SENATE BILL No. 128

Introduced by Senator Padilla

February 5, 2009

An act to add Division 25.6 (commencing with Section 38700) to the Health and Safety Code, relating to climate change.

LEGISLATIVE COUNSEL'S DIGEST

SB 128, as introduced, Padilla. California Climate Change Institute.

The existing California Global Warming Solutions Act of 2006 requires the State Air Resources Board (state board) to adopt regulations to require the reporting and verification of emissions of greenhouse gases and to monitor and enforce compliance with the reporting and verification program, and requires the state board to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020. The act requires the state board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions.

This bill would state the intent of the Legislature to enact legislation to create the California Climate Change Institute to (A) identify and support, through a merit-based peer-reviewed competitive grant process, research and education to be undertaken at academic and research institutions and laboratories throughout the state, (B) oversee, coordinate, and manage a nonduplicative, targeted research and development program for the purposes of achieving the state's targets for reducing emissions of greenhouse gases and mitigating the effects of those emissions, (C) develop effective model education pathways, training, model curriculum, and professional development necessary for emerging green technologies and industries, and (D) ensure that its

climate change research is conducted in a manner that is targeted and nonduplicative of other research programs.

Vote: majority. Appropriation: no. Fiscal committee: no. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Division 25.6 (commencing with Section 38700) is added to the Health and Safety Code, to read:

DIVISION 25.6. RESEARCH AND DEVELOPMENT RELATED TO CLIMATE CHANGE

PART 1. GENERAL PROVISIONS

38700. The Legislature finds and declares all of the following:

(a) There is now overwhelming scientific consensus among the experts that our fossil fuel-intensive energy economy is driving climate change. The impact of climate change will be pervasive, altering our water resource base and our agricultural system, with effects upon human and ecological health.

(b) While a global phenomena, climate change will likely impact affluent and poorer communities differently, as well as requiring new methods for protecting endangered ecosystems. As a society, we must have a research base to show how fast the climate is changing, what degree of climate protection we can implement through low-carbon energy systems, and how we can adapt to the climate change we cannot prevent.

(c) California has long been a leader in altering "business as usual" carbon-intensive economic behavior and demonstrating how those alterations can moderate greenhouse gas emissions, and thus, the extent and pace of climate change. California must continue and expand these efforts, and to do so will require information, knowledge, and understanding, not only about the science of climate change, but also about new practices to lower energy demand, and the emerging economic and legal frameworks that can help manage our energy demand and the impacts climate change will have on the planet.

(d) The risks of climate change and the economic insecurity that high fossil fuel energy prices have brought to California and

the global economy have unleashed a wave of efforts to set state, national, and regional targets to safeguard the planet. Some of the most notable are the 25-percent reduction in emissions of greenhouse gases by 2020 and the 80-percent reduction by 2050 that California has adopted under the California Global Warming Solutions Act of 2006 and Executive Order S-3-05, the 70-percent or more reductions proposed in the United Kingdom, New Zealand, and Japan, and the 100-percent fossil fuel free plans of Sweden. These plans are consistent with the 80-percent or more reduction in emissions of greenhouse gases that the Intergovernmental Panel on Climate Change has determined is needed by 2050.

(e) California's unique history in addressing climate change includes pathbreaking scientific and technological research, as well as the development of new economic techniques and assessments of the social impacts of changing environmental conditions. University of California researchers have been at the forefront of international research efforts that have found there can be significant local benefits to confronting climate change, including energy savings from "greening" the state's buildings and industries, creating job growth, and building export opportunities in some of the fastest growing economic sectors.

(f) To maintain California's position of leadership in climate science, and to address the many questions that climate change brings to society, California must mobilize an unprecedented network of scholars, at our universities, national laboratories, California's private universities, civic and government leaders, industry associations and companies, and environmental groups to create the world's leading climate research and action-oriented institute.

(g) California has in place not only the California Global Warming Solutions Act of 2006, that calls for a return to 1990 emissions levels by 2020 and the goal of 80 percent overall cuts by 2050, as contained in Executive Order S-3-05, but also an important package of policies across many state agencies that need to respond to the challenge of climate change. California's economy is particularly sensitive to the climate due to our reliance on water storage in snowpack and our productive agricultural systems, and California has unique air quality issues owing to the geography of the state. These factors make California particularly

vulnerable to climate change and give the state a unique role in addressing the problem.

(h) California needs to both support research and implementation efforts to address the scientific issues of climate change and to deploy climate-friendly energy, water, agricultural, and industrial systems to benefit not only the state, but the global community that often looks to innovations in California as ways to address new challenges. This, in turn, provides economic opportunities for California, as its science, technology, and policy innovation landscape can be, and often is, exported to the rest of the nation and the world.

(i) New legal requirements and changing practices relative to the energy generation and conservation sectors will lead to new industries dependent upon an educated and highly skilled workforce. Conservation of natural resources and efforts to mitigate the impact of climate change are affecting the education and continuing education needs of engineers, scientists, and the myriad of workers in California's emerging green economy. California must invest in the preparation of the workforce entrusted to be stewards of our resources and those who will invent, manufacture, install, repair, market, and ship goods around the world.

(j) The pervasive nature of the threat of climate change further means that coordination across not only state agencies, but also local municipalities, educational institutions, and business and industry sectors is vital to a successful and timely approach to climate change. These functions, as well as coordination with existing world-class state efforts on energy and resource management and avoidance of duplication of efforts, are important core missions of a climate change response initiative.

PART 2. INTENT OF THE LEGISLATURE

38705. It is the intent of the Legislature to enact legislation to create the California Climate Change Institute to do all of the following:

(a) Identify and support, through a merit-based peer-reviewed competitive grant process, research and education to be undertaken at academic and research institutions and laboratories throughout the state. It is the intent of the Legislature that all California

institutions of higher education and all federal laboratories in California be eligible to participate in the institute's grant programs.

(b) Oversee, coordinate, and manage a nonduplicative, targeted research and development program for the purposes of achieving the state's targets for reducing emissions of greenhouse gases and mitigating the effects of those emissions, and helping California mitigate and adapt to the impacts of climate change.

(c) Develop effective model education pathways, training, model curriculum, and professional development necessary for emerging green technologies and industries. The institute shall also provide the Legislature, the Labor and Workforce Development Agency, school districts and charter schools that maintain any of kindergarten and grades 1 to 12, inclusive, and the California Community Colleges recommendations on implementation of the education pathways, training, model curriculum, and professional development.

(d) Ensure that its climate change research is conducted in a manner that is targeted and nonduplicative of other research programs.

(e) Focus on the following program areas:

(1) Research on technologies that advance California's targets for reducing emissions of greenhouse gases or mitigating the effects of those emissions, with an emphasis on making these technologies commercially viable and available.

(2) Social science research to facilitate the transition to a low-carbon economy by increasing knowledge about human behavior and decisionmaking to improve policies, programs, and analytic methods and accelerate clean technology adoption and climate-positive action.

(3) Adaptation and forecasting, including understanding, assessing, monitoring, and predicting the effects of climate change on California's resources, including its water supply, forests, coastal lands, agricultural lands, species, and habitat.

(4) Green workforce development strategies, including career exploration at the middle school level, high school career technical education, and articulation between kindergarten and grades 1 to 12, inclusive, certificate programs at community colleges,

state-approved apprenticeships, and other postsecondary educational programs.

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