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NEW UC REPORT FINDS PAST AND FUTURE STATE ENERGY POLICIES DELIVER NEEDED ECONOMIC ADVANTAGE

Provides Critical Evidence as CA Faces Global Financial Crisis

Berkeley CA – As the country's financial worries reach new highs and the stock market new lows, a University of California study released today answers the question many Californians are now asking: How will the state's pioneering effort to address global warming impact its economy and consumer pocketbooks? The report examines historical data and finds that over the past thirty-five years, innovative energy efficiency policies created 1.5 million additional fulltime jobs with a total payroll of over $45 billion. Looking forward, the report finds that if California improves energy efficiency by just 1 percent per year, proposed state climate policies will increase the Gross State Product (GSP) by approximately $76 billion, increase real household incomes by up to $48 billion and create as many as 403,000 new jobs.

"Energy Efficiency, Innovation, and Job Creation in California" is authored by U.C. Professor David Roland-Holst and funded by Next 10, a nonpartisan nonprofit organization. This study examines the economic impacts of the state's landmark energy efficiency policies over the last thirty-five years, and forecasts the economic effects of more aggressive policies proposed to reduce global warming emissions to 1990 levels by 2020.

"Our analysis provides solid evidence that California's legacy of energy policy has grown the economy, created jobs and put billions of dollars into the pockets of consumers," commented U.C. Professor David Roland-Holst. "At this pivotal moment in history, as global markets teeter on the financial edge, our study reveals the economic power of energy innovation and efficiency, and the promise for California if the state redoubles its efforts as proposed in the Draft Scoping Plan to implement the Global Warming Solutions Act (AB 32)."

Using detailed data on the changing economic structure over the period 1972-2006, the study examines one of the most potent catalysts of efficiency-based economic growth: household reductions in per capita electricity use. Because it represents over 70 percent of Gross State Product (GSP), household consumption is the most powerful driver of economic activity in the state, and household expenditure patterns are the leading determinant of state energy dependence and employment.

The report's historical findings include the following:

- Without taking the aggressive steps to reduce energy dependence and increase energy productivity over three decades ago, California would be more vulnerable to the current economic crisis — with greater dependence on volatile fuel prices, lower consumer savings and, as a result, reduced spending. Thanks to energy efficiency, California reduced its energy import dependence and directed a greater percentage of its consumption to in-state, employment-intensive goods and services, whose supply chains largely reside within the state, creating a strong "multiplier" effect of job creation.

- Over the past thirty-five years, forward looking energy efficiency policies created 1.5 million FTE jobs with a total payroll of over $45 billion, and saved California consumers over $56 billion on energy costs.

- The same efficiency measures resulted in slower (but still positive) growth in energy supply chains, including oil, gas, and electric power. For every new job foregone in these sectors, however, more than 50 new jobs have been created across the state's diverse economy.

- Sectoral examination of these results indicates that job creation is in less energy intensive services and other categories, further compounding California's aggregate efficiency improvements and facilitating the economy's transition to a low carbon future.

"As the financial world's uncertainty continues to be the cause of anxiety and fear about the future, this report provides hard evidence that energy efficiency and innovation can pave the way to economic security and growth," said Next 10 founder F. Noel Perry. "Whether or not we take that path depends on policy to encourage it."

Looking to the future, the report corroborates the state's recent findings that the California Air Resources Board (CARB) package of policies proposed to meet the emissions reductions mandated by the Global Warming Solutions Act (AB 32) can be achieved with net economic benefits.

The UC report goes further, however, by assessing the economic impact of innovation, revealing even greater economic benefits than the state's official modelling because the latter assumes technology characteristics remain static (2008-2020).

Using the Berkeley Energy and Resources (BEAR) model, a state-of-the-art, economy-wide forecasting tool, the study analyzes the comprehensive set of policies in CARB's draft scoping plan, and tracks complex market interactions across key elements of the California economy.

Findings include:

- By taking account of the potential for innovation, the proposed package of policies in the state's Draft Scoping Plan continues California's legacy of efficiency-driven job growth, achieving 100 percent of the greenhouse gas emissions reduction targets mandated by AB 32 while increasing the Gross State Product (GSP) by about $76 billion, increasing real household incomes by up to $48 billion and creating as many as 403,000 new efficiency and climate action driven jobs.

- The economic benefits of energy efficiency innovation have a compounding effect. The first 1.4 percent of annual efficiency gain produced about 181,000 additional jobs, while an additional one percent yielded 222,000 more. It is reasonable to assume that incremental efficiency gains will be more costly, but they have more intensive economic growth benefits.

- Existing energy efficiency programs and proposed state climate policies will continue the structural shift in California's economy from carbon intensive industries to more job intensive industries. While employment continues to grow in the carbon fuel supply chain, it is slower than it would be without implementation of these policies. Thus there are no real job losses in these sectors, but many new opportunities arise elsewhere.

- The size and distribution of potential growth benefits that result from the increase of merely one percent in energy efficiency justify significant commitments to explicit incentives for competitive innovation and investment in the discovery and adoption of new efficiency technologies. These technologies offer win-win solutions to the challenge posed by climate change for the state's industries and consumers.

- Clearly establishing a price for carbon emissions provides economic stimulus for efficiency innovation. To accelerate that innovation, revenues raised from the cap and trade system can be at least partly invested in R&D and adoption incentives for these technologies.

- By revenue, energy is the world's largest industry, and energy efficiency can become to this sector what Information Technology (IT) was to management, biotechnology to medicine, a way to revolutionize traditional practices and increase real living standards around the world.

- California can sustain its enormous economic potential and establish global leadership in the world's most promising new technology categories, energy efficiency, just as it did so successfully in IT and biotechnology. This will secure the Golden state's transition to a low carbon future and establish competitive leadership in another breakout technology industry.

"The economy, energy and the environment are the great social and engineering challenges of our time," said Mike Splinter, president and CEO of Applied Materials. "This report highlights the importance of smart policy to help accelerate adoption of future clean energy products and technologies and how they can truly make a difference to the future of our planet."

The full report is available at: www. Next10.org or
http://are.berkeley.edu/~dwrh/CERES_Web/index.html

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Next 10 (www.next10.org) is an independent, nonpartisan organization that educates, engages and empowers Californians to improve the state's future. Next 10 is focused on innovation and the intersection between the economy, the environment, and quality of life issues for all Californians. Next 10 funds research from leading experts on complex state issues and creates a portfolio of nonpartisan educational materials to foster a deeper understanding of the critical issues affecting our state.