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Climate policy at the local level: Insights from California

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ABSTRACT

Local governments in the United States have been hotbeds of climate change activity. Recently, states have sought to incorporate these primarily voluntary actions into broader climate change mitigation programs. Using the example of California, a national leader in U.S. climate policy, this article examines the scope for effectiveness of local climate action and assesses factors related to adoption of local climate policies. The analysis draws on two original surveys of city and county governments, designed to learn about adoption of comprehensive policy tools (emission inventories and climate action plans) and programs in specific areas (energy, water, land use, transportation). Adoption rates are fairly high and growing; by mid 2010 roughly 70% of all jurisdictions were already engaged or planning to engage in comprehensive climate actions, up from roughly 50% in 2008. The adoption of specific programs varies with the degree of local government authority in different sectors, and is generally higher for programs targeting municipal facilities and operations than those targeting residents and businesses. Population size, household income, and strong support from local leaders and the public are all associated with higher rates of adoption, particularly for comprehensive actions. Partisan attitudes are more important for comprehensive actions than for programs in specific areas such as energy efficiency and renewable energy, mirroring the findings of state and national public opinion surveys, which find broader support for actions like clean energy than for explicit climate change-oriented actions. Qualitative analysis reveals additional keys to success, including partnering with other local governments and private organizations and leveraging cost savings and other potential co-benefits of action. As states move to incorporate local actions into broader plans, mandates will also play an increasing role in setting a floor for local efforts.

1. Introduction

Stabilizing the Earth's climate will require significant reductions in greenhouse gas (GHG) emissions, with coordinated efforts by national governments (Stern, 2007; IPCC, 2007; Pacala and Socolow, 2004; Wigley et al., 1996). Yet local governments have significant potential to contribute to these efforts through direct regulatory authority and their capacity to serve as a catalyst for broader policy changes (Engel, 2009; Nolon, 2009a; Kamal-Chaoui and Robert, 2009; Ostrom, 2010). Indeed, local governments in the U.S. and elsewhere have often been leading the way on climate policy, ahead of their national and state governments (Betsill and Bulkeley, 2005, 2006).

Recent state climate policy proposals have sought to harness local actions to meet higher level emissions goals. The Pew Center on Climate Change (2011) identified 19 states that have policies and incentives in place to encourage reductions in vehicle miles traveled (VMT) and "smart growth" policies – efforts that relate to local and regional decisions on land use, transportation, and other infrastructure planning – all of which can achieve GHG emission reductions. For instance, California Senate Bill (SB) 375, adopted in 2008, requires regional governments to work with cities and counties to reduce GHG emissions by reducing driving. Washington state also adopted a VMT reduction goal as part of the state's climate change legislation in 2008 (State of Washington, 2008) and in June 2011, and a consortium of northeast and mid-Atlantic states signed an agreement to work together to support sustainable communities activities (Transportation and Climate Initiative, 2011). The continued absence of federal climate action in the United States has put state and local actions in an even greater spotlight. With local governments playing a greater role in broader climate policy efforts, it is an opportune time to take a closer look at what local jurisdictions are doing in California – a climate policy leader among US states – and to see how local actions fit into the state policy framework.

In this article, we examine both general and specific actions that are being undertaken at the local level and assess the motivations for and challenges to effective local climate action. By providing a

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broad assessment of the measures that local governments are undertaking or considering and identifying barriers to action and factors associated with success, our findings can inform both regulatory and voluntary efforts to achieve GHG emission reduction goals. The analysis is based on two comprehensive surveys of cities and counties in California conducted in 2008 and 2010 (Hanak et al., 2008; Bedsworth et al., 2011). In contrast to many past studies, our samples include governments that are not members of climate initiatives, enabling a more complete perspective on adoption. Although the focus is on California, many of the findings are applicable to other states and regions.

We begin with an overview of climate programs underway in California and their relationship to local governments. This is followed by a discussion of the motivations for and potential effectiveness of local government action on climate change. We then describe the types of actions local governments are undertaking and how they fit into California's overall climate policy framework. This is followed by a description of our survey instruments on local climate actions and the data analysis methods used. We then present the survey results, including a quantitative assessment of community characteristics associated with adoption and a qualitative discussion of other factors contributing to success. We conclude with some of the lessons learned through this analysis.

2. Climate policies in California

California has been at the forefront of U.S. climate policy for the past decade. In 2002, the state adopted the first law requiring GHG emission reductions from passenger vehicles, to be achieved through stricter vehicle standards (Assembly Bill [AB]1493) (see leginfo.ca.gov for detailed information on all California legislation cited herein). In the same year, the state also passed a law establishing a renewable portfolio standard (RPS), requiring a certain percentage of the state's electricity be generated from renewable sources (SB 1078), and in 2003 it adopted a "loading order" for electricity planning that places a top priority on energy efficiency for meeting additional electricity demand (Pechman, 2007). These laws and regulations laid foundations for the state's efforts to reduce economy-wide GHG emissions to 1990 levels by 2020, a goal codified into law with the passage of AB 32, the Global Warming Solutions Act of 2006. The 2008 adoption of SB 375, noted above, continues this trend by setting targets related to emissions from passenger vehicle use. As implementation of AB 32 has proceeded, the state has also strengthened requirements for use of renewable energy sources (SBX1-2, 2011) and adopted a cap and trade program aimed to reduce emissions in key sectors (California Air Resources Board, 2010). Other recent state policies that will also contribute to emissions reductions include new statewide standards for green buildings (2008) (California Building Standards Commission, 2010) and new targets for reducing urban water use (a large consumer of energy) (SBX7-7, 2009).

Although energy utilities, some high-emitting industries, and the transportation sector are anticipated to generate the majority of the emission reductions required to meet the 2020 target (California Air Resources Board, 2008), local governments have also been an important element of the state's climate mitigation plans. AB 32's provisions do not specifically target local government actions, but the state Attorney General began requiring local governments to consider GHG emissions in their general plan updates in 2007, soon after the passage of AB 32. In April 2007, then Attorney General (now Governor) Jerry Brown sued rapidly growing San Bernardino County for failing to analyze increases in GHG emissions associated with its general plan update. The widely publicized lawsuit was settled and the county agreed to develop an emissions reduction plan. The Attorney General's office subsequently negotiated a similar agreement with the City of Stockton and submitted comments to numerous cities, arguing that their analyses under the California Environmental Quality Act (CEQA) failed to fully take into account a project's climate-related environmental impacts (California Office of the Attorney General, 2010).

In addition, some of the specific pieces of climate-related legislation *do* target local government actions. SB 375 requires regional transportation planning authorities to work with cities and counties (the local land use authorities) to meet per capita emission reduction targets from passenger vehicle use. Local governments are encouraged (but not required) to adapt their land use plans accordingly, and they are eligible for regulatory (and potentially also financial) incentives if they do (Bedsworth et al., 2011). The state adopted the first regional GHG emission reduction targets in late 2010, and they are to be met in subsequent regional plans, updated every four to five years (Bedsworth et al., 2011). Local governments must also comply with the new green building code – a new baseline for local land use and building decisions – and local water utilities (run by municipalities, special districts, and some private companies) are responsible for meeting the new urban water conservation targets. Some municipal governments also run power utilities and are directly implicated in energy efficiency and renewable energy targets.

But even before the legal actions of the Attorney General's Office and the implementation of explicit state mandates in specific areas, many of California's local governments had voluntarily become active on climate policy. By 2006, 44 California cities had joined ICLEI's Cities for Climate Protection Campaign (CCP), an international initiative fostering local government climate action; most of the state's largest cities (Los Angeles, San Jose, San Diego, San Francisco, Oakland, and Sacramento) were members since the 1990s (Millard-Ball, 2012, Fig. 1). California communities were also among the early signatories to the US Conference of Mayors Climate Protection Agreement, launched in 2005, and aimed at coalescing local government efforts to reduce emissions and to spur state and federal action. Membership in these initiatives has steadily grown, even during the Great Recession. By late 2011, 27% of California's 478 cities and 58 counties (home to 50% of all residents) were signatories to the U.S. Conference of Mayors Climate Protection Agreement or the Sierra Club's "Cool Counties" program (a similar program for counties), and 36% of all cities (home to 47% of all residents) had joined ICLEI's CCP (author calculations using membership data from Mayors'

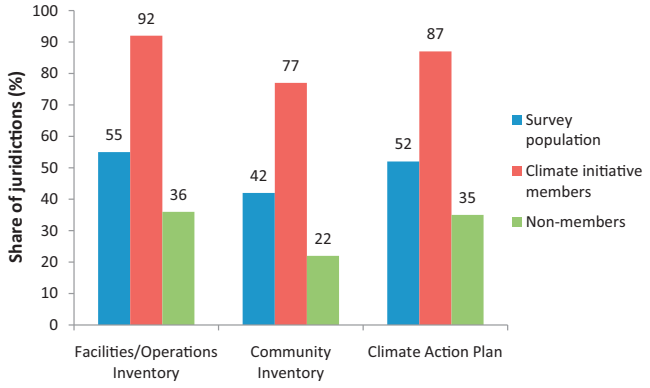

Fig. 1. Comprehensive climate policies and change initiative membership, 2008. *Notes*: The figure reports the share of jurisdictions with planned or completed activities in each area. Membership in a climate initiative is denoted by signing on to the Mayors' Conference agreement or being a member of ICLEI or the California Climate Action Registry. Sample size is 301 for inventories and 307 for climate action plans, and responses are adjusted to equalize regional response rates. For text of survey questions see Appendix.