



# PROCESS OF DEVELOPMENT

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## THE PROCESS OF DEVELOPING A UTILITY-SCALE SOLAR FACILITY

Whether you're building a home, developing a commercial building, or constructing a utility-scale solar facility, there are several processes and procedures we all must adhere to before completing a fully functional, finished project! For a home, development may involve purchasing ground in the right location, designing a layout, receiving building permits, purchasing materials, finishing construction, and finally moving in. Similarly, developing a utility-scale solar facility has numerous steps that any developer, including TED Renewables, must go through to create a new power project, like our Princess City Solar Project. Below, you will find detailed information regarding the typical process of developing, constructing, and operating a utility-scale solar facility.

### Site Selection:

Identifying the right site for a utility-scale solar facility is the foundation for a successful development. When considering the characteristics of a site, developers seek open, flat land with access to a nearby transmission line or substation, leasable acreage from interested private landowners, demand for electricity, and desire for economic development. Once a lease agreement has been signed, a number of engineering, environmental, and cultural studies are completed to ensure the site is suitable.



## MEET THE TEAM



ELIAS

Elias has been working in the US power business for the last 10 years. At that time, he began working for TED's parent company where he helped direct investment in power plants for eight years until he was chosen to be TED Renewables' third employee. Since then, Elias has been developing solar projects in rural communities across the country. Elias lives in Kansas with his wife and son.



JUSTIN

Justin started his career working on residential and commercial solar projects before transitioning into utility-scale projects with TED Renewables. He works, almost exclusively, with landowners and communities in Iowa to provide the economic boost that American-made energy creates. He lives in his hometown in Kansas and works at TED Renewables' headquarters.



BEN

Ben spent much of his career serving in the Navy as a Supply Officer. While in the Navy, he served overseas in 2007 and again in 2016 -2017. After returning home, Ben began working in the renewable energy industry to help build a cleaner and more independent grid. He has worked on renewable energy projects across the country but now spends most of his time in the Midwest where he lives and works.



ERIN

Erin is a resident of Quimby where she lives with her husband and their four children. She enjoys creating opportunities for people to learn new things and is eager to share information about renewable energy and the Princess City Solar Project. She is in the local office, 213 Main St., Fonda, two days a week Mondays, 9-1 and Thursdays noon-4.

## Interconnection: .....

After site selection, developers file an application with the regional transmission operator which in Iowa is the Midcontinent Independent System Operator (MISO). They're responsible for the reliability of the grid and operating the wholesale electricity market across much of the Midwest. The interconnection study is a multi-year and multi-phase process that largely dictates the timeline of a development project. During the interconnection study, the grid is evaluated by MISO's engineers to determine what upgrades are needed to support the new generator and determine how much those upgrades will cost the developer. Recently, this process has been taking years due to extensive delays, so this happens in the background while developers work on other development tasks.

## Permitting: .....

Solar projects in Iowa need to be reviewed extensively and permits will be granted from the county and the State of Iowa before they can be built. This two-tiered permitting process provides additional oversight of power projects to ensure they're developed in a way that aligns with the goals and interests of all parties. These permits allow the county and state government to enforce the conditions of their permit if a project is not in compliance.

## Construction: .....

Once approved by the county and state government, construction of solar projects generally takes 12-18 months. Construction begins with site preparation like pre-planting of ground cover to stabilize soil, installing fence, and constructing the substation. Constructing the solar array involves driving steel piles, attaching racking, panels, setting inverters, and routing wire. After construction is finished and tests have been completed to ensure the facility is ready to produce power, the project will officially commence operation.

## Operation: .....

Once operational, the power generated from projects like Princess City Solar will be routed directly to the electric transmission grid! Throughout a solar project's 40-year operation period, it will be maintained by an on-site operations and maintenance team to guarantee safety and optimal operation. For more information on how power generation and transmission work, please check out our Power Generation and Transmission Newsletter on the Princess City Solar Project website!

## Community Engagement: .....

Community engagement is one of the most important aspects in the development process. From the very early stages of development, Princess City Solar has committed to providing an open line of communication with stakeholders and community members. It's a developer's responsibility to be a good neighbor and to develop projects with thoughtfulness and integrity. As such, we view our relationship with the community as a partnership. We'd love for you to stop by our office on Main Street during office hours or reach out to us with your questions or words of support!



**FOR MORE INFORMATION ON THE PRINCESS CITY SOLAR PROJECT:**

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**OFFICE:** 213 MAIN ST. FONDA,

**OFFICE HOURS**

MONDAY 9 AM - 1 PM; THURSDAYS NOON - 4 PM;

AND BY APPOINTMENT