# Solar Construction

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### **Construction of a Solar Project**

Construction of larger solar projects (100+ MW) typically takes eight months from commencement of construction to commercial operation. Smaller projects (less than 100 MW) typically take up to 6 months to reach commercial operation. As you can imagine, a lot goes into the construction of a solar project, but the process always includes: civil preparation (including clearing and grubbing of the property), fence installation, structural work such as the installation of steel piers and the racking system on which the modules sit, electrical cable installation and trenching, and module and inverter installation. After equipment installation is complete, the property will be seeded into a stable low growing seed mix. Testing and commissioning are the final stages of

construction, which include utility testing to ensure safe and effective delivery of electricity to the grid.

After construction, any property that may have been disturbed is restored to its pre-construction state. Any type of crop damage incurred by our development process will be compensated to the landowner. National Grid Renewables repairs and covers the cost for this crop damage repair by placing a very generous crop damage clause in every lease we sign. National Grid Renewables works with our landowners to ensure they are educated about our crop damage payments and to make sure they are comfortable with the reimbursement levels.

In addition to crop damage payments, it is part of our core development philosophy to consider drain tile when designing



solar projects. For every solar project we develop, we analyze the location of existing drain tile and try our best to design project layouts around it. If for some reason, we are unable to design around drain tile, we take great care when cutting into the tile in order to minimize impacts. Just like our crop damage clause, National Grid Renewables offers drain tile damage payments, which ensures that drain tile is restored to it original state after project construction is complete.

#### Solar Project Layout Design

Throughout the development process, National Grid Renewables will remain open and honest – we will work with you to make sure you are comfortable with the proposed project layout and will answer any questions you may have regarding the locations of panels. Solar equipment has a life span that extends for decades - sometimes up to 50 years. Modules will continue to produce electricity well past their warranties. At the end of the life of the project, solar equipment can be removed, recycled and salvaged for additional value. Because solar energy projects are considered low impact development, solar projects allow for flexibility in regards to the land use of after its removal. Some solar project lands are even returned to their original agricultural use.

If at any time during the life of the project new module technology would boost the economics of the project, the project may be repowered with new modules. Solar equipment has a life span that extends for decades - sometimes up to 50 years. Modules will continue to produce electricity well past their warranties.



## Farmer-Friendly Development Approach

At the heart of National Grid Renewables' development philosophy is our embodiment of "Farmer Friendly." We have a strong rural background, and we know what it's like to live and work in rural America. Part of our farmer-friendly approach is our promise to minimize impact on both our landowners' and their neighbors' crops and land.

### **Responsible Planning and Siting**

National Grid Renewables works hard to ensure our solar facilities are built to the highest of standards. When considering locations for our solar sites, we consider: the projected size of the facility, land type and quality, localized environmental impacts, the local climate and (if necessary) snow load, the host community's receptiveness to renewable energy, the electric service territory ownership, the proximity of the site to nearby existing electrical infrastructure, as well as permitting and interconnection considerations, among other factors.

National Grid Renewables has experience in acquiring hundreds of thousands of acres for renewable energy projects and works diligently on identifying the best land through local jurisdictions, permitting authorities, and landowner interest. Our farmer friendly development approach ensures that each of our projects will benefit the local area for generations to come. National Grid Renewables is committed to providing each of its landowners with prompt responsiveness, expert advice and fair compensation. We work closely with landowners and neighbors during the siting process to ensure that projects are well received by the community and yield sustaining support for the long term operation of the project.

#### Stages of Solar Construction:





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