



Odd-Even Fuel Purchasing

Western Regional Emergency Fuel Coordination Meeting

California Energy Commission Sacramento, CA

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Gordon Schremp California Energy Commission

California Energy Commission



Consumer Behavior Varies by Energy Type



- Appeals to consumers to alter behavior to reduce peak electricity demand are usually successful
 - Minor inconveniences in operating appliances
 - Minor discomfort in raising thermostats
- Trade-off minor inconvenience in exchange for avoiding rotating outages
- Regulators and utilities understand this dynamic
- This is why appeals for conservation are widely dispersed and effective California ISO

When the California ISO calls a **Flex Alert**.

California Flex Alert system







Postpone using major appliances until after 9:00 p.m.





Transportation Fuel is Another Matter



- The Arizona Example
 - July 30, 2003 leak in Kinder Morgan product pipeline in Tucson shuts down deliveries from the east into Phoenix
 - August 1 pipeline repaired and pumping resumes at lower pressure
 - August 8 pipeline shut-down due to test results showing pipe defect
 - August 11-12 gasoline supplies tighten, especially for independents
 - August 13 during press conference, Governor "predicted that there would be some outages at independent stations, but that there would be no widespread shortage"
 - August 16 long lines & majority of stations are without gas
 - August 18 long lines begin to recede
 - August 24 start-up of Tucson to Phoenix line using bypass
 - September 12 completed replacement of 4600 feet of new pipe, resumed operations at 50 percent normal operating pressure

Consumers have the opposite reaction to real or perceived fuel shortage – will tend to top-off and hoard



Odd-Even Rationing – Earlier Efforts



- Response to tightening supplies in a *controlled* market condition
 - December 1973 March 1974
 - May 1979 July 1979



Line at the Hess station at 44th Street and 10th Avenue, New York City, 1979 – source: NY Times 11/9/12.

Intent was to conserve fuel...debatable if that goal was achieved.



Odd-Even Purchasing



- Demand needs to be controlled & hoarding curtailed
 - Odd-even rationing is an effective tool statewide implementation
 - Would require pre-planning and should be deployed shortly after the incident – *should be coordinated with regional states*
 - Security would likely be required in urban areas
 - Most California retail stations are self-serve and would need oversight to improve compliance
 - Traffic control
 - Adequate manpower
 - New rule-making?
 - New legislation?



Source: San Diego Historical Society.



Odd-Even Purchasing



- Enforcement not guaranteed
 - No more attendants available to oversee compliance
 - Many locations single employee
 - Inside the store
 - More diverse vehicle plates
 - Could social apps be used?
 - Document offenders
 - Alert law enforcement
- Should review reselling laws
 - To ensure fuel not purchased for resale
 - ebay
 - Craig's List
- Anti-gouging laws
 - CA allows 10 percent price increase after declaration of emergency
 - Price increases can be greater if costs to supply rise



San Diego Historical Society



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Questions?





<u>gordon.schremp@energy.ca.gov</u> <u>Justin.cochran@energy.ca.gov</u> 916-654-4887 916-657-4353

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