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**NFCRC Comments on Disadvantaged Communities Pollutant Exposure Criteria**

*Additional submitted attachment is included below.*

## Comments on EPIC Program – Criteria for Disadvantaged Communities

From: National Fuel Cell Research Center, University of California, Irvine

The National Fuel Cell Research Center (NFCRC), of the University of California, Irvine (UCI) appreciates the opportunity to comment upon the draft criteria that the California Energy Commission has proposed for Electric Program Investment Charge (EPIC) projects that are funded in disadvantaged communities. NFCRC has worked with several disadvantaged communities on advanced energy projects.

The NFCRC respectfully provides the following comments on the need to demonstrate that EPIC funded projects in disadvantaged communities reduce, or keep neutral, a community's exposure to pollutants, as outlined in 8.2 b) and 8.2 c):

- The NFCRC contends that most disadvantaged communities located within California urban centers that suffer such poor air quality exposure due to light and heavy duty transportation. Since EPIC funding can only be provided to electric end-uses this may limit the scope of technologies that would be eligible for funding (possibly to only include EV charging).
- In addition, some of the transportation emissions are emitted within the community, while others are transported and reacted in the atmosphere into the community from emission sources that are sometimes far removed from the disadvantaged community. While atmospheric chemistry and transport models could prove that these sources outside the community are responsible for the poor air quality in the community, it may be difficult for EPIC funds to be spent outside the community to reduce exposure to pollutants under these circumstances.
- The NFCRC contends that smaller amounts of pollutant exposure in disadvantaged communities come from emissions from stationary combustion-based technologies that use natural gas.
- Addressing these pollutant emission sources within the studied disadvantaged community could be difficult when:
  - 1) EPIC solicitations limit the scope of technologies that are eligible to receive funding to exclude electrification technologies that reduce combustion, but increase electricity use.
  - 2) EPIC funds are not allowed to directly support the purchase of alternative fuel / electrified vehicles, which can otherwise be financially infeasible for community residents.
  - 3) EPIC funds are not allowed to purchase “fuel-switching” equipment (e.g., replacement of a natural gas appliance with an electric appliance)
- In addition, the NFCRC contends that it is difficult to estimate the impacts of EPIC eligible technologies on reducing local pollutant emissions due to the spatial and temporal dynamics associated with energy production and use, and the simulation of atmospheric chemistry and transport that is required to determine local exposure. Multiple specific instances of the colocation of large stationary pollutant sources (i.e.,

fossil fuel power plants) and disadvantaged communities can be found throughout California. However, even in these instances, pollutant emission reduction estimates are likely exaggerated unless paired with an analysis of local electric grid operation and air quality model to determine local community impacts.

- The NFCRC agrees that the goal of improving localized health impacts is appropriate and necessary for EPIC projects that address disadvantaged communities. In order to accomplish this goal, the NFCRC requests that the criteria for determining pollutant exposure in disadvantaged communities provide all proposers a very large amount of flexibility for proving a reduction or neutral impact. Such criteria should allow proposers and entities funded by the EPIC program to consider impacts in: (1) sectors not funded by EPIC, (2) regions outside of the community that may have an impact on exposure in the community, and (3) atmospheric chemistry and transport impacts that affect exposure.