CDC Climat Research-Ifri Climate Breakfast Roundtable

Towards COP21: California's Perspective

Hôtel de Pomereu de la Caisse des Dépots
11:30 – 13:00, Friday 3 July 2015

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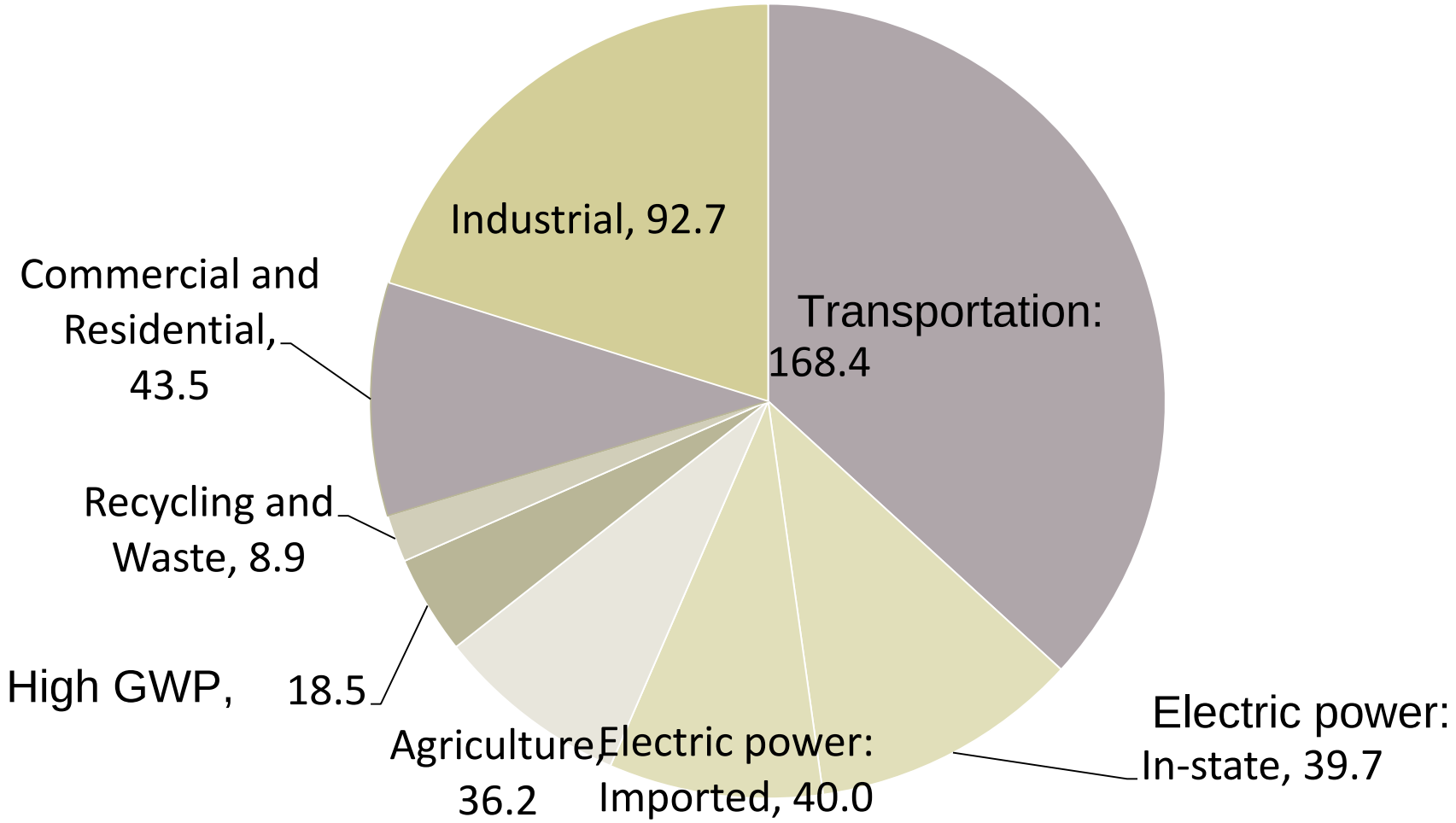
Today's Presentation

- California's mitigation and adaptation policies: the basics
- The functioning of the carbon pricing market in California
- California's involvement on the role of sub-national actors in the international climate change negotiations in the lead-up to COP21 in Paris

California Environmental Protection Agency (CalEPA)

CalEPA's Mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality.

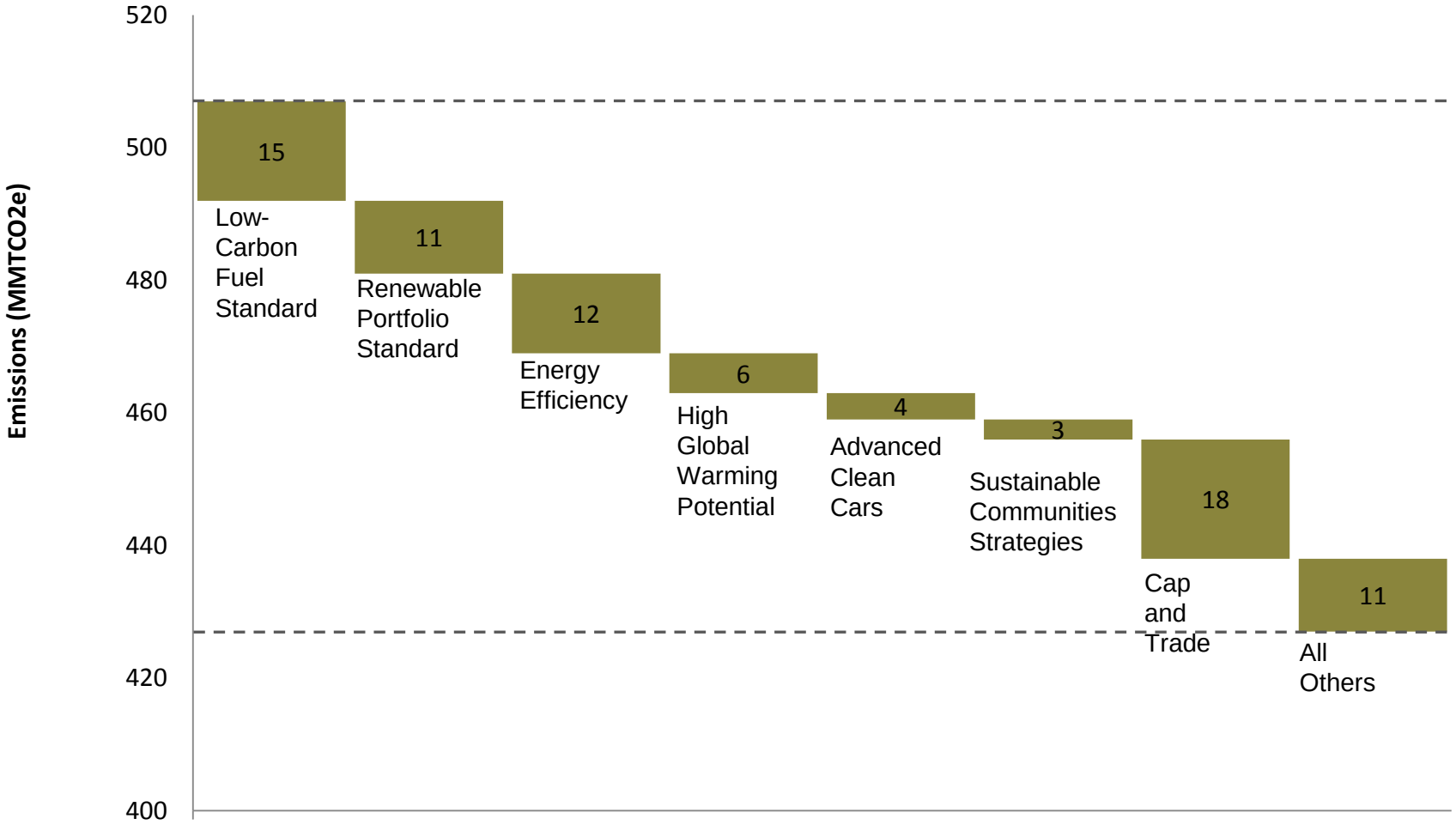
California GHG Emissions, 2013
Total: 459.3 million metric tons CO_2e



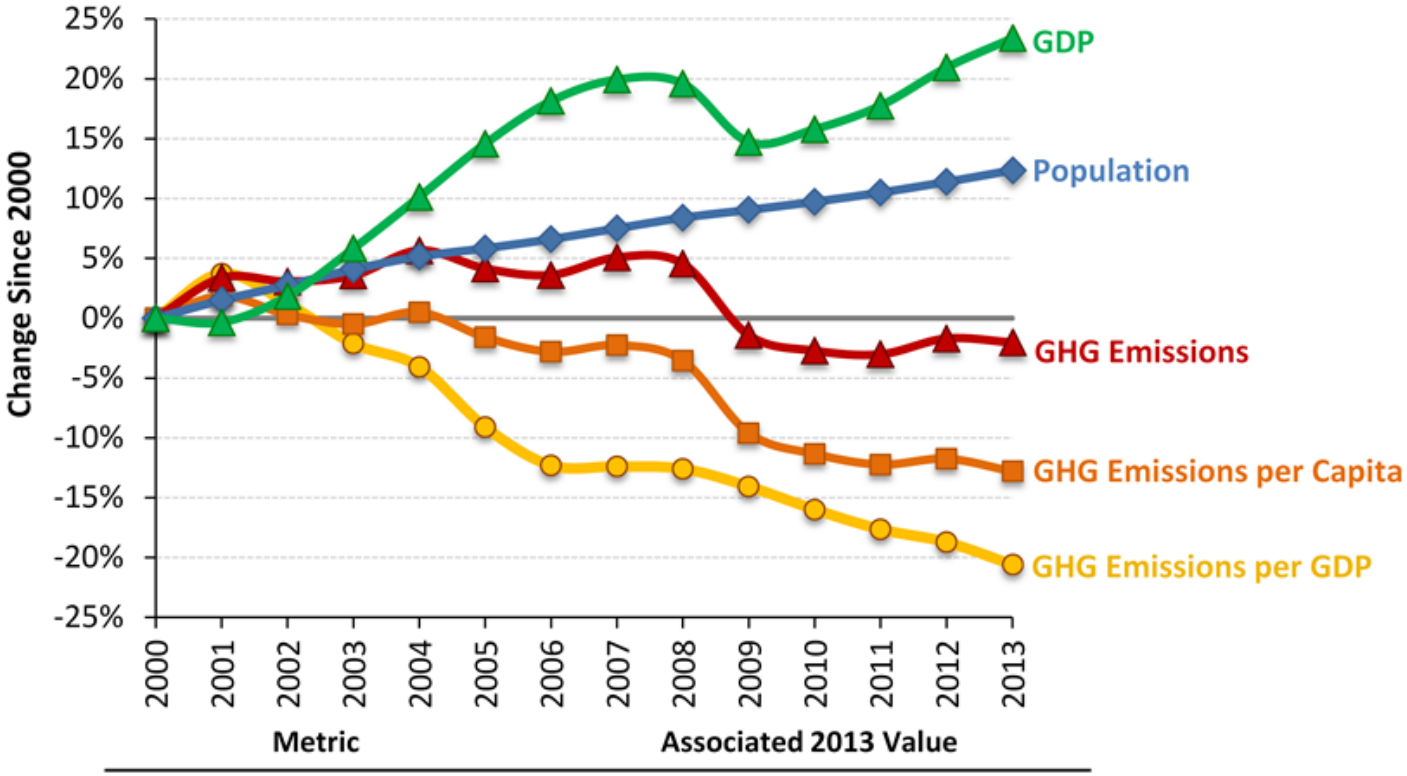
Assembly Bill (AB) 32

- California Global Warming Solutions Act of 2006
- Sets target of 1990 emission levels by 2020; “maximum technologically feasible and cost-effective” reductions
- California’s Air Resources Board (ARB) given primary responsibility for implementation
- Scoping Plan and updates required
- Requires consultation with other jurisdictions and development of “integrated and cost-effective” programs

Calculated Emissions Reductions from Regulations



Change in California GDP, Population and GHG Emissions since 2000



Metric	Associated 2013 Value
GDP	2.05 trillion (2009 $)
Population	38.2 million
GHG Emissions	459.3 MMTCO$_2$e
GHG Emissions per Capita	12 metric tons CO$_2$e per person
GHG Emissions per GDP	224 metric tons CO$_2$e per million dollars

Source: ARB, 2015

California Employs a Comprehensive Suite of Climate Change Programs

- Vehicles: greenhouse gas standards for cars, Zero-Emission Vehicles (ZEVs) targets and incentives, Low-Carbon Fuel Standard (LCFS), standards for freight and heavy duty vehicles
- Energy: 33% Renewable Portfolio Standard by 2020, energy storage requirement of 1.3GW by 2020
- Building and appliance energy efficiency policies and programs, including
- Direct regulation of high global warming potential gases and development of SLCP strategy later this year
- SB 375/regional transportation targets, high-speed rail, transit oriented development and sustainable community strategies
- Cap-and-trade

California's 2030 & 2050 Climate Goals

By issuing Executive Order B-30-15 earlier this year, Governor Brown established the most Ambitious GHG reduction target in north America, aiming at 40% emission reduction below 1990 levels by 2030.

Proposed "5 Pillars" to achieve this goal:

1. Increase electricity derived from renewable resources to 50 percent
2. Reduce petroleum use in cars and trucks by up to 50 percent
3. Double energy efficiency achieved at existing buildings, and heating fuels cleaner
4. Reduce the release of short-lived climate pollutants, such as methane and black carbon
5. Increase carbon sequestration in California's forests and natural and working lands

~California also has a goal of reducing GHG emissions 80% by 2050~

California's Adaptation Policies

- Led by the **California Natural Resource Agency**
  - California Climate Adaptation Strategy (2009)
  - California Climate Adaptation Strategy First Year Report (2010)
  - California Climate Adaptation Planning Guide (2013)
  - Safeguarding California Plan (2014)

California's Cap-and-Trade Program
1 of 2

- The cap covers electricity generation, industrial combustion and process emissions, residential and commercial natural gas, and transportation fuels, accounting for ~85% of California's GHG emissions
- Sets a firm and declining cap to meet 1990 levels in 2020
- Electricity generation and imports, and industrial combustion and process emissions covered starting 2013
- Transportation fuels, remainder of natural gas covered starting 2015
- Allocation includes some free allocation for trade/leakage exposed sectors and to protect electricity consumers from price impacts

California's Cap-and-Trade Program 2 of 2

- Allowances not freely allocated are sold at auction
- 11 auctions to date, ~$2.2 billion placed into the GHG Reduction Fund that is being reinvested back into further emission reductions, with 25% minimum required to be spent in disadvantaged communities
- Offsets: entities may use offsets to satisfy up to 8% of their covered emissions
- Price floor: price floor sets a minimum price at which allowances clear at auction; price increases annually to track inflation
- California's market linked with Québec's ETS in 2014; so far joint auctions and trading have taken place successfully

California's International Climate Engagement

- Why engage internationally?
  - Climate change is an international challenge that requires cooperation; California is responsible for less than 1% of global GHGs but we believe in the importance of making our fair contribution to the solutions and to working with others who want to do the same
  - Sharing information, experiences and lessons learned can help California create better policies and others can learn from our efforts (and mistakes)
  - California has a history of demonstrated leadership on environmental issues including climate change; engaging internationally elevates this leadership on the global stage
  - Trade and investment opportunities exist for California's cleantech and low carbon industries and international engagement can open doors to enhance these

California's International Climate Engagement

- **China:** We have MOUs with the Chinese national government on low-carbon development and air pollution (NDRC and MEP); and with Chinese subnationals including Guangdong, Shenzhen, and Beijing on emissions trading, vehicles and air quality
- **Mexico:** last year, we signed MOUs with Mexico on energy and environmental issues, including climate change;
- We have linked our greenhouse gas cap-and-trade program with **Québec's**, and **Ontario** has expressed interest in joining as well
- We have bilateral agreements with **Israel, the Netherlands, Peru, Japan** and others on topics ranging from water conservation to zero emission vehicles, high speed rail, and adaptation
- **Pacific Coast Collaborative:** with Oregon, Washington, and British Columbia, we work on a variety of climate-related issues, including carbon pricing, low carbon fuels, and low carbon transporation

Under2MOU

- So called because it has the goal of keeping global warming to below 2 degrees Celsius; and because signers agree to 2050 greenhouse gas emissions of below 2 tons per capita, or reductions of 80 – 95% from 1990 levels

- As of this week there are 17 signatories from 4 continents and 9 countries, including from the US, Canada, Mexico, Brazil, Spain, France, Germany, the UK, and Nigeria

- Together, the signatories represent approximately 123 million people, and a GDP of $5 trillion, equal to the 3rd largest economy in the world

- We expect those numbers to grow, and we are actively inviting other leading subnationals to join before Paris

Importance of Subnationals on the Road to Paris

- According to UNDP, 50-80% of the mitigation and adaptation actions necessary to tackle climate change will be implemented at the subnational or local levels of governance
- Subnationals as the “laboratories” of policy innovation
- Subnationals as the primary implementers of many types of policies, including in the areas of air quality; transportation; energy and energy efficiency; the built environment; natural lands, etc.
- Subnationals can respond to local conditions and tailor policies for effectiveness and equity
- States are the critical link in the vertical integration of climate policies between national and local governments
- Subnationals are also on the front lines for adaptation
- California and other subnationals are already demonstrating that economic growth and environmental protection are complementary

‘Asks’ of Subnationals in Paris

- More formally recognize efforts like the Under2MOU that are driving collective emission reduction ambition
- Institutionalize a lasting role for subnational governments in the climate process that more equally recognizes the important role we can and do play in addressing climate change
- Recognize the mitigation ambitions of subnationals and identify ways to vertically integrate these into the commitments of national governments
- At a minimum, let subnationals in the room (currently many participate through NGO partners because there is no formal recognition of subnationals by the UNFCCC)

THANK YOU