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Final Report

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Teaching Cases on Transportation and Global Warming

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This project developed a series of three teaching cases that explore the implications of global warming for transportation policy in the United States. The cases are intended to be used in graduate and undergraduate courses on transportation policy and planning and are available free of charge from the website of the Case Program at the Harvard Kennedy School:

<http://www.case.hks.harvard.edu/>

Teaching notes are also available to qualified instructors from the Case Program website. Abstracts of the three cases follow below.

Electric Vehicles in Cities (HKS case 1932.0, teaching note 1932.2)

Learning Objective:

This case is designed to support a discussion of the options for reducing greenhouse gas emissions from motor vehicles in transportation, urban planning or environmental policy courses. It can also be used to illustrate the application of discounting and the concepts of public goods and externalities

The California Global Warming Solutions Act (HKS case 1944.0, teaching note 1944.2)

Abstract:

In November of 2010, the California voters had to decide whether to support a ballot proposition that would effectively end the state's pioneering effort to reduce global warming. In 2006, the California legislature passed Assembly Bill (AB) 32, "The California Global Warming Solutions Act", a law mandating that California reduce its emissions of greenhouse gases to 1990 levels by 2020. Supporters of AB 32 argued that it would energize other states to make similar commitments and would help the California economy by spurring the development of industries that would be national and global leaders in the increasingly important "green" economy. Critics countered that the effect on global warming would be small and the costs to the affected industries high and they had placed a proposition on the 2010 ballot that called for the suspension of AB 32.

Learning Objective:

This case is intended for use in courses in micro-economics or transportation, environmental or energy policy to illustrate the concepts of public goods and to support a discussion of various ways of achieving emissions reductions including standards, taxes or subsidies, and cap and trade.

Ambitious But Achievable: Using Land Use and Transportation Plans to Reduce GHG Emissions in California (HKS case 1978.0, sequel 1978.1, teaching note 1978.2)

Abstract

This case focuses on California's landmark efforts to link regional land use and transportation planning with its ambitious efforts to reduce current and projected greenhouse gas (GHG) emissions. As the case ends in June 2010, California's Air Quality Board (CARB) is preparing to release proposed GHG emissions goals that would guide long-term land use and transportation plans developed by the state's Metropolitan Planning Organizations (MPOs). CARB's decision would be the culmination of an almost two-year process established by Senate Bill (SB) 375, "The Sustainable Communities and Climate Protection Act of 2008", which was the first law in

the nation that explicitly linked regional transportation and land use plans with efforts to reduce GHG emissions

Learning Objective

This case is intended for courses in transportation, environmental policy or urban planning to explore the effectiveness of land use and transportation policies to reduce GHG emissions and to support discussions about the technical and political challenges to implementing those policies (and whether the benefits of the policies outweigh the difficulty of those challenges). It can also be used to raise larger issues of how to calculate cost effectiveness and the use of cost effectiveness to determine pollution abatement strategies.