



Fish Springs Ranch Solar Energy Center

March 3, 2020



NextEra Energy has two primary businesses, supported by several key subsidiaries



NextEra Energy, Inc. (NYSE: NEE)

Fortune 200 company

- ▶ 90+ year track record
- ▶ 45,900 MW in operation
- ▶ \$66.2B market cap
- ▶ \$82.5B total assets
- ▶ \$17.5B annual revenue
- ▶ 14,700 employees



Florida Power and Light (FPL)

One of the largest US electric utilities

- ▶ 4.7 MM customer accounts
- ▶ 25,092 MW in operation
- ▶ Lowest bills in the state



NextEra Energy Resources, LLC

World leader in renewable generation

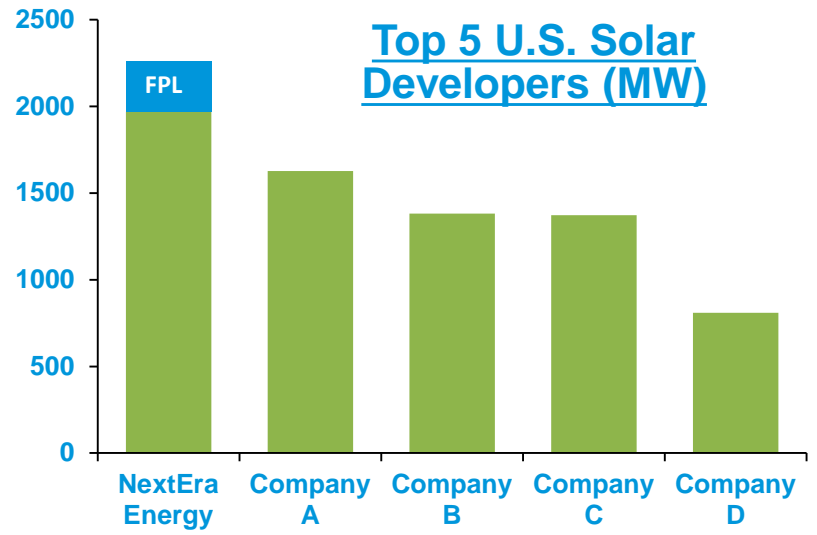
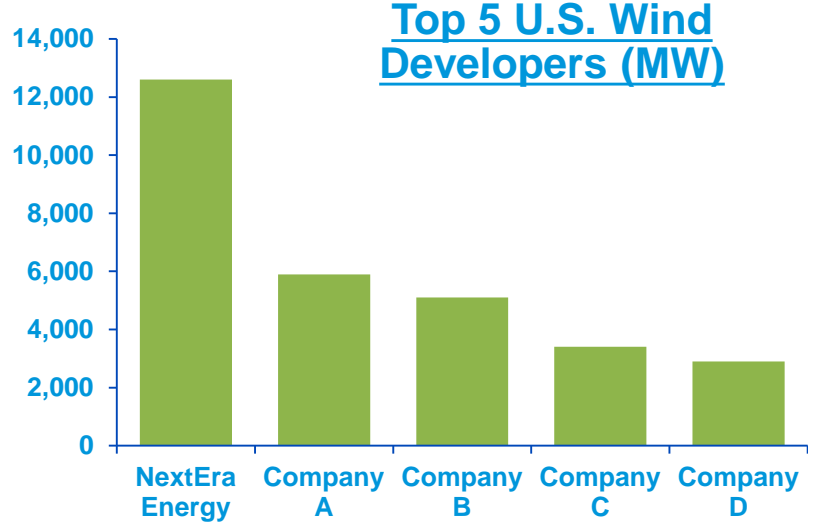
- ▶ 149 operating assets in 30 states and Canada
- ▶ 18,620 MW in operation



Fish Springs Ranch Solar, LLC

We have the expertise, resources and balance sheet to execute and deliver on our commitments

- ▶ **Certainty of execution:**
 - ❖ Balance-sheet financing
 - ❖ A- credit rating (S&P, Fitch)
 - ❖ Unmatched experience
- ▶ **Equipment procurement:** Over \$2 B in average annual purchases allows for favorable pricing
- ▶ **Construction:** Average 2,000 MW of wind per year; completed construction on 1,178 MW of solar in 2016
- ▶ **O&M:** 45,900 MW of generation (fossil, nuclear, solar, wind, storage)



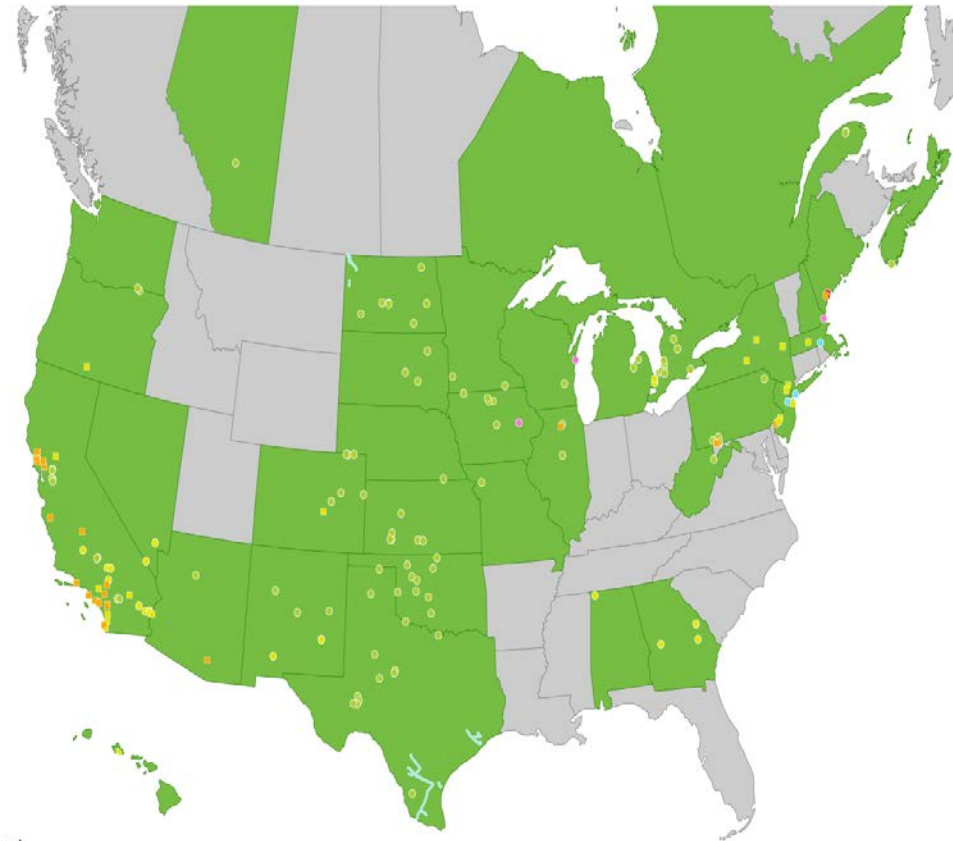
NextEra is the world's largest generator of wind and solar energy, and has ~2,400 MW new renewables under development at any given time

Grid-Scale Quick Facts

13,850 MW
utility-scale wind
in operation

**10,000+
MW**
expected to be built
between 2017-2020

2,100 MW
utility-scale solar
in operation



Legend

- Wind
- Universal Solar
- Oil
- NextEra Energy Resources
- Natural Gas
- Private Solar
- Pipeline
- Nuclear
- Energy Storage

Locations with more than one facility are illustrated with a single dot.

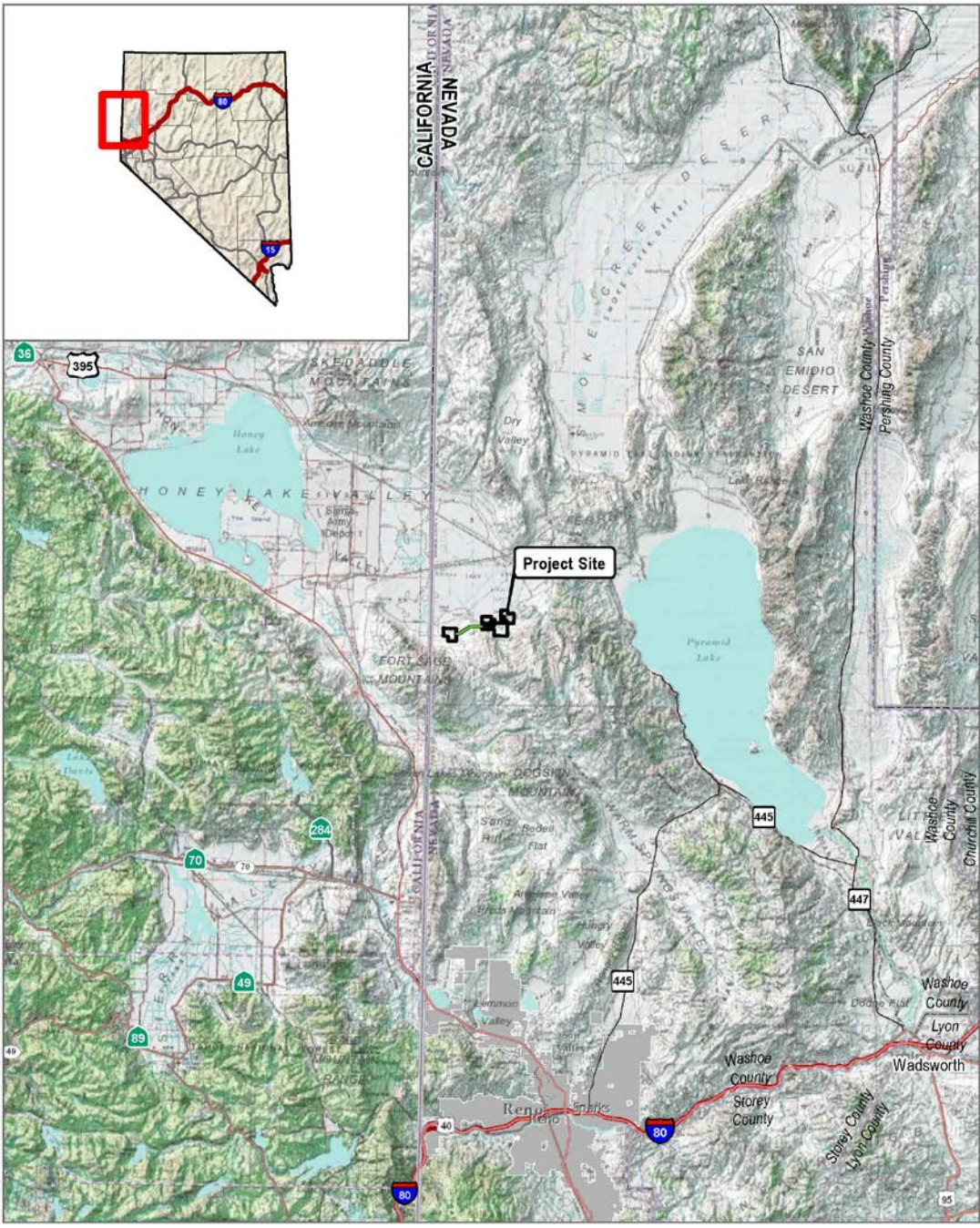
Project Overview

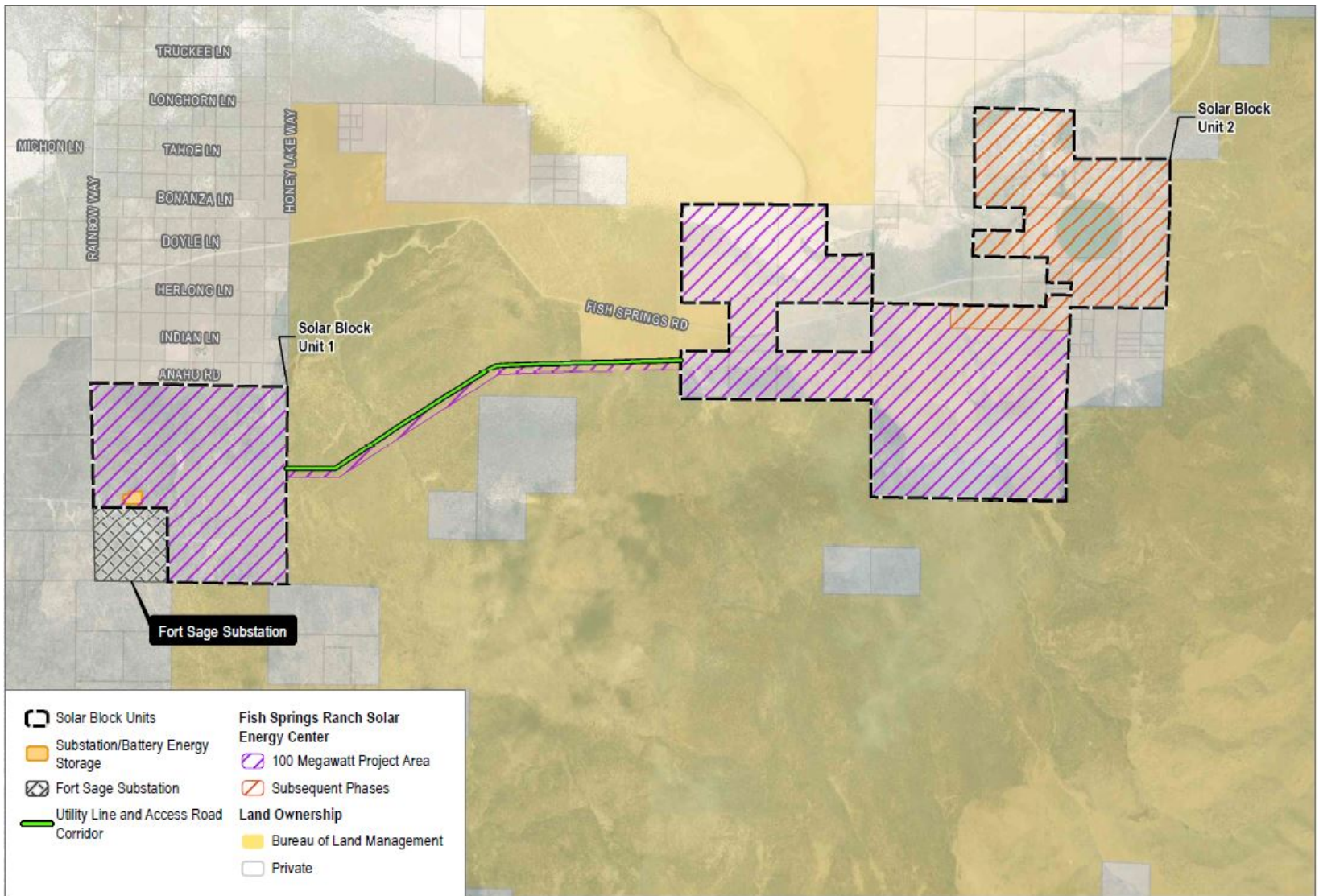
- ▶ **Approximate 300 MW photovoltaic solar energy facility at max buildout; 100 MW Phase I construction**
- ▶ **Up to 300 MW energy storage; 25 MW Phase I**
- ▶ **2,191 total acres: 2,170 acres of private land and 21 acres of BLM land**
- ▶ **Energy storage component allows energy to be delivered during non-daylight hours**
- ▶ **Max Buildout is capable of generating enough electricity to power approximately 75,000 homes**
- ▶ **Will avoid approximately 765,000 tons of carbon dioxide emissions that would have been produced if the electricity had been generated using fossil fuels**



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Project Location





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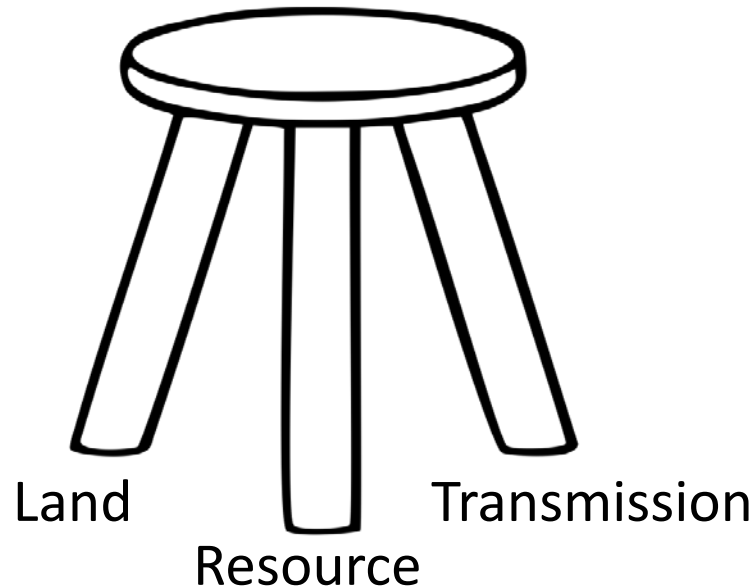
Adjacent Transmission and Fort Sage Substation



Fish Springs Road

Why This Site?

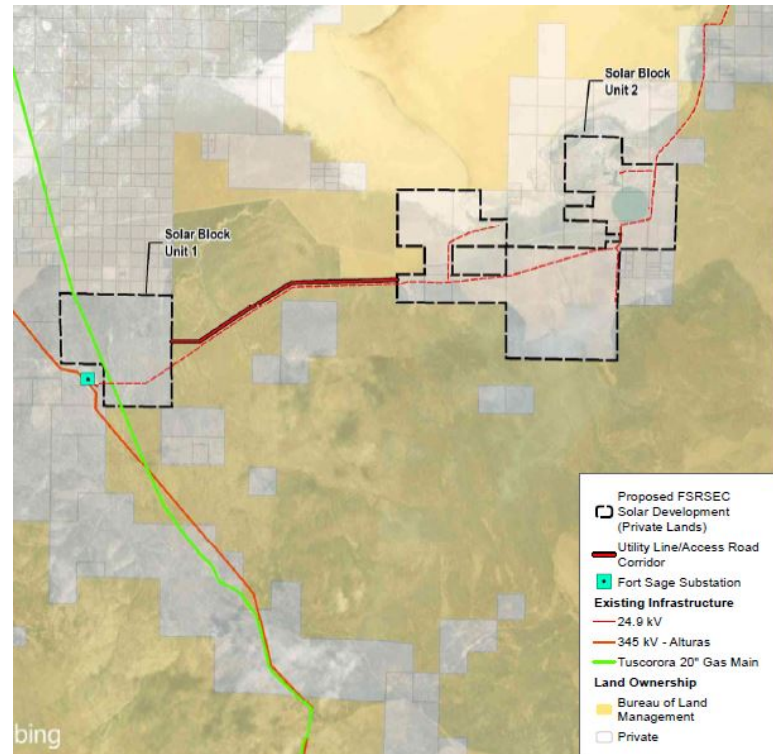
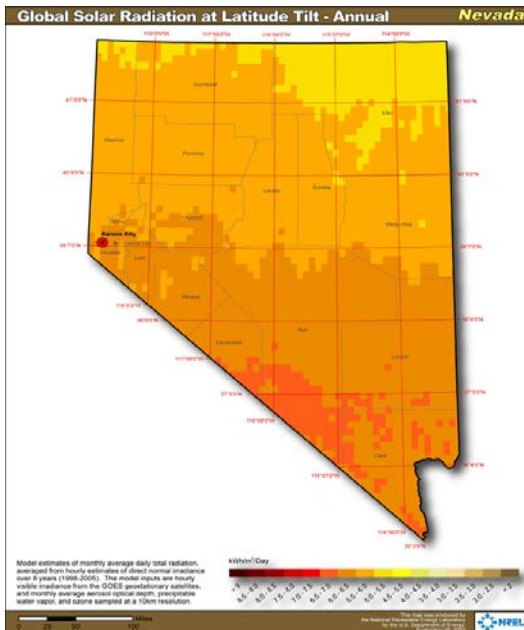
Three Legged Stool of Solar Development



- ▶ **Land** – Needed to build the project
 - ▶ *Large area with favorable topography, few neighbors and a landowner willing to transact*
- ▶ **Resource** – Determines how much energy will be generated by facility
 - ▶ *Strong Net Capacity Factor*
- ▶ **Transmission** – How to get your product to market
 - ▶ *Transmission access on site; no need for long, expensive gen-tie line*

Attractive Site Attributes

- ▶ Excellent solar energy resource, especially for Northern NV
- ▶ Existing 345 kV NVE transmission
- ▶ Adjacent to Fort Sage Substation and existing transmission
- ▶ Site has favorable topography



Project Construction

1. **Construction Phasing:**
 - Phase 1 - 100 MW project located on Solar Block Unit 1 and a portion of Solar Block Unit 2
 - Subsequent phases – up to 200 MW on the remaining developable land in Solar Block Unit 2
2. **Construction Duration:**
 - Phase 1 - approximately 10 months.
 - Subsequent phases - approximately 12 months, depending on the size of the facilities needed
3. **Construction Traffic:**
 - Phase 1 – approximately 250 workers at peak construction (2-3 months).
 - Subsequent phases – approximately 340 works at peak construction (3-4 months)
4. **Access:** Site access would be from Fish Springs Road (SB1 and SB2) and Rainbow Road (SB1, on-site substation, and battery)
5. **Grading:**
 - Limited to the substation and battery facilities (approximately 10 acres), internal project roads, and other components such as inverter pads; typically 10-20% of a project site
 - Generally not used for the solar arrays; except where engineering constraints dictate the need
 - For the solar arrays, vegetation will be mowed and posts driven directly into the ground.
 - Natural drainage contours are left in place to maintain typical flows across site
6. **Resource Avoidance:** The project will be designed to avoid sensitive resources such as wetlands and archaeological resources. These areas will be buffered to ensure no direct impact
7. **Water:** On-site wells would be used for water needed for construction, primarily for dust suppression. Although panel washing is unlikely to be needed, during operations wells would supply water for panel washing

The local economy will receive direct, indirect and induced benefits from the project's construction and operation

Local Economic Benefits:

- ▶ County/state sales and use taxes
- ▶ ~400 peak construction workers
- ▶ Increased purchases of local goods and services
- ▶ Facility payroll





NextEra Energy Resources'

team would be happy

to answer any questions

Fire Safety

- ▶ **Project site will be designed, constructed and operated to county code and fire requirements which includes appropriate defensible space**
- ▶ **The landowner and Truckee Meadows Water Authority have fire hydrants on site available for water use**
- ▶ **No actual buildings will be constructed on site**
- ▶ **Energy storage system will be in specific enclosure with built-in fire suppression/containment systems**
- ▶ **We will be long-term owner/operators of the project and have vested interest fires don't occur**



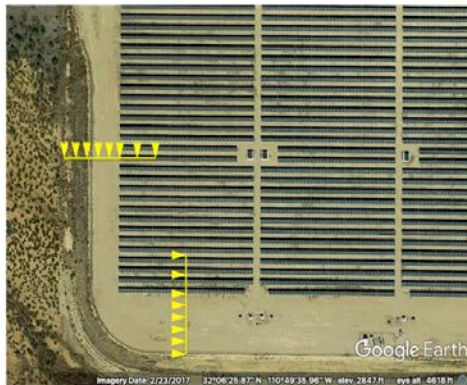
Energy Storage/Battery System

- ▶ **Exact manufacturer and battery specifics won't be known until closer to construction; however, battery will be lithium-ion based**
- ▶ **Energy storage system to be installed comes from the manufacturer in a specific enclosure with built-in fire suppression/containment systems**
- ▶ **The battery recycling market is accelerating rapidly as used battery supplies increase over the next decade**
 - ▶ A majority of lithium-ion batteries recycled today are from consumer electronics; this will be dominated by EVs and utility storage by 2030
 - ▶ Project we will meet all local, state, and federal requirements for battery disposal/recycling

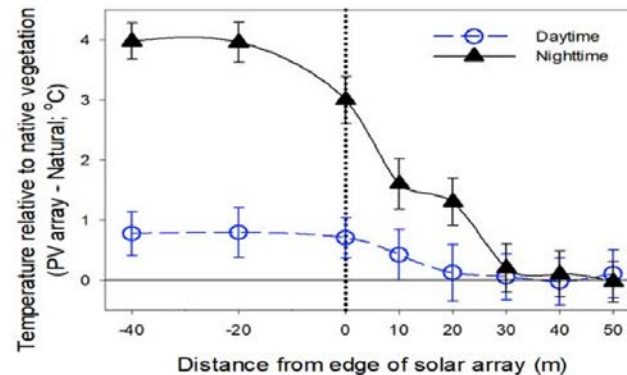


Heat Island Effect

- ▶ **Concerns have been raised about whether PV power plants induce a “heat island” effect**
 - ▶ Similar to Urban Heat Island effect in cities
- ▶ **University of Arizona researchers determined that by 100ft from the edge of panels any excess heat has dissipated**

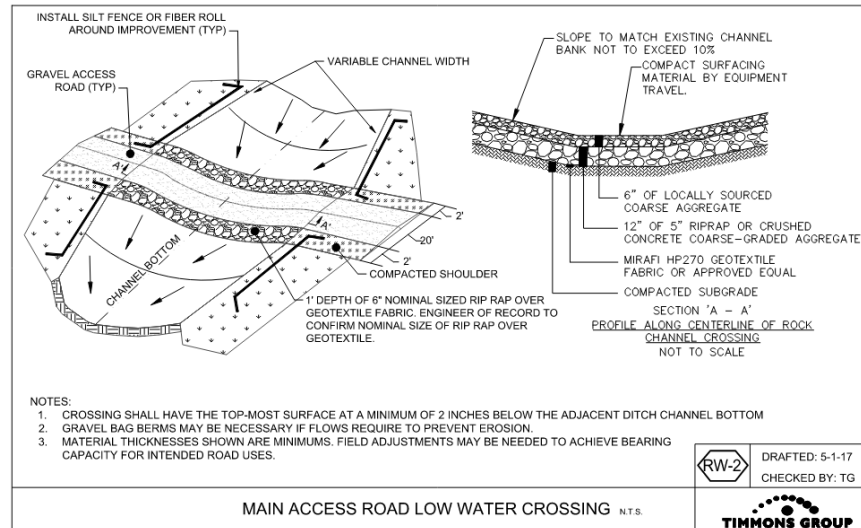
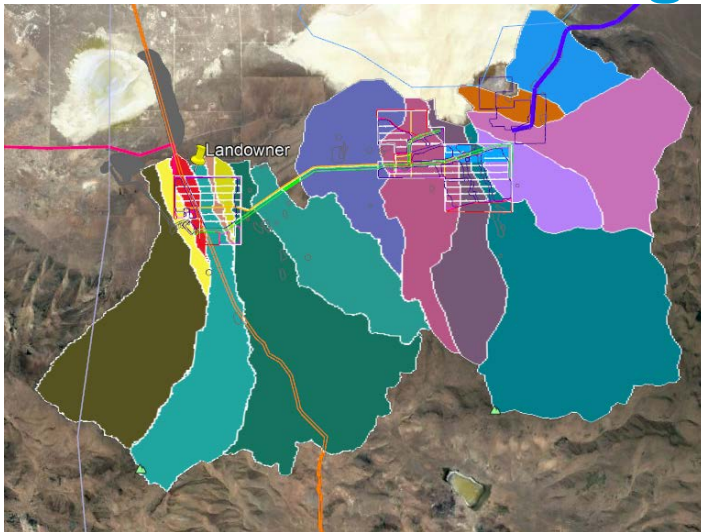


Locations of measures of air temperature within and outside of a PV array to quantify the spatial extent of any PV-induced increase in temperature.

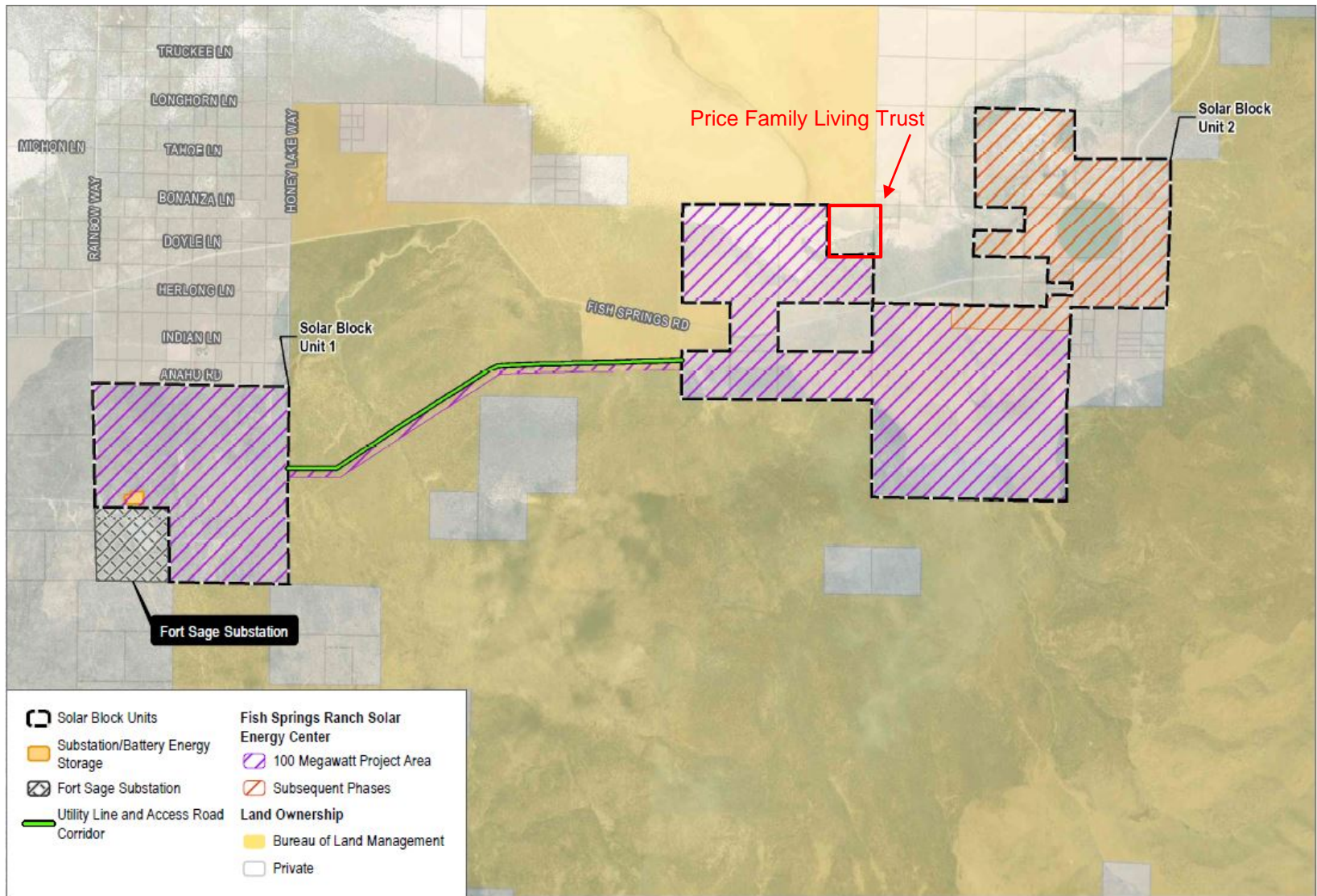


- ▶ **There have been a number of utility scale solar projects built near residential areas as well as farms; to our knowledge, none of these developments have indicated issues related to heat island**
 - ▶ Recent solar project in Arizona was built across from tree farm and similar concerns were raised about their trees a few hundred feet from project
 - ▶ 1.5 years after construction, the tree farm in Arizona has not shown signs of impacts from the facility

Drainage / Stormwater



- ▶ Site drainage study is in process and project will be designed to county requirements – no increase in run-off, thus no additional impact to “downstream” neighbors
- ▶ Culverts are being evaluated and will be maintained or improved to meet county drainage requirements.
- ▶ Stormwater runoff is calculated from rainfall data, area and ground properties like permeability, vegetation and slope.
- ▶ Majority of site is not graded and compacted; maintains drainage patterns and soils remain permeable
- ▶ Runoff flows in a north-northeasterly direction via overland sheet flow and concentrated channels.
- ▶ Channels will remain open through the site and across new roads using reinforced road sections called low-water crossings or new culverts, depending on site conditions.



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Impacts of Construction

- ▶ **Construction will start January 2021**
- ▶ **Project description includes an estimate of up to 400 workers at peak construction; however, that assumes full construction of 300 MW**
 - ▶ Currently only 100 MW will be constructed; therefore, approx. 250 workers will be on site at peak
- ▶ **All roads to be designed/maintained to county code; roads must also meet requirements for our equipment to be delivered to site**
 - ▶ Roads will be watered to mitigate dust
- ▶ **Project will be fenced with 8ft (7ft + 1ft barbed wire) high un-slatted chain link fence to meet electrical code**



Maintenance of Facility

- ▶ Facility is monitored through our SCADA system which monitors our entire fleet from central location in Juno Beach, FL
- ▶ Any irregular activity is discovered and then a technician is sent to the site to address any potential concern
 - ▶ Reduces number and severity of issues
 - ▶ Lessens facility downtime
- ▶ Additionally, maintenance staff will visit the site every few months for general maintenance
- ▶ Roads and culverts would be maintained to a level equipment can access the site when needed

