Proposed Sunnyside Landfill Solar Farm Lease Agreement

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Paul Curran, Managing Director, BQ Energy

Quality of Life Committee – October 28, 2020
Sunnyside Landfill Solar Project

- Winner of the 2019 Reinventing Cities Competition
- Transform the former 240-acre landfill in Sunnyside into a multi-component asset for the community
- Largest urban solar installation in US = $70M private sector investment
- 120 Million pounds of CO2 off-set per year
- Climate Action Plan and Complete Communities top priority
- Target construction and commercial operation date 2022
Surface Lease Details

• Lease term – maximum 30 years
  • Development and Construction Period (up to the Commercial Operation Date)
  • Operation Period (twenty years with two five-year extensions possible)
  • Decommissioning Period (one-year max).

• City retains ownership of property and liability of the subsurface landfill material

• Tenant will complete permitting for and restoration of the landfill cover; responsible for maintaining the restored cover within the leased space, including all landscaping, mowing, reseeding, etc.

• Rent - $1.00 per year to the City

• City Council approval (2021) of development agreement required before construction can begin
BQ Energy

- World-wide experience in project development and a leader in developing renewable energy on brownfields and landfills since 2002.
- Developed medium-sized wind energy projects (5-50 MW) and utility scale solar PV (1-100 MW).
- Develop, Build, Own & Operate Projects in many different locations.
- Sell power to owners, third parties, or transmission market.
- Existing financial relationships with KeyBank, M&T Bank, NY Green Bank, and other financial relationships.

Wolfe Energy

- Co-Developed a 7 MW solar array on a superfund site and developed and manage three community-owned solar arrays
- Houston-based community organizer and educator
Landfill Solar Vs. Other Land-Use Options

• Solar farms are one of the safest and most productive ways to reuse landfills

• Minimally invasive to build, silent to run, and produce no harmful byproducts

• Solar farm creates a productive use while restricting access to keep landfill area safe and secure

• Long-term agreements ensure decades of safe and stable economic benefits
Utility Scale Solar Farm

- ~ 50 MW solar array installed on the northern section of the landfill
- Produce enough electricity to power 5,000 homes annually
- About $70 Million in capital cost
- Construction in 2022
- Opportunities available for local contractors; training provided
Community-Owned Solar Program

- 2 MW solar array installed on the northern section of the landfill
- Generate enough electricity to power 200 homes annually
- About $5 Million in capital cost
- Opportunities available for local contractors; training provided
- Discount Power for qualifying residents of Sunnyside
Impact to Landfill Integrity

- Solar project will improve the landfill environmental integrity
- All surface vegetation will be restored and maintained by the Solar Farm
- Erosion control measures will be employed during construction
- Bioretention features will be included to manage run-off after construction
Progress to Date

- Completed conceptual solar design
- Started a community outreach program
- Received ERCOT Fast Track Interconnection; preparing for Full Interconnection Study
- Completed Drone Survey of Property
- Selected Golder Associates to begin assessment of TCEQ requirements for restoration
- Proposed lease for City Council approval in November
Next Steps – Permitting and Interconnection

Permitting:
• Project must conform with all Federal, State, local environmental and electrical codes.
• There will be tree chipping and some grading work on site to make the terrain appropriate for a solar array.
• Public meetings will be held during the permit process to ensure appropriate communication and input.

Interconnection:
• The process of interconnection with ERCOT power grid requires extensive study to ensure that under all circumstances the delivery of electric power will be done safely and reliably.
• Project will formally apply for interconnection, expending $50K, as soon as the lease is signed.
• There are existing nearby wires owned by CenterPoint.
Next Steps – Power Sales

• Power will be distributed via existing wires and at no time will the reliability of area or local power delivery be impacted.

• There are a variety of commercial power sales routes that the Sunnyside Energy Solar Farm project can take including:
  
  • Selling to existing retail suppliers, who would then manage customers
  • Selling to larger buyers such as businesses, governments, or universities
  • Selling directly to residential customers

• Power sales activities will begin after permitting is complete.
<table>
<thead>
<tr>
<th>Milestone Task</th>
<th>Date</th>
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<tbody>
<tr>
<td>City of Houston Lease Complete</td>
<td>November 2020</td>
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<tr>
<td>Initial Design Complete</td>
<td>December 2020</td>
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<tr>
<td>Electrical Interconnection Studies Started</td>
<td>December 2020</td>
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<tr>
<td>Permit Applications</td>
<td>January 2021</td>
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<tr>
<td>Permits &amp; Development Agreement Approved</td>
<td>November 2021</td>
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<tr>
<td>Power Sales Complete</td>
<td>December 2021</td>
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<td>Electrical Interconnection Agreement</td>
<td>February 2022</td>
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<tr>
<td>Project Finance Secured</td>
<td>March 2022</td>
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<td>Commercial Operation</td>
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QUESTIONS?

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WWW.GREENHOUSTONTX.GOV

Virtual Sunnyside Energy Community Town Hall
Thursday, October 29th

REGISTER: www.solarunitedneighbors.org/sunnyside