



**SolomonEnergy**



# Town of Guilderland NY Landfill Solar RFP Report

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## 1. INTRODUCTION AND LANDFILL SOLAR PROJECT OVERVIEW

In the Spring of 2019 the Town of Guilderland NY (the “Town”) embarked on an effort to implement a renewable energy project at their landfill site located at 6363 Frenchs Mill Rd, Altamont, NY 12009. The graphic below highlights the sections of the site that was identified as viable for installation of a solar facility.



As previously discussed, the Town has a unique opportunity to achieve significant streams of revenue through the hosting of a solar systems on the property. This opportunity is available in part due to changes in the State’s solar programs. At the start of this year, New York regulators redesigned their solar regulations and solar incentive programs allowing for third party solar companies to build, own and operate solar facilities on land. The solar company operates the system and sells all of the energy produced to National Grid residential and commercial customers through Community Distributed Generation (“Community Solar”) programs. Typically, the solar companies sell the energy to residential or commercial customers at a guaranteed 5% to 20% discount to the National Grid price. Additionally, NYSERDA’s NY-Sun MW Block program is a well-established state incentive program for solar. Under this program the systems owner, the solar company in this instance, receives an incentive based on the size of the system. Additionally, systems placed on landfills receive an additional incentive rate. Solomon Energy has pre-qualified the site as meeting the landfill eligibility requirement with NYSERDA.

In the Spring of 2019, Solomon Energy was engaged to assist the Town in implementing the solar projects. In August 2019, Solomon Energy a RFP for the project on behalf of the Town. The RFP was sent to twenty of the nation’s leading solar companies. On September 12, 2019 Solomon Energy received three responses from solar companies including Distributed Solar Development (a GE Renewable Energy venture), Standard Solar and BQ Energy. Solomon Energy has conducted an extensive review of the submissions and we have detailed our recommendation to the Town in this report.

## **2. REQUESTED INFORMATION AND EVALUATION CRITERIA**

We requested a range of data from each solar company including:

- Proposer Qualifications and Statement on Proposers Ability to Complete Scope of Work
- Project Portfolio and References
- Statement on Proposers Financial Strength
- Legal Status and Licenses
- Insurance
- Energy System(s) Design
- Data Sheets
- Energy System(s) Cost Table
- Regulatory and Incentive Information Statement
- Off-taker Statement
- Energy System(s) Owner and Financing Statement
- Development, Design, Engineering and Interconnection Statement
- Permitting, Zoning and Relevant Approvals Statement
- Construction and Safety Statement
- Operations and Maintenance (O&M) and Access to Site Statement
- Site Security Statement
- Taxes Statement
- Decommissioning/Removal of the System Statement
- Project Schedule
- Site and Land Lease Information
- Land Option and Lease Details
  - Number of acres to lease
  - Option payment amount
  - Land lease payment per wDC
  - Annual land lease payment escalator
  - Changes in land lease payment amount due to changes in assumptions for interconnection costs and NYSERDA NY-Sun program blocks
- Draft of Land Lease Option and Land Lease Agreement

We have evaluated the proposal based on the information provided above and have used the following criteria, among others, in evaluating proposals:

- Price/Lease payment offer provided
- Proposal completeness and compliance with the RFP's requirements
- Financial strength and stability
- Photovoltaic and energy storage engineering, project and construction experience
- Project engineering analysis
- Recent prior experience
- Equipment proposed for the Energy System(s);
- Maintenance capabilities
- Lease option agreement(s) and lease agreement(s) terms, payment structure and payment amounts

### 3. SUMMARY OF PROPOSALS

The information below highlights the responses from each proposer. Please see the attached summary chart with each proposal.

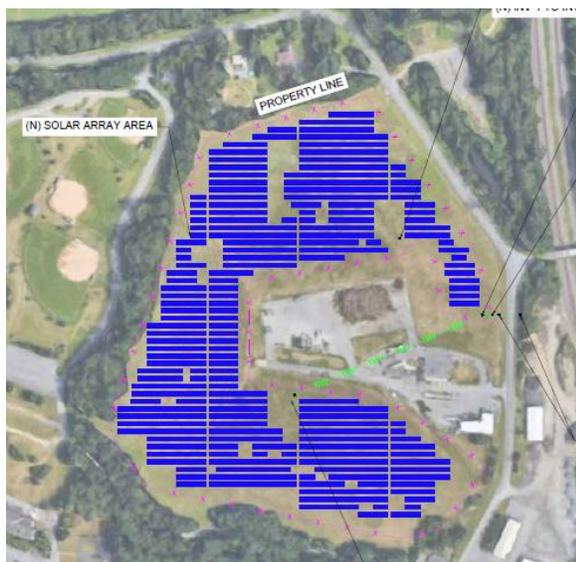


#### Company Overview

Distributed Solar Development (a GE Renewable Energy venture) (“DSD”) was launched as a startup within General Electric in 2012 with the vision that GE could lead the evolution to distributed energy generation. After launching on the east coast, DSD is a national solar developer now active in 15 states and expanding as markets evolve and customers demand. To date, DSD has successfully deployed over 125MW of solar projects. Their team collectively has direct experience developing over 3GW of turnkey solar PV systems across over 1,000 commercial & industrial projects, including many projects in New York. In 2019 they received an investment from BlackRock Real Assets and created Distributed Solar Development, LLC. DSD is a well-capitalized solar developer and owner and operator of distributed solar projects. As noted above, they are backed by BlackRock and GE. DSD was spun out from their original parent company, the General Electric Company, in July 2019. BlackRock Inc. controls 80% of the business while GE Renewable Energy retains 20%. Notable projects include Schenectady County NY (18 MWDC), Town of Wallkill NY (2.4 MWDC Landfill) and President Container Group (2 MWDC).

#### Solar System Details

DSD has proposed a 5,699,000 wDC (5.69 MWDC) system that would produce an estimated 6,986,974 kWh per year. This production is the equivalent to the same power use of over 1,000 homes in New York state (calculated using figures provided at <https://www.electricchoice.com/blog/electricity-on-average-do-homes/>). The equipment they will use will be Tier 1 including JA Solar’s 390W solar panels, SMA Inverters, Gamechange ballasted racking and Also Energy monitoring systems. DSD was present at the site visit and also conducted detailed topography (slope), shading, visual impact and utility interconnection review. The total footprint of their system would be 19.70 acres.



DSD will setup the system as a Community Distributed Generation (CDG) system where the energy produced will be sold to National Grid's residential and commercial customers. Please note that future programs could be established for Town residents, businesses and Town properties to utilize the energy from the system.

DSD meets the Town's Requirement for:

- Ability to Complete Scope of Work
- Financial Strength
- Legal Status and Licenses
- Insurance
- Development, Design, Engineering and Interconnection
- Permitting, Zoning and Relevant Approvals
- Securing the NYSERDA NY-Sun MW Block Program Incentive
- Construction and Safety
- Operations and Maintenance (O&M) and Access to Site
- Site Security
- Decommissioning/Removal of the System

#### **Timeline**

- November 2019 – Execute Lease Option Agreement with Town (Note: The lease option agreement will include protections to make sure timely development of the project occurs)
- November 2019 to August 2020 – Development of projects including interconnection applications, permitting, final system design and execute full lease agreement with Town
- July 2020 – NYSERDA NY-Sun Incentive Approval
- August 2020 – Start of Construction
- March 2021 – Systems are operational and the Town would be receiving annual lease revenue

#### **Revenue**

- 25 Year Lease
- Guaranteed revenue that is not dependent on the system performance
- Lease Option Payment - \$10,000
- Annual Lease Revenue - \$151,792
- Total Lease Revenue (25 Years) - \$3,794,797

Please note that National Grid dictates the cost for interconnection upgrades while NYSERDA controls the NYSERDA NY-Sun MW Block incentive rate. The figures above reflect assumptions on the cost for interconnection at \$600,000. The NYSERDA NY-Sun MW Block incentive assumption is \$0.30 wDC. In order to eliminate unexcepted future change we requested that all three of the solar companies provide the change in the annual lease payment based on a change in the interconnection costs and NYSERDA NY-Sun MW Block program incentive rate. For instance, if the National Grid interconnection cost increased from the assumption \$600,000 to \$1,000,000 then the total annual lease payment would decrease. If the interconnection cost was lower than the \$600,000 assumption, then the annual lease payment made would increase. This would be the same for the NYSERA NY-Sun MW block incentive. Additionally, we will build into the lease option agreement protections that if the potential annual lease payment dropped below a certain threshold then you would be able to terminate (not lease the sites at a low rate for 25 years).

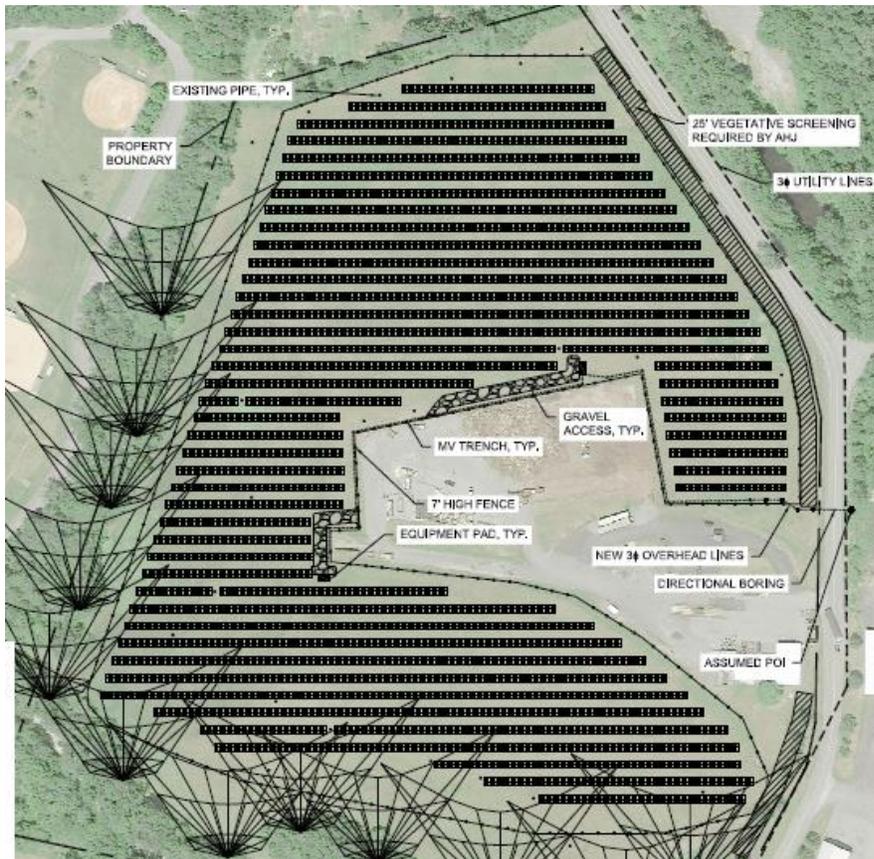


### Company Overview

Formed in 2004, Standard Solar has been developing solar PV systems for more than 15 years, with 220 MW in operational or under construction. To date, they have installed, managed, and/or financed over 220 MW, including 60 MW in community solar. Standard Solar is a wholly owned subsidiary of Énergir, the largest natural gas distribution company in Québec. Énergir has more than \$7 billion in assets, and is committed to developing and operating innovative, promising energy projects, including solar PV projects. Through their parent company, Énergir, Standard Solar maintains a \$500 million in-house, low-cost capital fund to finance projects. Notable projects include a 2.8 MWDC project for NY DGS Pilgrim Psychiatric Center, a 38MWDC portfolio of NY community solar and a 3.5 MWDC landfill project for the Town of Stafford CT.

### Solar System Details

Standard Solar has proposed a 5,710,000 wDC (5.7 MWDC) system that is estimated to produce 7,582,000 kWh per year. This production is the equivalent to the same power use of over 1,000 homes in New York state (calculated using figures provided at <https://www.electricchoice.com/blog/electricity-on-average-dohomes/>). The equipment they will use will be Tier 1 including JA Solar Bifacial 380W panels, Chint Inverters, RBI ballasted racking and Locus Energy monitoring systems. The design of their systems is below. Standard Solar was not present at the site visit but did conduct a detailed topography (slope), shading, visual impact and utility interconnection review. The total footprint of their system is 19 acres.



Standard Solar will setup the system as a Community Distributed Generation (CDG) system where the energy produced will be sold to National Grid's residential and commercial customers. Please note that future programs could be established for Town residents, businesses and Town properties to utilize the energy from the system.

Standard Solar meets the Town's Requirement for:

- Ability to Complete Scope of Work
- Financial Strength
- Legal Status and Licenses
- Insurance
- Development, Design, Engineering and Interconnection
- Permitting, Zoning and Relevant Approvals
- Securing the NYSERDA NY-Sun MW Block Program Incentive
- Construction and Safety
- Operations and Maintenance (O&M) and Access to Site
- Site Security
- Decommissioning/Removal of the System

#### **Timeline**

- November 2019 – Execute Lease Option Agreement with Town (Note: The lease option agreement will include protections to make sure timely development of the project occurs)
- November 2019 to March 2020 – Development of projects including interconnection applications, permitting, final system design and execute full lease agreement with Town.
- March 2020 – NYSERDA NY-Sun Incentive Approval
- April 2020 – Start of Construction
- September 2020 – Systems are operational and Town receiving annual lease revenue

#### **Revenue**

- 25 Year Lease
- Guaranteed revenue that is not dependent on the system performance
- Lease Option Payment - \$0
- Annual Lease Revenue - \$136,214
- Total Lease Revenue (25 Years) - \$3,405,345

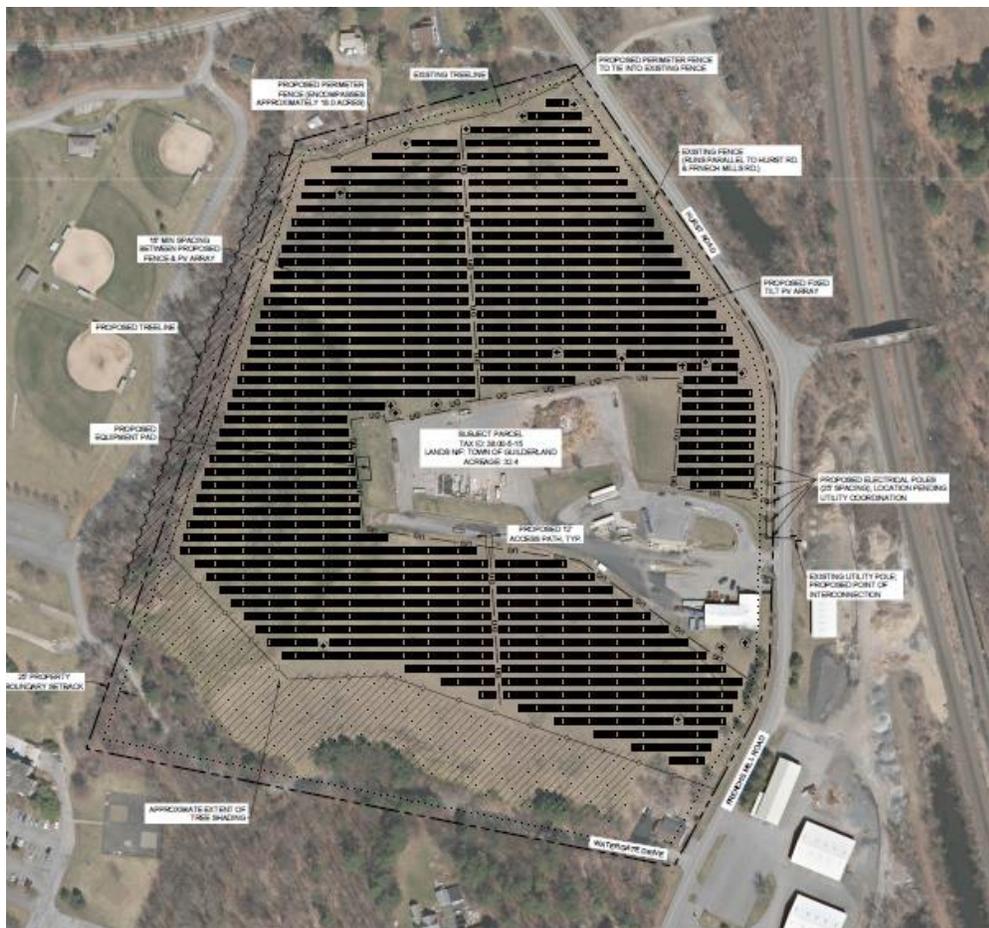
Please note that National Grid dictates the cost for interconnection upgrades while NYSERDA controls the NYSERDA NY-Sun MW Block incentive rate. The figures above reflect assumptions on the cost for interconnection at \$600,000. The NYSERDA NY-Sun MW Block incentive assumption is \$0.30 wDC. In order to eliminate unexcepted future change we requested that all three of the solar companies provide the change in the annual lease payment based on a change in the interconnection costs and NYSERDA NY-Sun MW Block program incentive rate. For instance, if the National Grid interconnection cost increased from the assumption \$600,000 to \$1,000,000 then the total annual lease payment would decrease. If the interconnection cost was lower than the \$600,000 assumption, then the annual lease payment made would increase. This would be the same for the NYSERA NY-Sun MW block incentive. Additionally, we will build into the lease option agreement protections that if the potential annual lease payment dropped below a certain threshold then you would be able to terminate (not lease the sites at a low rate for 25 years).

### Company Overview

BQ Energy specializes in brownfields and landfill solar development, and has constructed 48 MW of brownfield-sited solar in the last five years. BQ Energy uses external financing to fund their projects including the Green Bank, Key Bank and M&T Bank. Notable projects include a landfill project for the Town of Esopus NY, a landfill project for the City Beacon NY and a landfill project for the City of Annapolis MD.

### Solar System Details

Standard Solar has proposed a 6,399,000 wDC (6.39 MWDC) system that is estimated to produce 8,218,000 kWh per year. This production is the equivalent to the same power use of over 1,000 homes in New York state (calculated using figures provided at <https://www.electricchoice.com/blog/electricity-on-average-do-homes/>). The equipment they will use will be Tier 1 including Hanwha solar panels, SMA Inverters, GameChange ballasted racking and Also Energy monitoring systems. The design of their systems is below. Standard Solar was present at the site visit and conducted a detailed topography (slope), shading, visual impact and utility interconnection review. The total footprint of their system is 18 acres.



BQ Energy will setup the system as a Community Distributed Generation (CDG) system where the energy produced will be sold to National Grid's residential and commercial customers. Please note that future programs could be established for Town residents, businesses and Town properties to utilize the energy from the system.

Standard Solar meets the Town's Requirement for:

- Ability to Complete Scope of Work
- Financial Strength
- Legal Status and Licenses
- Insurance
- Development, Design, Engineering and Interconnection
- Permitting, Zoning and Relevant Approvals
- Securing the NYSERDA NY-Sun MW Block Program Incentive
- Construction and Safety
- Operations and Maintenance (O&M) and Access to Site
- Site Security
- Decommissioning/Removal of the System

#### **Timeline**

- November 2019 – Execute Lease Option Agreement with Town (Note: The lease option agreement will include protections to make sure timely development of the project occurs)
- November 2019 to September 2020 – Development of projects including interconnection applications, permitting, final system design and execute full lease agreement with Town.
- September 2020 – NYSERDA NY-Sun Incentive Approval
- March 2020 – Start of Construction
- July 2021 – Systems are operational and Town receiving annual lease revenue

#### **Revenue**

- 25 Year Lease
- Guaranteed revenue that is not dependent on the system performance
- Lease Option Payment - \$0
- Annual Lease Revenue - \$29,050
- Total Lease Revenue (25 Years) - \$820,465

Please note that National Grid dictates the cost for interconnection upgrades while NYSERDA controls the NYSERDA NY-Sun MW Block incentive rate. The figures above reflect assumptions on the cost for interconnection at \$600,000. The NYSERDA NY-Sun MW Block incentive assumption is \$0.30 wDC. In order to eliminate unexcepted future change we requested that all three of the solar companies provide the change in the annual lease payment based on a change in the interconnection costs and NYSERDA NY-Sun MW Block program incentive rate. For instance, if the National Grid interconnection cost increased from the assumption \$600,000 to \$1,000,000 then the total annual lease payment would decrease. If the interconnection cost was lower than the \$600,000 assumption, then the annual lease payment made would increase. This would be the same for the NYSERA NY-Sun MW block incentive. Additionally, we will build into the lease option agreement protections that if the potential annual lease payment dropped below a certain threshold then you would be able to terminate (not lease the sites at a low rate for 25 years).

## RECOMMENDATION AND NEXT STEPS

The Town has received strong offers from all three solar companies. It is of our opinion that each has the operational and financial ability to develop, own and operate the systems under the long-term agreement. Key items of the proposals that were reviewed include the overall size of the project, lease revenue offered and the design of the project.

### Distributed Solar Development (a GE Renewable Energy venture) (DSD)

- System Size – 6 MWDC
- Lease Option Payment - \$10,000
- Annual Lease Revenue - \$151,792
- Total Lease Revenue (25 Years) - \$3,794,797

### Standard Solar

- System Size – 5.7 MWDC
- Lease Option Payment - \$0
- Annual Lease Revenue - \$136,214
- Total Lease Revenue (25 Years) - \$3,405,345

### BQ Energy

- System Size – 6.4 MWDC
- Lease Option Payment - \$0
- Annual Lease Revenue - \$29,050
- Total Lease Revenue (25 Years) - \$820,465

Based on our assessment we would recommend to the Town that you select DSD as the preliminary awarded proposer.

Below provides a general outline of the next steps and development process of the project:

- October 15, 2019 – Town Board meeting to review the solar companies offers with the Board issuing a Preliminary Notice of Award to the selected solar company.
- October 15, 2019 to November 13, 2019 – The Town (with Solomon Energy's support) reviews, negotiates site lease option agreements with the selected solar company.
- November 7, 2019 – Town Board meeting where the Board provides necessary approvals to execute the site lease option agreements.
- Fall 2019 / Winter 2020 – Development of project begins per the selected solar companies proposed schedule including interconnection application submission to National Grid, site survey, soil testing, zoning and permitting work, Etc.
- 2020/21 – Solar systems are operational, and the Town is receiving lease revenue.

We look forward to continued progress and assisting you to achieve the benefits of the solar project.

Respectfully,



Chris Whitman  
Chief Executive Officer  
Solomon Energy

Respectfully,



Jeffrey Conrad  
President  
Solomon Energy

**Town of Guilderland NY**  
**Landfill Solar RFP Summary**

<b>ASSUMPTIONS</b>	<b>GE</b>	<b>Standard Solar</b>	<b>BQ Energy</b>
Solar System Size (wDC)	6,074,000	5,710,000	6,399,000
kWh Produced	7,628,944	7,582,000	8,218,000
wDC to kWh	1.26	1.33	1.28
System Price (\$/wDC)	\$1.61	\$1.30	\$1.24
System Price (\$)	\$9,169,691	\$7,148,920	\$7,928,361
Interconnection Costs (\$/wDC)	\$0.10000	\$0.04800	\$0.10939
Interconnection Costs (\$)	\$607,400	\$274,080	\$700,000
NYSERDA NY-SUN MW Block Incentive (\$/wDC)	\$0.30	\$0.30	\$0.27
NYSERDA NY-SUN MW Block Incentive (\$)	\$1,822,200	\$1,713,000	\$1,727,730
Change in Lease Revenue Per \$.01 IX (\$)	\$6,500	\$4,833	\$600
Change in Lease Revenue Per \$.01 NY-Sun (\$)	\$5,000	\$9,667	\$2,750
<b>LEASE DETAILS</b>			
Term (Yrs)	25 Years	25 Years	25 Years
Acres Leased (Acres)	19.70	19.00	18.00
Solar System Size Per Acre (wDC/Acre)	308,325	300,526	355,500
Lease Revenue Per Acre (\$/acre)	\$7,665	\$8,621	\$2,917
Lease Revenue Per wDC (\$/wDC)	\$0.025	\$0.029	\$0.008
Option Payment (\$)	\$10,000	\$0	\$0
Lease Escalator Per Yr (%)	0%	0%	1%
<b>REVENUE DETAILS</b>			
Annual Lease Revenue (\$/Yr)	\$151,792	\$136,214	\$29,050
Total Lease Revenue 25 Yrs (\$)	\$3,794,797	\$3,405,345	\$820,465