DOCKETED	
Docket Number:	23-IEPR-06
Project Title:	Hydrogen
TN #:	252176
Document Title:	Presentation - Lodi Hydrogen Center The Hydrogen Transition
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Filer:	Raquel Kravitz
Organization:	NCPA - Northern California Power Agency
Submitter Role:	Public
Submission Date:	9/7/2023 3:19:54 PM
Docketed Date:	9/7/2023

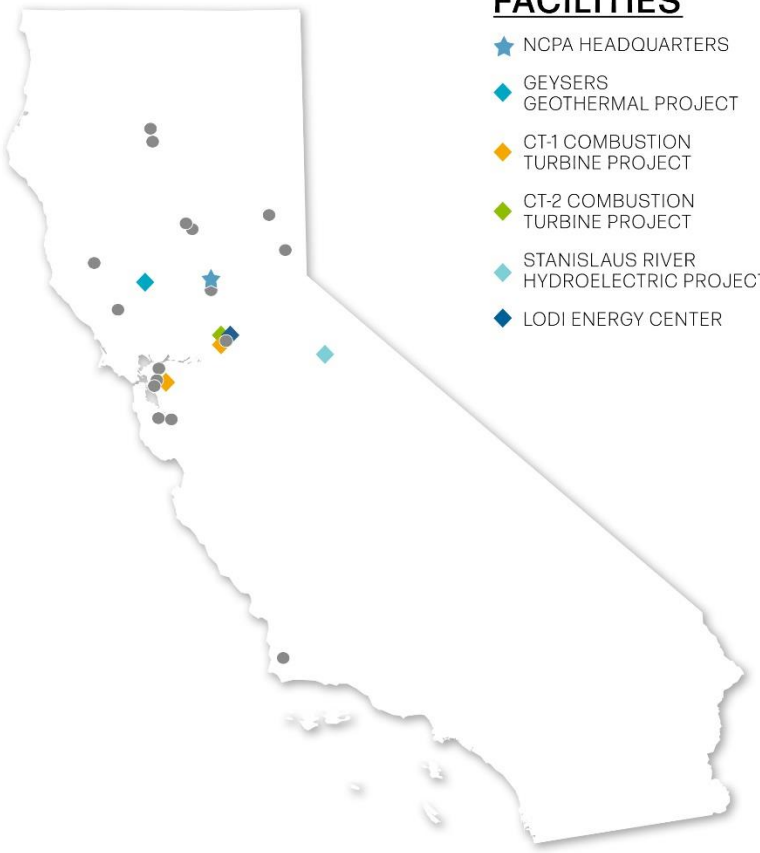
Lodi Hydrogen Center
The Hydrogen Transition

Randy Howard
General Manager
September 8, 2023

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

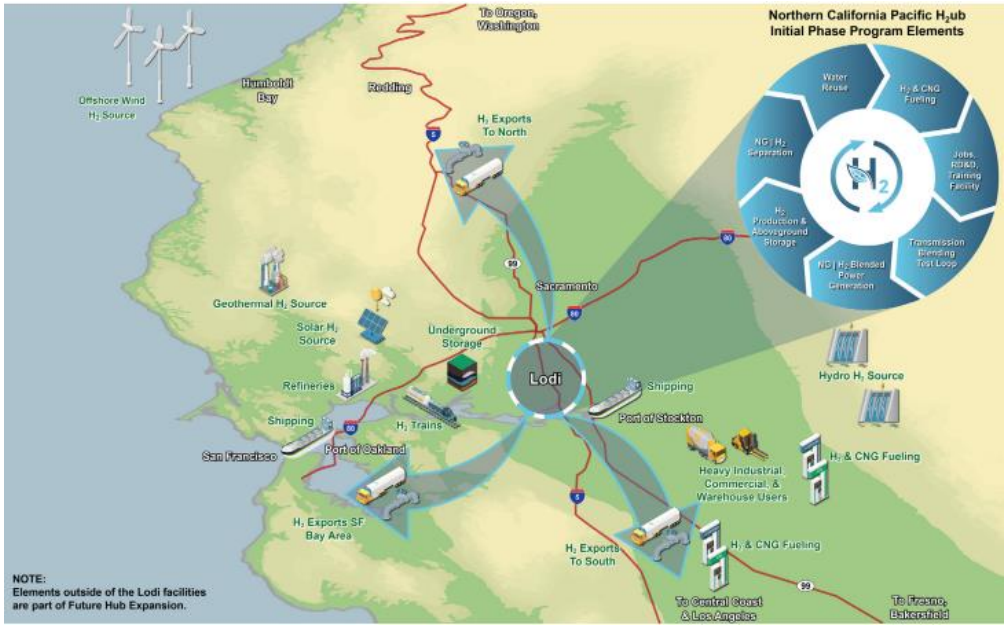
- NCPA HEADQUARTERS
- GEYSERS GEOTHERMAL PROJECT
- CT-1 COMBUSTION TURBINE PROJECT
- CT-2 COMBUSTION TURBINE PROJECT
- STANISLAUS RIVER HYDROELECTRIC PROJECTS
- LODI ENERGY CENTER

Established in 1968

- 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 fast-ramping LEC facility to support integration of renewables.

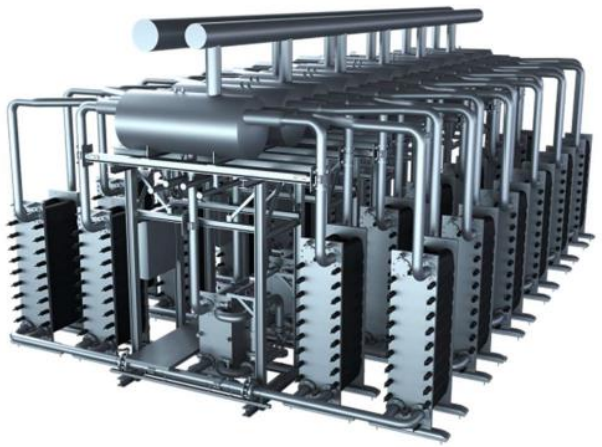
Lodi Hydrogen Center
The Opportunity

- 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 the operations of the Port of Oakland



Lodi Hydrogen Center
The Basics

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

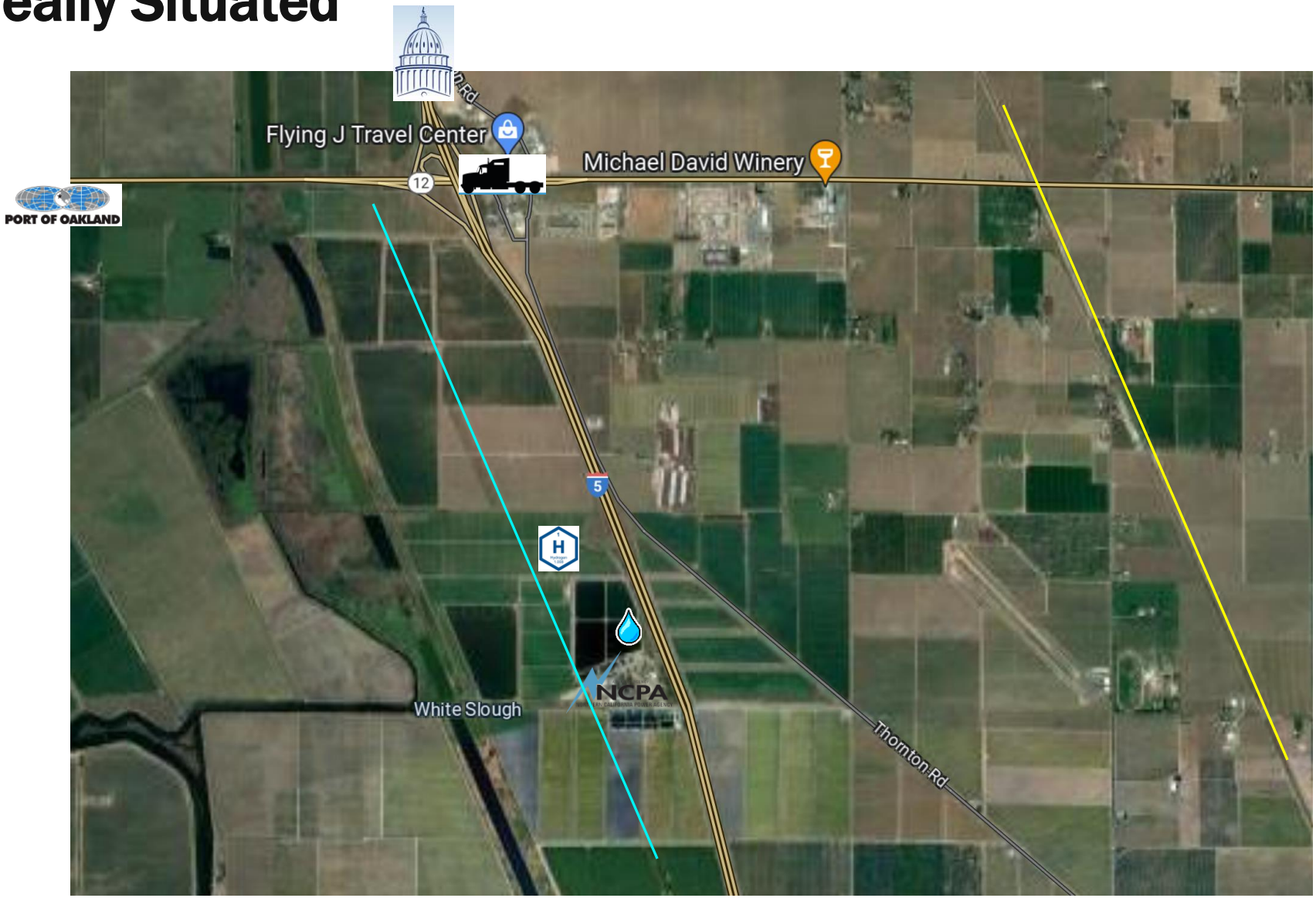


Lodi Hydrogen Center
Multiple Benefits

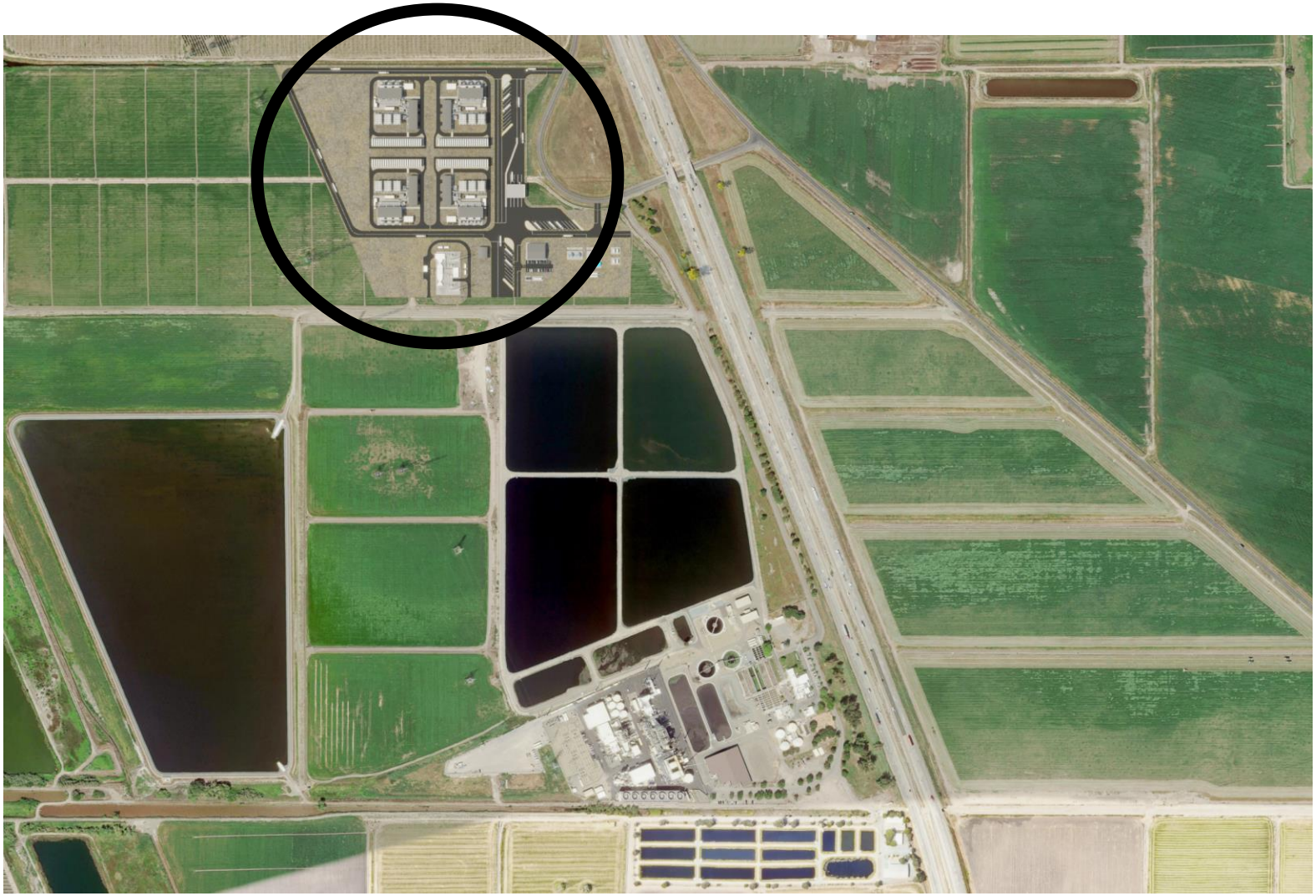
- Reduced carbon emissions for power generation
  - 45% hydrogen-capable blend initially
  - 100% capable by 2028
- Fuel delivery for Port activities
  - Class 8 trucks
  - Top picks
  - Forklifts
- Fuel delivery for transportation
  - Class 8 truck
  - Autos

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

Ideally Situated



The Electrolyzers



The Electrolyzers

Up Close

Hydrogen Transport

Hydrogen Fueling Station

Artist Rendering

Lodi Hydrogen Center Participants

A PUBLIC AGENCY
NCPA
NORTHERN CALIFORNIA POWER A

PG&E Pacific Gas and Electric Company®

GHD

CITY OF Lodi CALIFORNIA

SIEMENS energy

UNIVERSITY OF CALIFORNIA RIVERSIDE
LET THERE BE LIGHT

PORT OF OAKLAND

Lodi Energy Center Partners

City of Azusa, California

BART

California Department of Water Resources

Gridley, California

City of Healdsburg, California, Since 1867

City of Lodi, California

City of Lompoc

MID Modesto Irrigation District Water and Power

Plumas-Sierra Rural Electric Co-op PSREC

City of Biggs, Where the People Own the Water and Power

Power and Water Resources Pooling Authority PWRPA

City of Santa Clara, California, 1852, The Mission City

Silicon Valley Power, City of Santa Clara

City of Ukiah

Powering The Center of What's Possible