

Prefiled Direct Testimony
of
RICKY CARUOLO
before the
PUBLIC UTILITIES COMMISSION

for

PROVIDENCE WATER

DOCKET No. _____

December 2019

1 **Q. Please state your full name and title.**

2 A. Ricky Caruolo, General Manager of the Providence Water Supply Board (Providence Water)

3 **Q. How long have you been employed at Providence Water?**

4 A. I have been employed at Providence Water for more than 26 years. I was appointed General
5 Manager on June 11, 2014.

6 **Q. Please describe your education and work experience.**

7 A. I graduated from the University of Rhode Island in 1990 with a Bachelor of Science in
8 Finance and a Bachelor of Science in Management. I also graduated from Providence
9 College in 1994 with a Master of Business Administration. As an employee of Providence
10 Water, I have held various management positions in the finance department, commercial
11 services department and in executive management.

12 **Q. What are your duties and responsibilities?**

13 A. I am responsible for managing the operations of a public water supply system that serves
14 more than 600,000 people. I provide administrative, financial and supervisory oversight of
15 all divisions within the organization.

16 **Q. Do you belong to any professional organizations or committees?**

17 A. Yes. I belong to the American Water Works Association, the New England Water Works
18 Association and the Rhode Island Water Works Association.

19 **Q. What is the purpose of your testimony?**

20 A. To provide a general overview of Providence Water's rate filing. Providence Water is
21 requesting a multi-year rate increase pursuant to RIGL §39-15.1-4 to secure sufficient funds
22 to provide for the operation and maintenance of our water system that serves eight wholesale

1 customers and over 75,000 retail customers. Overall, our system supplies clean drinking
2 water to 600,000 Rhode Islanders.

3 **Q. Why is Providence Water requesting a multi-year rate filing?**

4 **A.** Providence Water wants to cover known and measurable expenses that are scheduled to
5 escalate over the next three years. For example, the current union contract runs from 7/1/19
6 through 6/30/22 and calls for an increase in salaries of 2% in year one (7/1/19-7/1/20), 2% in
7 year two (7/1/20-7/1/21) and 3% in year three (7/1/21-7/1/22). Contract attached as exhibit 5
8 in the Appendix.

9 **Q. How was the filing prepared?**

10 **A.** Nancy Parrillo, Senior Manager for Finance will provide testimony on our restricted
11 accounts. Harold J. Smith of Raftelis Financial Consultants will provide testimony for our
12 cost allocation study and rate design, city services study, and revenue requirements. Gregg
13 M. Giasson, Deputy General Manager of Operations / Executive Engineer for Providence
14 Water, will provide testimony on our Infrastructure Replacement Plan. Stephen Colman will
15 provide testimony regarding our Information Technology (IT) needs.

16 **Q. Has the Board approved this filing?**

17 **A.** Yes. The Board approved our rate filing on November 20, 2019.

18 **Q. Why is a revenue increase needed by Providence Water at this time?**

1 A. The last general rate increase became effective on February 17, 2017. Taking into account
2 the Commission's suspension period, the current rates of Providence Water will be in effect
3 for over three years.

4 In this filing, we are requesting a revenue increase for the first year of \$13,311,349 or
5 18.3%, with total rate year revenues amounting to \$85,932,149.

6 **Q. Are there any factors that are having a negative impact on your revenues?**

7 A. Yes. One of the main factors is the overall reduction in consumption. We are seeing a
8 pattern of declining consumption industry-wide for a variety of reasons. Local
9 manufacturing for our industrial customers is depressed. Conservation efforts across the
10 board have also negatively impacted our consumption. For example many household
11 products have become more efficient and use less water, such as washing machines,
12 dishwashers, low flow shower heads and toilets. Water consumption also has a direct impact
13 on most of our customers' sewer bills, so our customers have become much more prudent
14 with their water usage.

15 **Q. Did Providence Water have a cost of service study completed as ordered by the**
16 **Commission in Docket 4618?**

17 A. Yes. Providence Water engaged Raftelis Financial Consultants, Inc. to conduct the study as
18 ordered by the Commission.

19 **Q. Has Providence Water seen any results from their water quality efforts?**

20 A. Yes. The immediate results are mixed. However, positive results are expected in the near
21 future based on our corrosion control four pronged approach. Customer complaints

1 regarding discolored water continue to decline unless there is an unusual event in the
2 immediate area. For example a main break or fire causes an abnormal flow of water which
3 can lead to discolored water. I previously reported in January 2016 that we were below
4 EPA's Lead and Copper Rule lead Action Limit of 15 parts per billion for two consecutive
5 semesters for the first time since 2007. Unfortunately, we have not had two consecutive
6 semesters below the Action Limit since 2016. We were below the Action Limit for the first
7 semester of 2019 with some of our best results. I firmly believe that if we continue on an
8 aggressive path with our four pronged approach to addressing corrosion control, we will be
9 below the Action Limit on a perpetual basis.

10 **Q. Please describe the four pronged approach?**

11 A. Providence Water's four pronged approach is as follows: (1) Alternate treatment methods
12 that will include the implementation of orthophosphate in April 2020. (2) Continued
13 rehabilitation of our unlined cast iron mains along with the removal of lead services. (3)
14 Continued implementation of our unidirectional flushing program. (4) Continued public
15 lead education.

16 **Q. Is Providence Water pleased with its efforts to replace private side lead services?**

17 A. Generally speaking, we are pleased with the funding of \$250,000 afforded to us in our last
18 rate filing. We have since partnered with the Rhode Island Infrastructure Bank (RIIB)
19 securing a \$1,000,000 loan and implemented a three year 0% loan for customers who wish to
20 remove their private side lead service. All monies allocated to the replacement of private
21 side lead services is scheduled to be utilized.

1 **Q. If a Providence Water customer replaces their private side lead service, does**
2 **Providence Water automatically replace the public side if it is made of lead?**

3 A. Yes. Providence Water automatically replaces a public side lead service if a customer
4 replaces their private side lead service. In addition, we remove public lead services when we
5 are replacing unlined cast iron mains as part of our main rehabilitation program.

6 **Q. Has Providence Water considered instituting full lead service replacements?**

7 A. Yes. We are proposing a full lead service replacement program in this filing at no cost to the
8 homeowner. It's our belief that the quicker we can remove all lead services, the safer it will
9 be for the public and it could expedite the time it takes for us to be in compliance with the
10 current and future Lead and Copper Rule.

11 **Q. Can you ensure that Providence Water will comply with the Lead and Copper Rule if**
12 **all of the lead services are replaced? Please explain.**

13 A. No. I am unable to ensure that Providence Water will be below the Action Limit set forth by
14 the Lead and Copper Rule if all lead services are replaced. However, I am confident that the
15 removal of all lead services will increase our chances of being below the Action Limit set
16 forth in the Lead and Copper Rule. Any time we have an opportunity to remove lead, it is
17 less likely that lead will leach into the water. In addition, I am unable to make a guarantee
18 because some of the homes may have lead plumbing or lead fixtures in the homes, which
19 may continue to cause elevated levels of lead. Due to the health dangers of drinking water
20 with lead in it, especially for children, Providence Water is attempting to do everything in
21 our power to eliminate the leaching of lead in our water.

1 **Q. Do you have any other new programs that will require funding to address lead in**
2 **drinking water?**

3 A. Yes. In addition to full lead service replacements, I am requesting funding for lead free
4 drinking water stations that would be installed in all public schools throughout our
5 distribution system. Lead is particular harmful to children and I feel we have a responsibility
6 to ensure that children are consuming water free of lead while in school.

7 **Q. Do you have a cost associated with this project?**

8 A. Yes. The purchase and installation of a watering station is estimated to cost approximately
9 \$1,500. We believe there are approximately 100 public schools from grades K – 12th that
10 would be eligible for a watering station. The total cost would be \$150,000.

11 **Q. What is the status of the rooftop solar array on the Central Operations Facility?**

12 A. The rooftop solar array for the Central Operations Facility (COF) consists of 1,926 solar
13 panels and went on line January 4, 2018. It currently produces 497 kilowatts (KW) or half of
14 a megawatt which is 55% of our total usage of electricity for the COF. Providence Water is
15 saving approximately \$98,000 per year. The original price of the system was \$1,533,000
16 which includes system maintenance for 25 year less \$350,000 we received in state grants.
17 The actual cost paid was \$1,182,000 which has an eleven (11) year pay back for Providence
18 Water.

19 **Q. Does Providence Water have any other renewable energy projects planned?**

1 A. Yes. We have studied various options (solar, wind & hydro) and determined that a new solar
2 power project is the best and most cost effective option at this time. It is Providence Water's
3 goal to virtually eliminate our carbon foot print by becoming 100% renewable power.

4 **Q. Please explain what you mean by 100% renewable power?**

5 A. It's my understanding that to claim you're 100% renewable power, then you must produce
6 and utilize all of your energy needs and retire the Renewable Energy Certificates (REC) that
7 are earned. Therefore, Providence Water will be retiring our REC's.

8 **Q. Why did you decide to retire the REC's?**

9 A. It's extremely important for Providence Water to lead by example and be as environmentally
10 friendly as possible. If we were to sell the REC's on the open market it would not ensure that
11 we are completely reliant on renewable energy. In other words, although we would be
12 producing renewable energy, the selling of the REC's might mean that we would be utilizing
13 fossil fuel.

14 **Q. Has the Board approved your decision to retire the REC's?**

15 A. Yes.

16 **Q. How large is the solar array field for the new solar power project you are proposing?**

17 A. The solar array field will be constructed on a 30-acre site owned by Providence Water in the
18 town of Johnston. The field will have approximately 15,800 solar panels installed and we
19 believe it will produce 4.99 megawatts.

20 **Q. Does land need to be cleared?**

1 A. Yes. Providence Water needs to clear approximately 1 acre of land and cut down
2 approximately 60 trees. However, we are committed to replanting the number of trees that
3 need to be removed. The new trees will be replanted somewhere on the existing site that
4 currently has no trees.

5 **Q. What is the environmental impact?**

6 A. The solar field has an environmental impact equivalent to providing power to 700 houses
7 annually or eliminating approximately 450 automobiles annually.

8 **Q. What is the financial impact?**

9 A. Under the contract we have executed, Providence Water will be leasing the system for 25
10 years and we will not have a capital outlay. Once the system is up and running, we anticipate
11 that there will be annual savings of \$500,000 - \$600,000 per year. The long term forecast is
12 a savings of \$22,000,000 - \$24,000,000 to rate payers over the life of the project.

13 **Q. How were the potential savings calculated?**

14 A. Please see exhibits RC-1 and RC-2.

15 **Q. When will the solar array field be fully operational?**

16 A. The system should be fully operational by the end of calendar year 2020. However, we are
17 pushing to have it completed by the end of the summer in 2020.

18 **Q. Has Providence Water completed any of the initiatives that you listed in your previous**
19 **testimony?**

1 A. Yes. The following initiatives that were identified in previous testimony that I filed have
2 been completed.

3 ° Renovations of the new COF

4 ° Inspection and rehabilitation of our 78” and 102” mains

5 ° Completion of the filter bed project

6 ° Completion of the influent and aeration project

7 ° Evaluation of alternate clarification technologies

8 ° Implementation of a new asset management system

9 ° Implementation of solar power

10 ° Construction of a new security guard facility at the treatment plant in Scituate

11 **Q. Has the Scituate tax treaty been finalized?**

12 A. Providence Water and the Scituate Town Council have finalized a new ten (10) tax treaty that
13 has been signed by James Brady, Jr. the Scituate Town Council President. The treaty was
14 approved by Providence Water Supply Board on October 21, 2019. I am confident that all
15 other necessary signatures will be secured on our end by the end of calendar year 2019.

16 **Q. Can you please provide the new agreement?**

17 A. Yes. Please see the attached exhibit RC-3.

18 **Q. Why is this a good deal for the rate payers?**

19 A. First and foremost, we were able to avoid a long and expensive legal battle like the one that
20 took place from 2001-2007. In addition, Providence Water is being treated like any other
21 taxpayer in Scituate going forward for the next ten years with regard to any future tax

1 increases. If taxes remain stable in any year during the agreement then our current tax bill
2 will also remain stable and will not increase. The agreement provides us with a known and
3 measurable tax expense going forward during the agreement, regardless of whether we
4 continue to purchase additional property or make improvements to our treatment plant or any
5 other assets in the town.

6 **Q. Does Providence Water have any plans to acquire other water utilities?**

7 A. Yes. We are in the process of analyzing the possibility of taking over the Johnston Water
8 District (JWD) which is currently a wholesale customer.

9 **Q. How many retail customers would Providence Water be adding?**

10 A. Approximately 1,700 retail customers would be served directly by Providence Water.

11 **Q. Where do negotiations currently stand?**

12 A. Providence Water requested specific information for analysis by our team. We are currently
13 analyzing the data to determine if it is fiscally responsible for us to acquire the JWD.
14 Numerous conversations have taken place between Providence Water representatives and
15 Johnston officials.

16 **Q. When would the acquisition be completed?**

17 A. Aggressively speaking, the acquisition could take place by the end of calendar year 2019.
18 However, it could easily be pushed back until the end of the first quarter of 2020 which
19 would be March 31st.

20 **Q. Does Providence Water have any other major projects planned in the future?**

1 A. Yes. Providence Water is in the process of researching the cost associated with purchasing a
2 new billing system. Our current billing system, Customer Star was purchased in 1995 and
3 we have since customized it with an outside vendor on numerous occasions. A lot has
4 changed here at Providence Water and within the water industry since 1995. For example the
5 implementation of AMR, leak detection, monthly billing, etc. We need to begin the process
6 of addressing our antiquated billing system.

7 **Q. What are you doing to address the antiquated billing system?**

8 A. Providence Water recently completed a needs analysis and day to day operations of our
9 current billing system. We also analyzed what would be needed now and into the future if
10 we were to purchase a new billing system. We are currently in the process of preparing an
11 RFP to solicit a project management company to assist with the solicitation, selection and
12 implementation of a new billing system. We anticipate that the RFP for the project
13 management vendor will be issued by the end of calendar year 2019. It is our hope to have a
14 project management vendor selected and working by the end of the first quarter of 2020.

15 **Q. What is the anticipated cost for a project management vendor?**

16 A. The total anticipated cost would be \$500,000 for a project management company. The
17 selected vendor would work with Providence Water throughout the entire project which
18 could take approximately 3-4 years for full implementation.

19 **Q. When do you plan on issuing an RFP for a new billing system?**

20 A. Once the project management vendor is on board we feel that the billing system RFP will
21 take approximately 120 days to complete. Therefore we are expecting the RFP to be issued

1 in the fall of 2020. It is our intention to have a new billing system selected in the first quarter
2 of 2021.

3 **Q. What is the anticipated cost for a new billing system?**

4 A. Based on our current research the cost of a new billing system will be \$3,000,000 to
5 \$5,000,000 and will be paid from the IFR fund. This cost includes software, implementation,
6 testing, training, and conversion.

7 **Q. Has Providence Water completed the renovations to the Central Operation Facility?**

8 A. Yes.

9 **Q. Was the project completed on time and on budget?**

10 A. Yes.

11 **Q. When did Providence move into the new COF?**

12 A. Providence Water completed the relocation on Labor Day weekend 2017.

13 **Q. Does the City of Providence or any other agency utilize the COF?**

14 A. No. The COF is utilized by Providence Water only.

15 **Q. Does the COF provide any benefits because of the new location?**

16 A. Yes. First and foremost, the risk of operating a utility in a residential school zone has been
17 eliminated as we are now situated in an industrial park. Our security has been elevated at the
18 COF for our assets, staff and the public. The field crews are able to respond to emergency

1 calls much quicker as we are now located in the center of our distribution system, with easy
2 highway access.

3 **Q. Does the COF provide any benefits to Providence Water's fleet of vehicles?**

4 A. Yes. We believe by housing the majority of our fleet in a climate controlled garage it will
5 extend the life cycle of our vehicles. The crews no longer have to load and offload
6 equipment to keep them out of the weather as in the past at Academy Avenue. In addition,
7 we have realized lower idle times because the vehicles no longer need to run prior to heading
8 on the road. Trucks and heavy equipment are now washed regularly by utilizing our onsite
9 wash bay. The Heavy Equipment Operators are able to properly degrease the heavy
10 equipment by utilizing the wash bay. Routine maintenance can also be performed internally
11 in our garage because it is equipped with truck lifts, ventilation, tool storage and proper
12 lighting.

13 **Q. Has the COF provided a customer benefit?**

14 A. Yes. We now offer one stop shopping for our customers. In the past, contractors and new
15 service applications were handled in our Cranston office while billing was conducted at our
16 Academy Avenue location, which was in Providence. The COF offers easy access and
17 plenty of parking for our customers. The customer service department also provides 2
18 consultation rooms separate and apart from the general billing area where customers can
19 privately discuss sensitive billing details.

20 **Q. Does the COF provide any IT benefits?**

1 A. Yes. The COF is equipped with a state of the art data center which has back up power
2 supplies to ensure that we do not lose our connectivity in case of a power outage. The data
3 center is equipped with HVAC environmental control units that are modern and consistent
4 with industry standards. This provides a stable, secure environment for all IT related
5 functions and supports a productive work environment.

6 **Q. Has security been increased or upgraded at the COF?**

7 A. Yes. Security has been upgraded across the board at Providence Water. We have made a
8 considerable investment in securing our facilities, data, watershed and work force. We have
9 installed high visibility LED lighting around the perimeter of the facility, and all exterior
10 doors are locked with a high security keying system. CCTV security cameras are installed
11 around the exterior and interior of the facility so that it can be monitored 24/7. All
12 employees and deliveries must pass through a guard shed and security gate to gain access to
13 the main lot and all deliveries are verified and recorded by Inspectors at the guard shack.
14 Security glass has been installed at the customer service bill paying counter to provide a safe
15 environment for employees working in customer service. All visitors are required to sign in
16 at secure visitor locations and they receive a visitors' badge. In addition, visitors must be
17 accompanied by PW personnel when entering our facilities.

18 **Q. Has the COF benefitted Providence Water due to training opportunities?**

19 A. Yes. In the past, Providence Water's training programs typically took place at our
20 purification plant in Scituate due to fire codes. Therefore, the majority of our workforce had
21 to be transported from our Cranston facility and the Academy Avenue building in Providence
22 to Scituate. The new COF allows Providence Water to offer a much wider range of training

1 opportunities on-site in a more efficient manner. The COF is equipped with a designated
2 training room that can accommodate 30 employees with work stations. In addition, our
3 cafeteria has a designated area that can double as a “lunch and learn” for a much larger group
4 of people. The two training locations allows Providence Water to host outside training
5 opportunities for our employees free of charge. When the training opportunities are
6 completed at the COF, the workforce is able to quickly resume their normal work
7 assignments and we are no longer losing time transporting employees to and from Scituate.

8 **Q. Has Providence Water become more efficient because of the new COF?**

9 A. Yes, I believe so. Although the COF is larger than the combined locations of Cranston and
10 Academy Avenue, maintenance has become less of a burden for Providence Water. Snow
11 removal is a good example. We previously needed to transport equipment and personnel to
12 clean a large area at the Cranston location so that employees could report to work. That is no
13 longer the case. The Academy Avenue building did not have room to move the snow so we
14 had to transport the snow to an off-site location. That is no longer the case. Snow removal is
15 much easier and more efficient at the COF. The Cranston location and Academy Avenue
16 location were both past their useful life cycle and we were constantly making repairs to both
17 facilities. The new COF is equipped with newer efficient equipment which has helped us
18 become more proactive as opposed to reactive when addressing operational issues.

19 **Q. Does the new COF have an emergency operations center?**

20 A. Yes. The Department of Homeland Security classifies water utilities as critical
21 infrastructure. When the new COF was being renovated, Providence Water required that
22 space made be available for an emergency operations center to be utilized by Providence

1 Water personnel for the benefit of our rate payers. The emergency operations center is
2 equipped with audio visual equipment that allows us to communicate and coordinate
3 emergency situations with local agencies (Providence Emergency Management Agency
4 (PEMA) and state wide agencies (Rhode Island Emergency Management Agency (RIEMA)).
5 Providence Water is a 24/7 operation and must be able to respond to adverse weather
6 conditions regardless of a severe snowstorm or a hurricane. The COF's emergency
7 operations center has increased our overall capability for effectively managing any
8 emergency.

9 **Q. What is the current status of the building at 552 Academy Avenue?**

10 A. Providence Water decommissioned the Academy Avenue building in December 2017. We
11 have turned over the maintenance, operation and security to the City of Providence.

12 **Q. What is the current status of the Cranston office facility?**

13 A. The Cranston office building was also decommissioned and the building (trailers) were
14 removed. However, we continue to maintain the storage tank, pump station and a records
15 storage room that remains at that location.

16 **Q. Does this conclude your testimony?**

17 A. Yes.

EXHIBIT RC-1

Net Meter Credit Calculation for EDF Renewables Baldwin DECA Solar Array - 100% Production							
Contract Year	kWh Produced*	Net Metering Credit Rate**	PPA Rate	Payment to Developer	NGRID Credit to PW Electric Accounts	Total PW Electric Bill	Total Savings
1	8,457,000	\$0.1845	0.0914	\$772,969.80	\$1,560,147.36	\$1,279,769.38	\$506,799.58
2	8,414,715	\$0.1882	0.0914	\$769,104.95	\$1,583,393.56	\$1,293,736.53	\$524,631.58
3	8,372,641	\$0.1919	0.0914	\$765,259.43	\$1,606,986.12	\$1,307,983.02	\$542,723.59
4	8,330,778	\$0.1958	0.0914	\$761,433.13	\$1,630,930.21	\$1,357,399.16	\$595,966.03
5	8,289,124	\$0.1997	0.0914	\$757,625.96	\$1,655,231.07	\$1,372,221.21	\$614,595.25
6	8,247,679	\$0.2037	0.0914	\$753,837.83	\$1,679,894.02	\$1,387,339.70	\$633,501.87
7	8,206,440	\$0.2078	0.0914	\$750,068.64	\$1,704,924.44	\$1,439,738.36	\$689,669.72
8	8,165,408	\$0.2119	0.0914	\$746,318.30	\$1,730,327.81	\$1,455,467.64	\$709,149.34
9	8,124,581	\$0.2161	0.0914	\$742,586.71	\$1,756,109.70	\$1,471,511.50	\$728,924.79
10	8,083,958	\$0.2205	0.0914	\$738,873.78	\$1,782,275.73	\$1,527,072.71	\$788,198.94
11	8,043,538	\$0.2249	0.0914	\$735,179.41	\$1,808,831.64	\$1,543,764.75	\$808,585.34
12	8,003,321	\$0.2294	0.0914	\$731,503.51	\$1,835,783.23	\$1,560,790.62	\$829,287.11
13	7,963,304	\$0.2340	0.0914	\$727,845.99	\$1,863,136.40	\$1,619,705.27	\$891,859.28
14	7,923,488	\$0.2386	0.0914	\$724,206.76	\$1,890,897.13	\$1,637,418.99	\$913,212.23
15	7,883,870	\$0.2434	0.0914	\$720,585.73	\$1,919,071.50	\$1,655,486.99	\$934,901.26

EXHIBIT RC-1

16	7,844,451	\$0.2483	0.0914	\$716,982.80	\$1,947,665.66	\$1,717,957.50	\$1,000,974.70
17	7,805,229	\$0.2533	0.0914	\$713,397.89	\$1,976,685.88	\$1,736,755.44	\$1,023,357.55
18	7,766,202	\$0.2583	0.0914	\$709,830.90	\$2,006,138.50	\$1,755,929.34	\$1,046,098.45
19	7,727,371	\$0.2635	0.0914	\$706,281.74	\$2,036,029.97	\$1,822,170.34	\$1,115,888.60
20	7,688,735	\$0.2688	0.0914	\$702,750.33	\$2,066,366.81	\$1,842,118.87	\$1,139,368.54
21	7,650,291	\$0.2741	0.0914	\$699,236.58	\$2,097,155.68	\$1,862,466.37	\$1,163,229.79
22	7,612,039	\$0.2796	0.0914	\$695,740.40	\$2,128,403.30	\$1,932,705.46	\$1,236,965.06
23	7,573,979	\$0.2852	0.0914	\$692,261.70	\$2,160,116.51	\$1,953,874.99	\$1,261,613.30
24	7,536,109	\$0.2909	0.0914	\$688,800.39	\$2,192,302.24	\$1,975,467.92	\$1,286,667.53
25	7,498,429	\$0.2967	0.0914	\$685,356.39	\$2,224,967.55	\$2,049,946.42	\$1,364,590.04
				\$18,208,039.05	\$46,843,772.01	\$40,558,798.50	\$22,350,759.45

REPORT NOTES:

Value of Renewable Energy Certificates not included in this calculation

* Estimated Degradation Rate 0.5% per year

** Estimated Utility Escalation Rate of 2% per year

Assumed Annual Utility Escalation Rate

Year 1 NMCR (NGRID C06 Rate)

Fixed Price - 4/1/19

Delivery Charges - 9/1/19

Assumed Annual Electric Consumption (kWh)

3- Year Constellation Electric Supply Rate

FY 2019 Total Electric Bill

2.00%

\$0.18448

\$0.09113

\$0.09335

7,640,105

\$0.0761

\$1,266,076.10

EXHIBIT RC-2

Net Meter Credit Calculation for EDF Renewables Baldwin DECA Solar Array - Guaranteed 90% Production							
Contract Year	kWh Produced*	Net Metering Credit Rate**	PPA Rate	Payment to Developer	NGRID Credit to PW Electric Accts	Total PW Electric Bill	Total Savings
1	7,611,300	\$0.1845	0.0914	\$695,672.82	\$1,404,132.62	\$1,279,769.38	\$584,096.56
2	7,573,244	\$0.1882	0.0914	\$692,194.46	\$1,425,054.20	\$1,305,364.77	\$613,170.31
3	7,535,377	\$0.1919	0.0914	\$688,733.48	\$1,446,287.51	\$1,331,472.07	\$642,738.58
4	7,497,700	\$0.1958	0.0914	\$685,289.82	\$1,467,837.19	\$1,358,101.51	\$672,811.69
5	7,460,212	\$0.1997	0.0914	\$681,863.37	\$1,489,707.97	\$1,385,263.54	\$703,400.17
6	7,422,911	\$0.2037	0.0914	\$678,454.05	\$1,511,904.61	\$1,412,968.81	\$734,514.76
7	7,385,796	\$0.2078	0.0914	\$675,061.78	\$1,534,431.99	\$1,441,228.18	\$766,166.40
8	7,348,867	\$0.2119	0.0914	\$671,686.47	\$1,557,295.03	\$1,470,052.75	\$798,366.28
9	7,312,123	\$0.2161	0.0914	\$668,328.04	\$1,580,498.73	\$1,499,453.80	\$831,125.76
10	7,275,562	\$0.2205	0.0914	\$664,986.40	\$1,604,048.16	\$1,529,442.88	\$864,456.48
11	7,239,185	\$0.2249	0.0914	\$661,661.47	\$1,627,948.47	\$1,560,031.74	\$898,370.27
12	7,202,989	\$0.2294	0.0914	\$658,353.16	\$1,652,204.91	\$1,591,232.37	\$932,879.21
13	7,166,974	\$0.2340	0.0914	\$655,061.39	\$1,676,822.76	\$1,623,057.02	\$967,995.62
14	7,131,139	\$0.2386	0.0914	\$651,786.09	\$1,701,807.42	\$1,655,518.16	\$1,003,732.07
15	7,095,483	\$0.2434	0.0914	\$648,527.16	\$1,727,164.35	\$1,688,628.52	\$1,040,101.37

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16	7,060,006	\$0.2483	0.0914	\$645,284.52	\$1,752,899.10	\$1,722,401.09	\$1,077,116.57
17	7,024,706	\$0.2533	0.0914	\$642,058.10	\$1,779,017.29	\$1,756,849.11	\$1,114,791.02
18	6,989,582	\$0.2583	0.0914	\$638,847.81	\$1,805,524.65	\$1,791,986.10	\$1,153,138.29
19	6,954,634	\$0.2635	0.0914	\$635,653.57	\$1,832,426.97	\$1,827,825.82	\$1,192,172.25
20	6,919,861	\$0.2688	0.0914	\$632,475.30	\$1,859,730.13	\$1,864,382.33	\$1,231,907.03
21	6,885,262	\$0.2741	0.0914	\$629,312.92	\$1,887,440.11	\$1,901,669.98	\$1,272,357.06
22	6,850,835	\$0.2796	0.0914	\$626,166.36	\$1,915,562.97	\$1,939,703.38	\$1,313,537.02
23	6,816,581	\$0.2852	0.0914	\$623,035.53	\$1,944,104.86	\$1,978,497.45	\$1,355,461.92
24	6,782,498	\$0.2909	0.0914	\$619,920.35	\$1,973,072.02	\$2,018,067.40	\$1,398,147.05
25	6,748,586	\$0.2967	0.0914	\$616,820.75	\$2,002,470.79	\$2,058,428.75	\$1,441,608.00
				\$16,387,235.15	\$42,159,394.81	\$40,991,396.89	\$24,604,161.74

REPORT NOTES:

Value of Renewable Energy Certificates not included in this calculation

* Estimated Degradation Rate 0.5% per year

** Estimated Utility Escalation Rate of 2% per year

Assumed Annual Utility Escalation Rate

Year 1 NMCR (NGRID C06 Rate)

Fixed Price - 4/1/19

Delivery Charges - 9/1/19

Assumed Annual Electric Consumption (kWh)

3- Year Constellation Electric Supply Rate

FY 2019 Total Electric Bill

2.00%

\$0.18448

\$0.09113

\$0.09335

7,640,105

\$0.0761

\$1,266,076.10

AGREEMENT

AGREEMENT made this _____ day of _____, 2019, by and among the TOWN OF SCITUATE (“Scituate”), the PROVIDENCE WATER SUPPLY BOARD, an enterprise fund of the City of Providence (“PWSB”) and the PROVIDENCE PUBLIC BUILDINGS AUTHORITY (“PPBA”), hereafter PWSB and PPBA are sometimes collectively referred to as the “Water Supply Board”.

WHEREAS, PWSB and PPBA own certain real and personal property located in Scituate; and

WHEREAS, certain property owned by PWSB and PPBA in Scituate is subject to taxation by Scituate.

WHEREAS, PWSB, PPBA and Scituate agree that the method and approach to assess, for purposes of taxation, the several properties and improvements thereon, owned by PWSB and/or PPBA could result in unwanted litigation; and

WHEREAS, the parties determined that an agreement concerning the payment of taxes to Scituate by PWSB and/or PPBA is in the public’s interest and avoids expensive and uncertain litigation which would be otherwise funded by ratepayers and taxpayers.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and in consideration of

the mutual promises and covenants herein made, each of the parties hereto agree as follows:

1. **Ten (10) Year Tax Treaty.**

For a period of ten (10) years beginning with the real estate and personal property taxes assessed as of December 31, 2019 (calendar year 2020) and continuing on and through the real estate and personal property taxes to be assessed as of December 31, 2028 (calendar year 2029), Scituate shall charge the Water Supply Board and the Water Supply Board shall pay annual real estate and personal property taxes, and the taxes will be due and payable as follows:

2020	\$7,067,179.62
2021	\$7,349,866.81
2022	\$7,643,861.48
2023	\$7,949,615.94
2024	\$8,267,600.57
2025	\$8,598,304.60
2026	\$8,942,236.78
2027	\$9,299,926.25
2028	\$9,671,923.30
2029	\$10,058,800.23

The above payment schedule is based on the assumption that Scituate will raise taxes annually to the maximum property tax levy of 4% allowed by law. The foregoing payments schedule will not change for the duration of this Agreement, except that (1) in the event that Scituate does not raise taxes by the assumed maximum property tax levy of 4% allowed by law in any given year, or (2) in the event that Scituate obtains permission under R.I.G.L. § 44-5-2 and increases taxes above the assumed maximum property tax levy of 4% allowed by law in any given

year, then the Water Supply Board's tax payments will be adjusted by the appropriate percentage by which taxes were either not raised to the 4% maximum or were raised in excess of the 4% maximum in the applicable years. For example, (1) if the maximum allowable increase in the levy is 4% and Scituate only raises its tax levy by 3%, then a 1% reduction will be made for that year, and the appropriate reduction will also apply in each remaining successive year of this Agreement, or (2) if the maximum allowable increase in the levy is 5% and Scituate raises its tax levy by 5%, then a 1% increase will be made for that year, and the appropriate increase will also apply in each remaining successive year of this Agreement.

2. **Tax Classification:**

For the entire term of this Agreement, Scituate agrees to classify as forest land on its assessment list, all land owned by the Water Supply Board that the Rhode Island Department of Environmental Management ("RIDEM") certifies now or in the future as forest land. Scituate and the Water Supply Board agree that the foregoing classification by Scituate is for the purpose of settling a dispute among the parties, which dispute was the subject of prior litigation (including appeals thereof) and is not an admission by Scituate that the Water Supply Board's land is forest land or is entitled to forest land classification under the laws of the State of Rhode Island. Upon the termination of this Agreement, Scituate shall be entitled to take any actions with respect to the forest land classification of the Water Supply Board's land as if this Agreement and the aforementioned litigation

never occurred including, but not limited to, removing all of the Water Supply Board's land from the Scituate list of classified forest land, denying any application by the Water Supply Board to the Scituate Tax Assessor for classification of land as forest land and issuing a use valuation assessment for the Water Supply Board's land by the Scituate Tax Assessor. The Water Supply Board also expressly reserves and will be entitled to exercise any and all rights and remedies, whether appellate or otherwise with respect to Scituate taking any of the foregoing actions.

The parties also agree that they will not use any of the terms, provisions or agreements contained in this Agreement against the other in any future proceedings concerning the assessment or collection of taxes by Scituate. The parties further agree that they will not raise as an issue that anything which transpired in the aforementioned litigation or any administrative appeals which were filed by the Water Supply Board prior to the date of this Agreement establishes, under the doctrines of res judicata, collateral estoppel, administrative finality, or any other theory or ground, that the land owned by the Water Supply Board is or is not entitled to be classified and/or valued as forest land. After the termination of this Agreement, all parties shall be entitled to present their positions concerning the issue of forest land classification and valuation just as if the aforementioned litigation and any administrative appeals and this Agreement never occurred.

Notwithstanding the forgoing, in the event that the Water Supply Board finds it necessary to commence administrative appeals or civil actions with regard to the forest land classification and/or forest land valuation of any of its acreage after the expiration of this Agreement, Scituate agrees that the Water Supply Board may introduce the Judge Vogel decision of February 3, 2006 (as amended) into the proceedings and may argue that the reasoning of that decision should be followed, but the Water Supply Board agrees that it will not raise the issue that said decision must be followed under the doctrines of res judicata, collateral estoppel, or administrative finality, or any other theory or ground. The foregoing provisions contained in this Paragraph 2 shall survive the termination of the Agreement.

3. **Additional Property or Improvements.**

The parties agree and understand that the agreed taxes established by this Agreement include any real and personal property which may be acquired by the Water Supply Board, and any improvements to any property owned by the Water Supply Board, during the term of this Agreement, and that the taxes to be paid by the Water Supply Board during the term of this Agreement will not be increased as a result of any such acquisitions or improvements.

4. **Termination.**

This Agreement shall terminate on December 31, 2029. Notwithstanding the foregoing, effective as of December 31, 2019, and after, (but not before), Scituate shall have the option to terminate this Agreement after receipt of actual

notice that the Water Supply Board has, on December 31, 2019 or after, sold, leased or otherwise alienated any of its water supply system property to a non-public entity by giving written notice to the Water Supply Board within thirty (30) days of Scituate's receipt of such actual notice. This option to terminate shall only apply to the water supply system property actually sold, leased or otherwise alienated to a non-public entity and the Agreement shall remain in full force and effect for the balance of the Water Supply Board's property. The effective date of the termination shall be December 31 of the calendar year following the calendar year in which Scituate gives the written notice.

5. **Miscellaneous.**

A. This Agreement shall be governed by and construed in accordance with the laws of the State of Rhode Island.

B. This Agreement constitutes the entire agreement among the parties and supersedes any prior communications, written and oral, with respect to all matters pertaining thereto. This Agreement shall not be modified or amended except by an instrument in writing signed by the parties hereto.

C. All notices, requests, demands and other communications hereunder shall be deemed to have been duly given if hand delivered or if sent by prepaid registered or certified mail or by a recognized overnight delivery service to the parties hereto at the following addresses:

For PWSB: (1) General Manager, Providence Water Supply Board, 125 Dupont Drive, Providence, RI 02907, (2) Senior Manager of Finance, Providence

Water Supply Board, 125 Dupont Drive, Providence, RI 02907, and (3) Michael R. McElroy, Esq. Schacht & McElroy, 21 Dryden Lane, P.O. Box 6721, Providence, RI 02940-6721.

For Scituate: (1) President, Scituate Town Council, 195 Danielson Pike, North Scituate, RI 02857; (2) Town Clerk, Town of Scituate, 195 Danielson Pike, North Scituate, RI 02857; and (3) Peter D. Ruggiero, Esq., Ruggiero Brochu & Petrarca, 20 Centerville Road, Warwick, RI 02886.

Any party hereto may change its address for notice purposes by providing notice in accordance with this provision. Any notice, demand, or other communication shall be deemed given and effective as of the date of delivery by hand, or upon the fifth day following mailing.

D. This Agreement constitutes a valid and binding agreement of the parties hereto, enforceable in accordance with its terms. This Agreement shall be binding upon, and shall inure to the benefit of, the parties and their respective successors and assigns.

E. The parties agree that they shall meet not later than one hundred and eighty (180) days prior to the termination of this Agreement for the purpose of discussing a possible extension of this Agreement or a new similar agreement.

F. The parties agree that, during the term of this Agreement, it shall not be necessary for the Water Supply Board to file any notices of intention to bring in an account, any accounts, or any appeals of any kind, and this Agreement shall control all obligations of the Water Supply Board to pay all taxes to the Town

during the entire term of this Agreement. This Agreement may be enforced as a contract directly in the Superior Court of the State of Rhode Island, without the necessity of the filing of any administrative appeals or the exercise of any other administrative remedies by the Water Supply Board or the Town.

G. This Agreement may be signed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties have hereunto cause these presents to be executed on this _____ day of _____, 2019, by their duly authorized representatives.

Executed in presence of:

PROVIDENCE WATER SUPPLY
BOARD OF THE
CITY OF PROVIDENCE

By: _____
Xaykham Khamsyvoravong, Chairman

PROVIDENCE PUBLIC BUILDINGS
AUTHORITY OF THE
CITY OF PROVIDENCE

By: _____
Stanley Weiss, Chairman

THE CITY OF PROVIDENCE

By: _____
Jorge Elorza, Mayor

THE CITY OF PROVIDENCE

By: _____

Sabina Matos
City Council President

TOWN OF SCITUATE

Moni Taylor

By: James Brady, Jr.
Town Council President