

# Item 8: Assessing the Role of Hydrogen in California's Decarbonizing Electric System – GFO-22-304

July 26, 2023 Business Meeting

Jeffrey Sunquist Energy Research and Development Division Energy Systems Research Branch



#### **Benefits to Californians**



- Identify cost-effective use cases for hydrogen (H<sub>2</sub>) in the electric system.
- Develop pathways to reduce environmental impacts and promote grid reliability.
- Inform policy and future research to accelerate beneficial H<sub>2</sub> adoption.



### **RAND** Corporation

- Identify targeted use cases and research priorities for H<sub>2</sub> technology.
- Develop technology performance metrics and cost models.
- Recommend policies and R&D to achieve least-cost integration of H<sub>2</sub> in California's electric system.







## **Energy and Environmental Economics, Inc.**

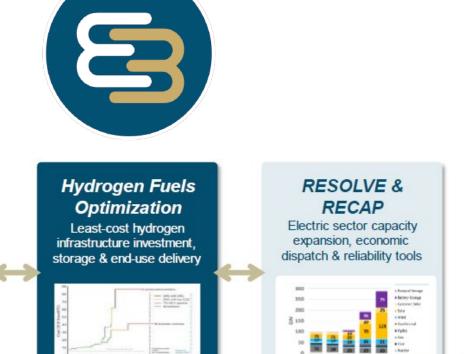
**PATHWAYS** 

Economywide energy

demand & decarbonization

scenario planning tool

- Develop datasets and computational tools to optimize H<sub>2</sub> infrastructure buildout in California.
- Assess role of geologic underground storage in meeting H<sub>2</sub> demand.
- Examine impacts of policy and R&D measures.





#### **Staff Recommendation**

- Adopt staff's determination that this action is exempt from CEQA.
- Approve grant agreements with RAND and E3.