

June 22, 2018

Board of Contract and Supply  
Department of the City Clerk- City Hall, Room 311  
25 Dorrance Street  
Providence, RI 02903

Re: RFP 18-155 for Renewable Energy Projects, Issuing Department- Providence Water Supply Board

Dear Madams/Sirs:

Please acknowledge the attached packet as submission of our formal proposal for the above-referenced RFP in accordance with the requirements therein. The Financial Analysis is predicated and based on limited information available at this time.

Our Statement of Qualification and the supporting documentation will unequivocally demonstrate our high level of competency, experience, efficiency and Industry knowledge. And, although Core Development Group has not had the benefit of delivering any solar projects specifically in the Rhode Island, our extensive national development experience in this realm pre-eminently qualifies us to complete this project and we are very excited with that prospect; and are prepared to assist in this significant and important endeavor.

We look forward to hearing from you and shall await your reply. Should you have any questions or concerns, please do not hesitate to contact me.

Gratefully,



Henry Cortes  
Owner

**THE CITY OF PROVIDENCE**  
**Board of Contract and Supply**  
**Department of the City Clerk- City Hall, Room 311**

**RFP 18-155 for Renewable Energy Projects**

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## Statement of Qualifications:

June 25, 2018

860 Wyckoff Ave Suite 102 Mahwah, NJ 07430  
P: 201-825-2195 | F: 201-825-5844

Visit us at: [www.coredevusa.com](http://www.coredevusa.com)



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To Whom it May Concern:

Thank you for the opportunity to present this statement of qualifications for your consideration. Our team at Core Development Group, LLC knows that selecting the right partner is critical to the successful development, construction, and operation of any long-term investment in large commercial or utility-scale solar projects.

Our expertise with ground-mounted, rooftop, and parking-canopy solar photovoltaic systems will allow us to engineer, procure, construct, operate and maintain the delivery of a system with safety, quality and integrity. Ultimately, our goal is to help our clients successfully and economically implement their solar energy goals.

Enclosed you will find the background information, company history, and our team's relevant qualifications for our potential clients to make an informed decision when selecting us as their solar partner.

Please contact us with any questions, comments, or points for clarification. I look forward to working with you soon.

Best Regards,

*HCortes*

Henry Cortes

[hcortes@coredevusa.com](mailto:hcortes@coredevusa.com)



## 2. COMPANY BACKGROUND

### EXPERIENCE: THERE IS NO SUBSTITUTE

Core Development Group, LLC (“Core”) has a team with more than two decades of collective experience developing and constructing commercial and utility-scale solar projects. Core is an integrated national player focused on Land Development, Project Financing, Engineering, Procurement, & Construction (EPC), Project Management, Construction Management services, and O&M services in the U.S. The company specializes in utility-scale markets across single or multiple sites. Every project is backed by our vast Project Management and Construction Management experience and supplemented by our deep understanding of land development. With **PMP** certified Project Managers, **NABCEP** certified technicians and **Master** Electricians on staff there is no project we cannot handle. With a proven track record, the company provides turnkey solutions adapted to each customer’s individual needs. Core and its’ team have developed, delivered and maintain more than 650 MW of solar PV nationally.

#### A. Expertise

Since 2012, Core has developed a successful track record of providing Land Development services, turn-key EPC, Independent Engineering services, Project Management / Construction Management services, Third Party Commissioning, and Operation and Maintenance (O&M) of renewable energy projects throughout the nation. The managers and members that make up Core have extensive real-world construction experience in the solar industry.

#### B. Community Partners

Core Development Group, LLC is a proud and active partner of Power52 Energy Institute which is an innovative and unique organization that utilizes locally trained, under-privileged, and disadvantaged individuals both embarking on or re-entering the workforce. As evidence of its’ commitment to the community Core employs as many members of a graduating class of Power52 Energy Institute as possible, often providing job placement to the entire class.

Power52 Energy Institute is the first Clean Energy Private Career School specializing in Solar PV installation to be approved by the Maryland Higher Education Commission. In Partnership with Living Classroom’s Workforce Development Team, the Power52 Energy Institute Baltimore City offers an accredited eleven-week comprehensive training program which includes placement services to ensure that the trainees are successful. Like the energy its projects produce,, P52’s mission is that the future and opportunities of those it benefits should be sustainable as well.

The long-term community development strategy is to break the cycles of poverty, unemployment, under-employment, and incarceration in our Urban Communities nationwide, while simultaneously advancing neighborhood resilience through a sustainable strategy.





### **C. Utility-Scale**

Core Development's members and team have significant experience in utility-scale installations worldwide, offering a complete turnkey service from siting projects and the management of permitting and legal matters, to the supplying of equipment, construction, interconnection, and the subsequent Operations & Maintenance service of each project. The internal know-how within the U.S. team along with support and local subcontractors allow for the delivery of utility-scale projects on time and within budget. Our U.S. managers and members have collectively been responsible for the Project Management and Construction Management, development, estimation, engineering, installation, and O&M of over 650MW of utility-scale solar projects over the course of their careers.

### **D. Distributed Generation**

Core has a proven track record in the successful oversight, implementation, operation, and maintenance of rooftop, ground-mounted, and solar canopy installations in the distributed generation market. Examples of successful projects include combined rooftop and carport system for major commercial developers as well as combined rooftop and ground mount systems.



### **3. STATEMENT OF QUALIFICATIONS**

#### **A. Scope of Work**

As a leading developer, EPC and O&M service provider, Core can develop and provided full turnkey land development, EPC, third-party commissioning, and O&M services for large solar PV projects. These services include project siting and due diligence, production estimates and preliminary engineering, project entitlements, Interconnection Application (IA) and approval, permitting approvals from townships, Phase 1 Environmental studies, geotechnical studies, O&M, Project Management and Construction Management services, final design engineering, third-party commissioning, and project finance. Core has Project Managers, Construction Managers, Master Electricians, Solar Technicians, in-house engineering, and a QA/QC team up to the task.

Our procurement team qualifies and selects technology providers and subcontractors to perform the installation and construction of the plant itself. We rely on our experienced Project Managers and Construction Managers to ensure our subcontractors perform the highest quality work on time and within budget.

#### **B. Financial Statements**

Available upon request.

#### **C. Years in Business**

Core Development Group, LLC – 6 years as an independent entity

#### **D. Corporate Details**

Core Development Group, LLC

Date of Organization: 18 October 2012

State of Organization: New Jersey

Privately held and wholly owned MBE/WBE company

#### **E. Major Contracts**

Core is one of the leading global renewable energy Project Management and Construction Management service provider's nationwide. Some of Core's major clients include **Amazon, Washington Gas Energy Systems, Con Edison Solutions, Bith Energy, Pivotal Power Solutions, Power 52, EnterSolar, IGS Energy, Sol Systems, Real Good Solar and BayWa-re.** The company's success implementing renewable energy solutions in the U.S. and abroad have provided a wealth of knowledge and experience from many different markets and utility service territories.





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#### **4. CONTACT DETAILS:**

Henry Cortes  
Core Development Group, LLC  
860 Wyckoff Avenue, Suite 102  
Mahwah, NJ 07430  
P: (201) 825-2195  
F: (201) 825-5844  
[hcortes@coredevusa.com](mailto:hcortes@coredevusa.com)

Visit our website for detailed information on some of our past projects:

[www.coredevusa.com](http://www.coredevusa.com)

#### **5. REFERENCES**

Jack Hachmann  
WGL Energy Systems  
Center City, MN 55102  
703.333.3912  
[jack.hachmann@wglenergy.com](mailto:jack.hachmann@wglenergy.com)

Greg Michaelson  
Amazon  
Harrisburg, PA 17025  
541.250.9996  
[mic@amazon.com](mailto:mic@amazon.com)

Daniel Diamond  
Sol Systems  
Fall River, MA 02717  
602.689.3479  
[daniel.diamond@solsystems.com](mailto:daniel.diamond@solsystems.com)

Captain Durriyyah Habeebullah  
DC Police Training Academy  
Office- 202.645.6669  
Cell- 202.369.0285  
[Durriyyah.Habeebullah@dc.gov](mailto:Durriyyah.Habeebullah@dc.gov)

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### 3 RECENT PV SOLAR PROJECTS

1.	<b>PROJECT 1 - PV SOLAR</b>	
	Project Name	UMASS- Amherst
	Project Location	Amherst, Massachusetts
	Owner's Name/Location	Sol Systems
	Owner's Contact	Name: Daniel Diamond
		Address: Fall River, MA 02717
		Phone/e-mail: 602.689.3479 daniel.diamond@solsystems.com
	Architect/Engineer	Company Name:
		Location:
		Contact Name/Phone/e-mail:
	Contract Amount	<b>\$ See Attached</b>
	Type of Contract (i.e., firm lump sum, cost plus, unit price, etc.) & Completion Date	Firm Milestone Based 5/15/2017
Description of Work Performed (Size, Type, Ratings, Line end points, and voltage.)	6MW Carport & Rooftop Systems	



<b>2.</b>	<b>PROJECT 2 - PV SOLAR</b>	
	Project Name	Minnesota Solar Garden
	Project Location	Minnesota- multiple locations, community solar
	Owner's Name/Location	WGL Energy Systems
	Owner's Contact	Name: Jack Hachmann
		Address: Center City, MN 55102
		Phone/e-mail: 703.333.3912 jack.hachmann@wglenergy.com
	Architect/Engineer	Company Name:
		Location:
		Contact Name/Phone/e-mail:
	Contract Amount	<b>\$ See Attached</b>
Type of Contract (i.e., firm lump sum, cost plus, unit price, etc.) & Completion Date	Firm Milestone Based 6/1/2017	
Description of Work Performed (Size, Type, Ratings, Line end points, and voltage.)	7 MW Ground Mount System	

3.	<b>PROJECT 3 – PV SOLAR</b>	
	Project Name	SMF 1
	Project Location	Sacramento
	Owner's Name/Location	Green Skies
	Owner's Contact	Name: Greg Michaelson (Amazon)
		Address: Harrisburg, PA 17025
		Phone/e-mail: 541.250.9996/mic@amazon.com
	Architect/Engineer	Company Name:
		Location:
		Contact Name/Phone/e-mail:
	Contract Amount	<b>\$ See Attached</b>
	Type of Contract (i.e., firm lump sum, cost plus, unit price, etc.) & Completion Date	Firm Milestone Based 12/1/2017
	Description of Work Performed (Size, Type, Ratings, Line end points, and voltage.)	4.5MW Rooftop System

## 5 Recent EPC CONTRACTS OF MENTION

	EPC Project Name	Dollar Amount	Contract No.	Date Completed
1.	EWR9- 8003 Industrial Avenue, Carteret NJ- Fulfillment Ctr.	7.5MW	Sol Systems	9/1/2017
2.	Ft. Campbell, KY US Army Base	5MW	WGL Energy Systems	4/15/2017
3.	BOS7	3MW	Sol Systems	12/31/2017
4.	DC DGS Police Training Academy	Approx.. 1MW	Core Development Group	3/31/2018
5.	Nixon Farms	5MW	Bith Energy	11/1/2016

June 22, 2018

Board of Contract and Supply  
Department of the City Clerk- City Hall, Room 311  
25 Dorrance Street  
Providence, RI 02903

Re: RFP 18-155 for Renewable Energy Projects, Issuing Department- Providence Water Supply Board

Dear Madams/Sirs:

Kindly acknowledge this letter as a letter of explanation regarding Core Development Group's submittals relative current and previously completed projects.

I have attached documentation which indicate and reflect relevant projects. However, due to contractual obligations including non-disclosure, confidentiality and non-compete agreements, I am barred from fully disclosing the all requested data including financial as well as other privileged information.

Should you have any questions, concerns or otherwise need clarification, please do not hesitate to contact me.

Gratefully,

*HCore*

Henry Cortes  
Owner



**BOARD OF CONTRACT AND SUPPLY  
CITY OF PROVIDENCE, RHODE ISLAND**

**BID FORM 1: Bidders Blank**

1. Bids must meet the attached specifications. Any exceptions or modifications must be noted and fully explained.
2. Bidder's responses must be in ink or typewritten, and all blanks on the bid form should be completed.
3. The price or prices proposed should be stated both in **WRITING** and in **FIGURES**, and any proposal not so stated may be rejected. **Contracts exceeding twelve months must specify annual costs for each year.**
4. Bids **SHOULD BE TOTALED** so that the final cost is clearly stated (unless submitting a unit price bid), however **each item should be priced individually**. Do not group items. Awards may be made on the basis of **total** bid or by **individual items**.
5. All bids **MUST BE SIGNED IN INK**.

**Name of Bidder (Firm or Individual):** Core Development Group, LLC

Contact Name: Henry Cortes

Business Address: 860 Wycoff Avenue, Ste. 102, Mahwah, NJ 07430

Business Phone #: 201.825.2195

Agrees to bid on (Item(s) to be bid): Renewable Energy Projects- Providence Water Supply Board

If the bidder's company is based in a state other than Rhode Island, list name and contact information for a local agent for service of process that **is located within Rhode Island**: Pat Scavitti, 10 Ridgevale Court, Cranston, RI [pscavitti@coredevusa.com](mailto:pscavitti@coredevusa.com); 201.995.3552; 401.573.8303

Please visit <http://www.naics.com/search/> and identify the NAICS Code(s) for items being bid on.

Enter the NAICS code(s) here or in parentheses next to each item listed immediately above: 221114

Delivery Date (when applicable): June 25, 2018

Name of Surety Company (if applicable): N/A- Cashier Check Attached in lieu of Proposal Bond

Total Amount in Writing\*: Ten Thousand Dollars and zero cents

Total Amount in Figures\*: \$10,000.00

***\*If you are submitting a unit price bid please insert "Unit Price Bid."***

*Use additional pages if necessary for additional bidding details.*

Signature of Representative

\_\_\_\_\_  
Managing Member

\_\_\_\_\_  
Title





**BOARD OF CONTRACT AND SUPPLY**  
CITY OF PROVIDENCE, RHODE ISLAND

**Certificate Regarding Public Records**

Upon behalf of Core Development Group, LLC (Firm or Individual Bidding),  
I, Henry Cortes (Name of Person Making Certification),  
being its Managing Member (Title or "Self"), hereby certify an  
understanding that:

1. All bids submitted in response to Requests for Proposals (RFP's) and Requests for Qualification (RFQ's), documents contained within, and the details outlined on those documents become public record upon receipt by the City Clerk's office and opening at the corresponding Board of Contract and Supply (BOCS) meeting.
2. The Purchasing Department and the issuing department for this RFP/RFQ have made a conscious effort to request that sensitive/personal information be submitted directly to the issuing department and only at request if verification of specific details is critical the evaluation of a vendor's bid.
3. The requested supplemental information may be crucial to evaluating bids. Failure to provide such details may result in disqualification, or an inability to appropriately evaluate bids.
4. If sensitive information that has not been requested is enclosed or if a bidder opts to enclose the defined supplemental information prior to the issuing department's request in the bidding packet submitted to the City Clerk, the City of Providence has no obligation to redact those details and bears no liability associated with the information becoming public record.
5. The City of Providence observes a public and transparent bidding process. Information required in the bidding packet may not be submitted directly to the issuing department at the discretion of the bidder in order to protect other information, such as pricing terms, from becoming public. Bidders who make such an attempt will be disqualified.

I affirm by signing below that I am duly authorized on behalf of Bidder, on  
this 22nd day of June 2018.

Signature of Representative

Henry Cortes

Printed Name



**BOARD OF CONTRACT AND SUPPLY**  
CITY OF PROVIDENCE, RHODE ISLAND

BID FORM 2: Certification of Bidder  
(Non-Discrimination/Hiring)

Upon behalf of Core Development Group, LLC (Firm or Individual Bidding),  
I, Henry Cortes (Name of Person Making Certification),  
being its Managing Member (Title or "Self"), hereby certify that:

1. Bidder does not unlawfully discriminate on the basis of race, color, national origin, gender, sexual orientation and/or religion in its business and hiring practices.
2. All of Bidder's employees have been hired in compliance with all applicable federal, state and local laws, rules and regulations.

I affirm by signing below that I am duly authorized on behalf of Bidder, on  
this 22nd day of June 2018.

Signature of Representative

Henry Cortes

Printed Name

### MBE/WBE WAIVER REQUEST FORM

Fill out this form only if you are using subcontractors and did not meet the 20% MBE/WBE participation goal. MBE or WBE Prime Bidders that are certified by the State of Rhode Island are NOT REQUIRED to fill out this form.

Submit this form to the City of Providence MBE/WBE Outreach Director, Grace Diaz, at [mbe-wbe@providenceri.gov](mailto:mbe-wbe@providenceri.gov) for review **prior to bid submission**.

This waiver applies only to the current bid which you are submitting to the City of Providence and does not apply to other bids your company may submit for in the future.

Prime Bidder: Core Development Group, LLC

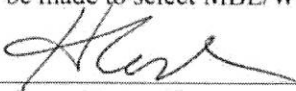
Company Trade: Solar Development, EPC and O&M

Item Description (as seen on RFP):  
Renewable Energy Projects- Providence Water Supply Board, 6/25/2018

To receive a waiver, you must list the certified MBE and/or WBE companies you contacted, the name of the primary individual with whom you interacted, and the reason the MBE/WBE company could not participate on this project.

MBE/WBE Company Name	Individual's Name	Company Trade	Why did you choose not to work with this company?

I acknowledge the City of Providence's goal of a combined MBE/WBE participation is 20% of the total bid value. I am requesting a waiver of \_\_\_\_\_ % MBE/WBE (20% minus the value of **Box F** on the Subcontractor Disclosure Form). If an opportunity is identified to subcontract any task associated with the fulfillment of this contract, a good faith effort will be made to select MBE/WBE certified businesses as partners.

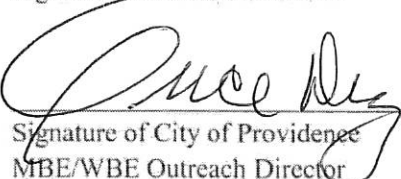
  
Signature of Prime Contractor

Henry Cortes

Printed Name

June 22, 2018

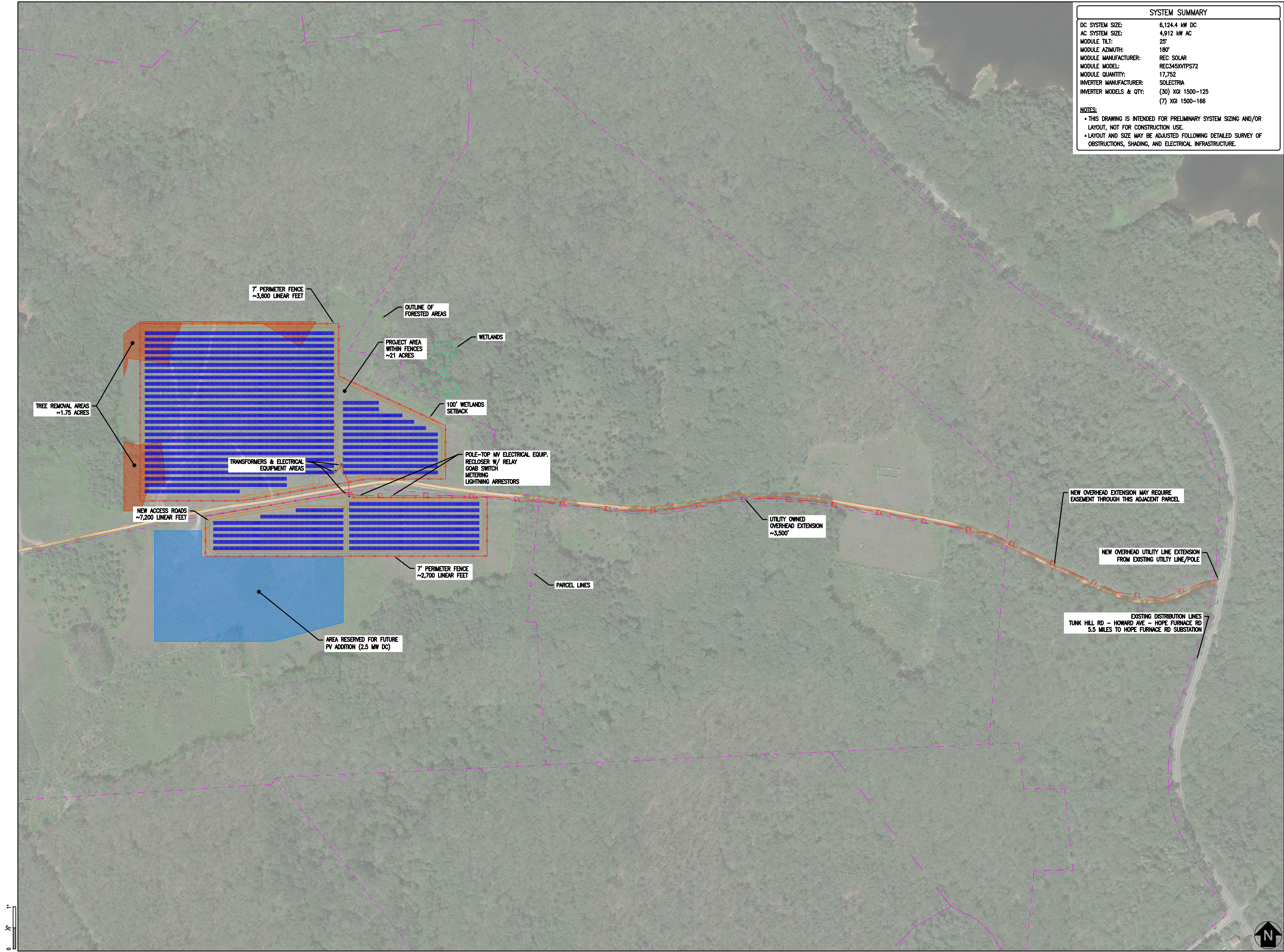
Date Signed

  
Signature of City of Providence  
MBE/WBE Outreach Director

GRACE DIAZ  
Printed Name of City of Providence  
MBE/WBE Outreach Director

06/22/18  
Date Signed





SYSTEM SUMMARY	
DC SYSTEM SIZE:	6,124.4 kW DC
AC SYSTEM SIZE:	4,912 kW AC
MODULE TILT:	25°
MODULE AZIMUTH:	180°
MODULE MANUFACTURER:	REC SOLAR
MODULE MODEL:	REC345XVIP572
MODULE QUANTITY:	17,752
INVERTER MANUFACTURER:	SOLECTRIA
INVERTER MODELS & QTY:	(30) XGI 1500-125 (7) XGI 1500-166
NOTES:	
• THIS DRAWING IS INTENDED FOR PRELIMINARY SYSTEM SIZING AND/OR LAYOUT, NOT FOR CONSTRUCTION USE.	
• LAYOUT AND SIZE MAY BE ADJUSTED FOLLOWING DETAILED SURVEY OF OBSTRUCTIONS, SHADING, AND ELECTRICAL INFRASTRUCTURE.	



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THIS DRAWING SHALL REMAIN THE PROPERTY OF CORE DEVELOPMENT GROUP. THE DRAWING, ALL CONCEPTS AND ALL IDEAS CONTAINED HEREIN SHALL NOT BE USED, REPRODUCED, REVISED, OR RETAINED WITHOUT THE EXPRESS WRITTEN APPROVAL OF CORE DEVELOPMENT GROUP.  
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ENGINEER

REV DATE DESCRIPTION

PROVIDENCE WATER RFP  
JOSLIN FARM PV SYSTEM  
352 FIELD HILL ROAD  
SCITUATE, RI

DRAWN BY LRC DATE 06/19/18

CHECKED BY SHEET SIZE 24" X 36"

ISSUE PRELIMINARY SCALE NOT TO SCALE

SHEET TITLE

SITE PLAN

DRAWING #

G100





Cautions: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at <https://sam.nrel.gov>) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

Disclaimer: The PVWatts® Model ("Model") is provided by the National Renewable Energy Laboratory ("NREL"), which is operated by the Alliance for Sustainable Energy, LLC ("Alliance") for the U.S. Department Of Energy ("DOE") and may be used for any purpose whatsoever.

The names DOE/NREL/ALLIANCE shall not be used in any representation, advertising, publicity or other manner whatsoever to endorse or promote any entity that adopts or uses the Model. DOE/NREL/ALLIANCE shall not provide

any support, consulting, training or assistance of any kind with regard to the use of the Model or any updates, revisions or new versions of the Model.

YOU AGREE TO INDEMNIFY DOE/NREL/ALLIANCE, AND ITS AFFILIATES, OFFICERS, AGENTS, AND EMPLOYEES AGAINST ANY CLAIM OR DEMAND, INCLUDING REASONABLE ATTORNEYS' FEES, RELATED TO YOUR USE, RELIANCE, OR ADOPTION OF THE MODEL FOR ANY PURPOSE WHATSOEVER. THE MODEL IS PROVIDED BY DOE/NREL/ALLIANCE "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. IN NO EVENT SHALL DOE/NREL/ALLIANCE BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO CLAIMS ASSOCIATED WITH THE LOSS OF DATA OR PROFITS, WHICH MAY RESULT FROM ANY ACTION IN CONTRACT, NEGLIGENCE OR OTHER TORTIOUS CLAIM THAT ARISES OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE MODEL.

The energy output range is based on analysis of 30 years of historical weather data for nearby , and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

8,577,281 kWh/Year\*

System output may range from 7,915,115 to 8,796,859 kWh per year near this location.

Month	Solar Radiation ( kWh / m <sup>2</sup> / day )	AC Energy ( kWh )	Value ( \$ )
January	3.41	545,513	44,187
February	4.23	607,337	49,194
March	4.96	764,044	61,888
April	5.60	814,400	65,966
May	5.73	855,672	69,309
June	6.03	852,985	69,092
July	6.25	901,104	72,989
August	5.86	847,816	68,673
September	5.52	783,043	63,426
October	4.34	653,092	52,900
November	3.34	499,888	40,491
December	2.84	452,389	36,644
Annual	4.84	8,577,283	\$ 694,759

Location and Station Identification

Requested Location	providence, ri
Weather Data Source	Lat, Lon: 41.77, -71.66 13 mi
Latitude	41.77° N
Longitude	71.66° W

PV System Specifications (Commercial)

DC System Size	6124.4 kW
Module Type	Premium
Array Type	Fixed (open rack)
Array Tilt	25°
Array Azimuth	180°
System Losses	13.2%
Inverter Efficiency	98%
DC to AC Size Ratio	1.246

Economics

Average Retail Electricity Rate	0.081 \$/kWh
---------------------------------	--------------

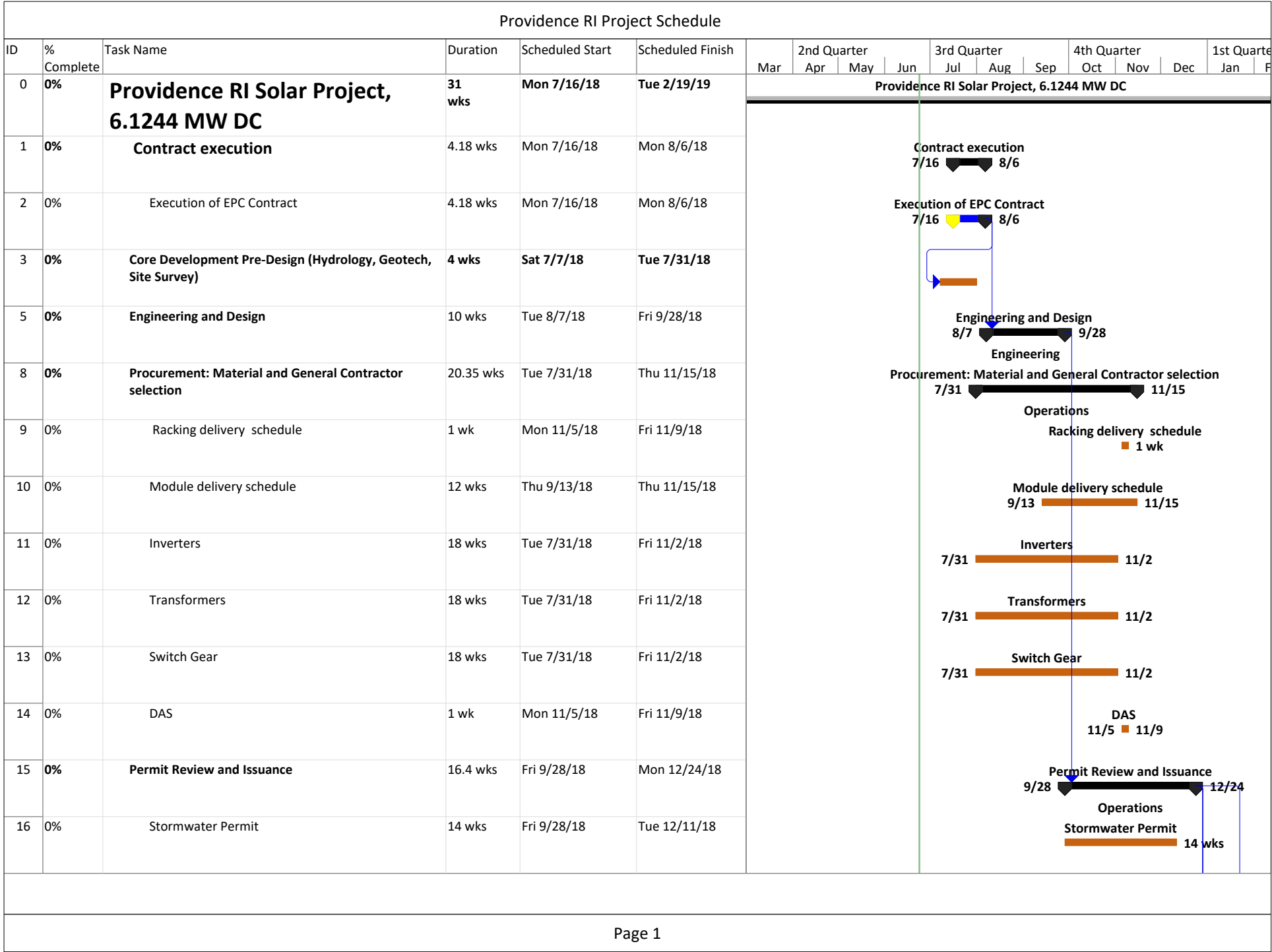
Performance Metrics

Capacity Factor	16.0%
-----------------	-------



## **Major Electrical Equipment**

- (17,752) REC 345W 1500V modules
- (30) Solectria XGI 1500-125 inverters
- (7) Solectria XGI 1500-166 inverters
- (1) Locus DAS with typical weather instruments
- (3) Panelboards - 1200A, 600V, MLO, (8) 150A breakers
- (1) Panelboard - 1000A, 600V, MLO, (6) 150A breakers
- (2) Panelboards - 800A, 600V, MLO, (4) 150A breakers
- (3) Disconnect Switches - 1200A, 600V, fused
- (1) Disconnect Switches - 1000A, 600V, fused
- (2) Disconnect Switches - 800A, 600V, fused
- (2) Transformers - 2000 KVA, 34.5kV/600V, loop feed
- (1) Transformer - 1500 KVA, 34.5kV/600V, loop feed
- (2) GOAB switches – 38 kV, 150A, pole-top, lockable
- (6) lightning arrestors – pole-top, 38 kV
- (1) Recloser with SEL 651-R relay – 38 KV, 3-phase, 150A, w/ battery
- (1) Primary meter – SEL 735, CTs, PTs



Providence RI Project Schedule																		
ID	% Complete	Task Name	Duration	Scheduled Start	Scheduled Finish	Mar	2nd Quarter				3rd Quarter			4th Quarter			1st Quarter	
							Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
17	0%	Grading Permit	10 wks	Fri 9/28/18	Tue 11/20/18								Grading Permit 9/28 10 wks					
18	0%	Electrical/Building Permits	16 wks	Fri 9/28/18	Sat 12/22/18								Electrical/Building Permits 9/28 12/22					
19	0%	Final Permits Issued	0 days	Mon 12/24/18	Mon 12/24/18										Final Permits Issued 12/24 12/24			
20	0%	Execution of Project	0.6 wks	Mon 12/24/18	Thu 12/27/18										Execution of Project 12/24 12/27			
25	0%	Mechanical work	4 wks	Sat 12/22/18	Sat 1/12/19										Operations Mechanical work 12/22 1/12			
31	0%	Electrical A/C and D/C Wiring	6 wks	Mon 12/24/18	Thu 1/24/19										Electrical A/C and D/C Wiring 12/24 1/24			
40	0%	Civil work	1.4 wks	Wed 12/26/18	Wed 1/2/19										Civil work 12/26 1/2			
44	0%	Mechanical completion	0.8 wks?	Thu 1/24/19	Tue 1/29/19										Mechanical completion 1/24 1/29			
53	0%	Substantial Completion	15.4 wks?	Mon 11/19/18	Fri 2/8/19										Substantial Completion 11/19 2/8			
54	0%	Energization	2 wks?	Tue 1/29/19	Fri 2/8/19										Energization 1/29 2/8			
62	0%	Commissioning	2 wks	Mon 1/28/19	Wed 2/6/19										Commissioning 1/28 2/6			
67	0%	Final Completion (FC)	2 wks	Fri 2/8/19	Tue 2/19/19										Final Completion (FC) 2/8 2/19			

Providence RI Project Schedule																												
1st Quarter		2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Providence RI Solar Project, 6.1244 MW DC																												
2/19																												

Providence RI Project Schedule

1st Quarter		2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May



BIDDER'S BLANK ATTACHMENT 1  
Providence Water Supply Board Renewable Energy Projects

Photovoltaic Project(s) Purchased or PPA

- 1) Unit price per kWh. Please state the amount of the proposed unit price per kWh of electricity for the first year of the proposed ground mounted PV Project(s).

In Figures	\$55.00/kWh
In Words	Fifty-five Dollars per kWh

- 2) Escalation Factor, Please provide a yearly escalation factor to be applied to the Unit Price per kWh after the first year.

Percentage	<u>2%</u>
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- 3) Guaranteed kWh/Year. Please State the guaranteed kWh for the first year Of the proposed ground mounted PV Project(s),

In Figures	8,576,352 kWh
In Words	Eight Million Five Hundred Seventy-Six Thousand Three Hundred Fifty-two

- 4) Date of Commercial Operation (Permission to Operate by National Grid). Please provide the anticipated date of commercial operation of the Wind Project(s). Please note PW reserves the right to cancel the project should the anticipated date not be met.

Date	August 1, 2019 based on an Award date of on or before September 1, 2018
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### Core Development Proposals

**Option #1:** Turnkey EPC price of \$11,023,920 for a 6.124MW System (\$1.80/Watt), project owned by PWSB.

**Option #2:** 25-year PPA, escalation at 2% annually beginning in year 5, annual rates as proposed:

Year	PPA Price (\$/Watt)
1	0.055
2	0.055
3	0.055
4	0.055
5	0.0561
6	0.05722
7	0.05837
8	0.05953
9	0.06072
10	0.06194
11	0.06318
12	0.06444
13	0.06573
14	0.06704
15	0.06839
16	0.06975
17	0.07115
18	0.07257
19	0.07402
20	0.0755
21	0.07701
22	0.07855
23	0.08012
24	0.08173
25	0.08336

Upon award of the Contract Core Development Group, LLC shall provide a complete financial analysis of the project should the City so request.



				6.1244 MW DC Solar Providence, RI										
				Loan Finance Analysis, 6/20/2018										
				2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
					1	2	3	4	5	6	7	8	9	10
				Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<b>Income Statement</b>														
<i>Electric Output:</i>														
System Capacity, KW AC					4,912	4,887	4,863	4,839	4,814	4,790	4,766	4,743	4,719	4,695
Annual EFLH					1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746
Electric Production, kWh					8,576,352	8,533,470	8,490,803	8,448,349	8,406,107	8,364,077	8,322,256	8,280,645	8,239,242	8,198,045
Avg Electric Sale Price, \$/kWh	Enter Yr 1 Electric Price -----		\$0.05500		\$0.00000	\$0.05500	\$0.05500	\$0.05500	\$0.05610	\$0.05722	\$0.05837	\$0.05953	\$0.06072	\$0.06194
Electric Revenue-Energy						\$469,341	\$466,994	\$464,659	\$471,583	\$478,609	\$485,740	\$492,978	\$500,323	\$507,778
<i>Electric Capacity:</i>														
Capacity, kW	Enter System Capacity Avail		0.00%		0	0	0	0	0	0	0	0	0	0
Avg. Sale Price, \$/kW/Yr	Enter Yr 1 Capacity Price ----		\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Electric Revenue-Capacity	Enter Capacity Sale Start Yr		1		0	0	0	0	0	0	0	0	0	0
<i>REC Sales:</i>														
REC Production, kWh					8,576,352	8,533,470	8,490,803	8,448,349	8,406,107	8,364,077	8,322,256	8,280,645	8,239,242	8,198,045
Avg. Sale Price, \$/kWh					\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
REC Revenue					0	0	0	0	0	0	0	0	0	0
Total Project Revenue					0	469,341	466,994	464,659	471,583	478,609	485,740	492,978	500,323	507,778
Avg. Total Sale Price, \$/kWh					\$0.0000	\$0.0550	\$0.0550	\$0.0550	\$0.0561	\$0.0572	\$0.0584	\$0.0595	\$0.0607	\$0.0619
Avg. Physical Sale Price, \$/kWh					\$0.0000	\$0.0550	\$0.0550	\$0.0550	\$0.0561	\$0.0572	\$0.0584	\$0.0595	\$0.0607	\$0.0619

			6.1244 MW DC Solar Providence, RI										
			Loan Finance Analysis, 6/20/2018										
				2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
				11	12	13	14	15	16	17	18	19	20
				Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
<b><u>Income Statement</u></b>													
<b><u>Electric Output:</u></b>													
System Capacity, KW AC				4,672	4,648	4,625	4,602	4,579	4,556	4,533	4,511	4,488	4,466
Annual EFLH				1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746
Electric Production, kWh				8,157,055	8,116,270	8,075,689	8,035,310	7,995,134	7,955,158	7,915,382	7,875,805	7,836,426	7,797,244
Avg Electric Sale Price, \$/kWh	Enter Yr 1 Electric Price ---->	\$0.05500		0	0	0	0	0	0	0	0	0	0
Electric Revenue-Energy				515,344	523,023	530,816	538,725	546,752	554,899	563,166	571,558	580,074	588,717
<b><u>Electric Capacity:</u></b>													
Capacity, kW	Enter System Capacity Avail	0.00%		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Avg. Sale Price, \$/kW/Yr	Enter Yr 1 Capacity Price -----	\$0.00		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electric Revenue-Capacity	Enter Capacity Sale Start Yr --	1		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b><u>REC Sales:</u></b>													
REC Production, kWh				8,157,055	8,116,270	8,075,689	8,035,310	7,995,134	7,955,158	7,915,382	7,875,805	7,836,426	7,797,244
Avg. Sale Price, \$/kWh				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REC Revenue				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b><u>Input Data:</u></b>													
REC Compliance Price, \$/kWh				0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Compliance Discount				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Project Revenue				515,344	523,023	530,816	538,725	546,752	554,899	563,166	571,558	580,074	588,717
Avg. Total Sale Price, \$/kWh				0.0632	0.0644	0.0657	0.0670	0.0684	0.0698	0.0711	0.0726	0.0740	0.0755
Avg. Physical Sale Price, \$/kWh				0.0632	0.0644	0.0657	0.0670	0.0684	0.0698	0.0711	0.0726	0.0740	0.0755

			6.1244 MW DC Solar Providence, RI										
			Loan Finance Analysis, 6/20/2018										
				2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
				21	22	23	24	25	26	27	28	29	30
				<u>Year 21</u>	<u>Year 22</u>	<u>Year 23</u>	<u>Year 24</u>	<u>Year 25</u>	<u>Year 26</u>	<u>Year 27</u>	<u>Year 28</u>	<u>Year 29</u>	<u>Year 30</u>
<b><u>Income Statement</u></b>													
<u>Electric Output:</u>													
System Capacity, KW AC				4,443	4,421	4,399	4,377	4,355	4,333	4,312	4,290	4,269	4,247
Annual EFLH				1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746
Electric Production, kWh				7,758,258	7,719,467	7,680,869	7,642,465	7,604,253	7,566,231	7,528,400	7,490,758	7,453,304	7,416,038
Avg Electric Sale Price, \$/kWh	Enter Yr 1 Electric Price ----->			\$0.05500	0	0	0	0	0	0	0	0	0
Electric Revenue-Energy				597,489	606,391	615,427	624,597	633,903	643,348	652,934	662,663	672,536	682,557
<u>Electric Capacity:</u>													
Capacity, kW	Enter System Capacity Avail			0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Avg. Sale Price, \$/kW/Yr	Enter Yr 1 Capacity Price -----			\$0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electric Revenue-Capacity	Enter Capacity Sale Start Yr --			1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<u>REC Sales:</u>													
REC Production, kWh				7,758,258	7,719,467	7,680,869	7,642,465	7,604,253	7,566,231	7,528,400	7,490,758	7,453,304	7,416,038
Avg. Sale Price, \$/kWh				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REC Revenue				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<u>Input Data:</u>													
REC Compliance Price, \$/kWh				0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Compliance Discount				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Project Revenue				597,489	606,391	615,427	624,597	633,903	643,348	652,934	662,663	672,536	682,557
Avg. Total Sale Price, \$/kWh				0.0770	0.0786	0.0801	0.0817	0.0834	0.0850	0.0867	0.0885	0.0902	0.0920
Avg. Physical Sale Price, \$/kWh				0.0770	0.0786	0.0801	0.0817	0.0834	0.0850	0.0867	0.0885	0.0902	0.0900