Summary of

*Assigned Commissioner’s Office Draft Straw Proposal for Pilots Targeting Demand Response to Benefit Disadvantaged Communities*

2-15-18 Workshop Handout

**Background**

Leveraging Demand Response resources specifically to benefit disadvantaged communities is a new concept for this decades-old clean energy resource. This concept is consistent with numerous actions taken by the Legislature and Commission to ensure disadvantaged communities have access to, and equitably benefit from, California’s clean energy programs.

**Proposed Goals for Pilots**

Goal for pilots is to target investments in Demand Response (DR) programs to provide both environmental and economic benefits to disadvantaged communities.

1. ***Targeting Replacement of Gas for Environmental Benefits in Disadvantaged Communities***

* Existing power plant capacity is located disproportionately in disadvantaged communities.
* Reducing reliance on gas plants for reliability in local capacity areas or to provide system energy needs can reduce localized pollution and other negative impacts from living in proximity to power plants.

1. ***Targeting Economic Benefits to Disadvantaged Communities***

* Demand response provides direct economic benefits to individual customers who participate in DR programs.
* Empowering small businesses and community organizations that serve disadvantaged communities to save on their energy bills can provide indirect economic benefits to disadvantaged communities.

1. ***Targeting both Environmental and Economic Benefits to Disadvantaged Communities***

* Pilots should focus on customers within a disadvantaged community to meet dual objectives of providing economic and environmental goals.
* Broader geographic area for enrollment or marketing possible if it makes administering the project more feasible, but overall area should include a high proportion of Census tracts designated as disadvantaged communities.

**Pilot Objectives**

Pilots should test the capability of growing DR in a targeted geographic area that includes one or more disadvantaged communities to to provide 1) economic benefits, and 2) either local or system-level environmental benefits. The local and system objectives are further defined:

* **Local Objective**: Grow DR in targeted local areas to reduce reliance on new or existing gas power plants to meet reliability planning needs in California Independent System Operator (CAISO) planning areas called Local Capacity Areas.
  + Although current expectation is no new gas power plants needed in California over a 2030 planning horizon:
    - Local DR can help California prioritize retirements of existing natural gas plants that contribute to meeting local capacity needs.
    - Local DR may be needed to defer new gas plants if additional local capacity is needed due to unexpected events such as renounced projects
  + Several Local Capacity Areas have disadvantaged communities within them (See Figs. 5 and 6)
* **System Objective**: Grow DR that can reduce use (dispatch and cycling) of gas plants to meet energy or other system needs.
  + Expected increases in cycling plants (ramping up and down or numerous starts and stops per day) and operations at minimal or partial load can significantly impact localized emissions.
    - New wholesale models of DR (load consuming and load shifting) that integrate renewable generation onto the grid have had limited pilot testing
    - Transitioning residential customers onto Time-of-Use rates could also better match demand with times of renewable generation
    - Identifying locational nexus between distribution planning efforts, disadvantaged communities, and potential for placing more frequently-dispatchable DR resources could also provide useful information for future DR programs
  + Geographic nexus with disadvantaged communities not required to advance a system objective but is required to locate economic benefits of DR in them.

**Straw Ideas for Pilot Test Options**

* Test alternative program incentives to increase local capacity
* Test technology or other elements of program design to assess potential to increase value of DR resources
* Test outreach and marketing approaches to cost-effectively increase enrollment from under-utilized customer sectors