.002088	\$15,914.65	\$72,970.54
5	May 2016	8,088,885	\$0.002057	\$16,637.16	\$89,607.70
6	June 2016	9,259,319	\$0.002031	\$18,808.66	\$108,416.36
7	July 2016	10,716,951	\$0.002198	\$23,557.52	\$131,973.88
8	August 2016	12,097,724	\$0.001953	\$23,626.33	\$155,600.21
9	September 2016	9,442,435	\$0.002022	\$19,095.97	\$174,696.18
10	October 2016	8,102,779	\$0.002038	\$16,516.43	\$191,212.61
11	November 2016	8,055,413	\$0.002042	\$16,447.23	\$207,659.84
12	December 2016	8,874,970	\$0.002162	\$19,190.23	\$226,850.07
13	January 2017	9,863,631	\$0.006156	\$60,716.66	\$287,566.73
14	February 2017	8,534,629	\$0.006156	\$52,535.84	\$340,102.57
15	March 2017	8,447,918	\$0.006156	\$52,002.08	\$392,104.65
16	April 2017	7,907,161	\$0.006156	\$48,673.39	\$440,778.04
17	May 2017	7,895,803	\$0.006156	\$48,603.48	\$489,381.52
18	June 2017	9,511,141	\$0.006156	\$58,546.87	\$547,928.39
19	July 2017	11,073,560	\$0.006156	\$68,164.51	\$616,092.89
20	August 2017	10,188,581	\$0.006156	\$62,716.92	\$678,809.82
21	September 2017	8,727,240	\$0.006156	\$53,721.48	\$732,531.29
22	October 2017	8,139,156	\$0.006156	\$50,101.46	\$782,632.76
23	November 2017	est. 8,353,689	\$0.006156	\$51,422.04	\$834,054.80
24	December 2017	est. 8,151,161	\$0.006156	\$50,175.36	\$884,230.16
25	January 2018	est. 9,863,631	\$0.006156	\$60,716.66	\$944,946.82
26	February 2018	est. 8,534,629	\$0.006156	\$52,535.84	\$997,482.66
27	March 2018	est. 8,447,918	\$0.006156	\$52,002.08	\$1,049,484.74
28	April 2018	est. 7,907,161	\$0.006156	\$48,673.39	\$1,098,158.13
29	May 2018	est. 7,895,803	\$0.006156	\$48,603.48	\$1,146,761.61
30	June 2018	est. 9,511,141	\$0.006156	\$58,546.87	\$1,205,308.48
31	July 2018	est. 11,073,560	\$0.006156	\$68,164.51	\$1,273,472.98
32	August 2018	est. 10,188,581	\$0.006156	\$62,716.92	\$1,336,189.90
33	September 2018	est. 8,727,240	\$0.006156	\$53,721.48	\$1,389,911.38
34	October 2018	est. 8,139,156	\$0.006156	\$50,101.46	\$1,440,012.85
35	November 2018	est. 8,353,689	\$0.006156	\$51,422.04	\$1,491,434.89
36	December 2018	est. 8,151,161	\$0.006156	\$50,175.36	\$1,541,610.25

Seaford Infrastructure Improvements - Budget Review through December 31, 2017

Pine Street Substation Expansion Items	Original Budget	Revised Budget	Expenditures at 12/31/2017
Existing Pine St. Substation Demolition	116,816	116,816	116,816
Power Transformers ¹	1,500,000	902,690	902,690
Circuit Breakers	420,000	335,162	335,162
Control Building with Relay Panels	760,000	618,418	494,773
Substation Structures and Equipment	1,200,000	970,581	773,304
Substation Construction Services	1,700,000	1,801,427	683,650
Distribution Construction Services and Materials ²	1,550,000	1,242,827	501,898
Project Design Engineering Services ³	330,000	330,000	330,000
Construction Phase Engineering Services	280,000	293,073	155,865
Technical Support / Substation Commissioning	70,000	70,000	60,067
Financing, Legal, Admin & Contingency ⁴	1,073,184	519,094	63,254
Final Estimated Project Budget	9,000,000	7,200,089	4,417,478

¹20% Deposit at PO; 30% Progress Payment at Shop Drawing Approval, Balance invoiced upon 9/30 shipment

²Includes AUI bid of \$630m, poles & mat'l bids of \$215m, Circuit 210 Relo, Storage, and other estimates

³Design Services paid in advance by Seaford; not part of DEMEC financing

⁴Initial budget included contingency line only; upated to include financing, legal & admin costs

Advanced Metering Infrastructure (AMI) Items	Budget, As Amended	Expenditures at 12/31/2017
AMI Base Contract ⁵	1,082,505	120,985
Amendment #1 - IT Infrastructure ⁵	100,095	
Amendment #2 - IT & Building Infrastructure ⁶	91,460	38,694
Financing, Legal, Admin & Contingency ⁷	105,406	7,131
Final Estimated Project Budget	1,379,466	166,810

⁵Activity has been underway since February; first billing milestone reached in November

⁶Make-ready work at City Hall underway, including ISP redundancy upgrades

⁷No available estimate for Finance/Legal/Admin/Contingency; 8.3% added as placeholder

Solar Array Borrowing Authorization:

- Initial Issue Amount - \$1,658,300
- Less Principal Forgiveness - \$500,000
 - SRF Net Authorized Loan - \$1,158,300

- Final Project Cost - \$1,619,288
- Less Adjusted Principal Forgiveness - 460,988
 - SRF Loan \$1,158,300

- SREC Value sold and in Reserve as of 9/30/17 - \$81,510
- 20 Yr Loan Debt Service
- 1st payment due May 1, 2018 - \$36,013
 - 40 equal payments over life of the loan