



Hydrogen Fueling Infrastructure Workshop

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August 28, 2019



Overview

- Status of hydrogen in Sacramento
- Community needs for future hydrogen stations
- Funding opportunities
- Public station RFP
- Conclusion



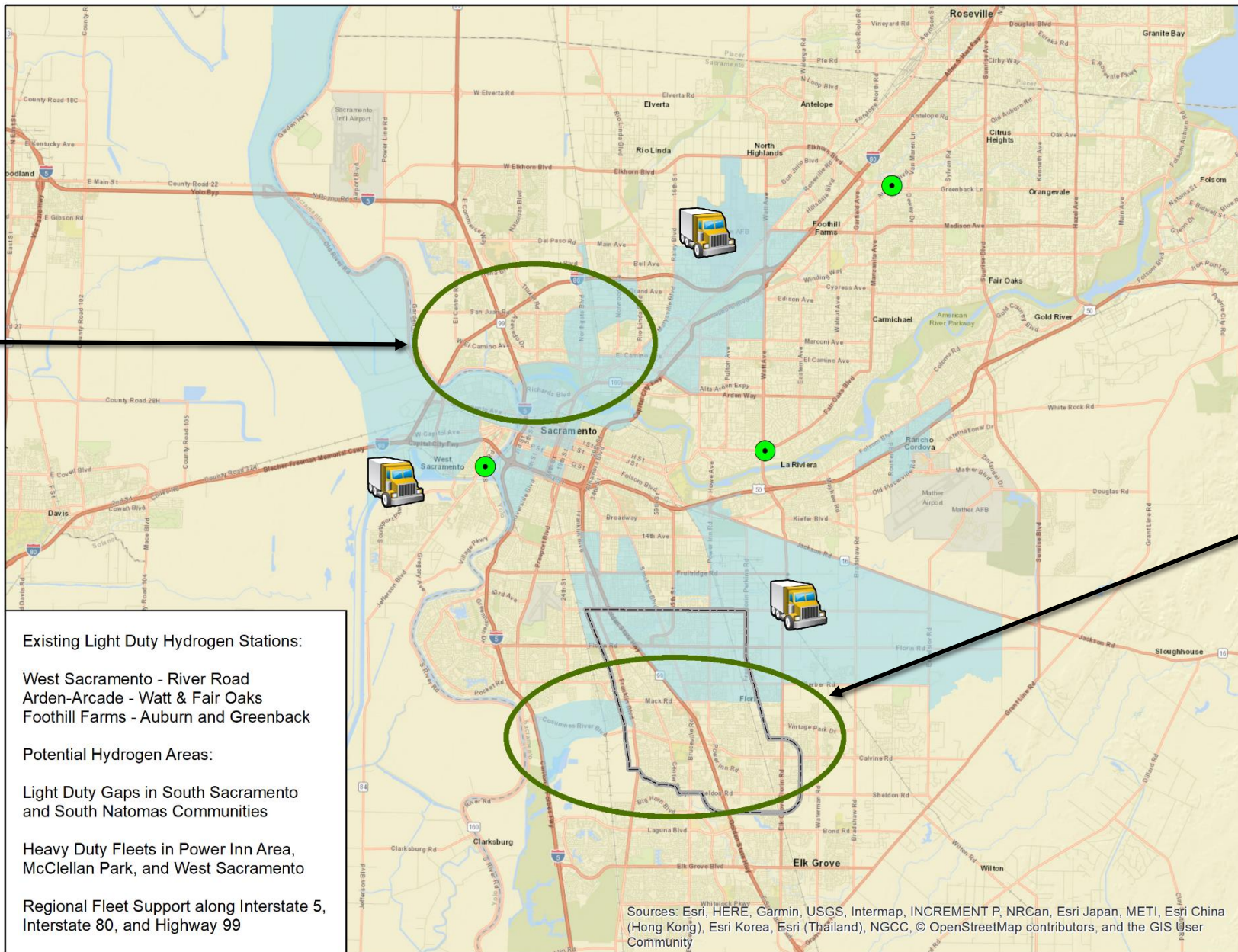
Status of Hydrogen

- Three light duty stations open for public access
 - West Sacramento
 - Arden-Arcade
 - Foothill Farms
- Only light duty cars commercially available for purchase
- Potential for demonstration of Toyota/Kenworth tractor-trailer and deployment of Nikola trucks



Community Need for FCEV

- Need for light duty stations in disadvantaged communities to support transportation equity projects like car share and clean car replacement programs
- Heavy duty stations to extend the range of planned fuel cell trucks and support local trucking fleets
- Co-location of both at a single facility to leverage more benefits
- Stations need to be planned and built before vehicle deployment





Light Duty DAC

- Electric vehicles are difficult to deploy in low income and disadvantaged communities:
 - Hard to install EVSE at apartments and rentals
 - Complicated living arrangements and street parking
 - Public fast chargers limited or nonexistent in DAC
- Advanced mobility like car share and ride hailing services need fast fuel times for maximum uptime
- Hydrogen may help meet these needs



Heavy Duty Vehicles

- Emerging market for heavy duty fuel cell vehicles with high interest from Sacramento fleets
- High initial capital cost makes it difficult for a fleet to commit to private hydrogen fueling
- Public Hydrogen Truck Stop
 - 24/7 fueling with access to Interstates 5 & 80
 - Owner-operators cannot charge HDEV at home
 - Needed redundancy for regional fleets with depot fueling



Funding Opportunities

- CEC funding is rolling out slowly over the next few years
- LCFS credit for hydrogen infrastructure
- Federal investment tax credit expiring
- Most of the funding targeted for traditional demographics and to support fleets in South Coast and San Joaquin Valley
- Opportunity to use Community Air Protection funds under the Carl Moyer Guidelines for hydrogen infrastructure



Public Hydrogen RFP

- Sac Metro Air District investigating using local funds to support the following community priorities:
 - Public Access Light Duty Hydrogen Stations in Disadvantaged Communities
 - Public Hydrogen Truck Stop in Sacramento Region
- Guidelines require a competitive RFP for public access infrastructure with up to 70% funding
- Less stringent than other funding to encourage participation



Light Duty Option

- Public Access Light Duty Hydrogen Stations in Disadvantaged Communities – 24/7 credit card access at gas stations
- Identical to existing stations, except located in DAC
- Preference for our Florin-South Sacramento Community to support AB 617 community air protection efforts
- Open to other communities including upgrade or relocation of existing stations with potential support for 2-3 stations
- Community support required for application



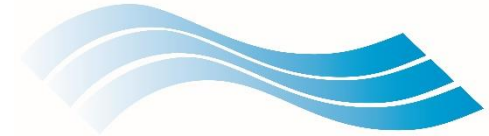
Heavy Duty Option

- Public Hydrogen Truck Stop
- Fast fueling (~10 kg/min) with HD protocols
- STAA truck (18-wheeler) access on major truck routes
- Can use an existing truck stop, relocation of an existing truck stop, or part of a new facility
- 1-2 stations based on cost estimates, potential mixed use
- Preference for DAC, but accepting applications for Sacramento County and Yolo-Solano Air District with community support

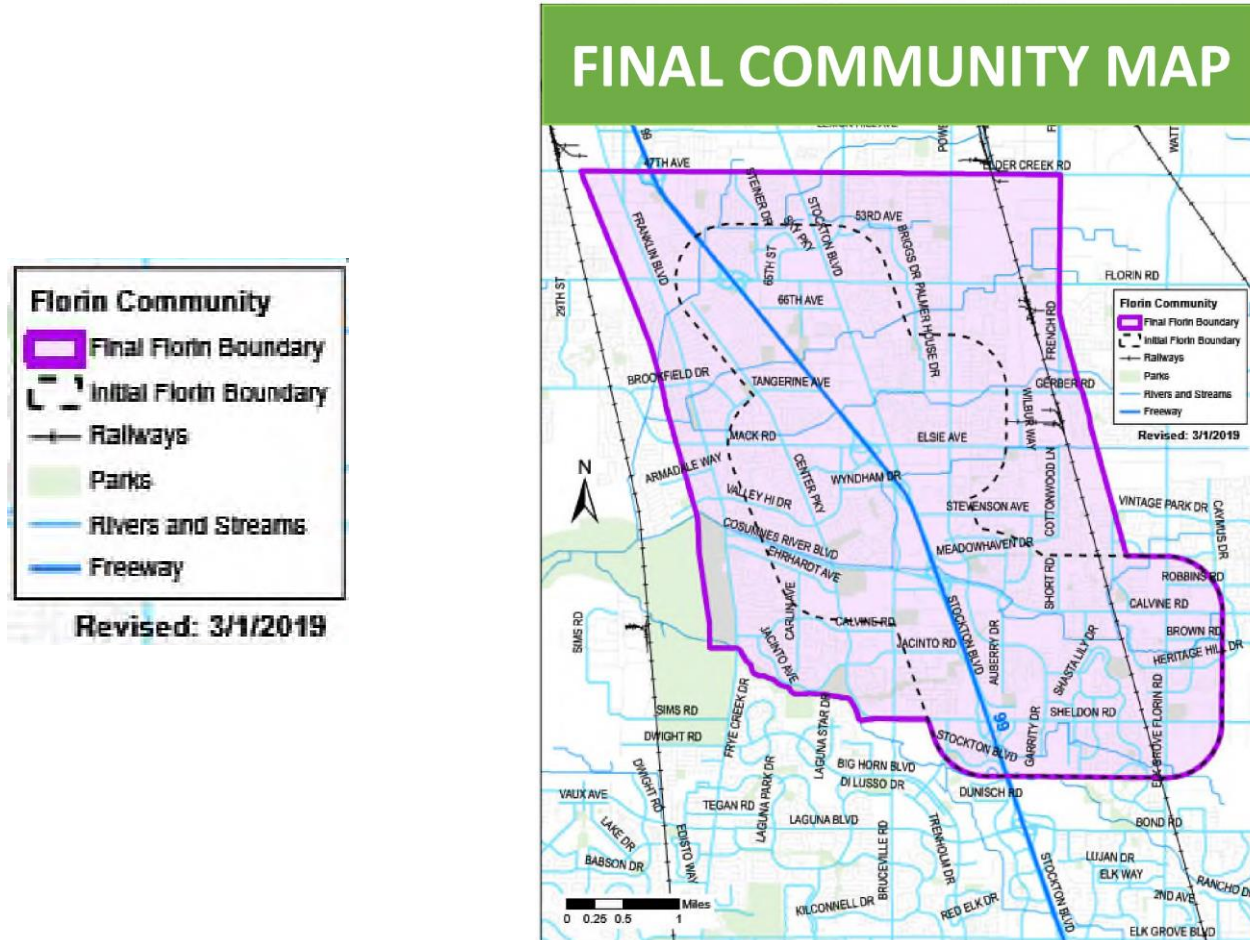


Basic Requirements

- Applications must include a specific location with a detailed description of the fueling infrastructure and costs
- Must have approval from the land owner
- Meets all the requirements of the Carl Moyer Guidelines including Chapter 10
- Projects must be operational by April 2022
- Applications must be approved by the community to meet community priorities including letters of support



Florin-South Sacramento







Disadvantaged or Low-Income Community


Legend


 AB617 / AB134 Selected community

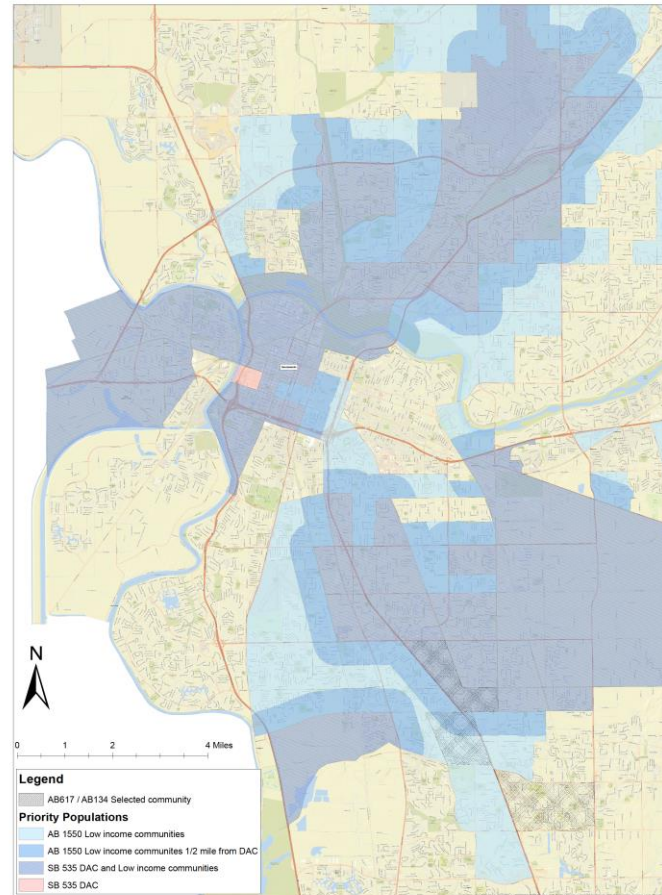
Priority Populations

 AB 1550 Low income communities

 AB 1550 Low income communities 1/2 mile from DAC

 SB 535 DAC and Low income communities

 SB 535 DAC





Funding Budget

- Budget based on demand, but sufficient funding for 1-3 light duty stations and one small-scale heavy duty station
- Potential for additional funding so larger concepts are encouraged to apply, but may be funded over several years
- On-site renewable generation (no credits) can get more funding
- Applicants are highly encouraged to leverage other funding sources, but they will need to meet our deadlines
- Projects are subject to community and Board approval



Hydrogen Vehicle Funding

- Main motivation for hydrogen infrastructure is planning for future zero emission vehicle funding
- Planned Funding:
 - Proposition 1B & Community Air Protection
 - Clean Cars 4 All
 - Our Community Car Share
- Future vehicle funding



Zero Emission Vision

- Sacramento is a key location for the deployment of zero emission vehicles across all sectors
- Matching local production with vehicles and infrastructure
- Hydrogen will play a key role in zero emission mobility in the Sacramento region in strategic sectors
- Sac Metro Air District is willing to fund the early deployment of advanced hydrogen infrastructure to help this vision
- Key investments will lead to meeting community goals, economic development, and innovation



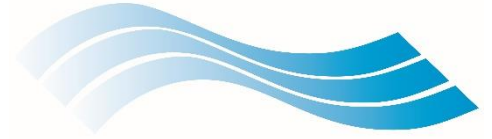
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Open Discussion
