

The logo for Crystal River Solar, featuring the text "Crystal River Solar" in white, stacked vertically, inside a white square with a dark blue curved corner on the right side.

Crystal
River
Solar

Welcome

Crystal River Solar Projects Public Open House

The Crystal River Solar team welcomes you to this public open house for the Crystal River Solar Projects.

Your questions and comments are important to us. Please be sure to sign in and take a questionnaire.

Crystal River Solar 1 Overview

Project Details

- » 74.9-MW utilizing roughly 500 acres
- » Located in Citrus County within the Holcim Crystal River Quarry on areas planned for future mining development
- » Generating enough renewable energy to power roughly 15,000 homes each year

Construction

- » Led by Pattern Development and experienced EPC firm
- » ~12 month schedule starting December 2019
- » 100% private capital (no government grants or funding)
- » Federal Investment Tax Credit

Operations

- » Injecting renewable energy into the Florida transmission system,
- » Offsetting existing generation facilities that have recently closed
- » Providing competitively priced electricity to utilities to keep costs low for customers
- » Fully decommissioned and removed after 30+ year life

Crystal River Solar 2 Overview

Project Details

- » 74.9-MW utilizing roughly 500 acres
- » Located in Citrus County within the Holcim Crystal River Quarry on areas planned for future mining development
- » Generating enough renewable energy to power roughly 15,000 homes each year

Construction

- » Led by Pattern Development and experienced EPC firm
- » ~12 month schedule starting December 2019
- » 100% private capital (no government grants or funding)
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Operations

- » Injecting renewable energy into the Florida transmission system
- » Offsetting existing generation facilities that have recently closed
- » Providing competitively priced electricity to utilities to keep costs low for customers
- » Fully decommissioned and removed after 30+ year life

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

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 30+ years of useful life is completed, equipment will be removed and the site will be restored to its natural state

Solar Panel Features

A.) Frame

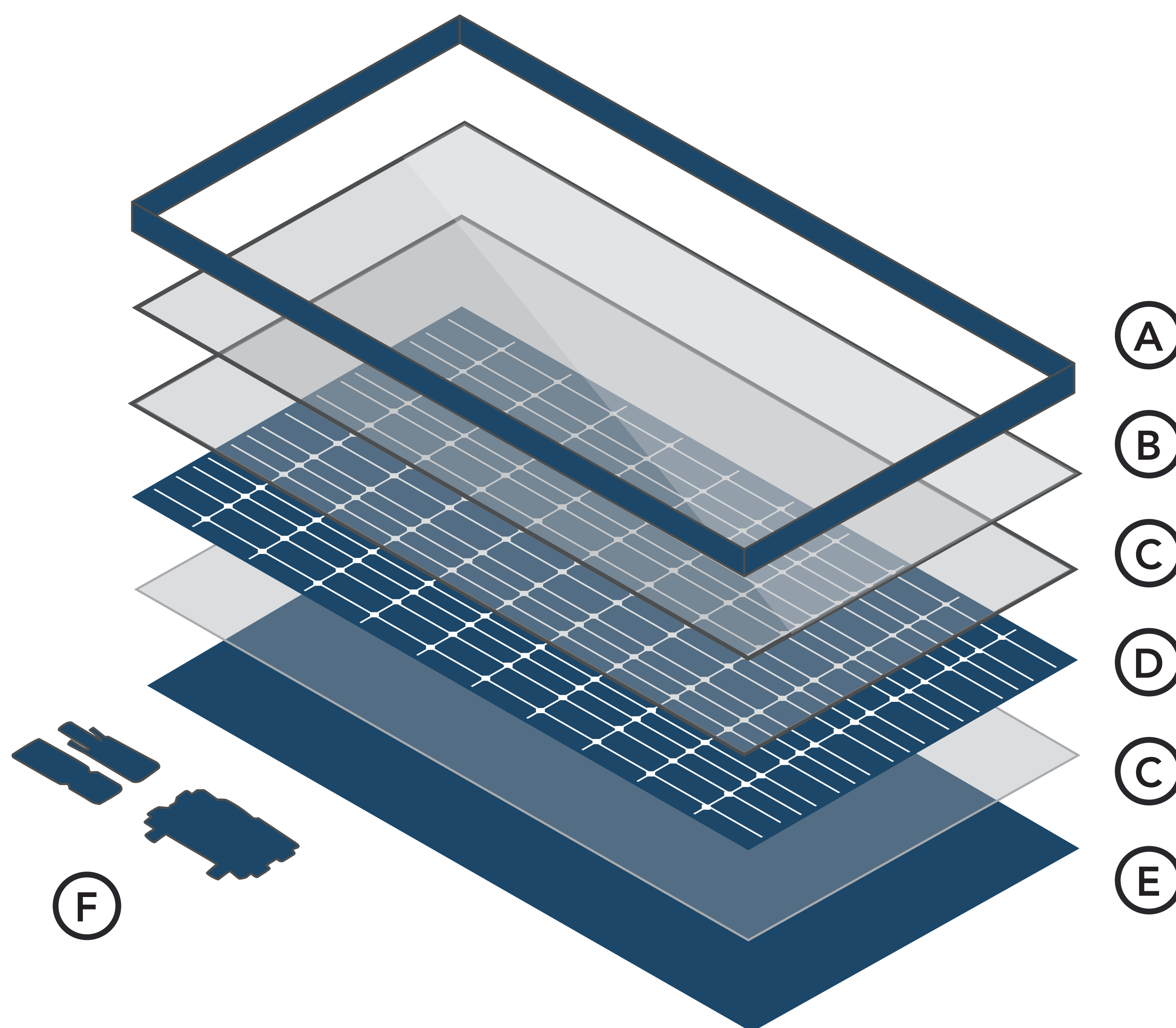
Made of anodised aluminum, the frame provides structural rigidity to the panel, protecting it from outdoor elements, and enables easy installation.

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.

Solar Technology

Crystal River Solar 1 & 2 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 Citrus County?

- » Solar power has become one of the cheapest forms of electricity, especially in sunny states like Florida
- » Florida has installed more than 2,290 MW of solar, enough to power 276,000 homes each year
- » Citrus County and the broader area are large users of electricity and need a growing supply to maintain the grid

Community Benefits

Construction

- » Local Jobs: 95 construction jobs over 10 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

Environmental & Permitting

Agency Consultation

» Federal

» U.S. Army Corps of Engineers (USACE)

» U.S. Fish & Wildlife Service (USFWS)

» State

» Florida Department of Environmental Protection (FDEP)

» Florida Fish & Wildlife Conservation Commission (FFWC)

» Local

» Citrus County

» Levy County

Key Government Approvals

» Existing Crystal River Quarry is fully permitted with Citrus County, FDEP, and USACE

» Both solar projects will be consistent with Crystal River Quarry's local, state, and federal permits

» Both solar facilities have applied for a Conditional Use Permit with Citrus County

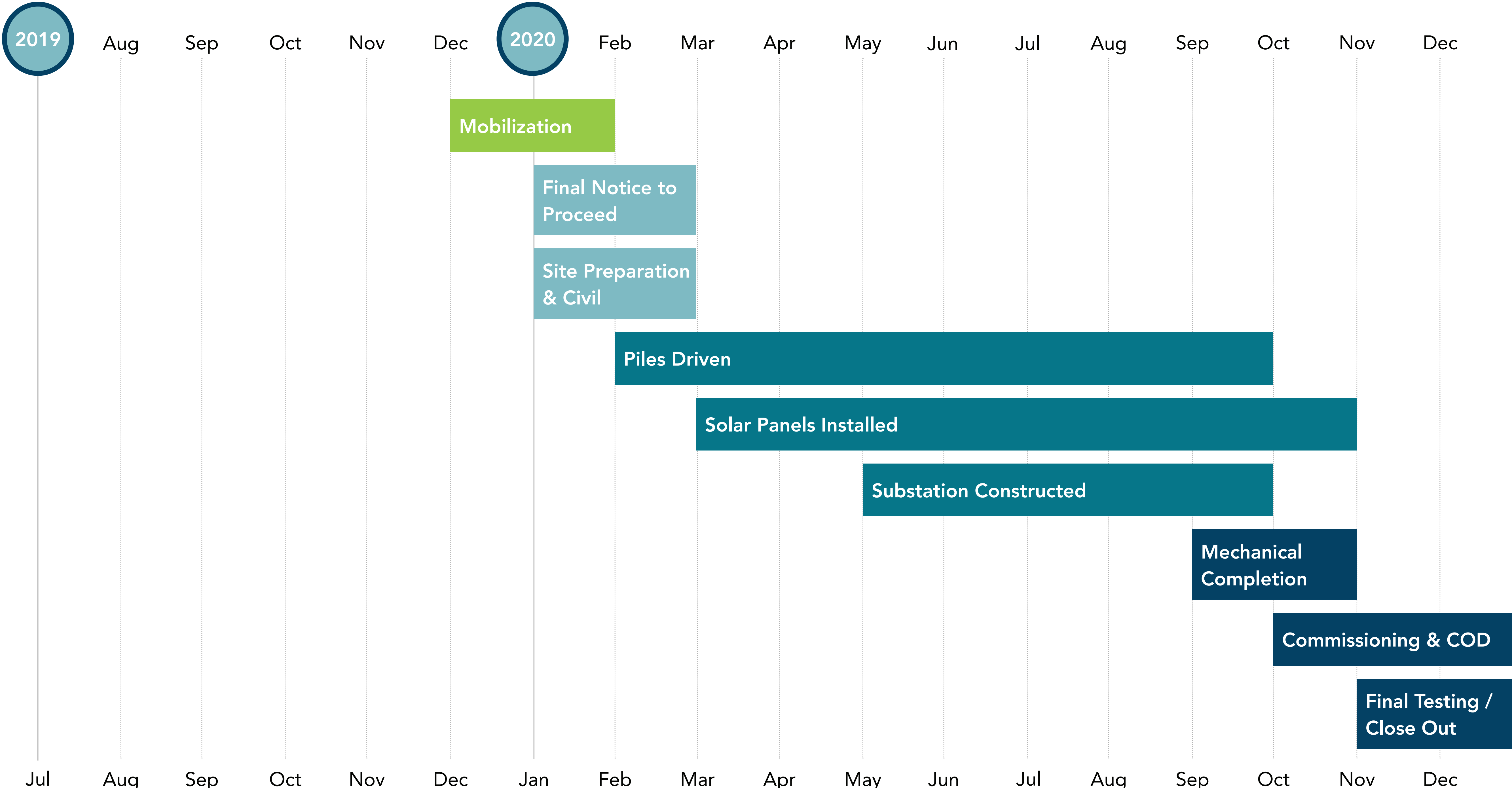
Environmental Development

- » Pattern Development, in coordination with Crystal River Quarry, has consulted with the applicable state and federal natural resource agencies
- » Both projects are ideally situated within an existing mining facility that is fully-permitted for mineral excavation
- » Both solar projects have been designed to have a minimal impact on the existing environment and sensitive species
- » Solar panels and other infrastructure are designed to avoid impacting wetlands in the solar project boundaries
- » In consultation with the Florida Fish & Wildlife Commission (FWC), project areas will be secured and surveyed for gopher tortoises and any specimens will be relocated to an FWC-certified, long-term conservation site

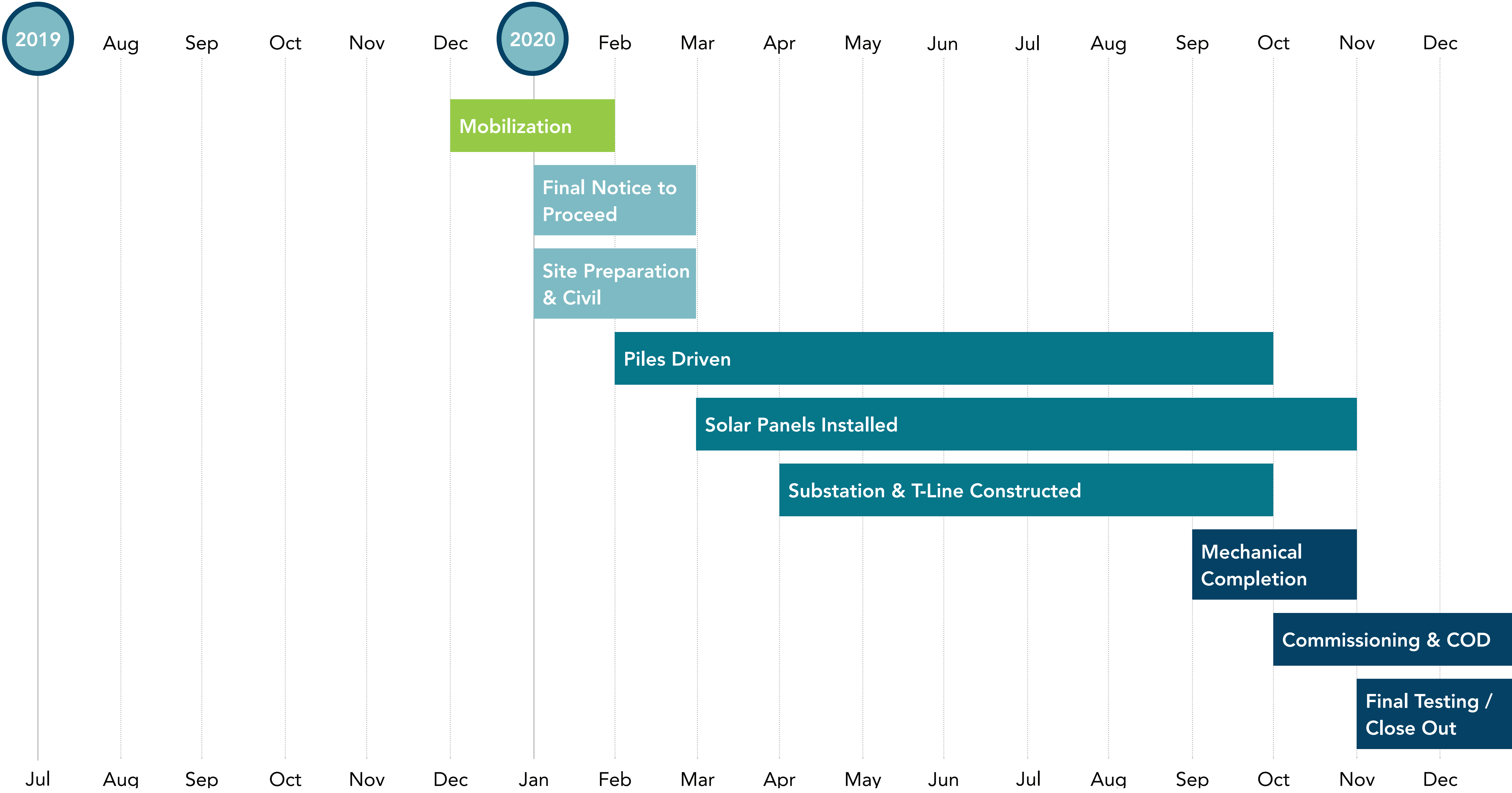
Ecological Considerations

- » 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 absence 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

Crystal River Solar 1 Proposed Timeline



Crystal River Solar 2 Proposed Timeline



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Contact Information

For more information:

- » Leave a message at **(352) 464-8883**
- » Email **ProjectEmail@patternenergy.com**

CrystalRiverSolar.com

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