



## Frequently Asked Questions

June 1, 2020

### **1- What is the Sunnyside Energy Project?**

Sunnyside Energy will be a large installation of solar energy panels that will generate clean electric power. The facility will be built on the surface of an existing landfill located in the Sunnyside section of Houston, Texas. The plant is expected to be the largest solar energy project constructed on an urban landfill in the United States. It will supply an amount of power equivalent to that used by approximately 10,000 Houston homes over the course of a year. ([www.seia.org](http://www.seia.org))

### **2- Is the project to be owned by the City of Houston or will it be privately owned?**

The existing landfill is owned by the City of Houston who will retain ownership of the land. Through a Lease they will make the surface of the landfill available to this project. The project itself will be privately owned by the developers.



### **3- Where exactly is this property?**

Bordered by Bellfort Road to the north and Reed Road to the south, the land is east of 288 and west of Comal Road.



### **4- How were the developers of the project selected?**

The City issued a competitive solicitation for development teams to submit proposals on the development of this landfill for reuse as a solar energy installation. Based upon those submittals the City has partnered with Wolfe Energy LLC to create the Sunnyside Energy Project. The project will be an asset for the city of Houston and the Sunnyside community, while also helping the City reduce carbon pollution and take part in the clean energy transition.

## **5- Will this project create a landfill in the Sunnyside neighborhood?**

No.

A very large landfill has been present in the Sunnyside neighborhood for many decades. As part of the scope of this project, the environmental integrity of the landfill will be improved after a thorough restoration plan can be developed and evaluated by the developers, the City, County and the State of Texas. Clearly, the site has lacked regular maintenance, and this development will improve that aspect of the community.

## **6- When will the project be built?**

Likely in 2022.

## **7- Why not sooner?**

The project requires important approvals from the Texas Commission on Environmental Quality (TCEQ) regarding all matter regarding construction on the existing landfill. Given the lack of recent activity at the property, that process must be thoroughly studied and will take time.

Additionally, all electric generation facilities such as this require careful study and approval by the Electric Reliability Council of Texas (ERCOT), which oversees all power generation and delivery in the state. ERCOT's scope is to ensure that power can be safely and reliably delivered to all Texas power customers. It should be noted, that most power generators struggle to ensure reliable delivery of their power to urban areas who use the power. By locating this generation in an urban center, Sunnyside will improve the flow of electricity in Houston by reducing the need for other imports into the City. Houston, like many other cities, also needs more electricity on hot sunny days. Sunnyside will also assist greatly on delivery during those peak times.

There will be other development activities going on during the coming two years, but the approvals of TCEQ and ERCOT are expected to drive the overall project schedule.

## **8- Who will design and build the project?**

The design of the project is very important and must take into account the existing and restored conditions of the landfill. It must also take into

account all relevant engineering and building codes that will apply. Specialty engineers from within the development team will oversee those aspects of the project carefully.



A smaller, but similar project is shown on the left. Note that the final project design is structured to adapt to the landfill site characteristics.

The actual construction work will involve several disciplines including the overall project management, site

restoration work, fencing repair, general civil work and of course electrical construction. All of these scopes and others will be specified to allow specialty firms in the industry as well as local businesses to put forward competitive bids on the specific work scope that they are qualified for at the appropriate time.

### **9- Who will supply all the equipment to be installed at this site?**

Much of the equipment is related to the generation and safe delivery of electricity and those pieces of equipment will be sourced from national firms who meet the required ERCOT and other electrical specifications. Other materials such as general construction wiring, tools and workman materials will be sourced locally as available.

### **10- Is it one solar project on the site or two?**

It will probably look like one large solar project to most observers but there will be two solar businesses operating on the site. On the northern end of the property, about 5% of the overall solar panels will be generating power for community use. This project, the Sunnyside Community Solar Project, will sell its output to Houston residents who chose to source their electricity from this clean local source. The remaining 95% of the facility will be the Sunnyside Energy Utility Scale Project. This larger installation will sell electricity to larger customers on the grid, including energy firms, hospitals or universities.

### **11- Can residents buy their electric power from this project?**

Yes the Community Solar Project will be sold to individual residents.

200-300 residential buyers and 3-5 non-profit off-takers are needed for the community solar array to be constructed. Residents and businesses

anywhere in CenterPoint's territory (whether they rent or own) can subscribe and participate.

The cost per kilowatt (kW) is currently estimated at \$2,400/kW (or \$2.40/Watt) to purchase solar panels in the array (minimum purchase is 1 kW). Credits from the energy produced will show up on subscribers' electric bill. A subscription reservation fee of \$100 per kW is required (refundable if the project is not constructed), which will establish the array's escrow account for future maintenance. Assuming the array is built in 2021 and subscribers pay federal taxes, subscribers will be able to claim the 22% Federal Investment Tax Credit your purchase on their 2021 taxes. While in essence buying renewable electricity up front for the next 25 years, participants will recoup the purchase through lower electric bills over the first 13-15 years, depending on energy usage and current electricity plan.

Visit [www.SolarUnitedNeighbors.org/Sunnyside](http://www.SolarUnitedNeighbors.org/Sunnyside) and [www.seia.org/initiatives/community-solar](http://www.seia.org/initiatives/community-solar) to learn more.

**12- If residents buy power from this project can they still use electricity when the sun is not shining?**

Yes, your existing utility will still deliver power reliably to your home or business at all time. They will blend electrons from all power sources at all times to meet all the needs of all customers.

**13- What permits does the project need to get to build this facility?**

There are a number of approvals and permits that will be required before the facility can be built and operated. First, the existing landfill is regulated by the TCEQ and any work done there must secure their approval. This approval to build on the closed landfill will be in some form of post closure use approval. In order to grant such an approval, TCEQ will require that the Sunnyside developers submit a full project work plan which will detail both the facility design and also the methods of construction that will be used for installation.

In conjunction with the building permit application, the City will need to review all electrical and civil design aspects to ensure that they meet all appropriate code requirements. They will also specify community impacts such as hours of operation to control noise, traffic flow or other concerns.

As the property owner, the City and the development team will schedule a series of informational neighborhood meetings to ensure that the neighbors have an opportunity to be heard on any concerns.

As the site is not far away from Hobby Airport, we will also get approval from the FAA to ensure that there are no concerns with glare. We have obtained such approvals elsewhere and see no concerns on this matter.

Not a permit, but the Lease document will require City Council approval prior to execution by the City of Houston.

**14- Will this project cause any adverse impacts on the landfill?**

No, as a matter of fact, the project will be a significant benefit to the condition of the landfill.

When the landfill was closed in the 1970's it was not designed to have trees growing into the ground. It was also designed to have a rigorous fence maintained around the perimeter. The trees and the damaged fence line are signs of a lack of maintenance over the decades. With the solar project construction, maintenance of the surface will be done appropriately as we move forward.

**15- Will this project cause any impact on the Sunnyside Park?**

No. The construction will not impact the park land.

**16- Who is BQ Energy?**

BQ Energy is the national leader in developing renewable energy projects on landfills and brownfields. It has expertise in photovoltaic project design on landfills, electrical interconnection designs and supporting information, landfill reuse applications, and landfill lease documentation. It also manages project economic analyses and project finance.

**17- Who is Wolfe Energy?**

Wolfe Energy is a national developer of several community solar projects, including one in Strafford, Vermont located on a former superfund site. The City of Houston selected Wolfe to develop a solar farm on the former Holmes Road Landfill after Wolfe won a competition sponsored by C40.org. Wolfe also has experience in advising clients how to live using less energy, distributed energy generation, and outreach to traditionally underserved communities.

**18- Will this project create jobs?**

Yes. There will be a number of construction and maintenance jobs created and the development team prefers that those jobs be filled locally as much as feasible.

Solar installation is the fastest growing occupation in the United States. The Sunnyside neighborhood is in the heart of our nation's energy capital. Too often, however, national trends bypass the people who could benefit the most. Therefore, the Sunnyside Energy team will be offering solar installation training and requiring that the competitively selected installer use at least 10% of their workforce from Sunnyside trained through this program. While everyone is welcome, preference will be given to Sunnyside residents if class capacity is reached.

Sign up at [www.SolarUnitedNeighbors.org/Sunnyside](http://www.SolarUnitedNeighbors.org/Sunnyside) to get on the installation class list.

**19- Can local small businesses be involved in the construction work on the site?**

Yes.

There will both direct and indirect opportunities available. Job training programs will be initiated to put local firms on a better competitive position for direct construction and operations positions.

In addition, this economic activity in the Sunnyside area will bring indirect benefits for services to the site.

**20- This will be the largest urban solar project on a landfill in nation. Will there be educational opportunities for area schools to learn more about it and renewable energy in general?**

Yes, Members of the development team are committed to exploiting the educational aspects of having this largest urban solar facility on a US landfill. We look forward to working with City schools and other groups.

**21- Will the projects on the site do more than just generate electricity?**

The developers have explored other related clean energy options and projects such as battery storage installations. These projects will be considered after permits and approvals of the solar project is secured.

**22- Will there be negative impacts on the neighborhood like traffic or noise?**

No.

A solar project does not generate discernable noise when operating. While the site will have certain flow of workers vehicles and equipment deliveries, the road infrastructure is good in this area and the change in flow is not expected to be material.

**23- It looks like there are a lot of trees on the site. Wouldn't it be better for the neighborhood and the environment to leave all those trees there and build this project somewhere else?**

Actually no.

The trees on site were never planted nor intended to be a part of the site. The surface of a landfill should not be treed, and the trees are not of a good quality. Additionally, due to the waste material in the subsurface, the quality of these trees is not optimal. Public access to these trees must be restricted due to the nature of the landfill property.

The overall benefit of a solar farm is clear, but by siting this facility in an urban setting, there is a reduced need for power delivery infrastructure in the future, a material environmental benefit.

The opposite of the premise is more appropriate, that is it would be better to plant an equivalent number of healthy trees at another site and use this one for power generation.

**24- What are the environmental benefits of this project?**

When the average American household switches to solar energy, around 5 metric tons of carbon dioxide emissions are offset each year—the equivalent of 5,335 pounds of coal not burned.

When the Community Solar array and utility-scale Solar Farm are complete, the Sunnyside Energy Project will produce enough electricity to power approximately 10,000 homes. It will also keep 56,164 metric tons of CO<sub>2</sub> emissions out of the Texas skies. ([www.epa.gov](http://www.epa.gov))

## Questions? Contact the team

### Contact information:

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### Team Members:

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