The Role of Higher Education in Achieving California’s Climate Goals
Margaret Minnick, California Air Resources Board
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Los Angeles 40 Years Ago

- Over 100 air pollution alerts per year
- Over 200 days/year with unhealthy air
Los Angeles Today

- Less than 10 air pollution alerts per year
- NO2, SO2, and CO: Attained National Standards
- Ozone:
  - Los Angeles peak cut over 60%
  - Hours of exposure reduced 90%
- PM10: Annual levels cut in half
45 Years of Technical Excellence

- Worldwide leaders
- CA’s air quality programs informed those of other jurisdictions
- Long history of collaboration with other jurisdictions
- Climate change programs leading the world
#Under2MOU

www.under2mou.org

127 jurisdictions
729 million people

27 countries
$20.4 trillion GDP

6 continents
+ 25% of world GDP

Subnational Global Climate Leadership Memorandum of Understanding
How Cities and States Took the Spotlight in Paris Climate Talks

Justin Worland / Paris @justinworland
Dec. 8, 2015

California Gov. Jerry Brown leads the charge for local governments hoping to combat climate change

Jerry Brown may not be a world leader, but he’s the talk of the town in Paris at what organizers hope will be the most significant international gathering ever on climate change.

The New York Times

Nat'l govts alone cannot adequately fight #climatechange, says @CFigueres
bit.ly/1QB1vS3 #COP21 #Under2MOU

Arresting climate change is too complex, too important, too critical, too urgent to rest only on the shoulders of those who are already acting. In that sense, this is a very, very clear call with Governor Brown to encourage other stakeholders to also put their shoulder to the wheel.
Decoupling GDP & GHG

Change in California GDP, Population and GHG Emissions since 2000

- GDP
- Population
- GHG Emissions
- GHG Emissions per Capita
- GHG Emissions per GDP

Associated 2013 Value
- GDP: 2.05 trillion (2009 $)
- Population: 38.2 million
- GHG Emissions: 459.3 MMTCO₂e
- GHG Emissions per Capita: 12 metric tons CO₂e per person
- GHG Emissions per GDP: 224 metric tons CO₂e per million dollars
CALIFORNIA CLIMATE STRATEGY

An Integrated Plan for Addressing Climate Change

VISION

Reducing Greenhouse Gas Emissions to 40% Below 1990 Levels by 2030

GOALS

- 50% reduction in petroleum use in vehicles
- 50% renewable electricity
- Double energy efficiency savings at existing buildings
- Carbon sequestration in the land base
- Reduce short-lived climate pollutants
- Safeguard California
CALIFORNIA CLIMATE STRATEGY

PRINCIPLES

Create jobs

Transform to a clean energy economy

Save water

Support vulnerable communities

Give consumers clean energy choices

Make California more resilient
Partnersing with Higher Education

- Universities play critical roles:
  - Educating the workforce
  - Conducting groundbreaking research
  - Facilitating exchange of best practices
  - Pushing the policy envelope
Partnering with Higher Education

UCLA Air Quality Management Training Program

- Weeklong training program targeted to Chinese government and business personnel
- Shares California’s experience in combining science and public policy
- Presented by Institute of the Environment and Sustainability in partnership with ARB and SCAQMD

Partnering with Higher Education

- CSU Long Beach Office of International Training Programs
- Partners with ARB to develop and host training programs
- Customized programs in a variety of subject areas
Research Supports Climate Programs

California Baseline Ozone Transport Study (CABOTS)
- Three-month research project
- ARB, NOAA, NASA and San Jose State University scientists
- SJSU scientists to measure ozone coming into California from Asia
Research Supports Climate Programs

- ITS-Davis partners with industry, government, and environmental community
  - More information: https://its.ucdavis.edu/

- US-China ZEV Policy Lab
  - Partnership of ARB, ITS-Davis, and China Automotive Technology & Research Center
  - More information: http://chinacentral.ucdavis.edu/

- Transportation Research Board
  - More information: http://www.trb.org/
Campus Sustainability Programs

- Energy Efficient Buildings
  - CSU Fullerton’s LEED Platinum Student Housing Complex
  - UC Davis West Village

- Faculty/Student-run Projects
  - Sacramento State’s Sustainable Technology Optimization Research Center (STORC)

- System-wide Initiatives
  - UC Carbon Neutrality Initiative
Working Together for Climate

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