Solemio Solar

Welcome Solemio Solar Project Public Open House

Pattern Development welcomes you to this public open house for the Solemio Solar Project. Your questions and comments are important to us. Please be sure to sign in and complete a comment sheet.



Solemio Project Overview

Project Size

- 80-MW utilizing roughly 450 acres
- Located south of Sulphur Springs
- Generating renewable energy equal to the needs of 17,500+ homes each year

Construction & Financing

- Led by Pattern Development and experienced EPC firm
- ~12 month schedule starting early Summer 2019
- Funding Source: 100% private capital (no government grants or funding)
- Incentives: 30% federal investment tax credit (no state or local incentives)

Operations

- Injecting clean energy into the ERCOT at peak electric use hours
- 1-3 full time operations & contract jobs
- Fully decommissioned and removed after 35-40 year life



Solemio Economic Benefits

Construction

- Local Jobs: 150-200 construction jobs over 12 month period
 - Heavy equipment operators, electricians, laborers, etc.
- Local Contractors: the selected EPC firm will hire local contractors for various construction activities
- Demand for services industries, such as lodging, food services, etc.
- Community benefits for the broader area through sponsorships of local causes
- State sales tax on certain project equipment purchases

Operations

- Led by Pattern Development and experienced EPC firm
- Over the span of 35 years, the project will produce:
 - More than \$2.5 million in Hopkins County Property tax revenue
 - \$8 million in Sulphur Springs ISD property tax payments
 - Nearly \$1 million in Hospital District Property tax revenue
 - State franchise taxes of over **\$5 million**
- Federal income tax payer
- Lease payments to Hopkins County residents & property owners
- 1-3 full time operations jobs + contract jobs during operations such as

landscaping, preventative maintenance, and plant operations



Solar Panel Features

A.) Frame

Made of anodised aluminum, the frame provides structural rigidity to the panel, protecting it from outdoor elements, and enables easy installation.

B.) Glass

Glass protects the top side of the panel while allowing an optimal amount of sunlight to reach the cells.

C.) EVA (2 layers)

Ethylene-vinyl acetate (EVA) is the glue that binds all the components of the panel together and prevents water, dirt, and other elements from reaching the cells.



D.) Cells

The engine of the panel, the solar cells are where sunlight is converted to electricity.

E.) Backsheet

The back of the module is protected by an electrically neutral backsheet that keeps water and dirt from entering the panel. F.) Junction/ Connectors

The junction box transfers the electricity produced by the cells to the greater solar array via cables and connectors.



Solemio Solar Technology

Solemio will utilize proven, UL Certified, and high quality components:

- Silicon based solar photovoltaic solar panels with anti-reflective glass
- Single access steel trackers (~4 ft high when panels rotated horizontal)
- Inverters, Transformers, & Cabling

Why Solar & Why in Hopkins County?

- Solar power has become one of the cheapest forms of electricity, especially in sunny states like Texas
- Texas has installed 1,484 MW of solar and there are plans to install an additional 3,700 MW of solar capacity by 2021
- Hopkins County and the broader DFW metropolitan area are large users of electricity and need a growing supply to maintain the grid





Environmental & Permitting

Critical Issue Analysis

- Permitting
- Land Use

Local Zoning/Ordinances

Biological Resource Assessment

- Vegetation
- Threatened and Endangered Species Habitat
- Migratory Bird/Raptor Nesting Habitat

Cultural Resources Assessment

- Archaeological Sites
- Historic Sites

Jurisdictional Waters Determination

- Creeks
- Wetlands

Phase 1 Environmental Site Assessment

• Potential to Encounter Hazardous Materials



Ecological Considerations

- Field studies conducted by biologists indicated site does not include critical habitats for threatened or endangered species.
- Storm Water Pollution Prevention Plan implementation during construction will minimize stormwater runoff and ensure project will

have no negative impacts to bodies of water.

- Project construction will avoid streams and forested wetlands, preventing impacts to aquatic species.
- Records review for archaeological/historical performed with no findings. Prior to construction, an onsite check for historical/cultural artifacts will occur.
- Pasture plant species will be allowed to propagate after construction; in absense of cattle grazing, large brushy plants will need to be managed.

- Project requires minimal water usage primarily during construction for dust mitigation.
- All personnel will receive Environmental Awareness Training



Engineering & Construction

Construction Process

- Minimal site preparation and clearing
- Steel piles will be driven into the ground with no concrete foundation

and with minimal force

- Pile depth will average 10ft with max of 15ft for the solar trackers
- Panel installation
- Inverters assembled offsite and placed on pad locations
- Substation & Transmission

Construction Management

• We will also have a single point of contact during the construction process where stakeholders can go to ask questions, log complaints, or make



Operations

- 24/7 monitoring from central location
- Preventive maintenance plan will include items such as:
 - Vegetation management
 - Electrical checks
 - Visual, Electrical and Mechanical inspections
- Corrective maintenance will occur as required

• After useful life is completed in 35-40 years, equipment will be removed and the site will be restored to its natural state



Vendor Registration

We plan to use local vendors wherever possible. Process includes:

- Holding a job fair prior to construction to engage interested companies and workers. Likely to occur in February or March.
- Keeping a list of interested applicants and vendors during project development to share with the EPC company that is selected to hire subcontractors for construction.
- Establish a vendor and worker application portal.



Solemio Solar Project Timeline

2019	Feb	Mar	Apr	May
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SolemioSolarTexas.com



Development

Solemio Solar

Contact

Information

For more information:

• Leave a message at (903) 326-8549

Visit the project website

SolemioSolarTexas.com

<u>SolemioSolarTexas.com</u>

