



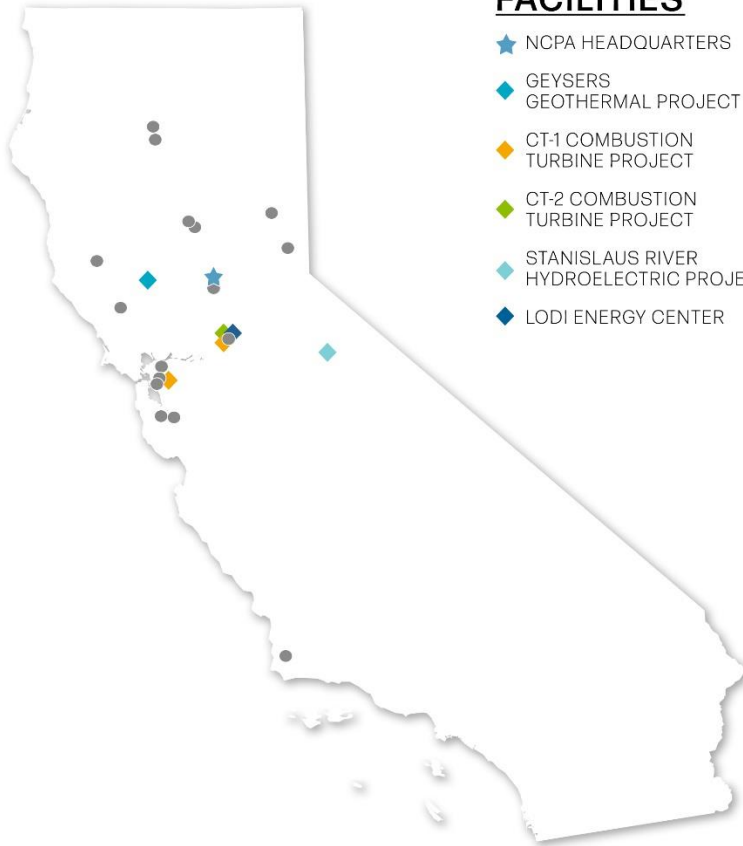
Lodi Hydrogen Center The Hydrogen Transition

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NCPA Overview

MEMBERS

- ALAMEDA
- SAN FRANCISCO BART
- BIGGS
- GRIDLEY
- HEALDSBURG
- LODI
- LOMPOC
- PALO ALTO
- PLUMAS-SIERRA REC
- PORT OF OAKLAND
- REDDING
- ROSEVILLE
- SANTA CLARA
- SHASTA LAKE
- TRUCKEE DONNER PUD
- UKIAH



FACILITIES

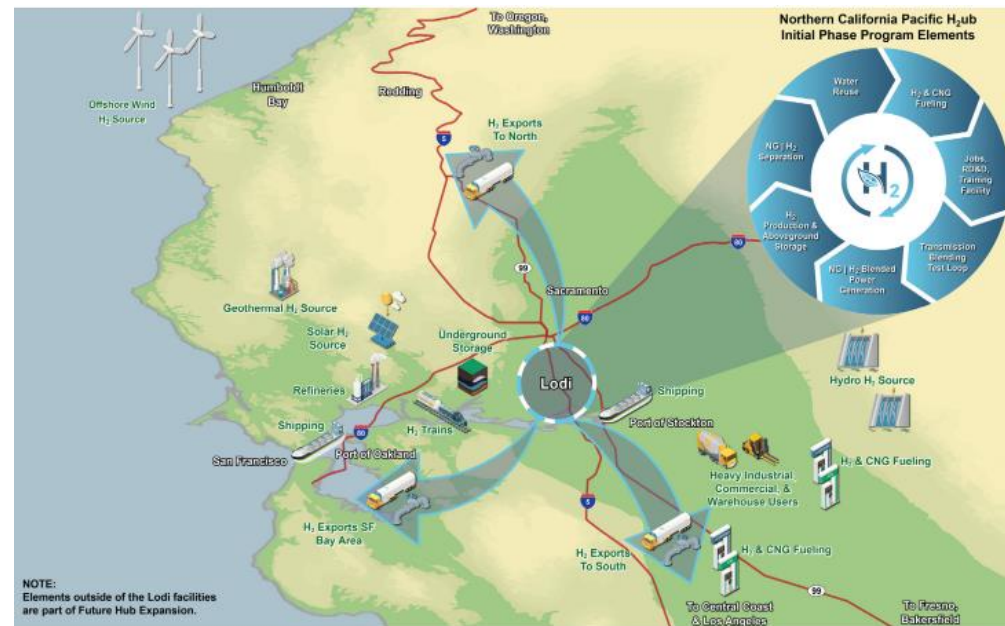
- ★ NCPA HEADQUARTERS
- ◆ GEYSERS GEOTHERMAL PROJECT
- ◆ CT-1 COMBUSTION TURBINE PROJECT
- ◆ CT-2 COMBUSTION TURBINE PROJECT
- ◆ STANISLAUS RIVER HYDROELECTRIC PROJECTS
- ◆ LODI ENERGY CENTER

- California Joint Powers Agency
- 16 community-owned utility systems and special districts serving 700,000 residents in communities throughout Northern California
- Builds and operates jointly owned power plants and operates a power pool for Members
- Founded on the ethic of environmental stewardship over 50 years ago. Investments in geothermal, hydropower, and our fast-ramping LEC facility which supports the integration of renewables.

Lodi Hydrogen Center

The Opportunity

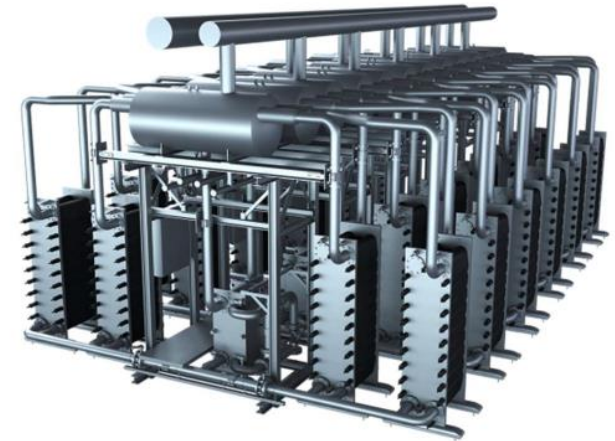
- NCPA’s Lodi Energy Center is an existing natural gas plant capable of transitioning to hydrogen-powered facility
- Built in 2012, the plant supports the grid with fast-start capability
- NCPA is committed to the development of an electrolyzer for hydrogen production onsite at LEC to support power supply, statewide transportation, and the reduction of emissions in operations and shipping at the Port of Oakland
- Federal hydrogen hub funding—\$1.2 billion statewide & congressional support for LEC



Lodi Hydrogen Center

The Basics

- Electrolytic hydrogen production
- Feedstock
 - Recycled wastewater from City of Lodi
 - Renewable energy
 - Hydro
 - Geothermal
 - Solar
 - Wind
- Energy storage for reliability
- Carbon-free fuel source



Lodi Hydrogen Center

Multiple Benefits

- Reduced carbon emissions for power generation
 - 45% hydrogen-capable blend initially
 - 100% capable by 2028
- Fuel delivery for Port activities
 - Medium and heavy-duty trucks
 - Forklifts
- Fuel delivery for transportation
 - Medium and heavy-duty trucks
 - Autos



- 60 MW of energy storage
- 24,000 kg / day capability
- \$225 Million

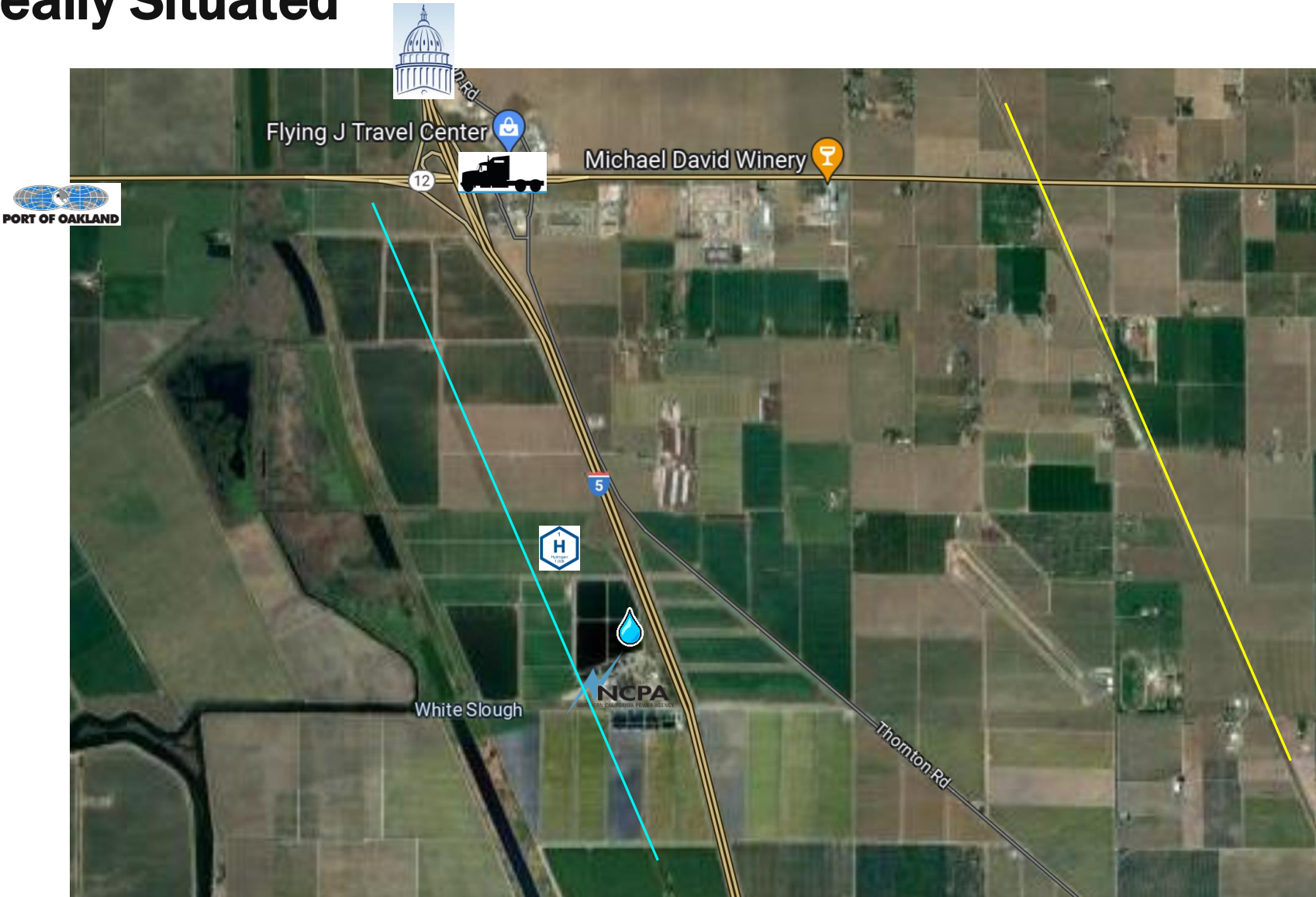
Lodi Hydrogen Center

Key Locational Attributes Supporting Project Viability

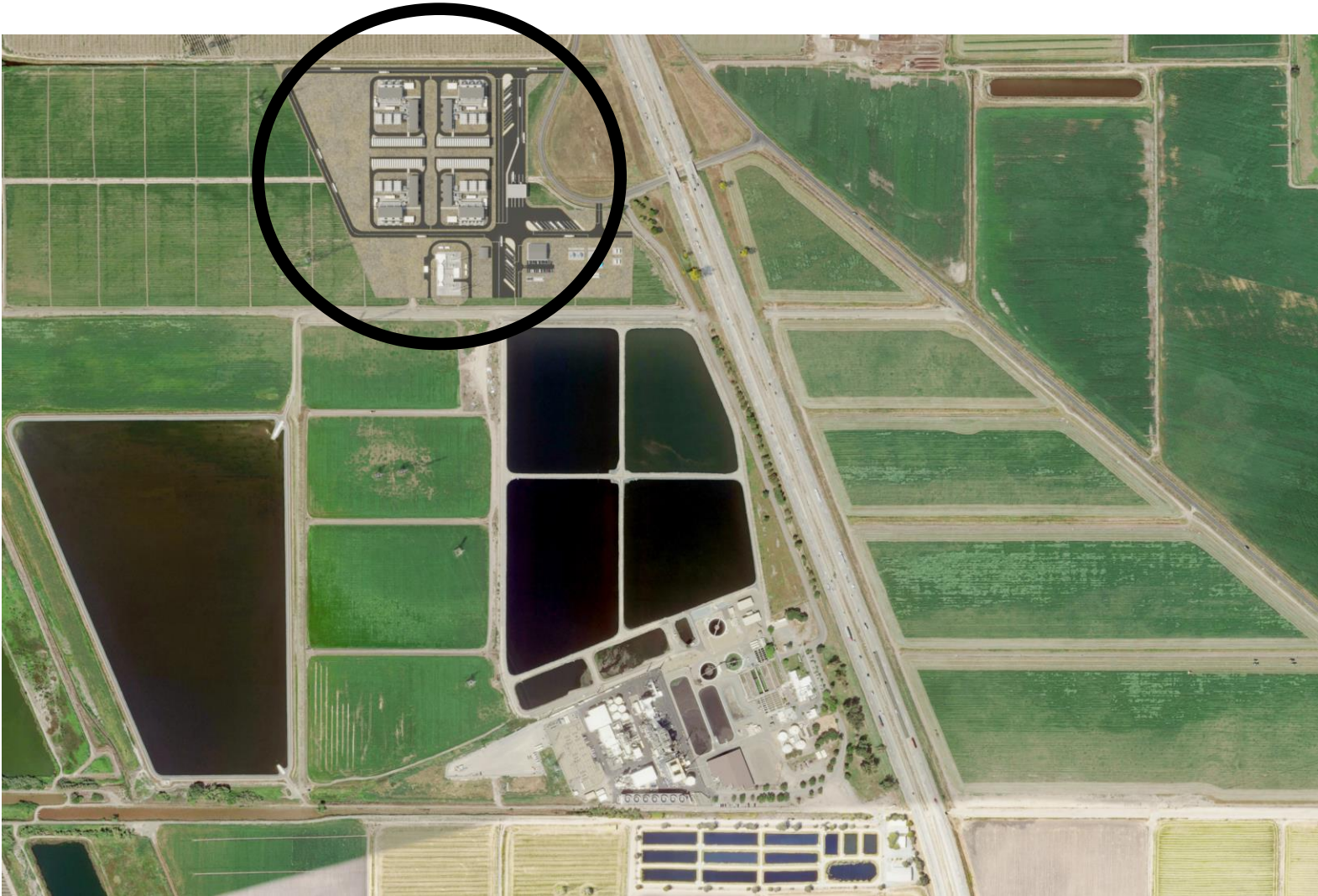
- Project is shovel ready
- Supports reliability of the grid and integration of renewable generation
- Availability of on-site reclaimed water source to support electrolysis process
- Low density (rural) population
- Strong local community support
- Central to major transit corridors
- Supports hydrogen transition at the Port of Oakland to assure No. California's competitiveness
- Existing union workforce with project expertise and highly-trained labor pool



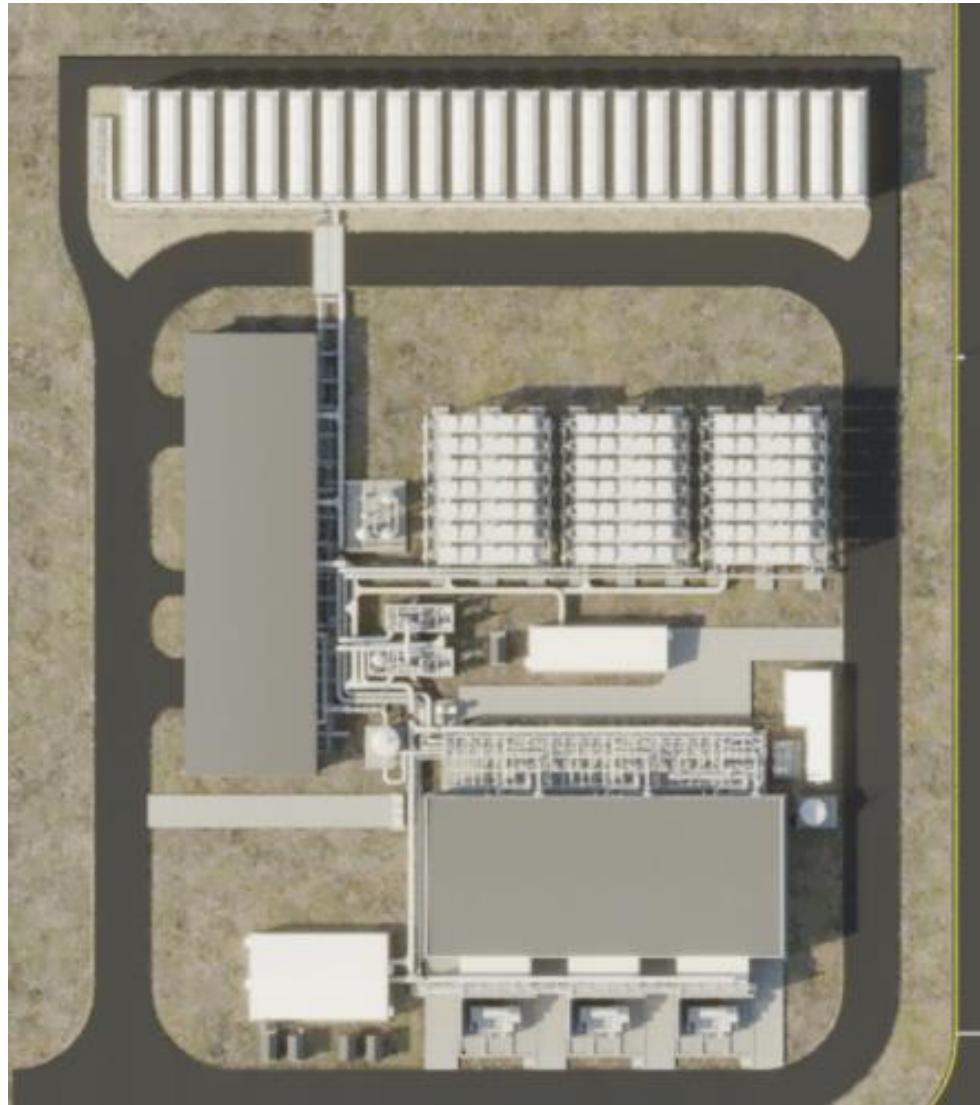
Ideally Situated



The Electrolyzers



The Electrolyzers Up Close



The Electrolyzers Up Close



Hydrogen Transport



Hydrogen Fueling Station Artist Rendering



Lodi Hydrogen Center Participants



Pacific Gas and Electric Company[®]



SIEMENS
ENERGY



PORT OF OAKLAND

ROSEN

Lodi Energy Center Partners



CALIFORNIA DEPARTMENT OF
WATER RESOURCES



Powering The Center of What's Possible

