

STEPS SYMPOSIUM – SPRING 2016
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China and California: collaboration on ZEVs and other policies

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 **Air Resources Board**

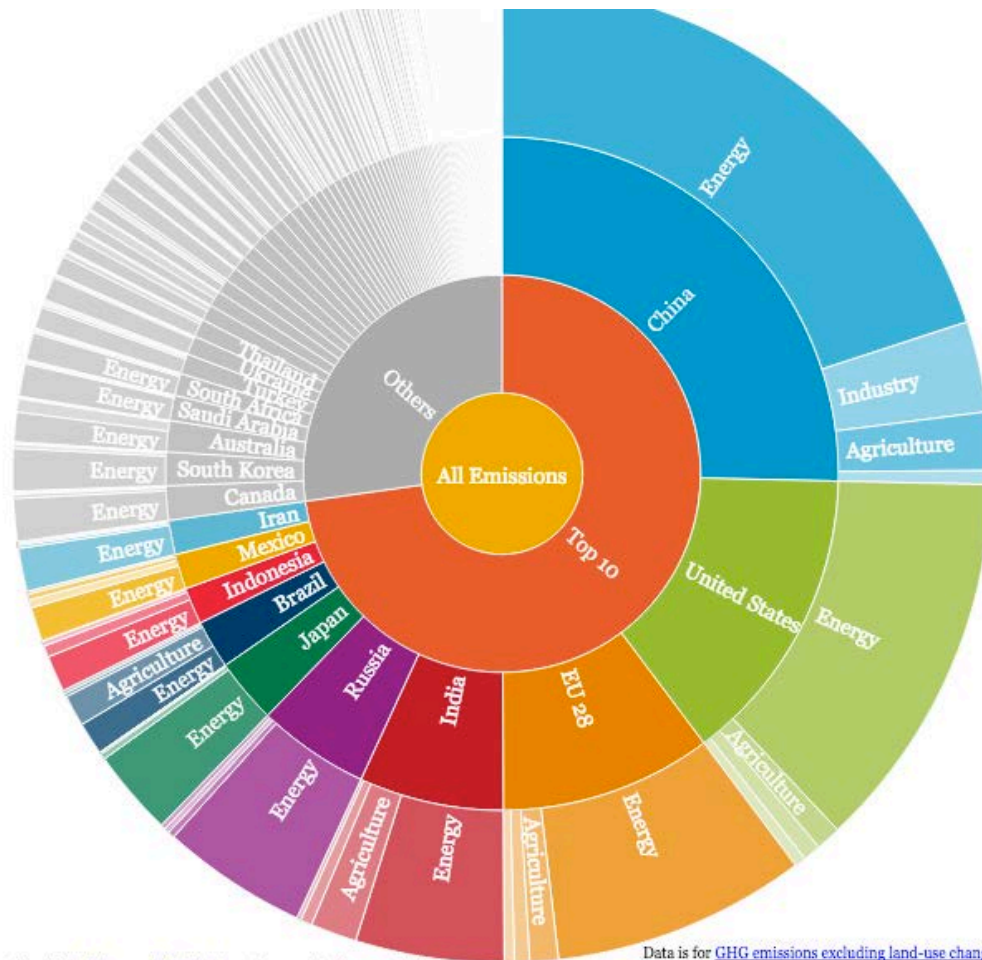
California's growing engagement with China



June 8, 2013

- Bi-lateral cooperation and collaboration on science, technology, and policies in environmental protection – air quality, climate change, energy and environment
- Several general agreements with central government and provincial and municipal governments
- *The power of sub-national action*
- Government-to-government engagement assisted by strong actions by NGOs, academia, other stakeholders

Driving factors for engagement:



Graphic by [Johannes Friedrich](#) based on work by Duncan Clark, [Kilin, Mike Bostock](#) and [Jason Davies](#). Thanks also to Jamie Cotta.

Data is for [GHG emissions excluding land-use change and forestry](#) and excluding bunker fuels. The EU is considered an emitter for this graph. For more information visit our [WRI blog](#).

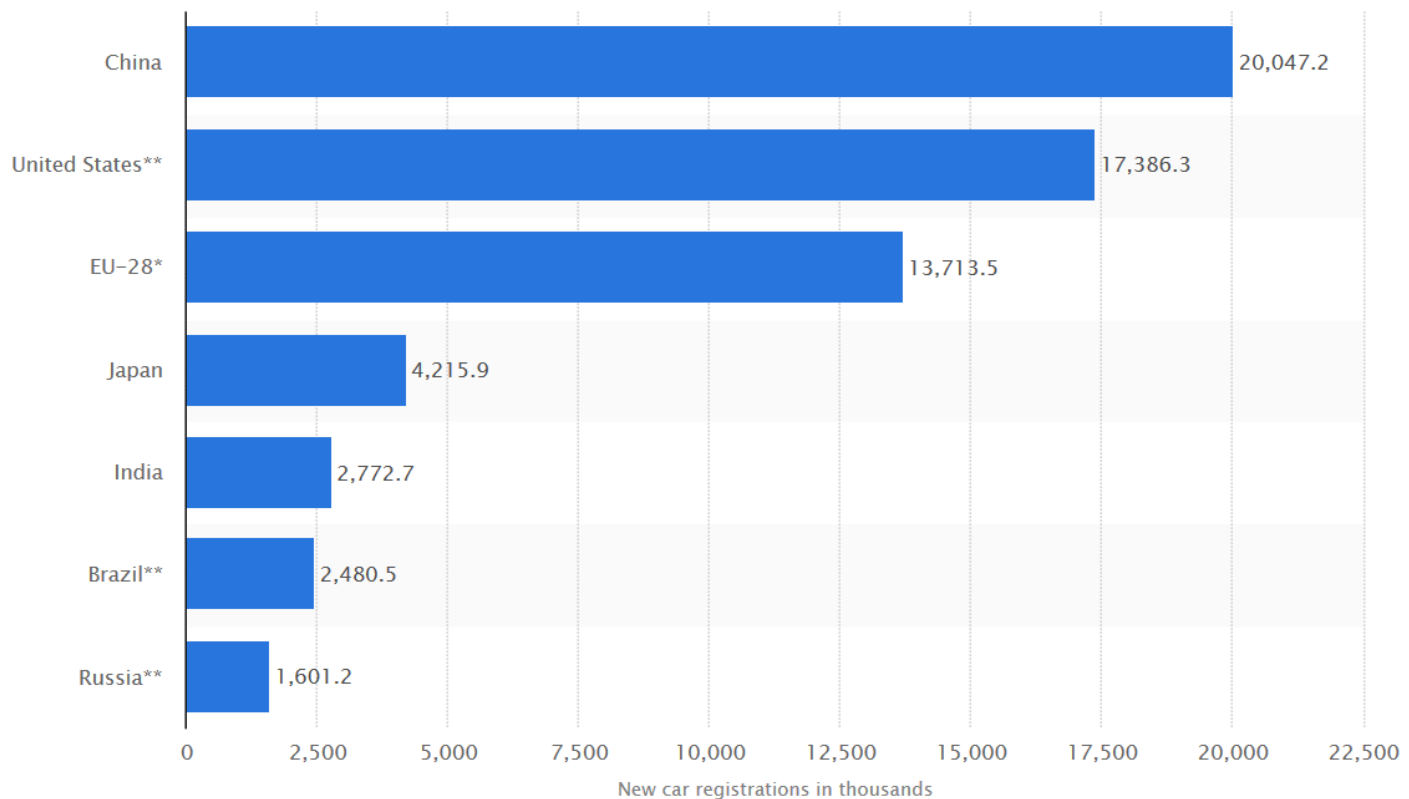
Emissions

Air pollution



- ▣ 2013 “airpocalypse”
- ▣ Major turning point
- ▣ Multiple days of hazardous air pollution
- ▣ Peak hour concentrations of $900 \mu\text{g}/\text{m}^3$

Largest car market in the world



2015 new car registrations

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Scope of CARB's collaboration

- Collaboration with central government, its ministries and commissions (e.g., NDRC, MEP, MITT, CATARC, VECC)
- Strong partnership with Beijing ("*the California of China*") and other provincial governments (e.g., Beijing EPB)
- Vehicle tailpipe and evaporative emissions
 - CARB's vapor recovery program
- Standard-setting, implementation, compliance, enforcement
 - In-use emissions, I/M, car scrap
- Particular interest in and exchange on OBD



Scope of CARB's collaboration – cont'd

- Light-duty vehicles:
 - Sharing LEVIII experience for getting to SULEV fleet in 2025
 - The value of the LEV regulation for Beijing
 - Beijing 6 would have reduced emissions by approx. 65%
- On-road heavy-duty: clean diesel, DPFs for new and retrofit applications, and California's diesel control program
 - Efficiency improvements (i.e., GHG)
- Marine and port emissions and ship fuels
- Climate change: carbon trading, GHG emission reporting
- Air quality management, monitoring



Scope of CARB's collaboration – cont'd

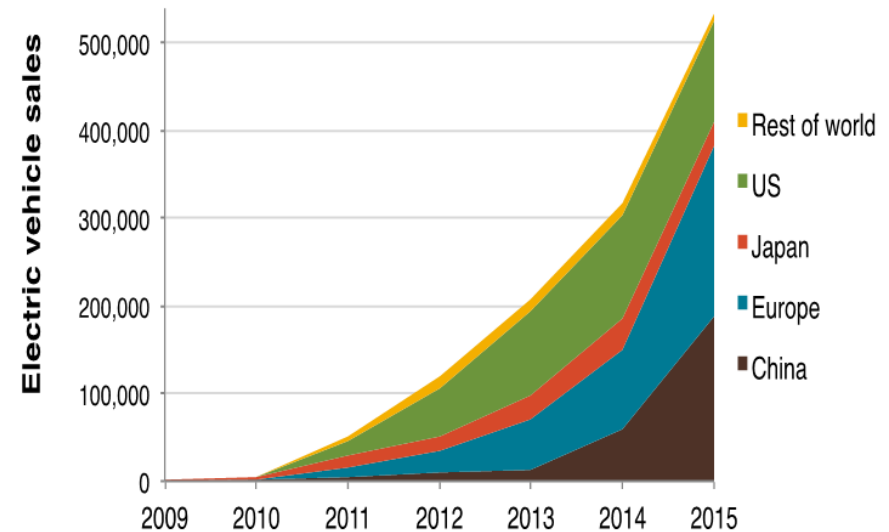
- China's 13th Five-Year Plan (2015-2020) for National Economic and Social Development
 - 48% cut in economy carbon intensity from 2005 by 2020
- China's 13th Five-Year Plan (2015-2020) for National Environmental Protection
- Off-road and SLCPs: a key priority for China state council
 - CCICED - China Council for International Cooperation on Environment and Development
 - CCICED 2015 Special Policy Study (SPS)
 - Coordinated Actions for Addressing Climate Change and Air Pollution



1 MILLION ZEVs*



- ▣ China's key role in global ZEV market uptake
- ▣ California lessons and ideas for China's New Energy Vehicle policies
 - ▣ The ZEV Mandate
 - ▣ Barriers and opportunities for ZEV adoption
 - ▣ Incentives
 - ▣ ZEV credits and carbon trading
- ▣ Regulatory structure, requirements, banking and trading



Source: ZEV Alliance

*200K+ in CA, 440K+ in US

A new trans-Pacific EV initiative - China-US ZEV Policy Lab at UCD/ITS

- ▣ Partnership between UCD-CATARC
- ▣ Under expert leadership of Dr. Yunshi Wang
- ▣ NDRC and CARB advisors
- ▣ Support collaboration of automakers and government for mass Chinese consumer adoption of ZEVs in
- ▣ For California, initiative expands global ZEV market

HD-ZEVs

PRESS-TELEGRAM

EMISSIONS-REDUCTION TECHN

News ▾ Sports ▾ Entertainment ▾ Lifestyle ▾ Obituaries ▾ Opinion ▾ Special Reports ▾

Home News Emissions-reduction technology

State awards millions for project to clean up dirty trucks that serve Port of Long Beach, Los Angeles



The state announced it is awarding \$23.6 million for a program to reduce emissions from dirty trucks. (File photo.)

- ▣ California Climate Investments
- ▣ 43 zero-emission battery electric and plug-in hybrid drayage trucks
- ▣ BYD, Kenworth, Peterbilt and Volvo.



The Importance of Zero Emission Buses

- US-China Race to Zero Emissions (RZE)
- China MOT and US State Dept under US-China Climate Change Working Group
- Friendly competition – most ZEBs by 2025
- Promote awareness and deployment
- Relevant CARB policy – Clean Transit Rule



Thank you!

