American Canyon Solar Project

Permit #: P18-00114

Planning Commission Hearing Presentation

October 17, 2018

RENEWABLE PROPERTIES

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Solar Overview

Renewable Properties Overview

- Specializes in small-scale utility solar energy projects throughout the United States:
  - Over 750 MWs under development across 6 states
  - Ability to procure projects for utilities looking to meet their renewable goals

- Principals have proven record of performance:
  - Established proven process to delivering small-scale utility projects.
    - Our ideal project size is between 2MW and 20MW
  - Work closely with communities, developers, landowners, utilities and financial institutions
  - We have raised capital from New Energy Capital ("NEC")* to facilitate our development, M&A, finance, and long-term ownership strategy
  - Combined 40+ years of solar development and finance experience across 1,000 MWs of solar facilities

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***NEC Press Release:** http://www.newenergycapital.com/RenewablePropertiesFunding*

Renewable Properties Overview (con't)

- Direct experience contracting with proven 3rd party engineering, construction and service providers.
- Provides asset management and monitoring functions in house as needed.
- Committed to being a good community member:
  - Easy to work with and responsive solar development partner
  - Motivated to decrease the nations dependence on fossil fuels
  - Driven by the creation of local benefits inherent to solar energy projects
- Have worked with or currently working with the following bay area communities:
  - Napa County
  - Marin County
  - Santa Cruz County

Community Choice Aggregator ("CCA") Overview

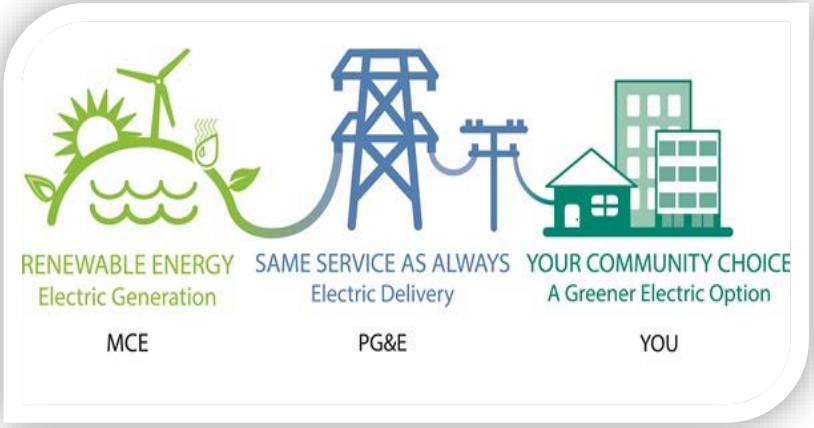
- **Overview:**
  - Governmental entities formed by cities and counties to procure electricity for their residents, businesses, and municipal facilities
  - Created in California by AB 117 (2002), which authorized local governments to aggregate customer electric load and purchase electricity for customers
  - A number of new Community Choice Aggregators (CCAs) have formed in California in recent years

- **Benefits for the customer:**
  - Clean energy from local sources
  - Energy cost is competitive (often lower cost than IOUs) and stable

- **Critical now more than ever:**
  - New legislation : SB 100 - 100% goal
  - SB 100 increased California's 50% renewables mandate to 60% by 2030 with 100% target for zero carbon electricity by 2045

Marin Clean Energy ("MCE") Overview

- **Overview:**
  - Leader amongst CCAs having been established in 2010 as the first CCA in California
  - Grown significantly over the years, expanding its service territory to neighboring counties, representing 33 communities with roughly 450,000 customer
  - Third largest municipally governed electric enterprise in CA
  - A key aspect of the value proposition offered by MCE is the requirement that renewable and clean energy be a major component of the customers' power supply mix



Illustrative Example for MCE - https://www.mcecleanenergy.org.

Solar Site Selection Process

- Market Strategy and entry analysis
- Site specific characteristics
  - No flood zones
  - Topography
  - Site access
  - Known critical habitat
  - Proximity to the grid
  - Wetlands
- Grid analysis / ability to cost effectively connect
- Path to permitting / entitlement
  - Review of past approvals, including 2010 County approval of solar farm in Ag Watershed based on finding GP consistency
- Willing landowners / economics have to work
- Significant amount of time, energy and resources invested

Technical Aspects of Solar PV

- **Glare**
  - Designed to absorb the sun, not reflect it
  - Single axis tracking technology moves panels with the sun to maximize efficiency (absorption)
  - Completed a project specific Glare Study confirming no glare hazard/impact
- **Noise**
  - Any noise from a solar farm is minimal, primarily generated by the inverter, which amounts to a low hum audibly detectable only when standing in the direct vicinity of the inverter
  - Other noise can come from the panel trackers
  - ~ 37dBA when observed from 50 feet away (inside the project area)
  - Quieter than a cycling refrigerator and only noticeable if you're standing within the solar array
  - The sound is not noticeable to neighboring properties
  - The project will not be in operation at night and therefore will generate no noise

Technical Aspects of Solar PV (cont'd)

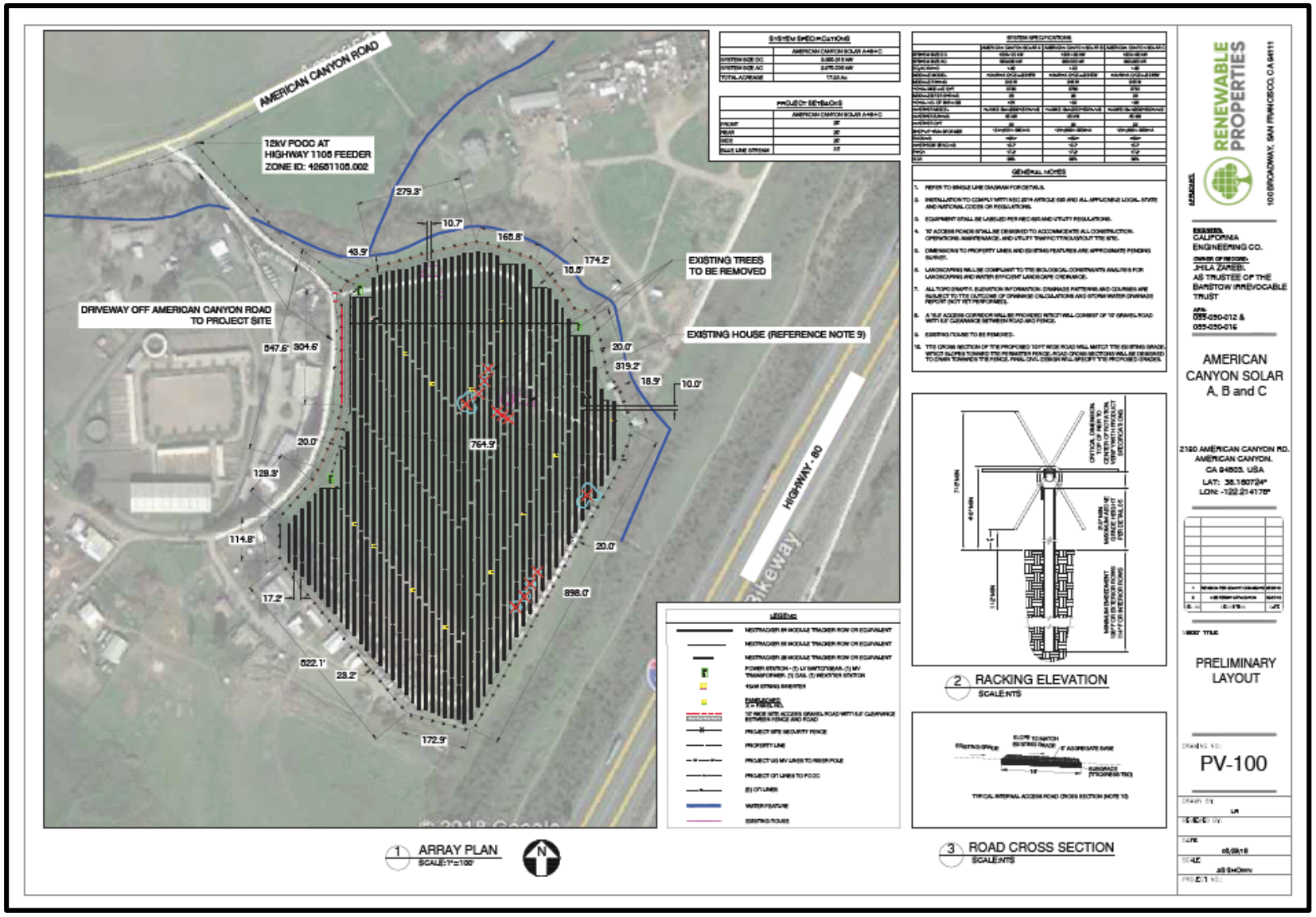
- **Traffic**
  - No traffic impacts associated with this type of development
  - Once built, it requires very little ongoing maintenance
  - Renewable Properties will come out to site a few times a year for preventative maintenance, vegetation management, and to wash the panels
- **Health and safety**
  - There's been over 50 years of field studies with photovoltaic technologies producing energy from our most abundant natural resource — the sun
  - The power generated carries no emissions, and EMF levels at the perimeter of the solar array are generally no higher than baseline conditions (no impact to natural environment)

American Canyon Project Details

Project Overview – American Canyon Solar

- Project location: 2180 American Canyon Road, American Canyon, CA 94503
- Renewable Properties, LLC has entered into a land purchase option with the property owner, Barrow Irrevocable Trust to develop the Project
  - Two Parcels totaling +/-21 acres
  - Proposed +/-19 acre footprint (3MWac/4MWdc)
  - Zoned Agriculture Watershed (AW)
- Electricity generated will power 1,000 homes
- Project output used by Marin Clean Energy through long-term Power Purchase Agreement
  - Interconnecting to PG&E's pre-existing electrical distribution system
    - Located on project site
    - Minimal required upgrades
- Perfect project site!

American Canyon Solar Site Plan



Timeline of Events

- Pre-Application Meeting with Staff held on January 11, 2018
- RP sent out a letter to all neighboring property owners within 1,000 feet of the project site on March 6th, 2018
- RP conducted numerous due diligence studies (required and voluntary)
  - Phase 1 ESA
  - Topographical and Boundary Surveys
  - Biological Constraints Assessment
  - Cultural Resource Assessment
  - Storm Water Drainage Assessment
  - Interconnection Studies
- Use Permit Application submitted on April 18th, 2018
- County Staff requested additional information on May 18th, 2018
- RP responded with the additionally requested on June 3rd, 2018
  - Industry Standard Safety Report
  - Project Specific Glare Study
  - Visual Assessment
  - Updated Stormwater Control Plan

General Plan Consistency & Zoning

- General Plan Policy AG/LU-29 allows the development of utility uses in agricultural areas
  - "Only those new governmental and public utility uses which specifically implement programs mandated by the state or federal government shall be permitted in non-urban areas."
  - The Project is indeed a public utility use, the development of which is being driven by state regulations and policies mandating the increase of renewable energy sources.
  - The Project works in partnership with Marin Clean Energy (MCE), which is a public utility/Community Choice Aggregator (CCA) that serves Napa County.
- County Code § 18.120.010 (B)(8) – "public utility uses including without limitation…electric generating plants" are allowed in **all** zoning districts
- In July of 2010, the Planning Commission approved a Use Permit for a 6.7 MW solar electric generating facility for a project with identical zoning (AG Watershed)
- Vetted by staff, MCE, and counsel…solar is consistent with the General Plan and Zoning Ordinance

Public Utility Use

- Public utilities or CCA's, such as MCE, rely on companies such as Renewable Properties to develop, finance, own and operate renewable energy facilities, ultimately entering into Power Purchase Agreements (PPAs) to sell/procure the energy generation from the project(s).
- The PPAs associated with the Project are part of the MCE Feed-In Tariff program and consist of standardized contracts that were previously approved through a public process.
- Legislators and public utility regulators intentionally created state and federal policies to incentivize these relationships because without them, MCE and other renewable energy resource providers would not be able to operate, let alone meet state mandates for renewable energy generation.
    - For instance, solar energy projects heavily rely on a Federal Investment Tax Credit for the projects to be economically viable and ultimately project financed.
- Public utilities (and investor owned ones for that matter too) are not set up to appropriately monetize the tax credits and the associated depreciation benefits (public entities are tax exempt) themselves, which is the primary driver behind projects such as the American Canyon Solar Project selling power directly to MCE.

California Renewable Portfolio Standards ("RPS")

- California legislature approved Senate Bill (SB) 1078 establishing the California's Renewable Portfolio Standards (RPS) in 2002
- Time of California's Renewable Portfolio Standards*:
  - 2003: Energy Action Plan I accelerated the 20% deadline to 2010
  - 2005: Energy Action Plan II recommends a further goal of 33% by 2020
  - 2006: Senate Bill 107 codified the accelerate 20% by 2010 deadline into law
  - 2008: Governor Schwarzenegger issues Executive Order S-14-08 requiring 33% renewables by 2020.
  - 2009: Governor Schwarzenegger issues Executive Order S-21-09 directing the California Air Resources Board, under its AB 32 authority, to adopt regulations by July 31, 2010, consistent with the 33% renewable energy target established in Executive Order S-14-08.
  - 2011: Senate Bill X1-2, signed by Gov. Edmund G. Brown, Jr., codifies 33% by 2020 RPS.
  - 2015: Senate Bill 350, signed by Gov. Edmund G. Brown, Jr. codifies 50% by 2030 RPS
  - 2018: Senate Bill 100, signed by Gov. Edmund G. Brown, Jr. codifies 60% by 2030 & 100% by 2045 RPS
- Consistent with the Scoping Plan targets and the State's 2014 GHG emissions inventory, the County is also charged with creating a Climate Action Plan (CAP) to achieve local community-wide GHG reduction targets.

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CA Energy Commission: https://www.energy.ca.gov/renewables/

Discussion on Viewshed

- The project is naturally shielded and buffered by various plants, bushes, and trees from American Canyon Road
- There are no visual impacts from American Canyon Road or neighboring residents
- The solar array sits roughly 12 to 18 inches off the ground and is 6 to 8 feet tall at it's highest edge
- Same technology as what's commonly used on rooftops throughout the U.S.

Visual Assessment Details

Exhibit A: Project site aerial with Natural Vegetative Buffer

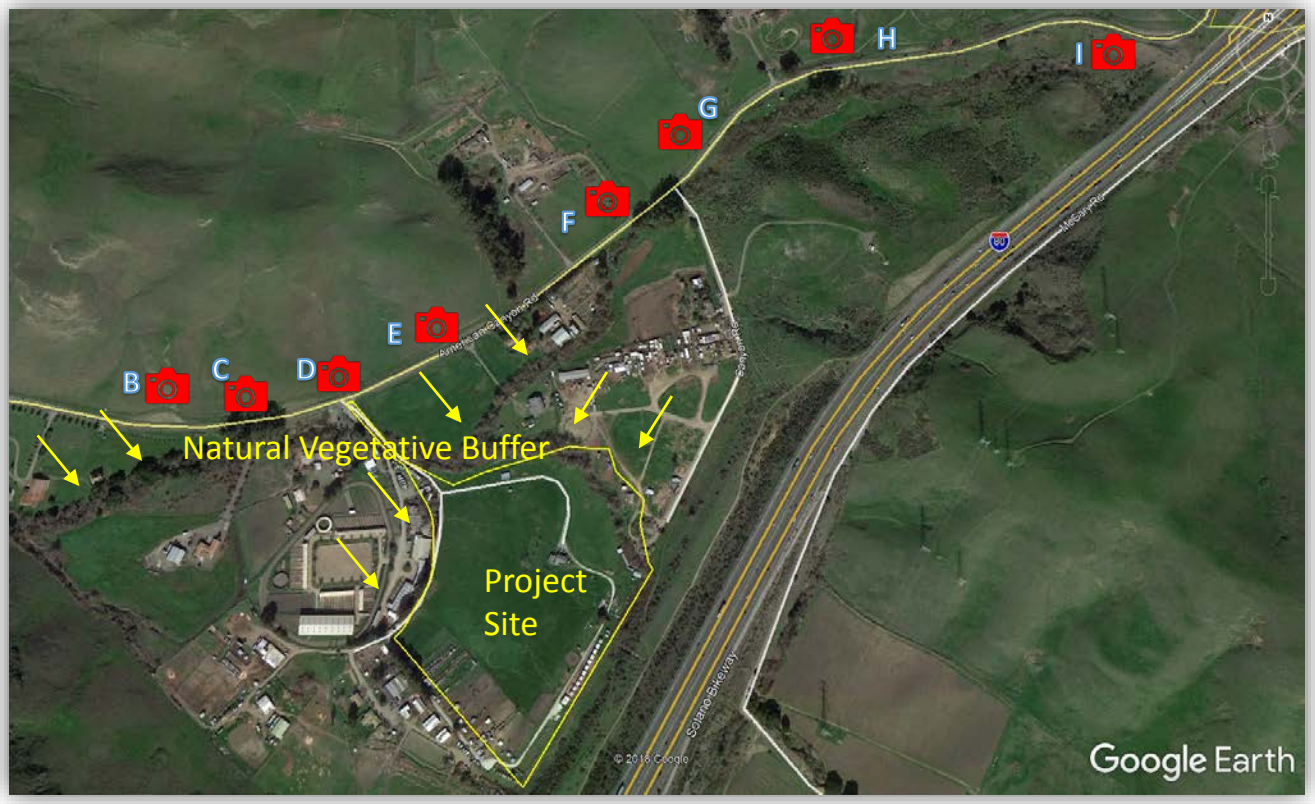


Exhibit B: Approaching the project from the west heading east along American Canyon Road

The project site is shielded from view by a natural vegetative barrier

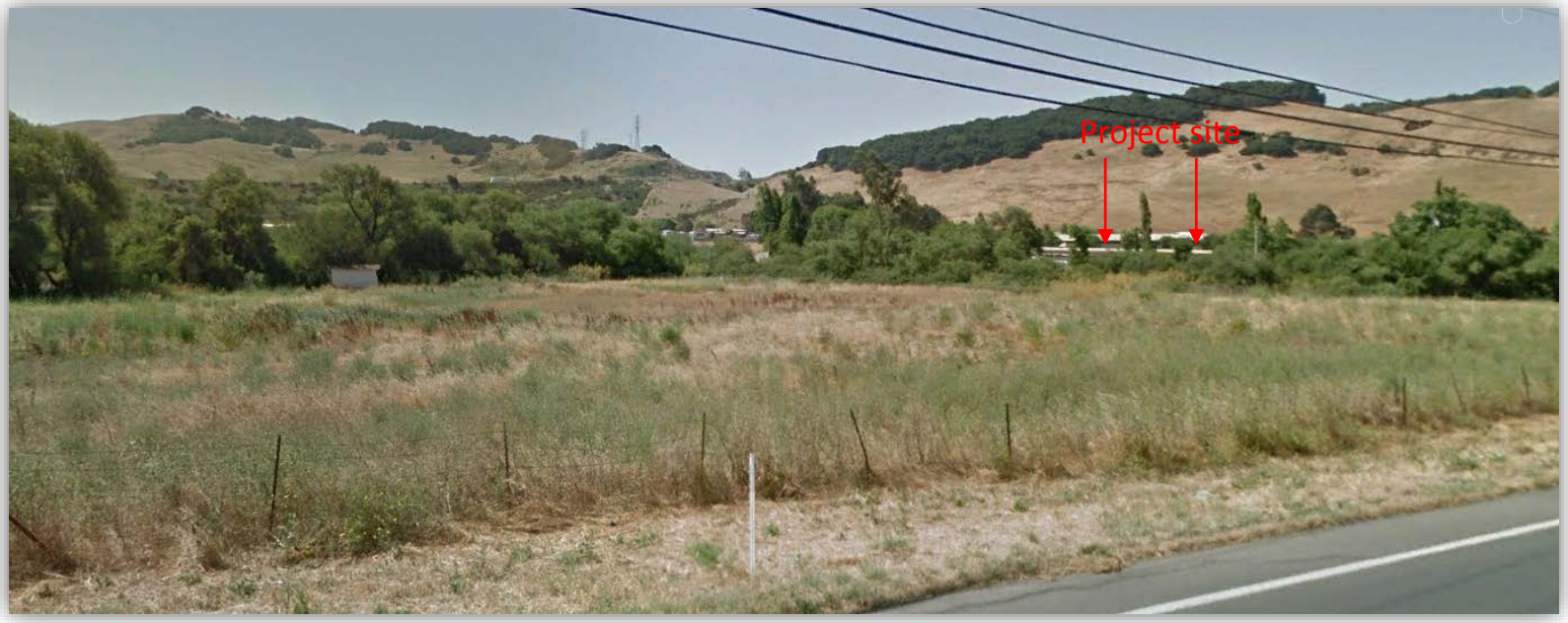
Exhibit C: Approaching the project from the west heading east along American Canyon Road

The project site is shielded from view by a natural vegetative barrier

Exhibit D: Approaching the project entrance from the west

The project site is shielded by a natural vegetative barrier and not visible from the road approach

Exhibit E: Approaching the project from the east heading west on American Canyon Road



The project site is shielded from view by a natural vegetative barrier

Exhibit F: Approaching the project from the east heading west on American Canyon Road

The project site is significantly shielded from view by structures and vegetation

Exhibit G: Approaching the project from the east heading west on American Canyon Road

The project site is significantly shielded from view by topography and a vegetative barrier

Exhibit H: Approaching the project from the east heading west on American Canyon Road

The project site is significantly shielded from view by topography, distance and a vegetative barrier

Exhibit I: Approaching the project from the east heading west on American Canyon Road

The project site is significantly shielded from view by topography, distance and a vegetative barrier

Conclusion

Workforce Development

- RP is partnering with the Workforce Alliance of the North Bay ("WANB") to provide local job training and work experience
- WANB to advertise and recruit local labor on behalf of the project
- Target areas of the workforce that are interested in breaking into solar energy construction
- Project contractors to provide work experience for long term employment opportunities
- Work experience and resume building opportunity
- Training for 21st Century jobs

Importance of Renewable Energy

- Key points to consider
  - Time it took to get here
  - Napa County Climate Action Plan
  - SB 100 enacted this year – 100% goal
  - Solar is a low impact development
  - No impact to neighbors – “a perfect site!”
  - The American Canyon Solar project is late stage and ready to start construction by end of this year (near term impact on climate change)
  - Climate change is a global problem that requires local solutions
  - This project is an opportunity for Napa County to be part of the solution

www.renewprop.com | San Francisco, CA