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\*ADMITTED TO PRACTICE IN  
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June 5, 2019

Ms. Luly Massaro, Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

***Re: Docket No. 4890- The Narragansett Bay Commission  
General Rate Filing***

Dear Ms. Massaro:

Enclosed please find an original and nine copies of the following:

1. The Narragansett Bay Commission's Response to the Rhode Island Public Utilities Commission's Hearing Record Requests.

Also, please note that an electronic copy of this document has been provided to the service list.

Thank you for your attention to this matter.

Sincerely,



Joseph A. Keough, Jr.

JAK/kf

cc: Docket 4890 Service List (*via electronic mail*)

**Request 1:** Please provide the Chemical bids received by the Narragansett Bay Commission (NBC) referenced in the hearing testimony of Karen Giebink.

**Response:** See table below and attached bids.

<b>Account 54332</b>	<b>Settlement</b>	<b>Actual Rate</b>	<b>Increase</b>
Gallons Hypochlorite	853,718	853,718	-
Rate	\$ 0.5313	\$ 0.6890	\$ 0.1577
Rate Year Expense Hypochlorite	\$ 453,580	\$ 588,212	\$ 134,632

<b>Account 54337</b>	<b>Settlement</b>	<b>Actual Rate</b>	<b>Increase</b>
Gallons Bisulfite	339,956	339,956	-
Rate	\$ 1.2174	\$ 1.2300	\$ 0.0126
Rate Year Expense Bisulfite	\$ 413,862	\$ 418,145	\$ 4,283

**Prepared by:** Karen Giebink

# BID PROPOSAL

**NARRAGANSETT BAY COMMISSION**  
**One Service Road**  
**Providence, Rhode Island 02905**  
 Telephone (401) 461-8848  
 Fax (401) 461-6540

DATE: 4/22/2019

BID NO: 1340

BID OPENING:

DATE: 5/20/19

TIME: 10:00am

BUYER: E. PETTERUTI

COST CENTER: multiple

FISCAL YR: 2019

REQ. NO.

**BILL TO:**

**NARRAGANSETT BAY COMMISSION**  
**One Service Road**  
**Providence, RI 02905**  
**Attention: Accounts Payable**

**SHIP TO:**

**NARRAGANSETT BAY COMMISSION**

**1 SERVICE ROAD**

**PROVIDENCE, RI 02905**

IMPORTANT- Insert unit price in both columns with brand, model number and name of your firm below.

**BIDDER:**

Univar USA Inc.

**BID # 1340**

**PAGE NO. 2**

**BIDDER:**

Univar USA Inc.

**BID # 1340**

**PAGE NO. 2**

ITEM NO.	COMMODITY CODE / DESCRIPTION	QTY	UNIT PRICE	TOTAL DELIVERED PRICE
	VENDOR TO SUPPLY AND DELIVER TO NARRAGANSETT BAY COMMISSION WASTEWATER TREATMENT FACILITIES, CHEMICALS USED IN TREATMENT OF WASTEWATER PER ATTACHED BID SPECIFICATIONS. BLANKET PERIOD: JULY 1, 2019 TO JUNE 30, 2021, TWO (2) YEAR BLANKET PERIOD.			
	<u>CHEMICAL</u> <u>TOTAL ESTIMATED QUANTITIES</u>			
ITEM #1	SODIUM HYPOCHLORITE SOLUTION 1,516,727 Note. Trailer Rental is for informational purposes and not part of bid consideration	#1	\$0.689 per GALLON	\$ \$1,113,924.90
ITEM #2	SODIUM BISULFITE SOLUTION 676,061	#2	\$1.23 per GALLON	\$ \$831,555.03
ITEM #3	LIQUID GLYCERIN BASED CARBON 34,000 GALLONS	#3	No Bid GALLON	\$ No Bid
ITEM #4	HYDROXIDE (CAUSTIC 40,000 GALLONS	#4	\$2.2928 per GALLON	\$ \$91,712.00
ITEM #5	GRADE 260 SODA ASH 330 TONS	#5	\$451.44 per TON	\$ \$148,975.20
ITEM #6	LIQUID MANICH POLYMER 132,300 GALLONS	#6	No Bid GALLON	\$ No Bid
ITEM #7	DRY POLYMER BAGS 50,000 LBS.	#7	No Bid 50 LB. BAG	\$ No Bid
ITEM #8	EMULSION POLYMER TOTES 16,000 GALLONS	#8	No Bid GALLON	\$ No Bid
CONTINUED ON NEXT PAGE				
			TERMS Net30	TERMS Net30

**COMPANY NAME:** Univar USA Inc.

**STREET AND NO.:** 200 Dean Sievers Place

**CITY:** Morrisville

**STATE:** PA

**ZIP:** 19067

**SIGNATURE:**

*Michael Crea*  
 (AUTHORIZED SIGNATURE)

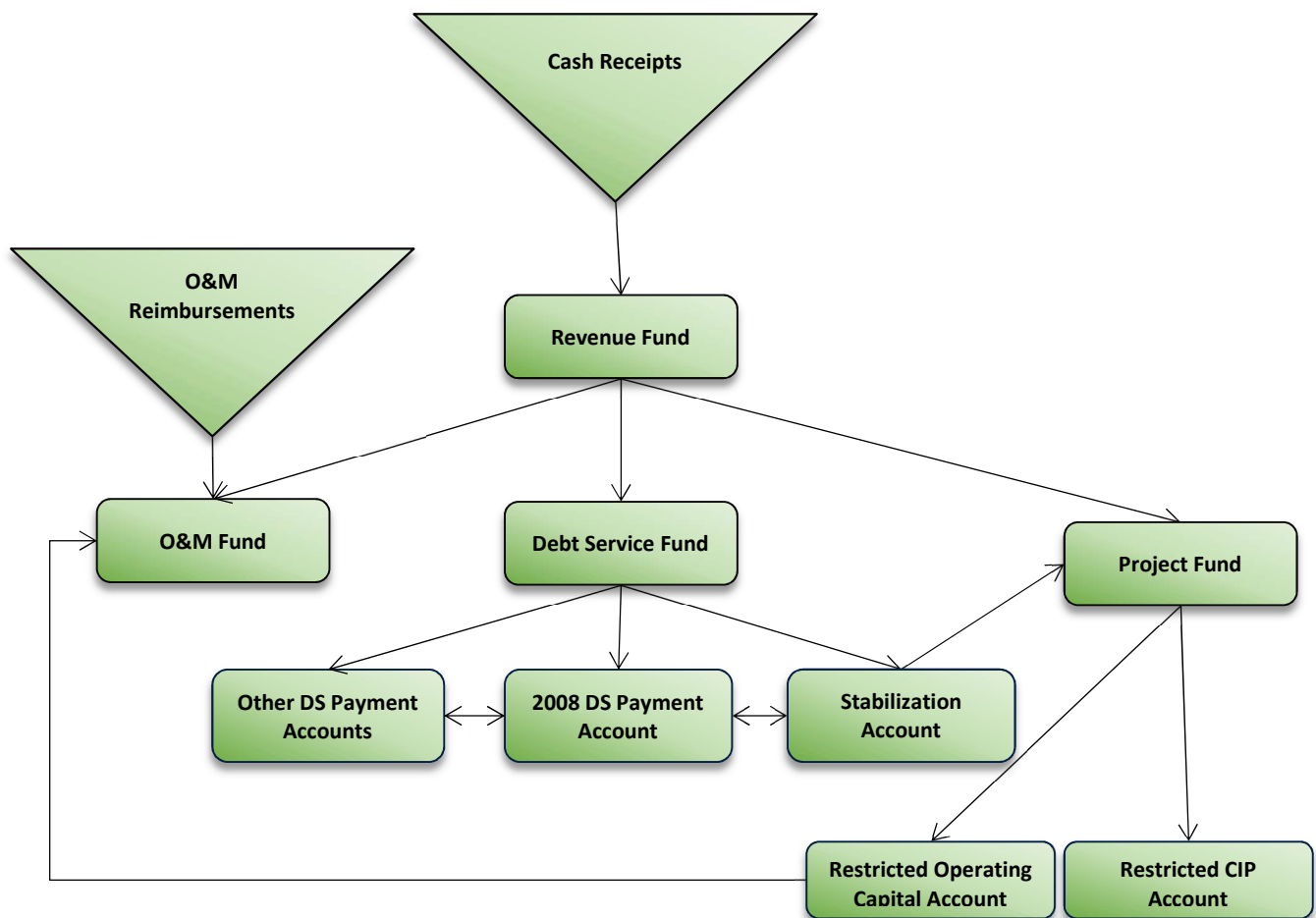
**TITLE:** Michael Crea, Municipal Specialist

**DATE:** May 16, 2019

**TELEPHONE:** (215) 337-5411

**Request 2:** Please describe how NBC accounts for revenues and funds its various accounts.

**Response:** Please see flow chart below and the narrative description of the monthly flow of funds as set forth in the Trust Indenture. Please note that this is meant to be descriptive of the routine flow of funds and not reflect all possible scenarios.



In accordance with NBC's Trust Indenture, NBC's Revenues, with the exception of EEF (Environmental Enforcement Funds) are deposited into the Revenue Fund.

NBC prepares a spreadsheet ("cash flow") that captures the monthly cash flow, which is used to determine the total cash receipts from Revenue during the month. The cash flow also includes expenses processed during the month in the Operation and Maintenance (O&M) Fund.



The total Revenue Fund deposits from the cash flow is the cash available for the monthly fund/account transfers. The transfers occur on the third day prior to the last business day of the month. The order of the transfers is as follows:

1. The first transfer is from the Revenue Fund to the O&M Fund. This monthly transfer is required for for the payment of O&M expense. The amount of the transfer is based on the the prior fiscal year and is set forth in the budget.
2. The next transfer is to fund deposits to the restricted debt service accounts in the Debt Service Fund. The monthly deposits are calculated by applying the restricted percentage (for debt service and debt service coverage) to the available cash.
3. The first deposit is into the Debt Service 2008 Payment Account in the Debt Service Fund for interest related to the Variable Rate Demand Obligations.
4. The next deposit is into the other Debt Service Payment Accounts in the Debt Service Fund. To the extent that funds are available, NBC deposits 1/6th of interest and 1/12th of principal based on NBC's debt service schedule.
5. Once all of the deposits to the Debt Service Payment accounts have been made, any remaining restricted funds are deposited into the Stabilization account.
6. Deposits to the revenue fund that are related to pass-through costs recorded as charges and/or adjustments on customer accounts, such as the State of RI Septage Surcharge, are also transferred to the O&M Fund in a separate certification to the trustee outside of the monthly trust transfer.
7. Payments made from the O&M fund that are reimbursed, such as COBRA payments reimbursed by the COBRA administrator and lien sale redemptions, are directly deposited into the O&M Fund,
8. Capital reimbursements are deposited as Cash Receipts to the Revenue Fund and are transferred to the Project Fund to be used for future capital projects.
9. After meeting the Indenture's debt service coverage requirement, amounts in the Debt Service Fund's Stabilization Account that are determined to not be needed for deposit into the Debt Service Payment Accounts are transferred to the Restricted – CIP and Restricted Operating Capital Accounts in the Project Fund in subsequent months to pay for capital projects and operating capital.

**Prepared by:** Karen Giebink

**Request 3:** In NBC's Response to Comm. 2-7, it references RECVALS in the Coventry Solar Net Metering Agreement. Please indicate how the RECVALS were calculated. Were they negotiated or were they based on the spot market price, and what are the values used?

**Response:** The RECVALS were calculated based upon the current rate NBC had contracted with a renewable energy broker. The value of the contracted price in place was \$16.50 per renewable energy credit.

**Prepared by:** Jim McCaughey

DOCKET NO. 4890  
Response from the Narragansett Bay Commission  
to the Rhode Island Public Utilities Commission  
Hearing Record Requests  
May 23, 2019

**Request 4:** Regarding NBC's response to Comm. 2-11, please update the schedules for the Field's Point and Coventry Wind Turbines with actual performance to date for those turbines.

**Response:** Both schedules are up-to-date through December 31, 2018 with respect to actual energy production and the value of the Renewable Energy Credits. Due to fluctuations in energy costs average, estimated values of \$0.11/kWh for behind the meter electricity at Field's Point and \$0.14/kWh for net metered electricity from the Coventry wind turbine were utilized. Both schedules have been updated through May 28th, 2019 which are as follows:

**Field's Point Turbines**

Cost Item	% Change	Period	Period	Year	kWh/Year	Electricity Value (\$/kWh)	REC Value (\$/kWh)	Maintenance Contract (\$/year)	Extended Warranty (\$/year)	Insurance (\$/year)	Capital Cost Debt Repayment (\$/year)	Annual Net Benefit (\$/year)
Electricity	3.50%	Annually	1	2013	6,463,451	\$0.1100	\$0.0640	\$82,500	\$46,800	\$10,849	\$516,947	\$467,544.19
Maintenance Contract	6.50%	Five Years	2	2014	7,542,074	\$0.1100	\$0.0640	\$82,500	\$46,800	\$11,229	\$516,947	\$654,845.02
Extended Warranty	6.50%	Five Years	3	2015	7,158,429	\$0.1100	\$0.0500	\$82,500	\$46,800	\$11,229	\$516,947	\$487,872.68
Insurance	3.50%	Annually	4	2016	6,893,758	\$0.1100	\$0.0525	\$82,500	\$46,800	\$11,229	\$516,947	\$462,759.70
REC Devalue	5.00%	Annually	5	2017	7,603,597	\$0.1100	\$0.0260	\$82,500	\$46,800	\$11,229	\$516,947	\$376,613.20
Power Degradation	0.50%	Annually	6	2018	7,711,983	\$0.1100	\$0.0163	\$87,000	\$87,000	\$11,229	\$516,947	\$271,461.93
			7A	Jan-May 2019	3,817,161	\$0.1139	\$0.0200	\$36,250	\$36,250	\$4,679	\$215,395	\$218,544.59
			7B	June - Dec 2019	3,686,859	\$0.1139	\$0.0200	\$50,750	\$50,750	\$6,550	\$301,553	\$84,067.85
			8	2020	7,673,423	\$0.1178	\$0.0190	\$87,000	\$87,000	\$11,229	\$516,947	\$347,815.00
			9	2021	7,466,501	\$0.1220	\$0.0181	\$93,000	\$99,000	\$11,229	\$516,947	\$325,201.10
			10	2022	7,635,056	\$0.1262	\$0.0171	\$93,000	\$99,000	\$11,229	\$516,947	\$374,500.45
			11	2023	7,429,168	\$0.1306	\$0.0163	\$99,000	\$105,000	\$11,229	\$516,947	\$359,433.48
			12	2024	7,596,881	\$0.1352	\$0.0155	\$99,000	\$105,000	\$11,229	\$516,947	\$412,626.17
			13	2025	7,392,022	\$0.1400	\$0.0147	\$99,000	\$105,000	\$11,229	\$516,947	\$411,019.21
			14	2026	7,558,896	\$0.1448	\$0.0140	\$99,000	\$105,000	\$11,229	\$516,947	\$468,295.78
			15	2027	7,355,062	\$0.1499	\$0.0133	\$99,000	\$105,000	\$11,229	\$516,947	\$468,075.46
			16	2028	7,521,102	\$0.1552	\$0.0126	\$105,435	\$111,825	\$11,229	\$516,947	\$516,385.73
			17	2029	7,318,287	\$0.1606	\$0.0120	\$105,435	\$111,825	\$11,229	\$516,947	\$517,491.13
			18	2030	7,483,496	\$0.1662	\$0.0114	\$105,435	\$111,825	\$11,229	\$516,947	\$583,584.78
			19	2031	7,281,695	\$0.1720	\$0.0108	\$105,435	\$111,825	\$11,229	\$516,947	\$585,966.50
			20	2032	7,446,079	\$0.1781	\$0.0103	\$105,435	\$111,825	\$11,229	\$516,947	\$656,833.75
			21	2033	7,245,287	\$0.1843	\$0.0098	\$105,435	\$111,825	\$11,229	\$516,947	\$660,453.10
			22	2034	7,408,848	\$0.1907	\$0.0093	\$112,288	\$119,094	\$11,229	\$516,947	\$722,243.63
			23	2035	7,209,060	\$0.1974	\$0.0088	\$112,288	\$119,094	\$11,229	\$516,947	\$727,071.87
			24	2036	7,371,804	\$0.2043	\$0.0084	\$112,288	\$119,094	\$11,229	\$516,947	\$808,323.32
			25	2037	7,173,015	\$0.2115	\$0.0079	\$112,288	\$119,094	\$11,229	\$516,947	\$814,341.08

DOCKET NO. 4890  
Response from the Narragansett Bay Commission  
to the Rhode Island Public Utilities Commission  
Hearing Record Requests  
May 23, 2019

### Coventry Wind Turbines

Cost Item	% Change	Period	Period	Year	kWh/Year	Electricity Value (\$/kWh)	REC Value (\$/kWh)	LTSA (\$/year)	Asset Management (\$/year)	Land Lease (\$/year)	Insurance (\$/year)	Capital Cost Debt Repayment (\$/year)	Annual Net Benefit (\$/year)
NMC	3.50%	Annually	1	2016	3,393,469	\$0.1400	\$0.0525	\$26,250	\$11,250	\$27,000	\$3,129	\$177,500	\$435,113.53
LTSA	14.30%	Five years	2	2017	8,780,228	\$0.1449	\$0.0260	\$105,000	\$45,000	\$108,000	\$12,517	\$710,000	\$628,023.97
Insurance	0.00%	Annually	3	2018	8,587,804	\$0.1500	\$0.0163	\$105,000	\$45,900	\$108,000	\$12,517	\$710,000	\$554,060.66
REC Devalue	5.00%	Annually	4A	Jan-May 2019	4,255,733	\$0.1552	\$0.0163	\$43,750	\$19,508	\$45,000	\$5,215	\$295,833	\$365,426.43
Power Degradation	0.50%	Annually	4B	June - Dec 2019	4,428,283	\$0.1552	\$0.0200	\$61,250	\$27,311	\$63,000	\$7,302	\$414,167	\$265,897.22
Asset Management	2.00%	Annually	5	2020	8,640,596	\$0.1607	\$0.0190	\$105,000	\$47,754	\$108,000	\$12,517	\$710,000	\$677,039.52
Land Lease	5.00%	Five years	6	2021	8,597,393	\$0.1663	\$0.0181	\$120,000	\$48,709	\$113,400	\$12,517	\$710,000	\$693,497.32
			7	2022	8,554,406	\$0.1721	\$0.0171	\$120,000	\$49,684	\$113,400	\$12,517	\$710,000	\$726,662.92
			8	2023	8,511,634	\$0.1781	\$0.0163	\$120,000	\$50,677	\$113,400	\$12,517	\$710,000	\$761,545.82
			9	2024	8,469,076	\$0.1844	\$0.0155	\$120,000	\$51,691	\$113,400	\$12,517	\$710,000	\$798,158.11
			10	2025	8,426,730	\$0.1908	\$0.0147	\$120,000	\$52,725	\$113,400	\$12,517	\$710,000	\$836,514.35
			11	2026	8,384,597	\$0.1975	\$0.0140	\$137,160	\$53,779	\$119,070	\$12,517	\$710,000	\$859,471.62
			12	2027	8,342,674	\$0.2044	\$0.0133	\$137,160	\$54,855	\$119,070	\$12,517	\$710,000	\$901,369.40
			13	2028	8,300,960	\$0.2115	\$0.0126	\$137,160	\$55,952	\$119,070	\$12,517	\$710,000	\$945,069.61
			14	2029	8,259,456	\$0.2190	\$0.0120	\$137,160	\$57,071	\$119,070	\$12,517	\$710,000	\$990,596.53
			15	2030	8,218,158	\$0.2266	\$0.0114	\$137,160	\$58,212	\$119,070	\$12,517	\$710,000	\$1,037,976.78
			16	2031	8,177,068	\$0.2345	\$0.0108	\$156,774	\$59,377	\$125,024	\$12,517	\$710,000	\$1,067,625.47
			17	2032	8,136,182	\$0.2428	\$0.0103	\$156,774	\$60,564	\$125,024	\$12,517	\$710,000	\$1,118,801.62
			18	2033	8,095,501	\$0.2513	\$0.0098	\$156,774	\$61,775	\$125,024	\$12,517	\$710,000	\$1,171,924.98
			19	2034	8,055,024	\$0.2600	\$0.0093	\$156,774	\$63,011	\$125,024	\$12,517	\$710,000	\$1,227,031.44
			20	2035	8,014,749	\$0.2692	\$0.0088	\$156,774	\$64,271	\$125,024	\$12,517	\$710,000	\$1,284,159.21
			21	2036	7,974,675	\$0.2786	\$0.0084	\$179,193	\$65,557	\$131,275	\$12,517	\$710,000	\$1,320,930.13
			22	2037	7,934,802	\$0.2883	\$0.0079	\$179,193	\$66,868	\$131,275	\$12,517	\$710,000	\$1,382,224.36
			23	2038	7,895,128	\$0.2984	\$0.0075	\$179,193	\$68,205	\$131,275	\$12,517	\$710,000	\$1,445,668.36
			24	2039	7,855,652	\$0.3089	\$0.0072	\$179,193	\$69,569	\$131,275	\$12,517	\$710,000	\$1,511,309.61
			25	2040	7,816,374	\$0.3197	\$0.0068	\$179,193	\$70,960	\$131,275	\$12,517	\$710,000	\$1,579,197.93

Prepared by: Jim McCaughey

**Request 5:** Regarding NBC's response to Comm. 2-11, please explain why the Electricity Values for the Field's Point and Coventry Wind Turbines differ.

**Response:** The value of electricity generated by the Field's Point wind turbines is based on the cost to purchase electricity at that location. At Field's Point NBC purchases electricity through a contract with a separate electricity supplier and pays National Grid for delivery services. Delivery services through National Grid are based on the G-032 Large Demand Rate. On average the combined value of delivery and electricity for Field's Point is about \$0.11/kWh.

The value of the electricity generated by the Coventry wind turbine is realized by NBC through Net Metering Credits applied to our electric bills with National Grid. In accordance with RIGL 39-26.4 - the rates applicable to net-metered accounts are those that apply to the rate classification where the power is produced. In the case of the Coventry Wind turbines the rate classification is C-O6 which equates to about \$0.14/kWh.

**Prepared by:** Jim McCaughey

**Request 6:** Please compare the last two years of NBC's electricity costs to what it would have paid if it were on standard offer.

**Response:**

Contract vs. Standard Offer*				
	NBC Supply per		Increased Cost	
	Contract	Standard Offer	(Savings)	
<b>FY 2017</b>	\$ 1,641,887.97	\$ 1,474,680.42	\$	167,207.55
<b>FY 2018</b>	1,726,193.23	1,898,052.21		(171,858.98)
<b>FY 2019 YTD</b>	1,811,064.79	2,318,227.15		(507,162.36)
	\$ 5,179,145.99	\$ 5,690,959.78	\$	(511,813.79)

\* All except smaller Interceptor Maintenance accounts

**Prepared by:** Karen Giebink



**Request 7:** Regarding NBC's response to Comm. 2-8:

- a. Under what program is NBC receiving the \$540,000 grant from National Grid?
- b. Under what program is NBC receiving the \$200,000 grant from the Regional Greenhouse Gas Initiative?
- c. Which part of the Rhode Island Renewable Energy Fund is providing the \$80,000 grant?
- d. For each of the grants in subparts a.-c., please state whether NBC has received a letter of commitment, and if so, please provide the letter(s).
- e. When does NBC expect to receive each of the grants in subparts a.-c.; are there restrictions on the grants; if so, what are they; and, if not, what does NBC plan to do with the grant funds?

**Response:**

- a. NBC will receive these funds as the result of National Grid Custom Retrofit Application No. 7286259. The signed Terms, Conditions and Minimum Technical Requirements are attached. NBC expects to receive 80% of the funds upon completion of the project as verified by an inspection performed by the grant giver, and the remaining 20% after fulfilling all items in the attached Minimum Requirements Document (MRD).
- b. NBC will receive these funds as allocated by the Rhode Island Office of Energy Resources (RIOER) from the funds which are a result of Rhode Island's participation in the Regional Greenhouse Gas Initiative (RGGI). NBC expects to receive 100% of the funds upon completion of the project as verified by an inspection performed by the grant giver.
- c. This is from the Commercial Scale Program. NBC expects to receive 100% of the funds upon completion of the project as verified by an inspection performed by the grant giver. The Commercial Scale Program Award letter is attached.
- d. NBC has no Letters of Commitment other than those that are attached.
- e. NBC expects to receive the funds according the timelines stated above in response to items a, b and c above. NBC is not aware of restrictions on the grants. The grant funds will be deposited in the Grant and Project Reimbursement Account in the Project Fund to be used for capital improvements.

**Prepared by:** Barry Wenskowicz

# Custom Application 2017 Retrofit Program

**nationalgrid**  
HERE WITH YOU. HERE FOR YOU.

ALL FIELDS ON THIS PAGE ARE REQUIRED TO COMPLETE YOUR APPLICATION.

## CUSTOMER/ACCOUNT HOLDER INFORMATION

COMPANY NAME Narragansett Bay Commission		CONTACT PERSON Barry Wenskowicz		APPLICATION DATE	
INSTALL SITE Bucklin Point Wastewater Treatment Facility		PHONE (401) 461-8848 x329		FAX NUMBER (401) 461-6540	
EMAIL ADDRESS bwenskowicz@narrabay.com				SQUARE FEET (COVERED BY THIS APPLICATION)	
STREET ADDRESS 102 Campbell Avenue		CITY Rumford		STATE RI	ZIP 02916
MAILING ADDRESS (IF DIFFERENT) One Service Road		CITY Providence		STATE RI	ZIP 02905
ELECTRIC COMPANY NAME National Grid				ELECTRIC ACCOUNT NUMBER (OR COPY OF ELECTRIC BILL) 8930794011	
GAS COMPANY NAME National Grid				GAS ACCOUNT NUMBER (OR COPY OF GAS BILL) 5212709017	
BUILDING TYPE (PLEASE PLACE "X" IN APPROPRIATE BALLOT BOX)					
<input type="checkbox"/> ASSEMBLY	<input type="checkbox"/> FAST FOOD	<input type="checkbox"/> HOTEL	<input type="checkbox"/> MULTI STORY RETAIL	<input type="checkbox"/> RELIGIOUS	<input type="checkbox"/> SMALL RETAIL
<input type="checkbox"/> AUTOMOTIVE	<input type="checkbox"/> FULL SERVICE RESTAURANT	<input type="checkbox"/> LARGE REFRIGERATED SPACE	<input type="checkbox"/> MULTIFAMILY HIGH-RISE	<input type="checkbox"/> K-12 SCHOOL	<input type="checkbox"/> UNIVERSITY
<input type="checkbox"/> BIG BOX	<input type="checkbox"/> GROCERY	<input type="checkbox"/> LARGE OFFICE	<input type="checkbox"/> MULTIFAMILY LOW-RISE	<input type="checkbox"/> SMALL OFFICE	<input type="checkbox"/> WAREHOUSE
<input type="checkbox"/> COMMUNITY COLLEGE	<input type="checkbox"/> HEAVY INDUSTRIAL	<input type="checkbox"/> LIGHT INDUSTRIAL	<input type="checkbox"/> OTHER:		
<input type="checkbox"/> DORMITORY	<input type="checkbox"/> HOSPITAL	<input type="checkbox"/> MOTEL			

### PROJECT TYPE (select one)

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE            | <input type="checkbox"/> NEW BUILDING                     | <input type="checkbox"/> EXPANSION OF AN EXISTING BUILDING    | <input type="checkbox"/> PLANNED REPLACEMENT OF EQUIPMENT |
| <input checked="" type="checkbox"/> NEW EQUIPMENT FOR NEW PROCESS OR EXPANDED OPERATION | <input type="checkbox"/> RENOVATION OF EXISTING EQUIPMENT | <input type="checkbox"/> NEW CONTROLS FOR IMPROVED OPERATIONS | <input type="checkbox"/> REPLACEMENT OF FAILED EQUIPMENT  |

## PAYMENT METHOD (PAYEE MUST SUBMIT A W-9 FORM)

PAYMENT TO:	<input checked="" type="checkbox"/> CUSTOMER <input type="checkbox"/> VENDOR/INSTALLER	CUSTOMER — TAX ID# (REQUIRED) 061471715	VENDOR/INSTALLER — TAX ID# (REQUIRED IF RECEIVING INCENTIVE)
CHECK PAYABLE TO:	Narragansett Bay Commission	CUSTOMER COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input checked="" type="checkbox"/> EXEMPT	VENDOR COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT

## VENDOR INFORMATION

AUTHORIZED VENDOR/INSTALLER BioSpark		CONTACT NAME Thomas Moore	
STREET ADDRESS One Liberty Square, 11th Floor		CITY Boston	STATE MA
PHONE (978) 621-0421		ZIP 02109	
EMAIL ADDRESS tmoore@biosparkusa.com			
DATE		AUTHORIZED VENDOR/INSTALLER SIGNATURE (NOT APPLICABLE IF CUSTOMER IS PAYEE.)  <b>X</b>	

## TOTAL ESTIMATED PROJECT COST AND COMPLETION DATE

**TOTAL ESTIMATED COST OF LABOR AND MATERIALS: \$**  
(An actual invoice must be submitted to National Grid before final payment of incentive will be made.)

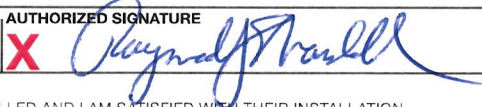
5,558,850.

**ANTICIPATED COMPLETION DATE:**  
Summer 2018

## CUSTOMER ACCEPTANCE OF TERMS

### PRE-INSTALLATION

- ☒ I CERTIFY THAT ALL STATEMENTS MADE IN THIS APPLICATION ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS ON THE BACK OF THIS FORM.

DATE 8/31/18	PRINT NAME Raymond Marshall, Executive Director	AUTHORIZED SIGNATURE <b>X</b> 
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### POST-INSTALLATION

- ☐ I CERTIFY THAT I HAVE SEEN THE ENERGY EFFICIENCY MEASURES THAT HAVE BEEN INSTALLED AND I AM SATISFIED WITH THEIR INSTALLATION.

DATE	PRINT NAME	AUTHORIZED SIGNATURE <b>X</b>
------	------------	----------------------------------

## CUSTOM MEASURE APPLICATION PROCESS

1. All applications for incentives under the Custom Application Process require sound documentation of the proposed cost, projected electricity savings and the related non-electric savings.
2. Before starting the application process, check with a National Grid representative to determine eligibility of the proposed project and to establish requirement for detailed savings projections and cost estimates.
3. This information will be submitted to a National Grid Technical Representative for review and evaluation of potential incentives.
4. The Technical Representative will develop a Minimum Requirements Document which describes the minimum equipment specifications and operational requirements of the proposed system. The Customer will be required to sign this document.
5. After successful review and project approval, your National Grid representative will notify customer in writing of the project approval, the incentive amount and the terms and conditions required to receive final incentive payment.
6. The following is a guide to the level of technical information and documentation that is typically required.

### Project Description

- General description of facility, its use and typical operation (include occupancy schedules)
- Overall project description including operating schedules and parameters

### Existing Materials and Equipment

- Detailed description of equipment and operations
- Cut sheets with equipment performance ratings (BHP, CFM, kW, etc.). Provide nameplate data if cut sheets are unavailable
- Part load performance data where applicable
- Description of controls and sequence of operations

### Proposed Materials and Equipment

- Detailed description of equipment and operations
- Cut sheets for the materials or performance ratings for equipment being installed (BHP, CFM, PSI, Efficiency rating, U-value, Lumens, etc)
- Description of controls and sequence of operations

### Load Profile

- Equipment hours of operation (operating schedule per day, week, year)
- Provide operating load profiles showing how equipment load and operating parameters vary over time due to changes in: occupancy, weather, production, etc.
- Where there are existing systems involved, metering kW and kWh of major equipment loads is recommended. If metered information is not available, provide other documentation used to estimate loads and operating hours.

### Savings Calculations

- Show calculations used to determine electricity savings including:
  - On-peak Consumption (kWh)
  - Off-peak Consumption (kWh)
  - Summer Demand (kW) (see Table 1)
  - Winter Demand (kW) (see Table 1)
  - Percent Energy Savings On Peak (see Table 1)
- The calculations should clearly show all the details of how the energy savings were estimated. This includes all engineering formulas and documentation of all the factors, values and assumptions used in the formulas (spreadsheet preferred)
- In cases where energy modeling is used to determine savings, approved modeling software must be used. Input and output data from the model must be provided.

See Table 1 on page 4 for the specific details on the Demand data required.

**These programs are funded by the energy efficiency charge on all customers' utility bills, in accordance with Rhode Island law.**





The following form may be filled out for preliminary project submittal and review, but a final Custom Project information package must also be submitted in electronic format. Contact a National Grid Technical Representative for details.

## PROPOSED EQUIPMENT SPECIFICATION (FACILITY DETAIL)

**BUILDING, ROOM AND EQUIPMENT IDENTIFICATION** (Installation Site) \_\_\_\_\_

**DESCRIPTION OF PROJECT**

**Existing System:** Measure Description

**Proposed System:** Measure Description

**Manufacturer Incentives, Manufacturer Discounts, Taxes, and/or Salvage Values**

**INTERNAL USE ONLY:**

**MEASURE CODE** \_\_\_\_\_

**MEASURE DESCRIPTION** \_\_\_\_\_

## IMPORTANT VSD INFORMATION

VSDs can be sensitive to over-voltages that occur when power factor correcting capacitor banks on the utility power system are switched on. To qualify for an incentive payment, each VSD must include a series reactor (inductor, choke) in its AC input connections. Your VSD supplier should assist in the sizing of the reactor. Minimum recommendation is a 3% impedance reactor, based on the horsepower of the VSD to be installed.

In some instances your supplier may find it necessary to install 5% reactors and, rarely, additional filtering devices to meet acceptable current and voltage harmonic distortion requirements.

If your power factor is less than 0.8 (80%), we recommend that you consider power factor correction concurrent with the installation of drives.

The use of VSDs which incorporate pulse width modulation (PWM) may produce over-voltages which may cause premature failure of AC induction motors not rated for use with an inverter. We recommend that when installing PWM drives, you consider utilizing inverter rated motors.



**Table 1: Energy (kWh) and Demand (kW) Reduction**

Please provide the Total Energy (kWh) and Demand (kW) Reduction that occurs during the time periods listed below.

	kWh				Total Percent Energy Savings on Peak ***	
	Summer		Winter			
Peak Energy		kWh		kWh		%
Off-Peak Energy		kWh		kWh		
Total Estimated Annual kWh Savings**						kWh

	kW					
	June	July	August	December	January	
Average Peak*						

**Estimated Savings with Calculations:** Provide Calculations that show the following:

1. First Year kWh savings (annual)
2. Winter Peak Energy kWh: 7AM – 11PM, weekdays except holidays, October to May
3. Winter Off-Peak Energy kWh savings: 11PM – 7AM weekdays, all day weekends and holidays, October to May
4. Summer Peak Energy kWh savings: 7AM – 11PM, weekdays except holidays, June to September
5. Summer Off-Peak Energy kWh savings: 11PM – 7AM weekdays, all day weekends and holidays, June to September
6. Summer Average Demand kW Reduction: 1PM – 5 PM, weekdays except holidays, June, July and August
7. Winter Average Demand kW Reduction: 5PM – 7 PM, weekdays except holidays, December and January

\* **Average Peak kW:**

*Example:* Assume the demand savings is 10 kW whenever a plant is in operation and the plant shuts down at 6pm, then the average demand reduction in winter is 5 kW (10 kW ÷ 2 hours = 5 kW)

\*\* **Total Estimated Annual kWh Savings:** The sum of all the Summer and Winter Peak and Off-Peak kWh Savings

\*\*\* **Total Percent Energy Savings On Peak:** The sum of the Summer and Winter Peak kWh divided by the Total Annual kWh Savings

**Cost Estimates**

Provide back-up documentation for all material and labor costs, broken down by major pieces of equipment and project components. Sales tax may not be included. Adjust for salvage/resale value of equipment being replaced. Enter summarized costs in the table below.

**Table 2: Cost Estimates**

Measure	Cost (\$)
Estimated Material Cost	
Estimated Labor Cost	
Estimated Total Cost	

**Non-Electric Benefits and Effects**

Installing the proposed measure may result in significant savings or possibly increased costs for the owner beyond electric savings. Examples include water, sewer, fossil fuel and labor costs. These costs are to be assessed and quantified in the support documentation. These effects are to be combined and reported in the categories provided in Table 3.

**Table 3: Non-Electric Benefits Summary Table**

Non-Electric Benefits	
Gas — Space Heating	_____ Therms
Gas — Non Heating	_____ Therms
Oil	_____ Gallons
Water	_____ Gallons
Wastewater (Sewer)	_____ Gallons
O & M (\$/yr) (Labor & Materials)	\$ _____
Site Environmental	\$ _____
Other _____	\$ _____





# Minimum Requirements Document

## ENERGY CONSERVATION MEASURES

APPLICATION # \_\_\_\_\_ CUSTOMER NAME \_\_\_\_\_

This form is to be completed by a National Grid Technical Representative or designated Technical Assistance Contractor to specify herein minimum equipment and operational requirements of the proposed system. These document requirements shall address the criteria necessary to be met to achieve the demand and energy savings estimated in the engineering analysis for this project. Testing and submittals may be required as further verification of system compliance. Use additional sheets, if necessary. These requirements must be met before the Company's incentives are paid.

**Equipment Requirements:** Provide a list of equipment or materials to be installed as part of this project. Include manufacturer, model, HP or kW ratings, efficiency rating, etc. Post-Installation Inspection Record (Check one) ☐ OK ☐ Not OK

**Operational Sequences Requirements:** Provide a description of equipment operating sequences, set points, operating schedules, balancing requirements (such as flow, velocity, head, suction, etc.) or any other operating parameters to obtain the estimated energy savings. Post-Installation Inspection Record (Check one) ☐ OK ☐ Not OK

**Documentation:** List any written documentation that should be required to verify, operate or maintain the equipment being installed or controlled. This information may include equipment specification sheets, test reports, construction drawings, sequences of operation, etc. Post-Installation Inspection Record (Check one) ☐ OK ☐ Not OK

**Other Requirements Or Comments:** Describe any requirements for demolition, removal, or decommissioning of existing equipment. Post-Installation Inspection Record (Check one) ☐ OK ☐ Not OK

The pre-approved incentive is subject to the Company's post-installation inspection of final specifications, drawings and operation of the proposed equipment. In the event the proposed system is altered from the above description, notify the Company of the change prior to the equipment purchase and installation as the change in design and operation may impact the incentive.

TECHNICAL REPRESENTATIVE

DATE

CUSTOMER SIGNATURE

DATE





## 1. Incentives

Subject to these Terms & Conditions, the Program Administrator will pay Incentives to Customer for the installation of EEMs. Capitalized Terms not otherwise defined herein shall have the meanings assigned to them in the Offer Letter.

## 2. Definitions

- (a) "Application" means this 2014 Customer Application submitted by the Customer including, without limitation, the Letter, MRD and Agreement for Prepayment of Rebates.
- (b) "Customer" means the customer maintaining an account for service with the Program Administrator, or in the case of a Program Administrator which is a municipal aggregator, maintains an account for service with the distribution company serving the territory of such Program Administrator, and who satisfies the Program eligibility requirements established by the Program Administrator.
- (c) "EEMs" are those energy efficiency measures described in the Program Materials or other Custom Measures that may be approved by the Program Administrator.
- (d) "Facility" means the Customer location served by the Program Administrator where EEMs are to be installed.
- (e) "Incentives" means those payments made by the Program Administrator to Customers pursuant to the Program and the Application.
- (f) "MRD" means the Minimum Requirements Document included within this Application.
- (g) "Offer Letter" means the Offer Letter, dated \_\_\_\_\_, and signed by the Program Administrator and all attachments hereto, including but not limited to Attachment B – Agreement for the Prepayment of Rebates.
- (h) "Program" means the energy efficiency program offered by the Program Administrator to Customers.
- (i) "Program Administrator" or "National Grid" means Massachusetts Electric Company or Narragansett Electric Company, d/b/a National Grid..
- (j) "Program Materials" means the documents and information provided by the Program Administrator specifying the qualifying EEMs, technology requirements, costs and other Program requirements, which include, without limitation, program guidelines and requirements, application forms and approval letters.
- (k) "Terms and Conditions" means these terms and conditions for the 2014 Customer Application.

## 3. Application Process and Requirement For Program Administrator Approval

- (a) The Customer shall submit a completed application in the form specified by the Program Administrator. In addition, at the Program Administrator's discretion, the Customer may be required to provide the Program Administrator with a copy of the detailed specifications and scope of work, as well as an analysis of the savings and/or demand reduction, for the EEMs proposed for approval. Customer will upon request by the Program Administrator provide a copy of the as-built drawings and equipment submittals for the Facility after EEMs are installed. This analysis shall be prepared by a Professional Engineer licensed in the state where the Facility is located to the extent required by the Program Administrator or by applicable law, regulation or code.
- (b) The Program Administrator will review the Customer's application and supporting documentation to determine the energy savings and demand reduction potential. The Program Administrator reserves the right to reject or modify any calculations, based on the Program Administrator's own analysis.
- (c) The Program Administrator is not obligated to pay any Incentives unless the authorized representative of the Program Administrator issues an approval letter regarding the EEMs proposed by the Customer, and any necessary pre- and post- installation verification activity is successfully completed by the Program Administrator. The Letter shall state the maximum approved Incentive amount and the date by which the EEMs must be fully installed and operational to qualify for Incentive payments. Notwithstanding the foregoing, the Program Administrator shall pay the Initial Payments described in the Offer Letter after the authorized representative of the Program Administrator executes the Offer Letter provided Customer complies with the applicable terms of the Offer Letter.
- (d) The Customer will have no right to receive, and the Program Administrator will have no obligation to pay, Incentives for any EEMs that have not been approved in writing in advance by the Program Administrator, unless the Program Materials state that such prior approval is not required. Further, the Program Administrator is not obligated to pay Incentives for projects which were pre-approved but are determined to not comply with Program requirements after installation is complete.
- (e) The Program Administrator reserves the right to approve or disapprove of any application or proposed EEMs.

## 4. Pre- and Post-Installation Verification

Except with the respect to the Initial Payments described in the Offer Letter, the Program Administrator is not obligated to pay any Incentives until the Program Administrator has performed a satisfactory pre-installation inspection (unless the Program Materials state such pre-inspection is not required) and post-installation verification of the installation. If the Program Administrator determines that any EEMs were not installed in accordance with these Terms and Conditions, the Program Materials and the Program Administrator's approval, the Program Administrator shall have the right to require modifications before having the obligation to make any Incentive payments. At its discretion the Program Administrator may also withhold payment of Incentives until it has been verified that the Customer has received, as appropriate, final drawings, operation and maintenance manuals, and operator training, and the Program Administrator has received documentation detailing the installation of the EEMs in accordance with these Terms and Conditions, the Program Materials and the Program Administrator's approval.

## 5. Monitoring and Inspection

The Program Administrator reserves the right to perform monitoring and inspection of the EEMs for a three year period following completion of the installation in order to determine the actual demand reduction and energy savings. As a condition of receiving an Incentive, the Customer agrees to provide access and information to the Program Administrator and cooperate with the Program Administrator regarding such activity. By participating in the Program, the Customer acknowledges and agrees that no activity by the Program Administrator includes any kind of safety, code or other compliance review.

## 6. Site-Specific Custom Measures

The Program Administrator will only approve of those site-specific custom EEMs that the Program Administrator believes have cost-effective energy savings potential. In any case, the Program Administrator reserves the right to approve or disapprove of any such EEMs proposed by Customer.

## 7. Incentive Amounts

- (a) Prior to Approval of the Application and execution of the Offer Letter, the Program Administrator reserves the right to adjust and/or negotiate the Incentive amount. Thereafter, the Incentive shall be paid in accordance with the Application and Offer Letter.
- (b) Once an Incentive amount is pre-approved, the Program Administrator will pay no more than the cost to the Customer of purchasing and installing the EEM, or the pre-approved Incentive amount, whichever is less.
- (c) The Program Administrator reserves the right to reduce or eliminate the Incentive amount (other than the Initial Payment) if the EEMs are not installed in accordance with the MRD and these Terms and Conditions.

## 8. Equipment and Installation

Customer shall be responsible for ensuring that the EEMs are installed and operated in accordance with applicable laws, regulations and codes and that all applicable permits and inspections are obtained. Customer shall provide the Program Administrator with copies of all invoices and related documents (including all materials, labor, and equipment discounts) relating to the purchase and installation of the EEMs. The itemized invoices shall include detail of all EEMs including the model, quantity and cost for each EEM, and shall identify any applicable discounts or Incentives. The Customer shall provide, upon request from the Program Administrator, detail on the installation location of the EEMs in the format specified by the MRD, and such other documentation and information as the Program Administrator may reasonably request, including, without limitation, copies of permits and contractor and supplier invoices, orders and records. The Program Administrator reserves the right to determine in its reasonable discretion the appropriate costs of EEMs in order to calculate the Incentive amount.

## 9. Installation Schedule Requirements

If the Customer does not complete installation of the approved EEMs within the earlier of the completion date specified in the Program Administrator's approval letter or twelve (12) months from the date the Program Administrator issues pre-approval of the EEM project, the Program Administrator may terminate any obligation to make Incentive payments.

## 10. Incentive Payment Conditions

Provided that the Customer has satisfied its obligations, the Program Administrator shall use commercially reasonable efforts to pay each Incentive amount to the Customer within forty-five (45) days after all of the following conditions are met: (1) Program Administrator's approval of the EEM project has been provided; (2) all applicable permits, licenses and inspections have been obtained by the Customer; (3) installation of the EEMs has been completed in accordance with the requirements hereof; and (4) the Program Administrator has verified all product and installation costs and the satisfactory installation of the EEMs, all in accordance with the terms hereof. Customer shall not assign any of its rights or obligations referenced in these Terms and Conditions or in the Program Materials (including, without limitation, the right to receive Incentive payments) without first obtaining the written consent of the Program Administrator.

## 11. Contractor Shared Savings Arrangements

If EEMs are being installed by a contractor under a shared savings arrangement, the Program Administrator reserves the right to determine the cost of purchasing and installing

the EEMs.

## **12. Maintenance of EEMs**

Customer acknowledges and agrees that Customer shall operate and maintain the EEMs in accordance with the manufacturer's recommendations and the terms hereof, and shall replace consumable parts and other components with comparable or superior efficient products at the Customer's expense.

## **13. Program/Terms and Conditions Changes**

Program expenditures, requirements and eligibility, and these Terms & Conditions, may be changed by the Program Administrator at any time without notice. The Program Administrator reserves the right, for any reason, to withhold approval of projects and any EEMs, and to cancel or alter the Program, at any time without notice. Approved applications will be processed under the Terms and Conditions and Program Materials in effect at the time of the pre-approval by the Program Administrator. Notwithstanding, the foregoing, the approved Application will be processed under these Terms and Conditions and terms and conditions of the Offer Letter.

## **14. Intentionally Omitted**

Intentionally omitted.

## **15. Publicity of Customer Participation**

The Customer grants to the Program Administrator the right to use and reference for promotional and regulatory purposes the Customer's participation in the Program, the details of the EEM project and the energy savings, the amount of incentives paid to the Customer, and any other information relating to the Customer's participation in the Program.

## **16. Indemnification and Limitation of the Program Administrator's Liability**

Customer shall indemnify, defend and hold harmless Program Administrator, its affiliates and their respective contractors, officers, directors, employees, agents, representatives from and against any and all claims, damages, losses and expenses, including reasonable attorneys' fees and costs incurred to enforce this indemnity, arising out of, resulting from, or related to the Program or the performance of any services or other work in connection with the Program ("Damages"), caused or alleged to be caused in whole or in part by any actual or alleged act or omission of the Customer, any subcontractor, agent, or third party, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

To the fullest extent allowed by law, the Program Administrator's aggregate liability, regardless of the number of claims, shall be limited to paying approved Incentives in accordance with these Terms and Conditions and the Program Materials, and the Program Administrator and its affiliates and their respective contractors, officers, directors, employees, agents, representatives shall not be liable to the Customer or any other party for any other obligation. To the fullest extent allowed by law and as part of the consideration for participation in the Program, the Customer waives and releases the Program Administrator and its affiliates from all obligations (other than payment of an Incentive), and for any liability or claim associated with the EEMs, the performance of the EEMs, the Program, or these Terms and Conditions.

## **17. No Warranties or Representations by the Program Administrator**

- (a) THE Program Administrator DOES NOT ENDORSE, GUARANTEE, OR WARRANT ANY CONTRACTOR, MANUFACTURER OR PRODUCT, AND THE Program Administrator MAKES NO WARRANTIES OR GUARANTEES IN CONNECTION WITH ANY PROJECT, OR ANY SERVICES PERFORMED IN CONNECTION HERewith OR THEREWITH, WHETHER STATUTORY, ORAL, WRITTEN, EXPRESS, OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS DISCLAIMER SHALL SURVIVE ANY CANCELLATION, COMPLETION, TERMINATION OR EXPIRATION OF THE CUSTOMER'S PARTICIPATION IN THE PROGRAM. CUSTOMER ACKNOWLEDGES AND AGREES THAT ANY WARRANTIES PROVIDED BY ORIGINAL MANUFACTURERS', LICENSORS', OR PROVIDERS' OF MATERIAL, EQUIPMENT, OR OTHER ITEMS PROVIDED OR USED IN CONNECTION WITH THE PROGRAM UNDER THESE TERMS AND CONDITIONS, INCLUDING ITEMS INCORPORATED IN THE PROGRAM, ("THIRD PARTY WARRANTIES") ARE NOT TO BE CONSIDERED WARRANTIES OF THE Program Administrator AND THE Program Administrator MAKES NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES AS TO THE APPLICABILITY OR ENFORCEABILITY OF ANY SUCH THIRD PARTY WARRANTIES. THE TERMS OF THIS SECTION SHALL GOVERN OVER ANY CONTRARY VERBAL STATEMENTS OR LANGUAGE APPEARING IN ANY Program Administrator's OTHER DOCUMENTS.
- (b) Neither the Program Administrator nor any of its employees or contractors is responsible for determining that the design, engineering or installation of the EEMs is proper or complies with any particular laws, codes, or industry standards. The Program Administrator does not make any representations of any kind regarding the benefits or energy savings to be achieved by the EEMs or the adequacy or safety of the EEMs.
- (c) Customer acknowledges and agrees that it is solely responsible (directly-based on its own judgment or indirectly-based on the advice of an independent expert (not the Program Administrator) for all aspects of the EEMs and related work including, but not limited to: selecting the equipment; selecting contractors to perform the work; inspecting the work and the equipment; ensuring that the equipment is in good working order and condition; ensuring that the equipment is of the manufacture, design specifications, size and capacity selected by the Customer and that the same is properly installed and suitable for Customer's purposes; and determining if work was properly performed.
- (d) Customer agrees and acknowledges that Program Administrator is not a manufacturer of, or regularly engaged in the sale or distribution of, or an expert with regard to, any equipment or work.
- (e) The provisions of this Section 16 shall survive the termination, cancellation or completion of the Customer's participation in the Program.

## **18. Equipment, Contractor Selection and Contracting**

Customer is responsible for selecting and purchasing the EEMs and selecting and contracting with the design and installation contractor(s). The Customer shall be responsible for enforcing all such contracts and for assuring that the EEMs meet Program requirements and applicable laws, regulations and codes, and that the contractor(s) are properly qualified, licensed and insured. Notwithstanding the foregoing, the Customer acknowledges that the Program Administrator reserves the right to deny a vendor or contractor to participate in this Program or provide equipment or services. The Program Administrator also has the right to exclude certain equipment from the Program.

## **19. Removal of Equipment**

The Customer agrees, as a condition of participation in the Program to properly remove and dispose of or recycle the equipment, lamps and components in accordance with all applicable laws, and regulations and codes. The Customer agrees not to re-install any of removed equipment in the Commonwealth of Massachusetts or the service territory of any affiliate of the Program Administrator, and assumes all risk and liability associated with the reuse and disposal thereof.

## **20. Energy Benefits**

Other than the (i) the energy cost savings realized by Customer, (ii) energy or ancillary service market revenue achieved through market sensitive dispatch, (iii) alternative energy credits, and (iv) renewable energy credits, the PA has the unilateral rights to apply for any credits or payments resulting from the Program or EEMs. Such credits and payments including but are not limited to: (a) ISO-NE capacity, (b) forward capacity credits, (c) other electric or natural gas capacity and avoided cost payments or credits, (d) demand response program payments. Except for the credits and payments set forth in (i)-(iv) above, Customer agrees Customer will not, directly or indirectly, file payments or credits associated with the Program or EEMs, and further will not consent to any other third party's right to such payments or credits without prior written consent from the PA. Written consent is contingent upon customer's sufficient demonstration that such Program(s) will not interfere with, infringe upon or inhibit in any way PA's right and ability to collect or realize credits and payments listed in this paragraph above in [(a)-(d)]. Company's rights under this Section are irrevocable for the life of the EEMs unless the PA provides prior written consent.

## **21. Customer Must Declare and Pay All Taxes**

The benefits conferred upon the Customer through participation in this Program may be taxable by the federal, state, and local government. The Customer is responsible for declaring and paying all such taxes. The Program Administrator is not responsible for the payment of any such taxes.

## **22. Counterpart Execution; Scanned Copy.**

Any and all agreements and documents requiring signature related hereto may be executed in several counterparts, each of which, when executed, shall be deemed to be an original, but all of which together shall constitute one and the same instrument. A scanned or electronically reproduced copy or image of such agreements and documents bearing the signatures of the parties shall be deemed an original and may be introduced or submitted in any action or proceeding as competent evidence of the execution, terms and existence of such agreements and documents notwithstanding the failure or inability to produce or tender an original, executed counterpart of the same and without the requirement that the unavailability of such original, executed counterpart of the same first be proven.

## **23. Miscellaneous**

- (a) Paragraph headings are for the convenience of the parties only and are not to be construed as part of these Terms and Conditions.
- (b) If any provision of these Terms and Conditions is deemed invalid by any court or administrative body having jurisdiction, such ruling shall not invalidate any other provision, and the remaining provisions shall remain in full force and effect in accordance with their terms.
- (c) These Terms and Conditions shall be interpreted and enforced according to the laws of the Commonwealth of Massachusetts.
- (d) In the event of any conflict or inconsistency between these Terms and Conditions and any Program Materials, these Terms and Conditions shall be controlling.
- (e) Except as expressly provided herein, there shall be no modification or amendment to these Terms and Conditions or the Program Materials unless such modification or

amendment is in writing and signed by a duly authorized officer of the Program Administrator.

- (f) The provisions of Sections 5, 7, 8, 9, 11, 13, 15, 16, 18, 19, 20, 21 and 23(c) (including any other sections herein that specifies by its terms that it survives termination) shall survive the termination or expiration of the Customer's participation in the Program.



# CHP Minimum Requirements Document



Customer	Narragansett Bay Commission (NBC)	Retrofit or New Construction	Retrofit
Location	Bucklin Point WWTP	Application No.	7286259
Project ID	ECM 15: Biogas Cogeneration – 2018 Revision for Low-NOx Operation		

This document specifies the agreed upon minimum equipment specifications and operational requirements of the proposed system. These requirements shall address the criteria necessary to be met to achieve the demand and energy savings estimated in the engineering analysis for this project. (Use additional sheets if necessary).

Pre-Construction	Milestone 1. Equipment submittal and approval of Sequence of Operation (SOO).
Yes <input type="checkbox"/> No <input type="checkbox"/>	<p><b>Required Completion Date:</b> Before the start of the combined heat and power (CHP) installation at the site and prior to approving submittals for the major equipment.</p> <p><b>Submittals:</b> Provide major equipment data sheets</p> <ol style="list-style-type: none"> <li>The Bucklin Point CHP plant shall be controlled to follow plant electrical loads to prevent export to the grid and may blend natural gas to supplement available biogas; all available biogas shall be used before natural gas is used. (Thermal “following” is defined as limiting the engine output such that the heat output does not exceed that required to satisfy the connected heating loads.) Accordingly, sustained use of radiators for heat rejection should not be required. The thermal loads connected to the engines shall be as follows:             <ol style="list-style-type: none"> <li>Heat exchanger to the digester heating system</li> </ol> </li> <li>The Generator shall connect to the digester heating source via the Piping and Instrument Diagram (P&amp;ID) titled P-110, dated 4/10/15 drawings attached to this MRD. P&amp;ID will show all the sensors and meter locations as required for measuring thermal and electrical efficiency. Process heat exchanger HEX-8101 (spec 11083 &amp; 15757) shall interface with the existing digester heating system primary hot water loop in parallel with the existing three boilers.</li> <li>The electrical output of the generator should not exceed the demand of the connected electrical loads. Should the net electrical output exceed the electrical demand of the connected bus, the output of the generator(s) shall be reduced such that the generator(s) do not back-feed the grid.</li> <li>The remaining load of the boiler plants shall provide heating water when the CHP thermal output is not able to satisfy the facility thermal demands, either because the generator is at its maximum output or because the electrical demands limit the generator output.</li> <li>Btu meters will be utilized to quantify the total useful thermal output (engine thermal output- dump radiator) of the generator.</li> <li>Provide a process and instrument diagram showing all CHP plant equipment, fuel gas and hot water piping, and instruments including Btu meters.</li> <li>All meters shall be utility grade.</li> <li>The 640 kW (gross) CHP Plant is designed to meet the following performance criteria for the year:             <ol style="list-style-type: none"> <li>Annual net production of 4,701,512 kWh (accounting for parasitics; see Milestone 2a below)</li> <li>Facility fuel increase 200,457 therms HHV</li> <li>Boiler fuel offset of 0 therms (no natural gas use is required in the base case)</li> <li>Electrical efficiency 31.7% HHV (accounting for parasitic loads)</li> <li>Thermal efficiency 16.2% HHV based on total gas &amp; biogas input, 36.8% HHV based on natural gas alone (accounting for parasitic loads)</li> <li>Plant overall efficiency 47.8% HHV based on gas &amp; biogas input, 68.4% HHV based on natural gas alone.</li> </ol> </li> </ol>

# CHP Minimum Requirements Document

Post Inspection	Milestone 2a. Installation Completion <i>Completion of Milestone 2A and 2b is required for the payment of 80% of the incentive</i>																																
Yes <input type="checkbox"/> No <input type="checkbox"/>	<div><div><div>1. Install one 640 kW, Dresser Rand / Guascor SFGLD 360 and heat recovery system or equal.</div><div>2. CHP unit shall meet the following criteria derived from the product data sheet:<div><div>a. Electric output: 640 kW at 0.90 PF, not including parasitic loads (pumps, radiator fans, etc)</div><div>b. Thermal output, main hot water: 1,675.2 kBtu/h at 248°F (120°C) jacket water</div><div>c. Thermal output, exhaust: 1,606.8 kBtu/h at 77°F (25°C) exhaust exiting temp</div><div>d. Overall efficiency: 37.5% at full load based on 6,067 kBtu/h of fuel input (using HHV)</div><div>e. Part-load HHV performance as follows:<table><tr><td></td><td>100%</td><td>80%</td><td>60%</td></tr><tr><td>Electrical output*</td><td>640 kW</td><td>511 kW</td><td>384 kW</td></tr><tr><td>Fuel input (HHV)</td><td>6,067 kBtu/h</td><td>5,030 kBtu/h</td><td>4,009 kBtu/h</td></tr><tr><td>Main hot water output</td><td>1,675 kBtu/h</td><td>1,420 kBtu/h</td><td>1,174 kBtu/h</td></tr><tr><td>Exhaust output</td><td>1,607 kBtu/h</td><td>1,345 kBtu/h</td><td>1,078 kBtu/h</td></tr><tr><td>Total recoverable heat</td><td>3,282 kBtu/h</td><td>2,764 kBtu/h</td><td>2,252 kBtu/h</td></tr><tr><td>Electrical efficiency*</td><td>36.0%</td><td>34.6%</td><td>32.7%</td></tr><tr><td>Thermal efficiency*</td><td>54.1%</td><td>55.0%</td><td>56.2%</td></tr></table><div>*not accounting for parasitic loads; based on HHV</div></div></div><div>f. Thermal output delivered to heating system: 2,700 kBtu/h at 194°F supply, 174°F return hot water accounting for exhaust heat recovery heat exchanger, and final heat exchanger as per Specification 15757.1.02.B.</div><div>g. Parasitic loads: estimated at 14.9 kW during full-load operation; inclusive of all pumps, fans, and biogas cleaning systems; accounting for expected parasitic equipment loading at these conditions.</div></div></div><div>3. Install two 10 hp circulation pumps to circulate water from the primary cogeneration loop to the existing digester heating primary hot water loop. Pump speed is to be modulated by VFDs.</div><div>4. Install gas cleaning equipment consisting of the following:<div><div>a. Sulfur dioxide filtration vessel</div><div>b. Refrigerated gas dryer with associated air-cooled chillers and pump</div><div>c. Main biogas blowers with VFD control</div><div>d. Siloxane filtration vessel, and</div><div>e. Particle removal vessel.</div></div></div><div>5. Install a modular building to house electrical gear and controls, conditioned with air-source heat pump systems.</div><div>6. Install a Btu meter to measure the recovered thermal output of the CHP unit.</div><div>7. Provide meters as required to monitor energy output, waste heat utilization and electrical power production. Both electric meters and gas meters shall have accuracy equal to utility grade meters.</div><div>8. Thermal energy monitoring accuracy shall meet:<div><div>a. As a minimum, the system shall be able to capture 15-minute interval data for electricity produced, waste heat utilization, fuel input and power consumed by all auxiliary equipment, including domestic hot water system and space heating boiler system.</div><div>b. Fifteen-minute trends for gas input and engine run hours shall be provided.</div><div>c. The control system should be capable of trending and archiving this data for a period of one year before overwriting.</div><div>d. Archived data shall be capable of being exported to a designated ftp server via CSV compatible electronic files.</div></div></div><div>9. During post inspection confirm that data collection system is installed, connected to properly calibrated metering and reporting and archiving data properly.</div></div>		100%	80%	60%	Electrical output*	640 kW	511 kW	384 kW	Fuel input (HHV)	6,067 kBtu/h	5,030 kBtu/h	4,009 kBtu/h	Main hot water output	1,675 kBtu/h	1,420 kBtu/h	1,174 kBtu/h	Exhaust output	1,607 kBtu/h	1,345 kBtu/h	1,078 kBtu/h	Total recoverable heat	3,282 kBtu/h	2,764 kBtu/h	2,252 kBtu/h	Electrical efficiency*	36.0%	34.6%	32.7%	Thermal efficiency*	54.1%	55.0%	56.2%
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Electrical efficiency*	36.0%	34.6%	32.7%																														
Thermal efficiency*	54.1%	55.0%	56.2%																														



# CHP Minimum Requirements Document

<b>Post Inspection</b>	<b>Milestone 2b: Demonstration of Operability</b> <i>Completion of Milestone 2A and 2b is required for the payment of 80% of the incentive</i>
Yes <input type="checkbox"/> No <input type="checkbox"/>	<p>Confirm that the above noted equipment is installed and operational as defined below:</p> <ol style="list-style-type: none"> <li>1. All components of the new 640 kW CHP system including all meters are installed and connected to their respective building systems.</li> <li>2. All equipment, piping (including flushing), electrical and control wiring is completed, so that all CHP units can run in an automatic mode. The minimum performance shall be the following: <ol style="list-style-type: none"> <li>a. Annual Production of 4,699,615 kWh (accounting for parasitics; see Milestone 2a above)</li> <li>b. Plant overall efficiency 47.8% based on biogas &amp; natural gas; 68.4% based on biogas alone.</li> </ol> </li> <li>3. Interconnection facilities are completed and accepted by Retail Connections Engineering, and insurance certificates are in place. This does not absolve the customer from meeting any other jurisdictional permits or other regulatory requirements.</li> <li>4. Automatic transfer of thermal loads to existing boiler system is functional.</li> <li>5. All instrumentation and meters required are installed and are working properly and porting data to remote website.</li> <li>6. 15-minute interval data shall be made available and exported to remote website for access to PA in CSV format for a 2-week period.</li> <li>7. Customer and its vendors have completed their own commissioning with reports on major pieces of equipment provided.</li> </ol>
<b>Post Operational Assessment</b>	<b>Milestone 3: Documentation &amp; Trend Review</b> <i>Completion of Milestone 3 &amp; 4 is required for the payment of the remaining 20% of the incentive.</i>
Yes <input type="checkbox"/> No <input type="checkbox"/>	<p>Validate the following items:</p> <ol style="list-style-type: none"> <li>A. O&amp;M manuals and documentation on site <ol style="list-style-type: none"> <li>1. All equipment catalogs and performance specifications for the one, 640 kW CHP unit. O&amp;M manuals for the following equipment: <ol style="list-style-type: none"> <li>a. Engine/generator sets</li> <li>b. Pumps</li> <li>c. Electric motors</li> <li>d. Heat exchangers</li> <li>e. Biogas cleaning equipment</li> <li>f. Metering equipment (gas, electric, hot water)</li> </ol> </li> <li>2. Design Drawings (Process and &amp; Instrument Diagrams and Mechanical Piping Drawings, Instrumentation List and equipment Data Sheets) are available on site.</li> </ol> </li> <li>B. Availability of trend data and confirming of its exportability. <ol style="list-style-type: none"> <li>1. Provide 15-minute interval data for the following points as a minimum. Provide the capacity for and enable trend data archiving for a period of at least one year. <ol style="list-style-type: none"> <li>a. Gross and net (after parasitics) kW and kWh electrical output – including parasitic consumption measurements</li> <li>b. Fuel input to CHP plant – Biogas separately reported from natural gas</li> <li>c. Hot water generated and utilized by CHP plant (therms or MMBtu)</li> <li>d. Flow/temperature on heat recovery supply/return</li> <li>e. Any point necessary to determine other parasitic loads, based on the final plant design</li> </ol> </li> <li>2. Provide ability to export weekly data electronically to third party via email or FTP at all times.</li> <li>3. Post operational assessment process will require functional testing of the CHP and the thermal and electrical interface to the buildings, a minimum 2 weeks and up to 9 months of concurrent 15-minute interval data for all points noted above. If equipment fails to meet expected sequences of operations and corrections are needed, additional trend data shall be provided to confirm any seasonal changes in operations.</li> <li>4. Provide meter calibration data.</li> </ol> </li> </ol>



# CHP Minimum Requirements Document

	<p>5. Install, maintain, and calibrate measurement, monitoring and data recording equipment for the lifetime of the project in compliance with ISO-New England's Manual for Measurement and Verification of Demand Resources, including:</p> <ol style="list-style-type: none"> <li>Meet or exceed the relevant American National Standard Institute or equivalent standard for the equipment.</li> <li>Meet the relevant Institute of Electrical and Electronics Engineers standards for equipment installed and measuring electric demand on electric circuits with significant harmonics and have a digital sampling rate of at least 2.6 kHz.</li> <li>Utilize a pulse rate within the resolution capabilities of the recorder, if recording pulses from measurement and monitoring devices.</li> <li>Have an accuracy of no less than +/-2% using a true Root Mean Square measurement device to measure electrical demand or using any measurement or monitoring equipment for proxy variables to calculate electrical demand.</li> <li>Install measurement or monitoring devices that direct measure electrical demand from three-phase devices such that measurements are taken on all three-phases to account for any phase imbalance or an equivalent method that can measure electrical demand using two phases.</li> <li>Include the power factor of the end-uses in the demand calculations if measuring current and nominal voltage to calculate electrical demand.</li> <li>Synchronize data recorders with the National Institute of Standards and Technology to an accuracy of +/- 2 minutes per month.</li> <li>Calibrate to meet or exceed Federal Energy Management Program Measurement and Verification Guidelines, applicable American Society of Heating, Refrigeration and Air Conditioning Engineers standards, National Institute of Standards and Technology, or equivalent standard for the equipment and provide meter calibration data.</li> <li>Ensure all measurement, monitoring and data logging equipment is maintained to meet or exceed industry and manufacturer maintenance standards and maintain documentation on all such calibration activities.</li> <li>Collect electricity usage data at a frequency of 15-minute intervals or less.</li> </ol> <p>C. Sequence of operation is working as outlined in MRD, TA report and supporting energy saving calculations.</p>
<b>Post Operational Assessment</b>	<p><b>Milestone 4: O&amp;M Contracts and Final Invoices</b></p> <p><i>Completion of Milestone 3 &amp; 4 is required for the payment of the remaining 20% of the incentive.</i></p>
Yes <input type="checkbox"/> No <input type="checkbox"/>	<ol style="list-style-type: none"> <li>Customer will have a minimum 3 year or first major overhaul maintenance contract to help achieve long term proposed operational strategies and energy cost savings. Normal planned /routine maintenance shall be conducted where possible during National Grid off-peak billing periods.</li> <li>Provide detailed project cost breakdown by major system components. Provide copies of paid invoices to support the project costs.</li> <li>Under the current National Grid CHP program, customers that have implemented energy efficiency projects that reduce total facility energy by 5% or more are eligible for increased incentives. NBC has committed to a UV treatment update (Application 8078922), which is anticipated to exceed the 5% threshold. This will increase the CHP incentive from \$900 to \$1125 per net kW installed. If the MRD requirements of Application 8078922 are met and the 5% savings verified, the incentive payment for that application will include the additional CHP incentive of \$135,000 dollars.</li> <li>Final commissioning will include a signed application from the Customer stating a desire to move forward App # 8078922 and show progress towards engineering design completion. This application will be cancelled three years from the signing of this MRD if no mutually agreed upon progress has been made.</li> </ol>

The pre-approved incentive is subject to National Grid's POST INSPECTION of final specifications, drawings and operation of the proposed equipment. In the event the proposed system is altered from the above description, notify the Company of the change prior to the equipment purchase and installation as the change in design and operation may impact the available incentive.

# CHP Minimum Requirements Document

andrea  
mosher@  
nationalgr  
id.com

Digitally signed by andrea.mosher@nationalgrid.com  
DN: CN = andrea.mosher@nationalgrid.com  
Date: 2018.06.21 15:34:44 -0400

*Raymond J. Mould*  
Executive Director

8/31/18

National Grid Technical Support Consultant

Date

Customer Agreement Signature

Date

Post Inspection Signature

Date

Customer Sign Off

Date

Attachment: P&ID Conformed Set Dated April 10, 2015



June 22, 2018

Mr. Thomas Uva  
Narragansett Bay Commission  
1 Service Road  
Providence, RI 02905

RE: RI Renewable Energy Fund Application: Project #7-276

Dear Mr. Uva,

I am pleased to inform you that the Rhode Island Commerce Corporation ("Commerce RI") has awarded Narragansett Bay Commission a grant of \$80,000 as part of the Renewable Energy Fund's ("REF") 2018 Commercial Scale Grant Program. This award is based upon the information in your application received by Rhode Island Commerce Corporation, and funds shall be used towards completing an anaerobic digestion project with a 644kW engine generator installation at 102 Campbell Avenue in Rumford as outlined in your application received on February 15, 2018.

REF Staff will contact Narragansett Bay Commission in the near future to arrange the execution of a Grant Agreement at the offices of Rhode Island Commerce Corporation in Providence. Work on your project can begin as soon as the Grant Agreement is fully executed and all of the items listed on Exhibit A, attached hereto, have been received.

In accepting this award, please note that all approved projects are subject to availability of REF funds. Completed project payments will be processed in the order of submission, conditional to availability of funds or as funds become available.

If you have any questions, please do not hesitate to contact me directly at 401-278-9196, or [ref@commerceri.com](mailto:ref@commerceri.com)

Sincerely, 

**Annie Ratanasim**  
*Renewable Energy Fund Program Manager*  
Rhode Island Commerce Corporation

Cc: Daniel O'Connell's Sons, Greg Waugh ; Biospark, Thomas Moore



### **EXHIBIT A**

1. Certificate of Commission Secretary certifying authorization of project, incumbency of officers, and authorized signatories
2. Insurance Binder indicating that the Rhode Island Commerce Corporation is an additional named insured
3. W-9 for Grantee

**Request 8:** Regarding NBC's response to Comm. 3-5, please:

- a. Identify the details of any contract "with a third party to pay for or reimburse all or a portion of the costs associated with the installation or extension of a sewer line" as referenced in subsection a. of the response.
- b. Please explain how the cost and expense allocation reference in subsection b. of the response were calculated.

**Response:**

- a. ***Contract 304.60: Johnston Sewer Improvements/Greenville Ave. -***

The Greenville Avenue Interceptor Project was initiated at the request of multiple parties including the State of Rhode Island. It was identified as a major economic development undertaking and NBC played a key role on making it come to fruition. Written agreements for cost sharing /reimbursement were negotiated with Citizens Bank, RIDOT and Charda Properties. Please refer to the attached agreements for details.

- Contract 304.64: Johnston Sewer Improvements/Hartford Ave. -***

The Hartford Avenue Interceptor Project was initiated at the request of property owners along Hartford Avenue west of Rt 295 and the Town of Johnston. NBC informed the interested parties that they would need to reimburse the NBC for the cost of installation of the pipeline based on method "to be determined" and that it would be fairly apportioned. The interested property owners agreed to that approach. No written agreement was executed.

In addition, the RIDOT had a road improvement project scheduled for that same area during the same construction season and was working to coordinate with other entities any upcoming projects that were scheduled. Once RIDOT completes a road project there is a five year moratorium on digging up the roadway. As a result NBC entered into a written agreement for some cost sharing/reimbursement and coordinated scheduling. See attached agreement.

- b. The cost for the projects was based on the bid prices submitted by the contractors who completed the work.

Contract 304.60: Johnston Sewer Improvements/Greenville Ave. - The cost allocation for the Greenville Avenue project was negotiated with several parties and contained in the written agreements referenced in 8a.

Contract 304.64: Johnston Sewer Improvements/Hartford Ave. - The allocation of cost for Contract the Hartford Avenue project is planned to be apportioned based on a "per acre served" for properties immediately tributary to the installed interceptor.

**Prepared by:** Ray Marshall



## CONSTRUCTION COOPERATION AGREEMENT

This CONSTRUCTION COOPERATION AGREEMENT (this "**Agreement**") is made and entered into as of the 30 day of March, 2017 by and between the Narragansett Bay Commission, a Rhode Island public corporation of the state having a distinct legal existence from the state and not constituting a department of state government (the "**NBC**"), and Citizens Bank, National Association, a national banking association ("**Citizens**"). The NBC and Citizens are referred to herein collectively as the "**Parties**" and individually as a "**Party**."

### WITNESSETH:

WHEREAS, Citizens has purchased real estate in the Town of Johnston identified as Assessor's Plat 51, Lot 17 and a portion of Plat 50, Lot 71, which Citizens proposes to develop as a corporate campus to consist of one or more office buildings, parking facilities and other site and infrastructure improvements to be used for commercial purposes (as more fully defined below, the "**Campus Project**");

WHEREAS, as part of the Campus Project, the NBC has agreed to facilitate the construction of (a) certain sewer facilities along Greenville Avenue (Route 5) in the Town of Johnston and (b) parallel water facilities along Greenville Avenue only to the extent such parallel water facilities interfere with or are otherwise problematic for construction of the sewer facilities (collectively, the "**Greenville Avenue Sewer Work**");

WHEREAS, the Greenville Avenue Sewer Work will inure to the benefit of the NBC ratepayers and will result in an expansion of the revenue base for the NBC; and

WHEREAS, subject to the terms and conditions set forth below, Citizens has agreed to fund all costs of the Greenville Avenue Sewer Work, and the NBC has agreed to reimburse Citizens for a portion of such costs.

NOW, THEREFORE, in consideration of the mutual agreements, understandings, and obligations set forth herein, the NBC and Citizens agree as follows:

1. Work To Be Performed. The Parties acknowledge and agree that the design and construction plans and specifications that define the scope of the Greenville Avenue Sewer Work are as follows: Project Manual and Specifications for Greenville Avenue Sewer & Water Extension, Johnston, Rhode Island (the "**Plans and Specifications**") The Parties further acknowledge and agree that Citizens has hired a construction manager to coordinate the performance of the Greenville Avenue Sewer Work and to be responsible for the schedule associated with the project. Citizens hereby authorizes the NBC to manage and direct the construction manager in coordination with Citizens and on Citizens' behalf as may be necessary and appropriate to ensure that the Greenville Avenue Sewer Work is performed in accordance with the Plans and Specifications and in compliance with all applicable laws, ordinances, rules, regulations, statutes, by-laws, court decisions, and orders and requirements of all public authorities (collectively, the "**Legal Requirements**").

2. Ownership and Maintenance of Sewer Lines. Upon completion of the Greenville Avenue Sewer Work, to the extent Citizens has any ownership and/or maintenance rights with respect to the sewer lines constructed in connection with the Greenville Avenue Sewer Work, Citizens shall grant such ownership and/or maintenance rights to the NBC.

3. Continuing Obligation. Citizens acknowledges that the NBC's agreement to reimburse certain costs of the Greenville Avenue Sewer Work is predicated on the operation and use of the Campus Project for a period of not less than twenty (20) years, which twenty-year period will enable the NBC to recover such reimbursement costs. Citizens agrees that if the Campus Project ceases to operate at any time in the period commencing on the date the Campus

Project receives its Certificate of Occupancy from the Town of Johnston and ending on the twentieth (20<sup>th</sup>) anniversary thereof (the "Operation Period"), then Citizens shall pay to the NBC an amount equal to the unamortized portion of the amounts paid by the NBC for Reimbursement Work (as defined below) as of the date the Campus Project ceases to operate, with such amortization of the costs for Reimbursement Work calculated for a twenty-year period.

4. Conditions to Construction. Citizens, or the construction manager on behalf of Citizens, shall perform the Greenville Avenue Sewer Work in accordance with the Plans and Specifications and all Legal Requirements; provided, however, that the NBC shall have the right to approve any changes to the Plans and Specifications (including change orders), such approval not to be unreasonably withheld, conditioned or delayed.

5. Payment For Work To Be Performed and Reimbursements.

(a) Citizens shall pay all costs and expenses incurred in connection with the Greenville Avenue Sewer Work; provided, however, that the NBC shall reimburse Citizens for the Reimbursement Work (as defined below) actually performed minus \$108,325, which reflects the difference between the low bidder and the bidder selected (See attachment Exhibit A). In the event that Citizens terminates the Campus Project and/or the Greenville Avenue Sewer Work, the NBC will not be obligated to make any payments beyond work actually performed through the date of such termination. The NBC and Citizens acknowledge and agree that the NBC shall approve any and all invoices submitted in connection with the Greenville Avenue Sewer Work prior to payment of the same by Citizens. On a monthly basis, the NBC and the Providence Water Supply Board ("Providence Water") will review the invoices with the construction manager before the construction manager submits such invoices to Citizens for payment. Upon the NBC's approval of the construction manager's invoices and Citizens' payment of the same,

Citizens will forward such paid invoices with proof of payment pertaining only to the Reimbursement Work (as defined below) to the NBC, and the NBC shall reimburse Citizens within 45 days of the NBC's receipt of those invoices.

(b) For purposes of this Agreement, the term "**Reimbursement Work**" shall include the following:

- (1) all construction work minus \$108,325 as referenced above:
  - (A) associated with sewer construction;
  - (B) associated with construction of 12" water main from Station 0+00 to Station 52+00+/- pursuant to Greenville Avenue Sewer and Water Extension plans prepared by Pare Engineering dated January 2017; and
- (2) all ancillary costs associated with items (1)(A) and (B), including but not limited to paving, police detail and traffic control.

The term "**Reimbursement Work**" shall expressly exclude the following:

- (1) costs for services performed by DiPrete Engineering in connection with the Greenville Sewer Avenue Work;
- (2) all costs due and payable to the construction manager in connection with its services for the Greenville Avenue Sewer Work; and
- (3) any and all claims arising from or related to the Greenville Avenue Sewer Work that are covered by insurance provided by or on behalf of Citizens and/or the NBC.

6. Authorization. The NBC and Citizens each represent and warrant to the other that each Party has the full power and authority to execute and deliver this Agreement, all necessary action has been taken to enter into this Agreement (including but not limited obtaining the

consent of any joint venture, trustee, governing board or third-party), and that the persons signing this Agreement on behalf of each party have been duly authorized to do so.

7. Binding Agreement. This Agreement shall be binding, and inure to the benefit of the Parties and their respective assigns and successors.

8. Entire Agreement. No promise, inducement, representation, or agreement not herein expressed has been made to any Party. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the NBC and Citizens. This Agreement contains the entire agreement between the Parties and supersedes all prior agreements and understandings, both written and oral, among the Parties. This Agreement cannot be amended, released, discharged, changed, modified, or terminated in any manner without the consent, in writing, of all the Parties hereto.

9. Captions. Captions and section headings are for reference only and shall not limit or otherwise affect the meaning of the sections.

10. Advice of Counsel. Each Party to this Agreement acknowledges that it has had the benefit of advice of competent legal counsel with respect to its decision to enter into this Agreement. The language of all parts of this Agreement will in all cases be construed as a whole in accordance with its fair meaning and shall not be construed for or against either Party hereto.

11. Insurance. Citizens, and its contractors and subcontractors, shall maintain Workers' Compensation, General Liability, Automobile, and Umbrella Insurance coverage in such forms as will protect the Citizens and its contractors from all claims and liability for damages for bodily and personal injury, including accidental death, and for property damage, which may arise from operations under the Greenville Avenue Sewer Work, whether such

operations be by itself, its contractors, its subcontractors, or by anyone directly or indirectly employed or engaged by the Citizens. The NBC shall be included as an additional insured on all applicable insurance policies. The certificate and the insurance policies shall not be cancelled or allowed to expire until 10 days prior written notice has been given to the NBC. The insurance certificates shall be forwarded to the NBC at the earliest opportunity. This insurance for the NBC shall be as broad as the coverage provided for Citizens. It shall apply as primary and non-contributing insurance before any other insurance or self-insurance maintained by, or provided to, the NBC.

12. Remedies. Claims, counterclaims, disputes, and other matters in question between the NBC and Citizens arising out of, or relating to, this Agreement, or any alleged breach of this Agreement, will be decided by binding arbitration administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. In any event, the NBC's total exposure will not exceed the actual cost of the work related to the Greenville Avenue Sewer Work.

13. Jurisdiction. This Agreement shall be administered and interpreted under the laws of the State of Rhode Island. Jurisdiction of litigation arising from this Agreement shall be in the State of Rhode Island.

14. Indemnification.

(a) Citizens agrees to forever defend, indemnify, and hold harmless the NBC, and their agents, successors, assigns, servants, contractors, directors, commissioners, and employees (collectively, the "NBC Parties"), from and against any and all claims, complaints, demands, causes of action, actions and liabilities arising out of, or in any way connected with this



Agreement, and caused by the act or omission of Citizens and/or its agents, successors, assigns, servants, contractors, directors, commissioners, and employees (the "Citizens Parties"), except to the extent that such claims, complaints, demands, causes of action, actions or liabilities are the proximate result of the sole gross negligence or willful misconduct of any of the NBC Parties.

(b) The NBC agrees to forever defend, indemnify, and hold harmless any of the Citizens Parties from and against any and all claims, complaints, demands, causes of action, actions and liabilities arising out of, or in any way connected with this Agreement and caused by the act or omission of the NBC Parties, except to the extent that such claims, complaints, demands, causes of action, actions or liabilities are the proximate result of the sole gross negligence or willful misconduct of any of the Citizens Parties.

(c) This Section 14 will survive the completion or termination of this Agreement.

15. Tax Implications. Citizens agrees that if it is later determined by the Internal Revenue Service or any other taxing body that taxes of any type should be or should have been paid in connection with any benefit Citizens receives pursuant to this Agreement, Citizens will be solely responsible for paying such taxes and/or penalties. The NBC makes no representations or warranties regarding the legal effect or tax consequences of this Agreement, or of any such filing or reporting by the NBC. Citizens further expressly acknowledges that Citizens neither received nor relied upon any tax advice from the NBC or their representatives and attorneys.

16. Survival of Provisions. If any portion, term or provision of this Agreement shall to any extent be declared illegal or unenforceable by a duly authorized court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in such circumstances, other than those in which it is so declared illegal or unenforceable, shall

not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

17. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which will be taken together and deemed to be one instrument. Transmission by email in PDF format of executed counterparts constitutes effective delivery.

18. Notices. All notices, certificates, requests, demands, consents, approvals, and other communications which may or are required to be served or given hereunder shall be in writing and shall be sent by e-mail, or registered or certified mail, postage prepaid, return receipt requested and received or overnight delivery by a recognized public or private carrier, in either case as evidenced by a receipt or other evidence of delivery showing the date, time, and addressed to the party to receive such notice as set forth below:

If to the NBC:

Narragansett Bay Commission  
Attn: Raymond J. Marshall, P.E.  
Executive Director  
One Service Road  
Providence, RI 02905  
rmarshall@narabay.com

Copies to:

Narragansett Bay Commission  
Attn: Jennifer J. Harrington, Esq.  
Chief Legal Counsel  
One Service Road  
Providence, RI 02905  
jharrington@narabay.com

If to Citizens or Project Owner:

Citizens Bank, National Association  
100 Sockanosset Cross Road  
Cranston, RI 02920  
Attention: Michael Knipper,  
Executive VP



Copies to:

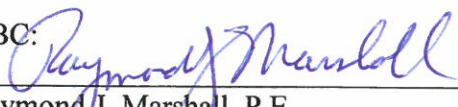
Citizens Bank, N.A.  
Property Services – Legal Counsel  
Mail Code: MCD 290/Legal Dept.  
45 Dan Road  
Canton, MA 02021

and

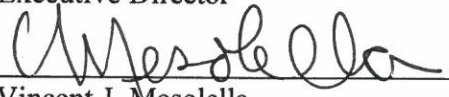
Hinckley, Allen & Snyder LLP  
100 Westminster Street, Suite 1500  
Providence, Rhode Island 02903  
Attention: Thomas Bhisitkul, Esq.

IN WITNESS WHEREOF, the Undersigned parties have caused this Agreement to be executed by their representatives thereunto duly authorized as of the day and year first set forth above.

NBC:

  
Raymond J. Marshall, P.E.  
Executive Director

3/17/17  
Date

  
Vincent J. Mesolella  
Chairman


03/17/017  
Date

CITIZENS:

  
Print Name: MIKE KNIPPER

3/30/17  
Date

Title: EVP

  
Approved as to form\*

  
Citizens Supply Chain Services

**PACS Legal Review Request #: 62692233**

\* For Citizens internal purposes. Applicable if Service Provider's aggregate fees (over a year and/or across ALL contracts) exceed \$100,000 and/or if Service Provider is deemed high risk.

Purchase Order #: \_\_\_\_\_



# EXHIBIT A

BID COMPARISON							
UNIT PRICE DESCRIPTION	UNIT	CARDI		DIGREGORIO		MANAFORT	
		UNIT/COST	TOTAL COST	UNIT/COST	TOTAL COST	UNIT/COST	TOTAL COST
Site Mobilization and Demobilization	1 Lump Sum	N/A	\$ 400,000.00	N/A	\$400,000.00	N/A	\$400,000.00
Erosion and Sedimentation Controls	1 Lump Sum	N/A	\$ 100,000.00	N/A	\$50,000.00	N/A	\$59,000.00
12" PVC Gravity Sewer Main (SDR 35 PVC)	3,485 LF	\$175.00	\$ 609,875.00	\$195.00	\$679,575.00	\$230.00	\$801,550.00
12" PVC Gravity Sewer Main (DR 18 PVC)	3,265 LF	\$255.00	\$ 832,575.00	\$280.00	\$914,200.00	\$330.00	\$1,077,450.00
8" PVC Gravity Sewer Main (SDR 35 PVC)	200 LF	\$145.00	\$ 29,000.00	\$250.00	\$50,000.00	\$95.00	\$19,000.00
6" PVC Sewer Laterals	2,400 LF	\$82.00	\$ 196,800.00	\$95.00	\$228,000.00	\$90.00	\$216,000.00
6" Concrete Sewer Chimney	240 Vt	\$200.00	\$ 48,000.00	\$90.00	\$21,600.00	\$75.00	\$18,000.00
Precast Concrete Manholes	450 Vt	\$450.00	\$ 202,500.00	\$625.00	\$281,250.00	\$515.00	\$231,750.00
Exterior Drop Manhole Connections	3 EA	\$3,500.00	\$ 10,500.00	\$5,300.00	\$15,900.00	\$4,000.00	\$12,000.00
Manhole Frame and Cover	39 EA	\$1,750.00	\$ 68,250.00	\$900.00	\$35,100.00	\$950.00	\$37,050.00
4" Ductile Iron Water Main	20 LF	\$117.00	\$ 2,340.00	\$90.00	\$1,800.00	\$220.00	\$4,400.00
8" Ductile Iron Water Main	500 LF	\$116.00	\$ 58,000.00	\$150.00	\$75,000.00	\$143.00	\$71,500.00
12" Ductile Iron Water Main	40 LF	\$128.00	\$ 5,120.00	\$110.00	\$4,400.00	\$110.00	\$4,400.00
16" Ductile Iron Water Main	9,100 LF	\$159.00	\$ 1,446,900.00	\$140.00	\$1,274,000.00	\$130.00	\$1,183,000.00
4" Gate Valve and Box	1 EA	\$1,250.00	\$ 1,250.00	\$700.00	\$700.00	\$1,350.00	\$1,350.00
8" Gate Valve and Box	14 EA	\$2,750.00	\$ 38,500.00	\$1,200.00	\$16,800.00	\$1,400.00	\$19,600.00
12" Gate Valve and Box	1 EA	\$4,000.00	\$ 4,000.00	\$2,500.00	\$2,500.00	\$3,200.00	\$3,200.00
16" Butterfly Valve and Box	30 EA	\$5,500.00	\$ 165,000.00	\$3,600.00	\$108,000.00	\$3,800.00	\$114,000.00
Air Release Valve Manhole	2 EA	\$4,000.00	\$ 8,000.00	\$5,200.00	\$10,400.00	\$5,800.00	\$11,600.00
8"x8" Tapping Sleeve and Valve	1 EA	\$3,500.00	\$ 3,500.00	\$5,000.00	\$5,000.00	\$5,500.00	\$5,500.00
Fire Hydrants	18 EA	\$7,300.00	\$ 131,400.00	\$6,000.00	\$108,000.00	\$6,500.00	\$117,000.00
1" Water Service Taps	101 EA	\$400.00	\$ 40,400.00	\$350.00	\$35,350.00	\$1,225.00	\$123,725.00
2" Water Service Taps	2 EA	\$1,250.00	\$ 2,500.00	\$1,100.00	\$2,200.00	\$2,600.00	\$5,200.00
1" Copper Water Service	2,250 LF	\$50.00	\$ 112,500.00	\$52.00	\$117,000.00	\$5.00	\$11,250.00
2" Copper Water Service	100 LF	\$72.00	\$ 7,200.00	\$60.00	\$6,000.00	\$40.00	\$4,000.00
Asbestos Cement Pipe Removal and Disposal	5,659 LF	\$12.00	\$ 67,908.00	\$10.00	\$56,590.00	\$32.50	\$183,625.00
Corrosion Control System	4000 LF	\$15.00	\$ 60,000.00	\$2.00	\$8,000.00	\$3.00	\$12,000.00
Ledge Removal and Disposal - Mechanical Means	2,000 CY	\$110.00	\$ 220,000.00	\$195.00	\$390,000.00	\$0.10	\$200.00
Ledge Removal and Disposal - Drill & Blast	2,000 CY	\$110.00	\$ 220,000.00	\$180.00	\$360,000.00	\$0.10	\$200.00
Boulder Removal and Disposal	3,000 CY	\$110.00	\$ 330,000.00	\$25.00	\$75,000.00	\$0.10	\$300.00
Unsuitable Material Below Grade Excavation & Disposal	500 CY	\$50.00	\$ 25,000.00	\$40.00	\$20,000.00	\$43.00	\$21,500.00
Contaminated Soil Disposal	1,800 TONS	\$41.00	\$ 73,800.00	\$35.00	\$63,000.00	\$40.00	\$72,000.00
Temporary Trench Patch (3" Thickness)	15,000 SY	\$25.00	\$ 375,000.00	\$22.00	\$330,000.00	\$24.00	\$360,000.00
Permanent Trench Patch (2" Thickness)	6,000 SY	\$75.00	\$ 450,000.00	\$55.00	\$330,000.00	\$75.00	\$450,000.00
Pavement Repairs, Sidewalks, Parking Lots, Driveways	500 SY	\$35.00	\$ 17,500.00	\$50.00	\$25,000.00	\$68.00	\$34,000.00
Bituminous Curb or Berm	1,000 LF	\$6.00	\$ 6,000.00	\$5.00	\$5,000.00	\$6.50	\$6,500.00
Full Roadway Reconstruction	22,500 SY	\$37.00	\$ 832,500.00	\$37.00	\$832,500.00	\$52.00	\$1,170,000.00
Micro Mill & 2" Overlay	5,000 SY	\$13.00	\$ 65,000.00	\$13.00	\$65,000.00	\$11.50	\$57,500.00
Non-Pavement Restoration	1,500 SY	\$15.00	\$ 22,500.00	\$10.00	\$15,000.00	\$10.00	\$15,000.00
Traffic Control Devices	1 LUMP SUM	\$100,000.00	\$ 100,000.00	N/A	\$235,000.00	N/A	\$160,000.00
Test Pits	100 CY	\$250.00	\$ 25,000.00	\$125.00	\$12,500.00	\$135.00	\$13,500.00
Controlled Low Strength Material - Miscellaneous Uses	500 CY	\$90.00	\$ 45,000.00	\$115.00	\$57,500.00	\$65.00	\$32,500.00
Controlled Low Strength Material - Impervious Dams	600 CY	\$100.00	\$ 60,000.00	\$1.00	\$600.00	\$112.00	\$67,200.00
Calcium Chloride	10,000 LBS	\$1.00	\$ 10,000.00	\$0.25	\$2,500.00	\$0.30	\$3,000.00
Traffic Flagmen	1,000 HRS	\$75.00	\$ 75,000.00	\$65.00	\$65,000.00	\$66.00	\$66,000.00
Miscellaneous Water Fittings	20,000 LBS	\$6.50	\$ 130,000.00	\$6.00	\$120,000.00	\$5.80	\$116,000.00
<b>*Total Unit Pricing</b>			<b>\$7,727,210.00</b>		<b>\$7,510,875.00</b>		<b>\$7,407,550.00</b>

## ALLOWANCES

\$100,000.00 for Temporary Water Bypass		\$100,000.00	\$100,000.00	\$100,000.00
\$150,000.00 for Permanent Road Restoration		\$150,000.00	\$150,000.00	\$150,000.00
\$100,000.00 for Relocation/Support of Existing Utilities		\$100,000.00	\$100,000.00	\$100,000.00
\$700,000.00 for Uniformed Traffic Control		\$700,000.00	\$700,000.00	\$700,000.00
\$10,000.00 for Replace Existing Storm Drain		\$10,000.00	\$10,000.00	\$10,000.00

## COST BREAKDOWN

*Total Material	\$2,357,000.00	\$1,900,000.00	\$1,750,000.00	\$2,002,333.33
*Total Sales Tax	\$166,390.00	\$133,000.00	\$121,000.00	\$140,130.00
<b>Total Allowances</b>	<b>\$1,060,000.00</b>	<b>\$1,060,000.00</b>	<b>\$1,060,000.00</b>	<b>\$1,060,000.00</b>
*Total Installation Cost	\$5,703,820.00	\$5,477,875.00	\$5,531,550.00	\$5,404,415.00
<b>Total Bid</b>	<b>\$9,287,210.00</b>	<b>\$8,570,875.00</b>	<b>\$8,462,550.00</b>	<b>\$8,606,878.33</b>
Total Estimated On-Site Manhours	33000	27000	24000	

## ALTERNATES

DESCRIPTION	UNIT	TOTAL COST	TOTAL COST	TOTAL COST
1. Road Closure Restrictions - Normal Work Day	ADD	\$2,500.00	\$5,000.00	\$2,650.00
2. Road Closure Restrictions - Evening Work Times	ADD	\$2,500.00	\$5,000.00	\$2,750.00
3. Cost Impact for Water/Sewer Both Installed on North Side of Street, Entire Project Length	ADD/DEDUCT	\$0.00	n/a	\$0.00
4. Schedule Impact for Water/Sewer Both Installed on North Side of Street, Entire Project Length	ADD/DEDUCT	\$0.00	n/a	\$0.00



Date : 2-16-2017		BID COMPARISON										
		CARDI		DIGREGORIO		MANAFORT		J.H. LYNCH		C.B. UTILITIES		
UNIT PRICE DESCRIPTION	UNIT	UNIT/COST	TOTAL COST	UNIT/COST	TOTAL COST	UNIT/COST	TOTAL COST	UNIT/COST	TOTAL COST	UNIT/COST	TOTAL COST	AVERAGE
Site Mobilization and Demobilization	1 Lump Sum	N/A	\$ 400,000.00	N/A	\$400,000.00	N/A	\$400,000.00	N/A	\$400,000.00	N/A	\$400,000.00	\$400,000.00
Erosion and Sedimentation Controls	1 Lump Sum	N/A	\$ 100,000.00	N/A	\$50,000.00	N/A	\$50,000.00	N/A	\$55,000.00	N/A	\$72,000.00	\$67,200.00
12" PVC Gravity Sewer Main (SDR 35 PVC)	5,485 LF	\$175.00	\$ 959,875.00	\$195.00	\$679,575.00	\$230.00	\$801,550.00	\$145.00	\$505,325.00	\$390.00	\$1,359,150.00	\$791,095.00
12" PVC Gravity Sewer Main (DR 18 PVC)	3,265 LF	\$255.00	\$ 832,575.00	\$280.00	\$914,200.00	\$330.00	\$1,077,450.00	\$485.00	\$1,583,525.00	\$535.00	\$1,746,775.00	\$1,230,905.00
8" PVC Gravity Sewer Main (SDR 35 PVC)	200 LF	\$145.00	\$ 29,000.00	\$250.00	\$50,000.00	\$95.00	\$19,000.00	\$135.00	\$27,000.00	\$450.00	\$90,000.00	\$43,000.00
6" PVC Sewer Laterals	2,400 LF	\$82.00	\$ 196,800.00	\$95.00	\$228,000.00	\$90.00	\$216,000.00	\$115.00	\$276,000.00	\$140.00	\$336,000.00	\$250,560.00
6" Concrete Sewer Chimney	240 VF	\$200.00	\$ 48,000.00	\$90.00	\$21,600.00	\$75.00	\$18,000.00	\$225.00	\$54,000.00	\$190.00	\$45,600.00	\$37,440.00
Precast Concrete Manholes	450 VF	\$450.00	\$ 202,500.00	\$625.00	\$281,250.00	\$515.00	\$231,750.00	\$585.00	\$263,250.00	\$520.00	\$234,000.00	\$242,550.00
Exterior Drop Manhole Connections	3 EA	\$5,500.00	\$ 16,500.00	\$5,300.00	\$15,900.00	\$4,000.00	\$12,000.00	\$7,000.00	\$21,000.00	\$2,500.00	\$7,500.00	\$13,380.00
Manhole Frame and Cover	39 EA	\$1,750.00	\$ 68,250.00	\$900.00	\$35,100.00	\$950.00	\$37,050.00	\$1,500.00	\$58,500.00	\$1,800.00	\$70,200.00	\$49,920.00
4" Ductile Iron Water Main	201 LF	\$117.00	\$ 23,400.00	\$90.00	\$1,800.00	\$220.00	\$4,400.00	\$90.00	\$1,800.00	\$500.00	\$10,000.00	\$4,068.00
8" Ductile Iron Water Main	500 LF	\$116.00	\$ 58,000.00	\$150.00	\$75,000.00	\$143.00	\$71,500.00	\$150.00	\$75,000.00	\$510.00	\$255,000.00	\$106,900.00
12" Ductile Iron Water Main	40 LF	\$128.00	\$ 5,120.00	\$110.00	\$4,400.00	\$110.00	\$4,400.00	\$150.00	\$6,000.00	\$290.00	\$11,600.00	\$6,304.00
16" Ductile Iron Water Main	9,100 LF	\$159.00	\$ 1,446,900.00	\$140.00	\$1,274,000.00	\$130.00	\$1,183,000.00	\$158.00	\$1,427,800.00	\$205.00	\$1,865,500.00	\$1,441,440.00
4" Gate Valve and Box	1 EA	\$1,250.00	\$ 1,250.00	\$700.00	\$700.00	\$1,350.00	\$1,350.00	\$1,500.00	\$1,500.00	\$1,000.00	\$1,000.00	\$1,180.00
8" Gate Valve and Box	14 EA	\$2,250.00	\$ 31,500.00	\$1,200.00	\$16,800.00	\$1,400.00	\$19,600.00	\$2,200.00	\$30,800.00	\$1,600.00	\$22,400.00	\$24,220.00
12" Gate Valve and Box	1 EA	\$4,000.00	\$ 4,000.00	\$2,500.00	\$2,500.00	\$3,200.00	\$3,200.00	\$3,100.00	\$3,100.00	\$2,700.00	\$2,700.00	\$3,100.00
16" Butterfly Valve and Box	30 EA	\$5,500.00	\$ 165,000.00	\$3,600.00	\$108,000.00	\$3,800.00	\$114,000.00	\$4,500.00	\$135,000.00	\$3,500.00	\$105,000.00	\$125,400.00
Air Release Valve Manhole	2 EA	\$4,000.00	\$ 8,000.00	\$5,200.00	\$10,400.00	\$5,800.00	\$11,600.00	\$5,200.00	\$10,400.00	\$12,000.00	\$24,000.00	\$12,880.00
8"x8" Tapping Sleeve and Valve	1 EA	\$3,500.00	\$ 3,500.00	\$5,000.00	\$5,000.00	\$5,500.00	\$5,500.00	\$4,900.00	\$4,900.00	\$12,000.00	\$12,000.00	\$6,180.00
Fire Hydrants	18 EA	\$7,300.00	\$ 131,400.00	\$6,000.00	\$108,000.00	\$6,500.00	\$117,000.00	\$5,500.00	\$99,000.00	\$6,800.00	\$118,400.00	\$113,760.00
1" Water Service Taps	101 EA	\$400.00	\$ 40,400.00	\$350.00	\$35,350.00	\$1,275.00	\$128,775.00	\$295.00	\$29,795.00	\$1,300.00	\$131,300.00	\$87,714.00
2" Water Service Taps	2 EA	\$1,250.00	\$ 2,500.00	\$1,100.00	\$2,200.00	\$2,300.00	\$4,600.00	\$5,200.00	\$10,400.00	\$3,000.00	\$6,000.00	\$7,214.00
1" Copper Water Service	2,250 LF	\$50.00	\$ 112,500.00	\$57.00	\$128,850.00	\$5.00	\$11,250.00	\$75.00	\$168,750.00	\$50.00	\$112,500.00	\$104,400.00
2" Copper Water Service	100 LF	\$72.00	\$ 7,200.00	\$60.00	\$6,000.00	\$40.00	\$4,000.00	\$85.00	\$8,500.00	\$70.00	\$7,000.00	\$6,540.00
Asbestos Cement Pipe Removal and Disposal	5,650 LF	\$12.00	\$ 67,800.00	\$10.00	\$56,500.00	\$32.50	\$183,625.00	\$28.00	\$158,200.00	\$7.50	\$42,375.00	\$101,700.00
Corrosion Control System	4000 LF	\$15.00	\$ 60,000.00	\$2.00	\$8,000.00	\$3.00	\$12,000.00	\$105.00	\$105,000.00	\$140.00	\$182,000.00	\$79,700.00
Ledge Removal and Disposal - Mechanical Means	2,000 CY	\$110.00	\$ 220,000.00	\$195.00	\$390,000.00	\$0.10	\$200.00	\$455.00	\$910,000.00	\$300.00	\$600,000.00	\$424,040.00
Ledge Removal and Disposal - Drill & Blast	2,000 CY	\$110.00	\$ 220,000.00	\$180.00	\$360,000.00	\$0.10	\$200.00	\$235.00	\$470,000.00	\$355.00	\$710,000.00	\$552,040.00
Boulder Removal and Disposal	3,000 CY	\$110.00	\$ 330,000.00	\$25.00	\$75,000.00	\$0.10	\$300.00	\$10.00	\$3,000.00	\$150.00	\$450,000.00	\$177,060.00
Unsuitable Material Below Grade Excavation & Disposal	500 CY	\$50.00	\$ 25,000.00	\$40.00	\$20,000.00	\$43.00	\$21,500.00	\$45.00	\$22,500.00	\$25.00	\$12,500.00	\$20,800.00
Contaminated Soil Disposal	1,800 TONS	\$41.00	\$ 73,800.00	\$35.00	\$63,000.00	\$40.00	\$72,000.00	\$50.00	\$90,000.00	\$40.00	\$72,000.00	\$74,160.00
Temporary Trench Patch (8" Thickness)	15,000 SY	\$25.00	\$ 375,000.00	\$22.00	\$330,000.00	\$24.00	\$360,000.00	\$27.00	\$405,000.00	\$47.00	\$705,000.00	\$485,000.00
Permanent Trench Patch (8" Thickness)	6,000 SY	\$75.00	\$ 450,000.00	\$55.00	\$330,000.00	\$75.00	\$450,000.00	\$45.00	\$270,000.00	\$72.00	\$432,000.00	\$386,400.00
Pavement Repairs, Sidewalks, Parking Bots, Driveways	500 SY	\$35.00	\$ 17,500.00	\$50.00	\$25,000.00	\$68.00	\$34,000.00	\$40.00	\$20,000.00	\$40.00	\$20,000.00	\$28,300.00
Bituminous Curb or Berm	1,000 LF	\$6.00	\$ 6,000.00	\$5.00	\$5,000.00	\$6.50	\$6,500.00	\$10.00	\$10,000.00	\$7.00	\$7,000.00	\$6,900.00
Full Roadway Reconstruction	22,500 SY	\$37.00	\$ 832,500.00	\$37.00	\$832,500.00	\$52.00	\$1,170,000.00	\$42.00	\$945,000.00	\$40.00	\$800,000.00	\$996,000.00
Micro Mill & 2" Overlay	5,000 SY	\$13.00	\$ 65,000.00	\$13.00	\$65,000.00	\$11.50	\$57,500.00	\$15.00	\$75,000.00	\$14.35	\$71,775.00	\$66,800.00
Non-Pavement Restoration	1,500 SY	\$15.00	\$ 22,500.00	\$10.00	\$15,000.00	\$10.00	\$15,000.00	\$15.00	\$22,500.00	\$10.35	\$15,525.00	\$18,105.00
Traffic Control Devices	1 LUMP SUM	\$100,000.00	\$ 100,000.00	N/A	\$235,000.00	N/A	\$160,000.00	N/A	\$95,000.00	N/A	\$150,000.00	\$148,000.00
Test Pits	100 CY	\$250.00	\$ 25,000.00	\$125.00	\$12,500.00	\$135.00	\$18,000.00	\$50.00	\$5,000.00	\$85.00	\$8,500.00	\$12,900.00
Controlled Low Strength Material - Miscellaneous Uses	300 CY	\$90.00	\$ 27,000.00	\$115.00	\$34,500.00	\$85.00	\$42,500.00	\$120.00	\$36,000.00	\$160.00	\$48,000.00	\$57,000.00
Controlled Low Strength Material - Impervious Dams	600 CY	\$100.00	\$ 60,000.00	\$1.00	\$600.00	\$112.00	\$67,200.00	\$350.00	\$210,000.00	\$160.00	\$96,000.00	\$86,700.00
Calcium Chloride	10,000 LBS	\$1.00	\$ 10,000.00	\$0.25	\$2,500.00	\$0.30	\$3,000.00	\$2.00	\$20,000.00	\$1.00	\$10,000.00	\$9,100.00
Traffic Flagmen	1,000 HRS	\$75.00	\$ 75,000.00	\$65.00	\$65,000.00	\$66.00	\$66,000.00	\$50.00	\$50,000.00	\$70.00	\$70,000.00	\$65,200.00
Miscellaneous Water Bittings	20,000 LBS	\$6.50	\$ 130,000.00	\$6.00	\$120,000.00	\$5.80	\$116,000.00	\$5.00	\$100,000.00	\$8.00	\$160,000.00	\$125,200.00
<b>*Total Unit Pricing</b>			<b>\$7,727,210.00</b>		<b>\$7,510,875.00</b>		<b>\$7,402,550.00</b>		<b>\$8,163,045.00</b>		<b>\$11,915,825.00</b>	<b>\$8,743,901.00</b>

ALLOWANCES							
\$100,000.00 for Temporary Water Bypass			\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00
\$150,000.00 for Permanent Road Restoration			\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00
\$100,000.00 for Relocation/Support of Existing Utilities			\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00
\$700,000.00 for Uniformed Traffic Control			\$700,000.00	\$700,000.00	\$700,000.00	\$700,000.00	\$700,000.00
\$10,000.00 for Replace Existing Storm Drain			\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00

COST BREAKDOWN							
*Total Material		\$2,357,000.00	\$1,900,000.00	\$1,750,000.00	\$1,500,000.00	\$2,643,185.00	\$2,080,097.00
*Total Sales Tax		\$166,390.00	\$133,000.00	\$121,000.00	\$105,000.00	\$190,000.00	\$148,078.00
Total Allowances		\$1,060,000.00	\$1,060,000.00	\$1,060,000.00	\$1,060,000.00	\$1,060,000.00	\$1,060,000.00
*Total Installation Cost		\$5,203,820.00	\$5,477,875.00	\$5,531,550.00	\$5,558,045.00	\$9,082,640.00	\$6,570,786.00
<b>Total Bid</b>		<b>\$9,787,210.00</b>	<b>\$8,570,875.00</b>	<b>\$8,462,550.00</b>	<b>\$10,223,045.00</b>	<b>\$12,875,825.00</b>	<b>\$9,803,901.00</b>
Total Estimated On-Site Manhours		33000	27000	24000	22500	20000	25300

ALTERNATES		UNIT	TOTAL COST	TOTAL COST	TOTAL COST	TOTAL COST	TOTAL COST
1. Road Closure Restrictions - Normal Work Day	ADD		\$2,500.00	\$2,500.00	\$2,650.00	\$2,650.00	\$2,590.00
2. Road Closure Restrictions - Evening Work Times	ADD		\$2,500.00	\$2,500.00	\$2,750.00	\$2,750.00	\$2,650.00
3. Cost Impact for Water/Sewer Both Installed on North Side of Street, Entire Project Length	ADD/DEDUCT		\$0.00	n/a	\$0.00	\$0.00	\$0.00
4. Schedule Impact for Water/Sewer Both Installed on North Side of Street, Entire Project Length	ADD/DEDUCT		\$0.00	n/a	\$0.00	\$0.00	\$0.00

BIDDER IDENTIFICATION						
Current Experience Modification Rating		.82	.88	0.85	0.84	0.66
OSHA Incident Recordable Rate:		7.994	3.48	5.0	3.77	3.19

CONTRACT AND INSURANCE AFFIRMATION						
The person named below represents that he has reviewed the Trade Contract Agreement issued as part of the bidding documents, agrees that if selected for award by Gilbane will execute the Trade Contract Agreement without exceptions, exclusions, qualifications, clarifications and/or alterations, and is authorized to make such representation on behalf of the Bidder.	YES	YES	YES	YES	YES	
The person named below represents that he has reviewed the Insurance requirements in Article 6 of the Trade Contract Agreement, has included all costs to fully comply with same, and is authorized to make this representation on behalf of the Bidder.	YES	YES	YES	YES	YES	



*Rich*

Department of Transportation  
Two Capitol Hill  
Providence, RI 02903

Office 401-222-2450  
Fax 401-222-3905

June 10, 2018

Raymond J. Marshall, P.E.  
Executive Director  
Narragansett Bay Commission  
One Service Road  
Providence, RI 02905

Subject: Memorandum of Understanding  
Reconstruction of Greenville Avenue, Johnston  
Cost Sharing Agreement

**Attention: Richard Bernier**

Dear Director Marshall,

Enclosed is a Memorandum of Agreement (MOU) for the subject project between the Rhode Island DOT and the Narragansett Bay Commission.

Please review the agreement and, if acceptable, return it back to us with the needed signatures.

Please do not hesitate to contact me if you have any questions or wish to discuss this matter further.

Sincerely,

Robert Rocchio, P.E.  
Chief Engineer/Infrastructure

Cc: Cassin, Corbishley, Doyle, Igliozi,

Reconstruction of Greenville Avenue

MEMORANDUM OF UNDERSTANDING

By and Between the

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

And the

NARRAGANSETT BAY COMMISSION

This Agreement is made and entered into by and between the State of Rhode Island and Providence Plantations acting through its Department of Transportation (hereinafter the "State") and the Narragansett Bay Commission (hereinafter "NBC"); and

WHEREAS, both the State and NBC have an interest in the reconstruction of a 5,800 LF section of Greenville from Atwood Avenue to Citizens Bank Drive as described in Exhibit A (Hereinafter the "Project"); and

WHEREAS, NBC is responsible for funding the Project, and the State intends to contribute funds to the Project not exceeding Two Hundred Thousand Dollars (\$200,000.00) of this amount 100 percent (100%) is State funded; and

WHEREAS, the Project will be implemented using State design standards and specifications and consistent with the Rhode Island General laws; and

NOW THEREFORE, in consideration of the foregoing premises and the mutual obligations contained herein, the State and the NBC hereby agree as follows:

1. NBC will be responsible for payment of all costs associated with the design and construction of the Project. The State will contribute to NBC up to and not exceeding Two Hundred Thousand Dollars (\$200,000.00) dollars for such costs which will constitute a full and final lump sum payment and is payable to NBC upon execution of this Agreement.
2. RIDOT will provide oversight and construction inspection of the Project.
3. Upon completion of the Project, the State will be responsible to maintain the roadway and NBC will be required to maintain the sewer system and all NBC utilities in accordance with the plans and specifications developed for the Project at its own cost and expense.



4. All costs billed under this Agreement are subject to audit. NBC agrees to maintain all records pertaining to the costs incurred in performance of this Agreement for a period of three (3) years from the date of final payment and all other pending matters are closed.

5. This agreement hereby incorporates by reference Utility Permit No: 201702052 and any provisions in the permit which are inconsistent with this Agreement are amended to be consistent with the terms and conditions of this Agreement.

6. NBC through the Contractor shall defend, indemnify and hold harmless the State, the Department, its officers and employees, from any and all suits, actions, claims, losses, expenses, damages and any and all other liabilities of any character resulting in any injuries or damage to any person, entities, or property arising out of (or which may be claimed to arise out of) any act and/or omission of the Contractor or its subcontractors, in performance of work covered by the Contract, and/or in consequence of any neglect in safeguarding the work; and/or through use of unacceptable materials in constructing the work; and/or because of any neglect, or misconduct of the Contractor; and/or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; and/or from any claims or amounts arising out of or recovered under the Workers' Compensation Act, or any other law, ordinance, order, or decree.

7. NBC through its contractor shall carry General Liability Insurance, which names the State as an Additional Insured and waives subrogation against the State, with coverage in the following amounts:

(a) Bodily Injury Liability:

\$500,000 each person  
\$1,000,000 each occurrence

(b) Property Damage Liability:

\$500,000 each occurrence  
\$1,000,000 aggregate

A. No cancellation of said insurance, whether by the insurers or by the insured, shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the State at least thirty (30) days prior to the intended effective date thereof which date shall be expressed in said notice, Notice of cancellation sent by the party proposing cancellation by registered mail, postage prepaid, with a return receipt of addressee requested, and executed shall constitute proof of submission of said certificate. An affidavit from any officer, employee or agent, duly authorized by the insured, shall be prima facie evidence that the notice was sent.

B. The failure of NBC to maintain insurance coverage in accordance with the terms of this Agreement shall constitute a violation of this Agreement. Such failure may, at the sole discretion of the State, result termination of the Agreement.

- C. The NBC shall take notice that the cancellation of any insurance under this Agreement shall not affect the obligation of NBC to maintain each coverage, or obligations under this Agreement.
  - D. The NBC shall also take notice that his/her insurer must be licensed to do business in the State of Rhode Island.
  - E. The NBC shall file copies of all required insurance certificates with the Department's Utility Division.
8. This Agreement may not be altered or amended except by written agreement signed by all parties.

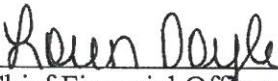
**(Remainder of Page Left Intentionally Blank)**

IN WITNESS WHEREOF, The Rhode Island Department of Transportation and the Narragansett Bay Commission have caused this Agreement to be executed by their duly authorized officials on the 20<sup>th</sup> day of July, 2018.

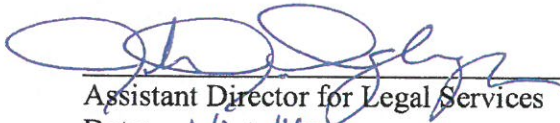
RHODE ISLAND DEPARTMENT  
OF TRANSPORTATION

NARRAGANSETT BAY  
COMMISSION

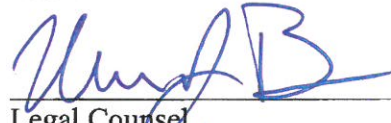
Recommended For Approval:

  
\_\_\_\_\_  
Chief Financial Officer  
Date: 6/26/18

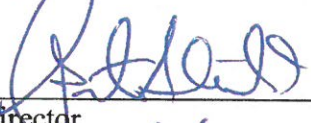
Approved As To Form:

  
\_\_\_\_\_  
Assistant Director for Legal Services  
Date: 6/26/18

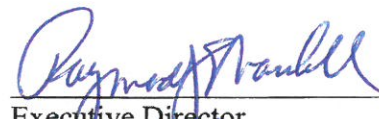
Approved As To Form:

  
\_\_\_\_\_  
Legal Counsel  
Date: 7/20/18

Approved:

  
\_\_\_\_\_  
Director  
Date: 6/29/18

Approved:

  
\_\_\_\_\_  
Executive Director  
Date: 7/20/18



**SEWER EXTENSION AGREEMENT BY AND BETWEEN THE**  
**NARRAGANSETT BAY COMMISSION**  
**AND CHARDA PROPERTIES, LLC**

This Agreement is entered into between the Narragansett Bay Commission (hereinafter the "NBC") a nonprofit public corporation authorized, created and established under the laws of the State of Rhode Island, having a principal place of business at One Service Road, Providence, Rhode Island, 02905, and Charda Properties, LLC (hereinafter "Charda"), a duly organized business in the State of Rhode Island, having a principal place of business at 44 Davis Street, Seekonk, MA 02771, (hereinafter the NBC and Charda may collectively be referred to as the "Parties" and each individually as a "Party").

The Parties to said agreement understand the following to be true and accurate:

**RECITALS:**

WHEREAS, the NBC is in the process of construction of certain sewer facilities along Greenville Avenue (Route 5) in the Town of Johnston

WHEREAS, Charda holds title to real estate in the Town of Johnston located at Plat 55, Lot 24,64,75 (hereinafter the "Subject Property"); and

WHEREAS, Charda requests an extension of the aforementioned sewer facilities to service the Subject Property; and

WHEREAS, the NBC is willing to extend a 12" sewer approximately three hundred and sixty (360) feet westerly to accommodate Charda's request (hereinafter the "Sewer Extension"); and

WHEREAS, Charda agrees to pay for all costs associated with the Sewer Extension work; and

WHEREAS, the NBC agrees to undertake the work necessary to complete the Sewer Extension upon receipt of payment from Charda.

NOW THEREFORE, in consideration of the mutual promises hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

#### **Section 1. Payment.**

Charda agrees to pay an initial one hundred seventy thousand dollars (\$170,000.00) within ten (10) days of the execution of this Agreement by both Parties (hereinafter the "Initial Payment"). If the total cost for the Sewer Extension exceeds the Initial Payment, then Charda agrees to pay any and all additional amounts necessary to complete the Sewer Extension. If the Sewer Extension costs less than the Initial Payment, then the NBC agrees to return all remaining funds to Charda.

Charda acknowledges and agrees that the Initial Payment does not include any fees or costs relative to a sewer connection permit from the NBC's Permit, Policy, and Regulation Division. Charda agrees that it will pay for all such costs separately from the Initial Payment. No such permit will be issued to Charda, however, unless the Initial Payment and all additional and ancillary costs related to the Sewer Extension and the aforementioned permit application are paid in full.

#### **Section 2. Responsibilities of Charda.**

In addition to Charda's payment obligations referenced in Section 1. above, Charda will adhere to and be responsible for all of the conditions and deadlines imposed in by the NBC relative to the Sewer Extension and/or the sewer permit application process. Charda will not discharge any flow to the NBC facilities until the Sewer Extension work is complete or upon specific instructions from the NBC.

#### **Section 2. Responsibilities of NBC.**

At Charda's expense, and on their behalf, the NBC will oversee the Sewer Extension work. The Sewer Extension will begin at the east entrance to Citizens Bank Campus on Greenville Ave. and extend to the Subject Property.

The NBC will supply the method and schedule for Sewer Extension as well as conduct field inspections of the work to ensure that the Sewer Extension is progressing as scheduled and in an acceptable manner.

#### **Section 4. Liaisons.**

Both Charda and the NBC will appoint a specific contact person to be the sole liaison between the Parties. The liaisons shall be:



For the NBC:

Richard Bernier,  
Director of Construction Services  
Narragansett Bay Commission  
One Service Road  
Providence, RI 02905  
Phone: (401) 461-8848 ext. 326

For Charda:

H. Charles Tapalian.  
Operating Member  
Charda Properties, LLC  
P.O. Box 6684  
Providence, RI 02940

Cell 1-401-447-0847  
e-mail uriuconn@aol.com

**Section 5. Commencement.**

This Agreement will commence on the date it is executed by both Parties. The Sewer Extension work will begin upon receipt of the Initial Payment. If Charda fails to make the Initial Payment, then the NBC is under no obligation to undertake the work necessary for the Sewer Extension. If Charda fails to make any additional or ancillary payments required to complete the Sewer Extension, the NBC will be under no obligation to continue or complete Sewer Extension work.

**Section 6. Amendments.**

The Agreement represents the entire understanding of the NBC and Charda to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may not be modified or altered except pursuant to a mutual agreement in writing and signed by both parties.

**Section 7. Extent of Agreement.**

Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the NBC and Charda. The failure of the NBC to demand from Charda performance of any act under the Agreement shall not be construed as a waiver of the NBC's right to demand, at any subsequent time, such performance. Words and phrases herein, including any acknowledgment hereof, will be construed as in the singular or plural number, and as masculine, feminine or neutral gender according to the context.

**Section 8. Captions.**

Captions and section headings are for reference only and shall not limit or otherwise affect the meaning of the sections.

**Section 9. Jurisdiction.**

This Agreement shall be administered and interpreted under the laws of the State of Rhode Island. Jurisdiction of litigation arising from this Agreement shall be in the State of Rhode Island.

**Section 9. Remedies.**

Claims, counter-claims, disputes, and other matters in question between the NBC and Charda arising out of, or relating to, this Agreement or the breach of it will be decided by arbitration if the Parties mutually agree, or by a court of competent jurisdiction.

**Section 10. Indemnification.**

Charda agrees to forever defend, indemnify, and hold harmless the NBC, and their agents, successors, assigns, servants, contractors, and employees, from and against any and all claims, complaints, demands, causes of action, actions and liabilities arising out of, or in any way connected with this Agreement, howsoever caused, except to the extent that such claims, complaints, demands, causes of action, actions or liabilities are the proximate result of the sole negligence or willful misconduct of the NBC. The obligations set forth in this Section 10 will continue to remain in force and effect after completion of the Sewer Extension work or any termination of this Agreement.

**Section 11. Severability.**

If any provision of this Agreement or the application thereof is held invalid by a court, arbitrator or government agency of competent jurisdiction or if any provision of this Agreement is found to be in conflict with applicable laws, such provision will be inoperative, null and void insofar as it is in conflict with said decision or law, but the remainder of this Agreement shall be in full force and effect.

**Section 12. Tax Implications.**

Charda agrees that if it is later determined by the Internal Revenue Service or any other taxing body that taxes of any type should have been paid in connection with any benefit they receive pursuant to this Agreement, they will be solely responsible for paying such taxes. The NBC makes no representations or warranties regarding the legal effect or tax consequences of this Agreement, or of any such filing or reporting by the NBC. Charda further expressly acknowledges that they neither received nor relied upon any tax advice from the NBC or their representatives and attorneys.

**Section 13. Advice of Counsel.**

Each Party to this Agreement acknowledges that it has had the benefit of advice of competent legal counsel or the opportunity to retain such counsel with respect to its decision to enter into this Agreement. The individuals whose signatures are affixed to this Agreement in a personal or representative capacity represent that they are competent to enter into this Agreement, are doing so freely and without coercion by any other Party or non-party hereto, and are authorized to enter into this Agreement.

**THE NARRAGANSETT BAY COMMISSION**

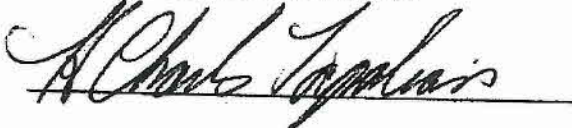
  
Raymond J. Marshall, PE  
Executive Director

7/12/17  
Date

  
Vincent J. Mesolella  
Chairman

7/12/17  
Date

**CHARDA PROPERTIES, LLC**



Print Name: H. CHAS. TAPALIAN

Title: Owner, Member

7/10/17  
Date



**US ROUTE 6 HARTFORD AVE  
JOHNSTON, RHODE ISLAND**

**Rhode Island Federal-Aid Project No. 3RD-PRTY(240), Construction**

**Rhode Island Contract No. 2016-CH-054, Construction**

**Rhode Island Contract No. 2006-EH-011, Design**

**CONSTRUCTION AND MAINTENANCE AGREEMENT**

**NON-PARTICIPATING**

**by and between the**

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**

**and the**

**NARRAGANSETT BAY COMMISSION**

AGREEMENT entered into by and between the State of Rhode Island and Providence Plantations (hereinafter called the State), through its Department of Transportation and the Narragansett Bay Commission (hereinafter called the Utility).

**Whereas**, the State is planning the above-referenced Project in Johnston, Rhode Island and Scituate, Rhode Island; and

**Whereas**, the Utility is planning to install, operate and maintain certain facilities to the extent shown on the plans for the Project (hereinafter called the Facilities); and

**Whereas**, the State and the Utility agree that the construction of said Facilities must be closely and dependably integrated with said Project during the various phases of operation both preparatory and permanent, for the best interest of traffic movement and control and for public convenience; and

**Whereas**, in conjunction with its construction of the above-referenced Project, the State has agreed to administer a portion of the construction of the Facilities through its Contractor for the benefit of the Utility and at the cost of the Utility. The portion of the construction of the Facility that the state will administer includes the permanent restoration of the utility trench; and

**Whereas**, to assure the State of its reimbursement, the Utility shall make a Lump

Sum Deposit of Four Hundred Five Thousand Dollars and 00/100 Cents, (\$405,000) based upon a Construction Cost Estimate attached hereto as "Exhibit A", to be used by the State, for reimbursement.

**Now, therefore,** the State and the Utility hereby agree as follows:

### **SECTION I - GENERAL PROVISIONS**

1. All work relative to the Facilities shall conform to the Utility's Standard Specifications and Procedures.
2. The Utility will allow the State to enter onto its property for purposes of constructing the Project and the improvements.

### **SECTION II - DIVISION OF WORK**

1. All necessary labor, materials, equipment, design services, and other services shall be furnished by or for the Utility in accordance with Part 645 - Utilities, Subpart A - Utility Relocations, Adjustments and Reimbursements of the Federal-Aid Policy Guide (FAPG) of the United States Department of Transportation, Federal Highway Administration, and the work shall be done by the State contractor awarded the Project.
2. During and after the construction of the Facilities, the work by the State's contractor will be undertaken with normal safety precautions.
3. After the Contract has been awarded, a Pre-Construction Conference will be held, at which time the Contractor will meet with representatives of the State and the Utility in order to expedite the progress of the Project and the installation and adjustments of the Facilities.
4. All work performed under this Agreement is subject to approval and inspection of the State and Federal authorities, in accordance with the provisions of the aforementioned FAPG, Part 645 - Utilities, Subpart A of the Federal Highway Administration, as amended and supplemented, which is hereby made a part of this Agreement by reference. All work performed in reference to the Facilities shall conform to the Utility's Standard Specifications and Procedures and the State's Standard

Specifications and Procedures as referenced in the Contract Documents entitled "State of Rhode Island and Providence Plantations, Department of Transportation, Rhode Island Contract No. 2016-CH-054, Construction and all addenda thereto and "Distribution of Quantities" document provided therewith which are hereby made a part of this Agreement by reference.

### **SECTION III - EXTRA WORK**

1. Any extra work must be approved in writing by the Utility's Executive Director prior to commencement by the Contractor. Extra Work is defined as extra costs exceeding ten percent of the original estimate and/or for any reason including the following causes:

- (a) Differing Site Conditions;
- (b) Alteration in the Plans or Details, additions to, reductions in, or elimination of an existing item of work contained in the Proposal;
- (c) Extra or unforeseen work for which there is no item of work in the Proposal;
- (d) Suspension of the work for any reason;
- (e) Significant changes in the character of the work.

2. The State will give prior written notice of any contemplated extra work in the form of a Report of Change to the Utility's Executive Director of any contemplated work, with contractor breakdown of cost estimate, and the Utility's Executive Director, or his/her designee, will have four (4) business days from the date of receipt of such notice to mail written approval or disapproval of the proposed work to the State and to increase or decrease the value of the Contract Cost Estimate, "Exhibit A".

#### **SECTION IV - DIVISION OF EXPENSE**

1. In reference to work undertaken under this Agreement, payment will be made from the Utility's Lump Sum Deposit. The Utility shall be notified if additional funds are necessary beyond what is held in the lump sum account.

2. Failure to remit payment when due may cause the State to delete any or all items of work as set forth in this Agreement.

3. The Utility will indemnify and defend the State for any claims resulting from a work stoppage due to an unreasonable delay beyond the normal timeline process relative to the Utility obtaining approvals and/or payment for extra work.

4. The Lump Sum Deposit due upon execution of this Agreement is predicated on a Construction Cost Estimate, "Exhibit A", for the installation of the Facilities. The Utility agrees to pay the State the actual cost of construction based on the contractor's bid prices of the actual work performed, including additional cost associated with approved change order extra work as discussed in Section III.

5. A Construction Cost Estimate, "Exhibit A", of the proposed work in the amount of Four Hundred Five Thousand (\$405,000) which includes engineering and contingences is attached. If the estimated cost is less than the actual bid price, the Utility will increase the Lump Sum Deposit. The State will notify the Utility upon the opening of the bids and the Utility will have thirty (30) days after bid award to remit additional funds to the State, or if the bid is less than the estimate, the State shall refund the excess to the Utility within thirty (30) days following bid award.

6. Upon substantial completion of the project covered by said Construction and Maintenance Agreement, the State will disburse the balance of the funds, if any to the Utility, within thirty (30) days.

#### **SECTION V - FUTURE MAINTENANCE**

Upon completion of the construction of the Facilities, the Utility shall thereafter own and shall maintain said Facilities as constructed, at its own cost, with the restriction that maintenance thereof shall be done in a manner not detrimental to the highway and its

uses. Sufficient traffic control, at the Utility's expense must be provided in accordance with the requirements of the Manual of Uniform Traffic Control Devices, including all latest revisions.

In witness whereof, the State and the Utility have caused this agreement to be executed by their duly authorized officials as of the 26<sup>th</sup> day of July, 2017.

Recommended for Approval:

David W. Fosh  
Chief Engineer  
Department of Transportation  
Date: 7-10-17

Recommended for Approval:

Loren Doyle  
Chief Financial Officer  
Department of Transportation  
Date: 7/12/17

Recommended for Approval:

Raymond M. Randall  
Executive Director  
Narragansett Bay Commission  
Date: 7/5/17

Approved as to form:

[Signature]  
Asst. Director for Legal Services  
Department of Transportation  
Date: 7/11/17

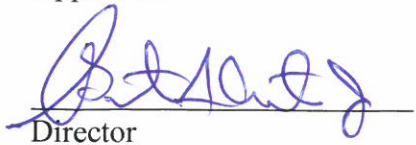
Approved:

[Signature]  
Chairman  
Narragansett Bay Commission  
Date: 7/5/17



RIC No. 2016-CH-054, Construction

Approved:



Director  
Department of Transportation

Date: 7/26/17

Examined and Approved:

n/a  
Division Administrator  
U.S. Department of Transportation  
Federal Highway Administration

## EXHIBIT A

### CONSTRUCTION COST ESTIMATE

Rhode Island Department of Transportation  
Town of Johnston, RI  
Conceptual cost estimate for Pavement Restoration over NBC Trench  
US Route 6 (Hartford Avenue), Johnston, RI

Prepared By: Green International Affiliates, Inc.

R.I. Contract No.

FAP Nos:

DATE: 7-Jun-17

ITEM	UNIT	QTY	ITEM DESCRIPTION	UNIT PRICE	TOTAL PRICE
501.9901	SY	2500	RESTORE CONCRETE BASE COURSE OVER SEWER TRENCH Includes removal of temp bit pavement, excavation, Gravel Borrow Subbase Course, sawcutting, concrete base course, trimming and fine grading	125.00	312,500.00
937.02	LS	1	MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION	40,000.00	40,000.00

SUB-TOTAL

\$352,500

15% CONTINGENCY

\$52,875

TOTAL COST

\$405,375

Say

\$405,000

**Request 9:** Regarding NBC's response to Comm. 3-6, please provide any cost/benefit analyses for the two contracts referenced.

**Response:**

**Contract 304.60: Johnston Sewer Improvements/Greenville Ave.**

The project was estimated to generate annual revenue of \$517,500-\$532,888 based on flow estimates and 110 direct connections and 570 indirect connections. The original estimate for the project was \$3.0 million and the useful life of the interceptor was conservatively estimated to be 30 years. Therefore, the project would result in a net positive revenue stream of \$417,500 to \$432,888. During the project's construction several modifications were necessary and the net cost of the interceptor in Greenville Avenue was more than had been anticipated. As identified in NBC's response to 3-6 after removing the Facilities Planning costs (this cost relates to all sewer extension projects in Johnston), cost sharing and reimbursements the net cost of the project was \$6.8 million and spread over 30 years calculates to \$277,836 per year. The project still results in a projected net positive cash flow of \$289,664 to \$305,052.

See following tables:

	<b>Estimated Annual Revenue</b>	
Citizens Flat Fees (Based on 6" or 8" Meter)	\$ 25,600	\$ 40,988
Citizens Consumption	172,300	172,300
110 Residential Direct Connections	51,700	51,700
570 Residential Indirect Connections	267,900	267,900
Estimated Annual Revenue	\$ 517,500	\$ 532,888

**Johnston Sewer Improvements - Greenville Ave**  
**Original Estimate Project # 30460**

Design and Construction	\$ 3,000,000	
Useful Life (years)	30	
Annual Cost	\$ 100,000	
Net Revenue Stream	\$ 417,500	\$ 432,888

**Johnston Sewer Improvements - Greenville Ave**  
**Actual Costs Project # 30460**

Planning - Facilities Plan	\$ 496,417	
Design	\$ 316,270	
Construction	6,718,802	
Total Design & Construction	\$ 7,531,490	
Reimbursements	(200,000)	
Total	\$ 7,331,490	
Less Facilities Planning	\$ (496,417)	
Net Design and Construction	\$ 6,835,073	
Useful Life (years)	30	
Annual Cost	\$ 227,836	
Net Revenue Stream	\$ 289,664	\$ 305,052

**Contract 304.64: Johnston Sewer Improvements/Hartford Ave.**

NBC planned to seek reimbursement of the construction costs through the proposed new fee structure based upon a new customer's parcel size prior to their connection to NBC's system. Accordingly, no revenue projections or cost/benefit analyses were prepared.

**Prepared by:** Ray Marshall



**Request 10:** Provide the winning electricity supply bid.

**Response:**

The winning bid accepted by NBC for electricity is a 12-month term at \$0.06642/kWh from Direct Energy (see Attachment PUC RR-10). The rate includes the capacity charge. See table below for updated rate year electricity cost based on the bid for electricity supply.

Rate Year Electricity Expense Projection						
	COB/WQSB	Interceptor Maintenance	Field's Point	Tunnel Pump Station	Net Bucklin Point	Total
<b>kWh Purchased</b>	2,022,646	1,336,374	6,736,393	8,034,750	13,271,914	31,402,077
Fixed Annual Customer Charge	\$ 13,209.60	\$ 17,938.56	\$ 13,209.60	\$ 13,209.60	\$ 13,209.60	\$ 70,777
Supply and Delivery Composite Rate	\$ 0.1211	\$ 0.1773	\$ 0.1316	\$ 0.1305	\$ 0.1220	
Supply and Delivery	244,963	236,994	886,307	1,048,374	1,618,775	\$ 4,035,413
Subtotal	\$ 258,172	\$ 254,933	\$ 899,517	\$ 1,061,584	\$ 1,631,985	\$ 4,106,190
Rhode Island Gross Earnings Tax	10,757	10,622	37,479	44,232	67,998	171,089
with RIGET	\$ 268,929	\$ 265,555	\$ 936,996	\$ 1,105,816	\$ 1,699,983	\$ 4,277,279

Actual supply rate \$ 0.06642 /kWh

Per Settlement Agreement \$4,230,551

Increase (Decrease) \$ 46,729

Karen Giebink

May 29, 2019

Narragansett Bay Commission  
Attn: Sam Celone, Purchasing Manager  
One Service Road  
Providence, RI 02905

Dear Mr. Celone:

Direct Energy Business, LLC is pleased to provide firm fixed pricing to supply your electricity accounts. Pricing is included on the attached Stage 2 Bid Forms

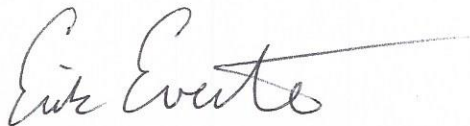
There are no changes to the information submitted in its Stage One response.

We certify that the Fixed Contract Prices submitted constitute a firm and binding offer that remains in effect until 2 PM, EDT for today

We also certify that we will sign the NBC Final Electric Power Agreement for Purchase and Supply of Electric Power as issued to eligible bidders without exception or limitation.

Please let me know if there are any questions or concerns. We look forward to working with you.

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Everton", with a long horizontal flourish extending to the right.

Erik Everton  
Senior Account Executive  
Direct Energy Business, LLC

**PART 3**  
**BID FORM (STAGE 2)**  
**Full Requirements Service (FRS) 12 Month Offer**  
***Bids must be received no later than 11:00 a.m. May 29, 2019***

The authorized signature hereon affixed constitutes a firm and binding offer and the bidder agree to the requirements of this Request for Bid and acknowledge that they will sign the NBC Power Purchase Agreement as negotiated by NBC and bidder without exception or limitation. The Fixed Contract Price bid should be exclusive of the Rhode Island gross receipts tax, which should be itemized separately on invoices from the winning bidder.

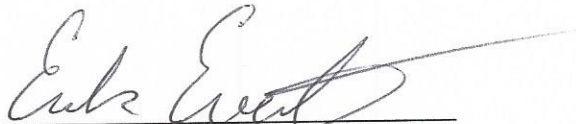
Fixed Full Requirements Contract Price (12 months)

6.642 cents/kWh  
(to five significant digits)

\$ 0.06642

The person signing certifies that he/she is authorized to sign and commit bidder contractually to all the representations made in this bid submission.

**OFFER BY:**



Authorized Bidder Signature

ERIK EVERTON SR. ACCT EXEC.  
(Print Name/Title)

**PART 3**  
**BID FORM (STAGE 2)**  
**Full Requirements Service (FRS) 24 Month Offer**  
***Bids must be received no later than 11:00 a.m. May 29, 2019***

The authorized signature hereon affixed constitutes a firm and binding offer and the bidder agree to the requirements of this Request for Bid and acknowledge that they will sign the NBC Power Purchase Agreement as negotiated by NBC and bidder without exception or limitation. The Fixed Contract Price bid should be exclusive of the Rhode Island gross receipts tax, which should be itemized separately on invoices from the winning bidder.

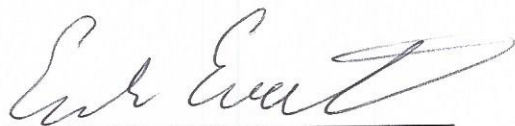
Fixed Full Requirements Contract Price (24 months)

6.693 cents/kWh  
(to five significant digits)

\$0.06693

The person signing certifies that he/she is authorized to sign and commit bidder contractually to all the representations made in this bid submission.

**OFFER BY:**



Authorized Bidder Signature

ERIK EVERTON SR. ACCT EXEC.  
(Print Name/Title)

**PART 3**  
**BID FORM (STAGE 2)**  
**Full Requirements Service (FRS) 36 Month Offer**  
***Bids must be received no later than 11:00 a.m. May 29, 2019***

The authorized signature hereon affixed constitutes a firm and binding offer and the bidder agree to the requirements of this Request for Bid and acknowledge that they will sign the NBC Power Purchase Agreement as negotiated by NBC and bidder without exception or limitation. The Fixed Contract Price bid should be exclusive of the Rhode Island gross receipts tax, which should be itemized separately on invoices from the winning bidder.

Fixed Full Requirements Contract Price (36 months)

6.637 cents/kWh  
(to five significant digits)

\$0.06637

The person signing certifies that he/she is authorized to sign and commit bidder contractually to all the representations made in this bid submission.

**OFFER BY:**



Authorized Bidder Signature

ERIK EVERTON SR ACCT EXEC

(Print Name/Title)



**CERTIFICATION**

I hereby certify that on June 5, 2019, I sent a copy of the within to all parties set forth on the attached Service List by electronic mail and copies to Luly Massaro, Commission Clerk, by electronic mail and regular mail.

<b>Parties/Address</b>	<b>E-mail Distribution</b>	<b>Phone</b>
Karen L. Giebink, Director of A&F Narragansett Bay Commission One Service Road Providence, RI 02905	<a href="mailto:Kgiebink@narrabay.com">Kgiebink@narrabay.com</a> ;	401-461-8848
	<a href="mailto:Sarnold@narrabay.com">Sarnold@narrabay.com</a> ;	
	<a href="mailto:gdegnan@narrabay.com">gdegnan@narrabay.com</a> ;	
Harold Smith, Raftelis Financial Consultants	<a href="mailto:Hsmith@raftelis.com">Hsmith@raftelis.com</a> ;	
Christy Hetherington, Esq. Dept. of Attorney General 150 South Main St. Providence, RI 02903	<a href="mailto:Chetherington@riag.ri.gov">Chetherington@riag.ri.gov</a> ;	401-222-2424
	<a href="mailto:Tparenteau@riag.ri.gov">Tparenteau@riag.ri.gov</a> ;	
	<a href="mailto:Mfolcarelli@riag.ri.gov">Mfolcarelli@riag.ri.gov</a> ;	
	<a href="mailto:Al.mancini@dpuc.ri.gov">Al.mancini@dpuc.ri.gov</a> ;	
	<a href="mailto:dmacrae@riag.ri.gov">dmacrae@riag.ri.gov</a> ;	
	<a href="mailto:pat.smith@dpuc.ri.gov">pat.smith@dpuc.ri.gov</a> ;	
	<a href="mailto:albert.demiranda@dpuc.ri.gov">albert.demiranda@dpuc.ri.gov</a> ;	
	<a href="mailto:Thomas.kogut@dpuc.ri.gov">Thomas.kogut@dpuc.ri.gov</a> ;	
Ralph Smith, Larkin Associates Dawn Bisdorf Mark Cady Megan Cranston	<a href="mailto:rsmithla@aol.com">rsmithla@aol.com</a> ;	
	<a href="mailto:dawn.bisdorf@gmail.com">dawn.bisdorf@gmail.com</a> ;	
	<a href="mailto:msdady@gmail.com">msdady@gmail.com</a> ;	
	<a href="mailto:mcranston29@gmail.com">mcranston29@gmail.com</a> ;	
<b>Original and nine (9) copies w/:</b> Luly E. Massaro, Commission Clerk John Harrington, Commission Counsel Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	<a href="mailto:Luly.massaro@puc.ri.gov">Luly.massaro@puc.ri.gov</a> ;	401-780-2107
	<a href="mailto:Alan.nault@puc.ri.gov">Alan.nault@puc.ri.gov</a> ;	
	<a href="mailto:Cynthia.WilsonFrias@puc.ri.gov">Cynthia.WilsonFrias@puc.ri.gov</a> ;	
	<a href="mailto:Sharon.ColbyCamara@puc.ri.gov">Sharon.ColbyCamara@puc.ri.gov</a> ;	
	<a href="mailto:John.Harrington@puc.ri.gov">John.Harrington@puc.ri.gov</a> ;	
	<a href="mailto:Margaret.hogan@puc.ri.gov">Margaret.hogan@puc.ri.gov</a> ;	
<b>Office of the General Treasurer</b> Amy L. Crane, General Counsel Office of the General Treasurer 50 Service Ave., 2 <sup>nd</sup> Floor Warwick, RI 02886	<a href="mailto:Amy.Crane@treasury.ri.gov">Amy.Crane@treasury.ri.gov</a> ;	401-462-7615



DOCKET NO. 4890  
Response from the Narragansett Bay Commission  
to the Rhode Island Public Utilities Commission  
Hearing Record Requests  
May 23, 2019

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<b>The George Wiley Center</b> Jennifer L. Wood, Executive Director R.I. Center for Justice 1 Empire Plaza, Suite 410 Providence, RI 02903 (401) 491-1101 ext. 801	<a href="mailto:jwood@centerforjustice.org">jwood@centerforjustice.org</a> ;	401- 491-1101 ext. 801
	<a href="mailto:camiloviveiros@gmail.com">camiloviveiros@gmail.com</a> ;	
Ted Nesi	<a href="mailto:TNesi@wpri.com">TNesi@wpri.com</a>	
<b>Providence Apartment Association</b> Matthew L. Fabisch, Esquire	<a href="mailto:Fabisch@fabischlaw.com">Fabisch@fabischlaw.com</a>	



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