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Citizens and Scientists for Environmental Solutions

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Public Comments From:

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Comments Prepared On Behalf of the Union of Concerned Scientists

Comments On:

Appliance Efficiency Regulations Pertaining to Television Efficiency

California Energy Commission, Docket # 09-AAER-1C

Committee overseeing this proceeding:

Arthur Rosenfeld, Commissioner, Presiding Member

Julia Levin, Commissioner, Associate Member

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Introduction: On October 13, 2009, the CEC held a public hearing to discuss proposed Title 20 appliance standards for televisions. Jasmin Ansar PhD., Western States Climate Economist for the Union of Concerned Scientist (UCS) provided verbal comments during that hearing. These written comments support those comments. These comments respond directly to the Consumer Electronics Association's (CEA) commissioned report titled "A Review of the "December 2008 Draft Efficiency Standards for Televisions". The report was dated March 23, 2009 and has been the basis for the CEA's continued claim that the television regulation "result in lost tax revenue of approximately $50 million annually and 4,600 lost jobs in California." These comments respond to the most significantly misleading CEA assertions based on their commissioned study.

CEA assertion: *"THE STAFF DRAFT Report (SDR) PROPOSED REGULATIONS COULD COST THE STATE OF CALIFORNIA $50 MILLION IN LOST ANNUAL TAX REVENUE AND 4,600 TOTAL LOST JOBS"*

UCS comment: The CEA report estimates of state tax, jobs and revenue losses are grossly overstated. CEA estimates these losses by examining the volumes of TVs sales forecast for the whole of the US and then estimating the California's historical share of total TV sales by type of TV. The projected numbers of non compliant TVs that were projected for California are then all assumed to represent lost output for the state of California resulting in lost sales tax revenues, and employment.

The validity of the inferences from this model rely on the assumption that all non compliant TVs projected for the CA market, represent lost output for the state and that TV technology remains unchanged so that these less efficient TV would still draw market share.

This is problematic on many fronts. First, if as the authors claim these TVs are not bought then presumably this money gets spent on alternative goods and services which can be expected to have some non zero economic impact for the state. The authors choose to ignore this option. Assuming that all one hundred percent of these sales revenues "leak" away from the state does not seem plausible or reasonable given past experience or economic realities. Substitution of these non compliant TVs for better more efficient products (compliant TVs or other products) renders these CEA estimates of economic losses meaningless. The problem with the CEA analysis is that it is only a partial analysis

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within a static framework. The partial analysis limits the analysis to the TV sector and ignores any spillover effects or substitution effects in other markets. The static framework ignores important dynamic and innovative features of the market with the result that the author's analysis estimates market shares based on a report which uses data based on 2004 market characteristics.

A more complete analysis would consider the full impact of the costs and benefits of the proposed regulations and the impacts across all markets in the economy. This is no easy task and requires a general equilibrium analysis which looks at the economic interactions across all markets in the economy. A model with these characteristics has been undertaken by Professor Roland-Holst from UC Berkeley in a report entitled, "Energy Efficiency, Innovation and Job Creation in California", October 2008[1].

In this report a core finding is that:

Over the last 35 years, energy efficiency measures have enabled California households to redirect their expenditures toward other goods and services, creating about 1.5 million FTE jobs with a total payroll of $45 billion, driven by well-documented household energy savings of $56 billion from 1972-2006. (page 4)

In addition to market spillover and substitution effects from the regulations there will also be economic impacts associated with consumer's energy cost savings from the more efficient TVs. For the TV industry there are also likely to be economic rewards from the innovation and leadership which the regulations will induce. None of these economic benefits are estimated or included in the CEA economic impact analysis.

CEA assertion: *"THE CEC'S ATTEMPT TO REGULATE ENERGY CONSUMPTION IN TELEVISIONS IS CONTRARY TO FUNDAMENTAL ECONOMIC PRINCIPLES*

A. If manufacturers were able to make more energy-efficient sets at no cost they would already be compelled to do so

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[1] [1] Energy Efficiency, Innovation, and Job Creation in California
http://are.berkeley.edu/~dwrh/CERES_Web/Docs/UCB%20Energy%20Innovation%20and%20Job%20Creation%2010-20-08.pdf

B. The SDR proposal will reduce competition and raise prices

C. The SDR regulations will reduce technological innovation"

UCS Comment: In section V of the report CEA make a series of assertions that do not correspond to empirical realities or economic theory.

There is a substantial economics literature on a phenomenon known as the energy paradox; the energy paradox is a well documented empirical observation that households and firms are reluctant to invest in energy saving technologies. Empirically the observation is that consumer's actual investments in energy efficiency are lower than the amount that would be economically rational for that consumer. There are many theories as to why this 'efficiency' gap exists and most focus on market failures of some sort. In the context of TVs there are clearly informational market barriers since most TVs do not provide information to consumers on relative energy consumption. This lack of information could well explain why this feature is not promulgated by manufacturers who choose to invest in other features which can more demonstrably differentiate their product relative to their competitors.

SDR regulations especially in California are likely to spur technological innovation. Appliance standards in California have typically led the nation and requiring such standards in California is likely to motivate and lead the innovation and cost efficiency for the next generation of energy efficient TVs. In large part this is a reflection of the sheer size of the California market which allows economies of scale and learning to be fully exploited. An illustration of the potential market transformation that can be accomplished through efficiency performance standards can be seen with refrigerators. Over the past decades there have been dramatic increases in the energy efficiency of refrigerators accompanied with lower costs and this started with the introduction of energy efficiency standards back in the 1990s.

CEA assertion: *"THE ASSUMPTION/ASSERTION THAT ENERGY EFFICIENCY COMPLIANCE IS COSTLESS IS CONTRARY TO INDUSTRY FEEDBACK AND DATA"*

UCS Comment: There is ample evidence and data to show that the regulations are cost effective many times over. Even if you accept the assumption that more energy efficient TVs have higher upfront costs, analysis of the benefits of the lower energy consumption over the life time of the product more than offsets the higher upfront cost.