REGIONAL CAP-AND-TRADE

LESSONS FROM THE REGIONAL GREENHOUSE GAS INITIATIVE AND WESTERN CLIMATE INITIATIVE Climate XChange | climate-xchange.org 131 Cambridge Street | Boston MA 02114

Cap-and-trade has had positive, but small, impacts to date. Both the Regional Greenhouse Gas Initiative (RGGI) and the Western Climate Initiative (WCI, covering California and Quebec) have reduced emissions while providing economic benefits to the region. But these impacts have been small compared to market forces and other state and federal policies.

REGIONAL GREENHOUSE GAS INITIATIVE

Market forces caused most of the RGGI emissions decline. Natural gas prices have dropped 70% since 2008, which had twenty times the impact of RGGI in facilitating the region's transition away from coal. Canadian hydro imports also cut emissions, but mainly due to their competitive

prices, not to RGGI.

RGGI has provided only a small fraction of energy efficiency funding. About 11% of efficiency funding in the RGGI region comes from the cap-and-trade program, as opposed to other rate charges on utility bills.

WESTERN CLIMATE INITIATIVE

The electricity sector has dominated emission declines under WCI. Despite WCI applying beyond electricity to transportation and heating fuels, most reductions since 2012 have been in the electricity sector.

\$35

(4) \$30

\$35

\$25

\$20

\$34.76

\$15

Drop in RGGI
Natural Price

Gas Price

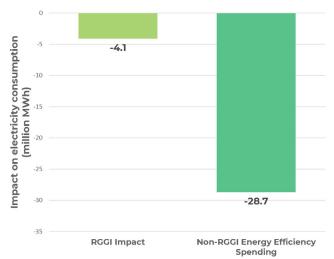
Transportation emissions continue to rise.

Two-thirds of California's electricity sector reductions were from imported electricity. Questions remain around the legitimacy of these reductions — emissions may be "leaking" to other states on the regional grid. One-third of California's electricity sector reductions happened in-state, which was driven by an explosion in solar and wind power, with the cost of solar deployment falling 80% since 2010.

Left Relative impact of RGGI vs falling natural gas prices in favoring gas over coal-fired generation



Above Regions Participating in RGGI and WCI | **Below** RGGI vs non-RGGI Impacts on Electricity Consumption



RECOMMENDATIONS

As currently designed, both systems will make insufficient contributions to reaching emission targets set by the states for 2030 and/or 2050. We make three policy recommendations:

Expand RGGI beyond electricity and tighten its emissions limit. Alternatively, the states could institute direct emission fees outside of the RGGI program.

Address overallocation and banking of allowances

in WCI. Emitters are currently purchasing surplus allowances worth hundreds of millions of tons of CO2 and saving them for future years, which could cause the program to miss its 2030 emissions target.

Use rebates to facilitate higher allowance prices. The programs should create a rebate structure, such that as the allowance price increases, so does the revenue returned to vulnerable residents and employers.