



California Public Utilities Commission Committee on Finance and Administration



Report on Strategic Directive 06: Climate Change & Environmental Sustainability

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Strategic Directive 06

Climate Change & Environmental Sustainability

The CPUC has significant responsibility for implementing the state's environmental stewardship responsibilities and reducing greenhouse gas (GHG) emissions through its decisions and leadership for the long-term benefit of California's residents, ecosystems, climate and economy.

Within its jurisdictional authority, the CPUC will:

1. Further California's goal to reduce GHG emissions to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050;
2. Consider adaptation to the impacts of climate change in CPUC decisions and assure that activities by CPUC-regulated entities are so informed;
3. Fulfill the CPUC's responsibilities to implement specific state mandates applicable to the CPUC related to environmental sustainability;
4. Explicitly recognize the importance of environmental sustainability and environmental justice through the CPUC's regulatory oversight of entities whose activities affect the environment.





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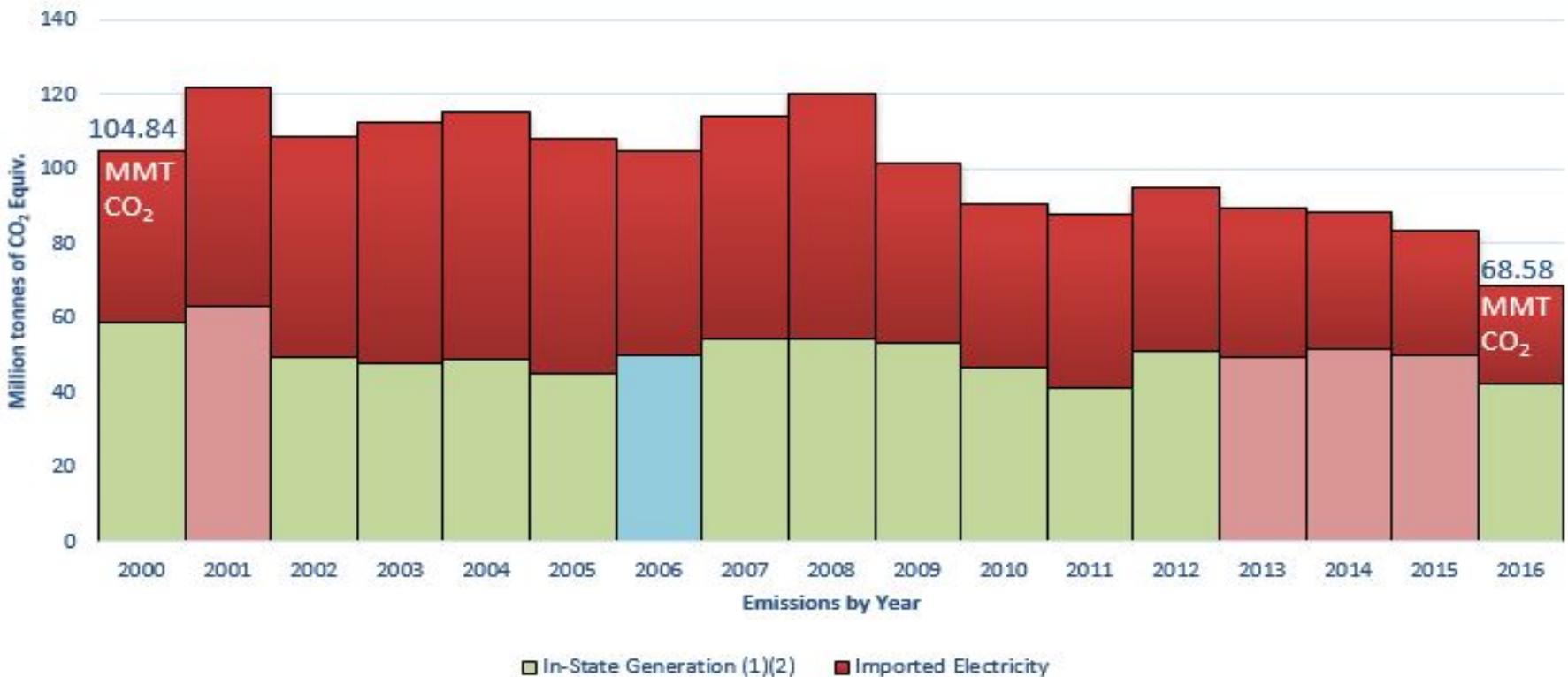
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Reduce GHG Emissions – Electric

Electric Sector Emissions Changes, 2000-2016



- (1) Includes natural gas used to generate electricity
 (2) Blue = top 20% hydro-generation year
 Pink = bottom 20% hydro generation year since CEC records began in 1983

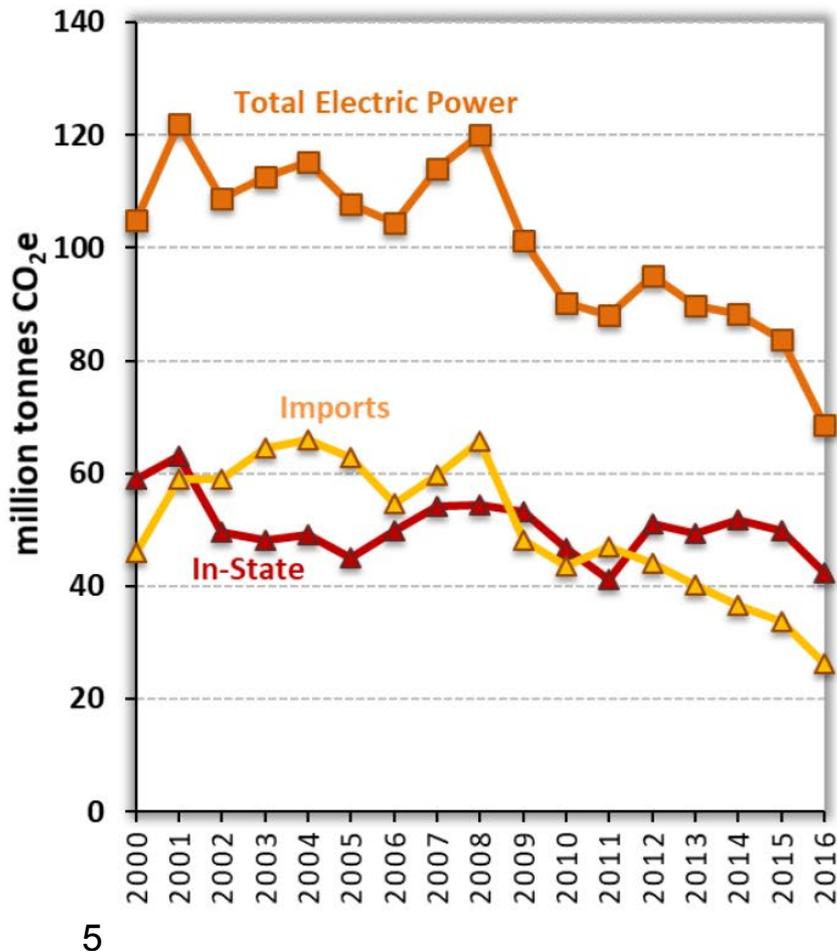
Source: CARB's most recent (2018) GHG Inventory for 2000-2016. Numbers for 2017+ not yet available.



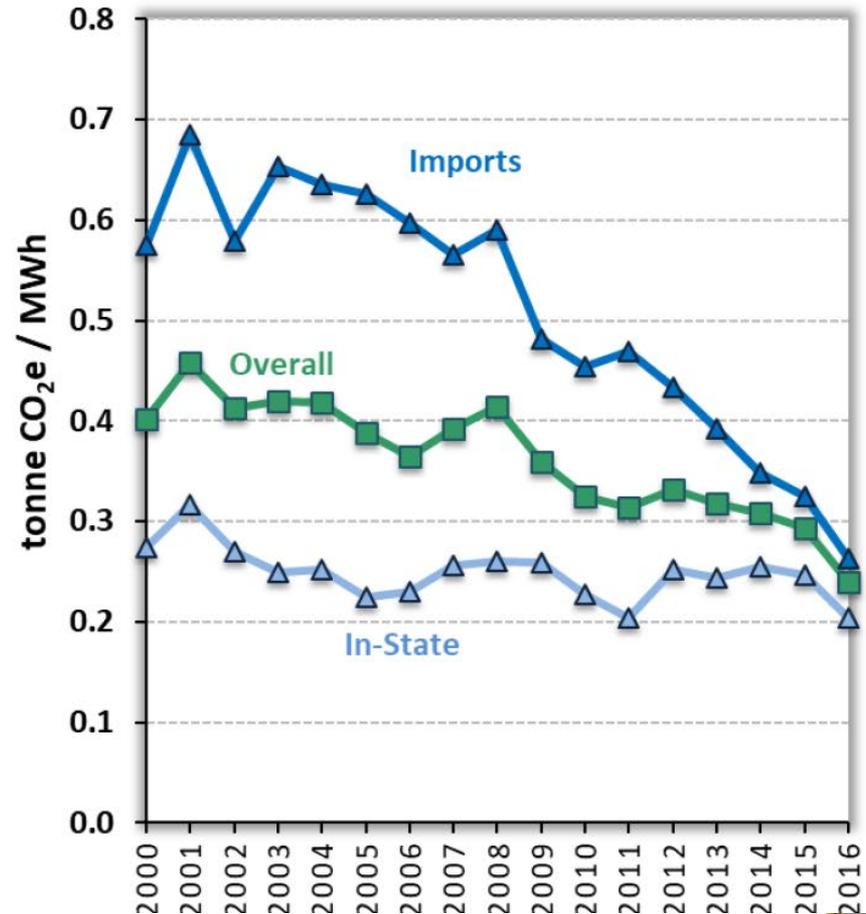


Reduce GHG Emissions - Electric

GHG Emissions



GHG Intensity



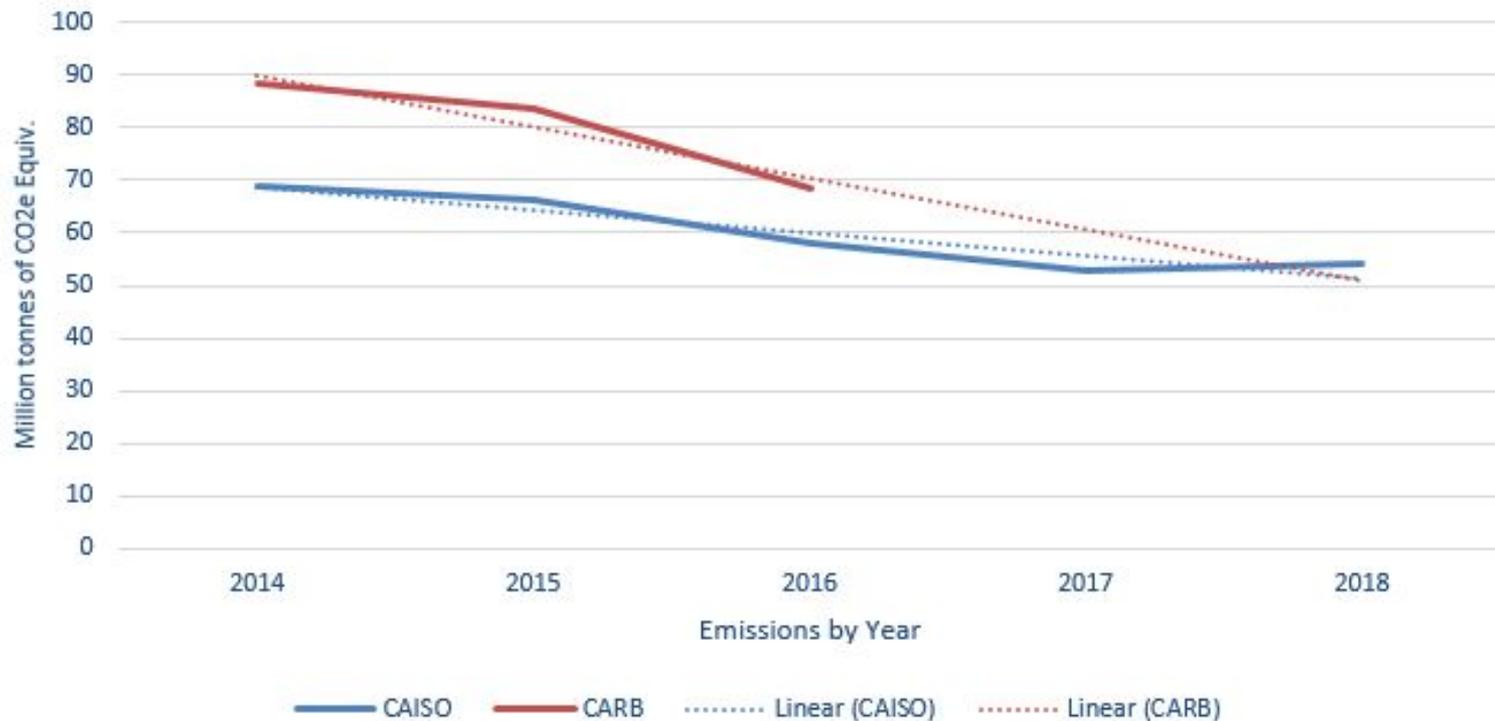
Source: CARB's 2018 Edition, California Greenhouse Gas Emission Inventory: 2000 - 2016





Reduce GHG Emissions - Electric

CARB and CAISO Electric GHG Data



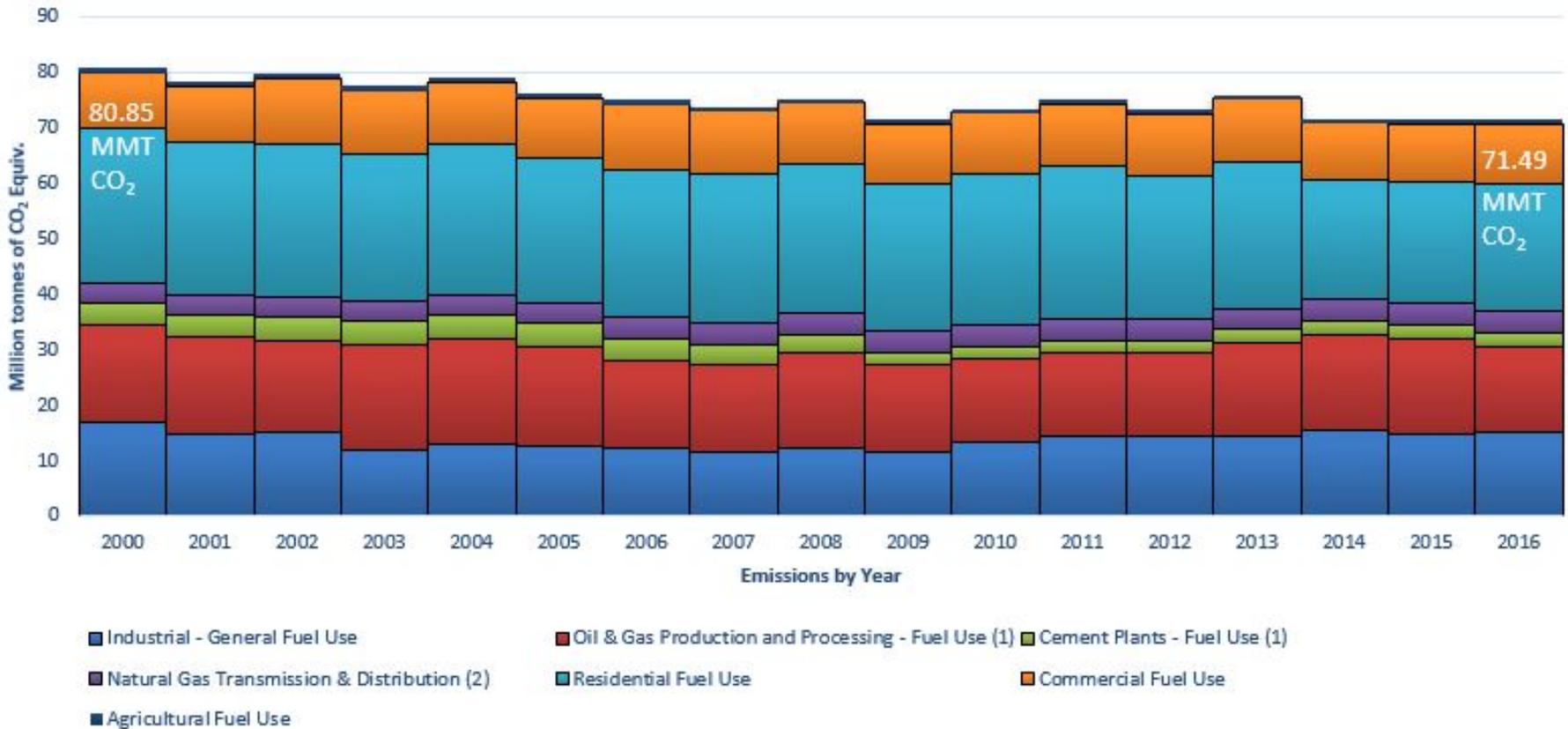
CAISO represents approximately 80% of state-wide electrical load. While CARB's data are official for GHG-tracking purposes, CAISO data can provide an early snapshot of trends.





Reduce GHG Emissions – Gas

Natural Gas Sector Emissions Changes, 2000-2016



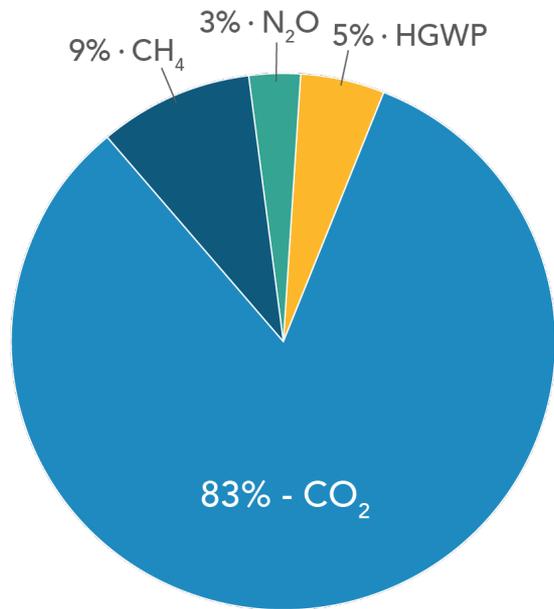
(1) Reflects emissions from combustion of natural gas, diesel, and lease fuel plus fugitive emissions.
 (2) Excludes Aliso Canyon

Source: CARB's most recent (2018) GHG Inventory for 2000-2016. Numbers for 2017+ not yet available.

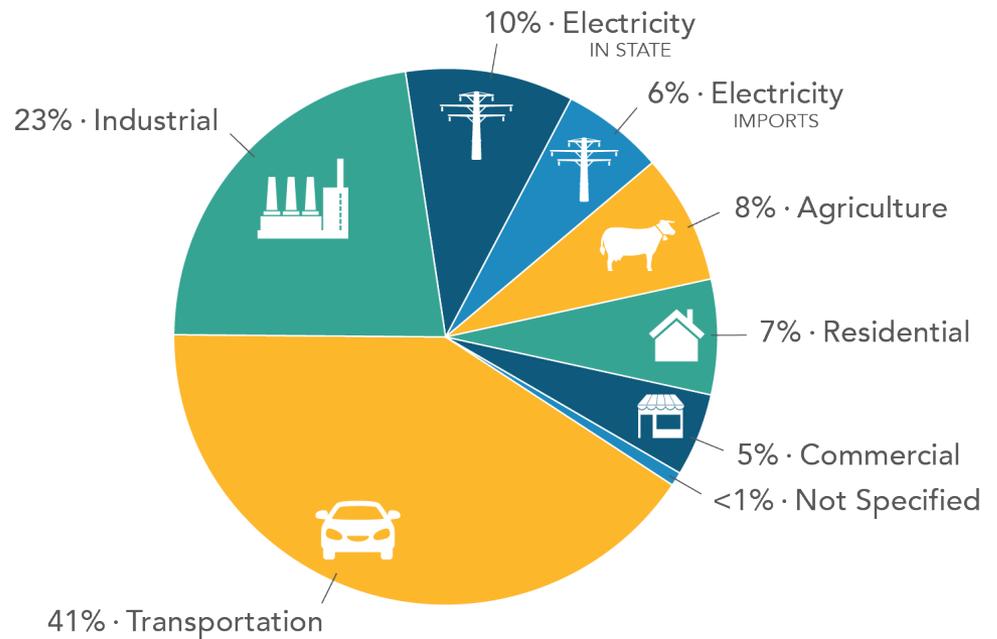




California Greenhouse Gas Emission Inventory (California Air Resources Board 2018 Edition)



429.4 MMTCO₂e
2016 TOTAL CA EMISSIONS



429.4 MMTCO₂e
2016 TOTAL CA EMISSIONS





Transportation Network Companies (TNCs)

- The Commission regulates the operations of private passenger carriers in California, including TNCs (e.g. Lyft, Uber), and nearly 7,000 other transportation carriers.
- Eighteen (18) TNCs are currently licensed in California. Uber and Lyft provide the vast majority of TNC trips in California.
- Nearly 400 million TNC trips occurred in California in 2017-18. TNC rides increased by more than 349% in the 2017-18 reporting period compared with the 2014-15 period.
- San Francisco County Transportation Authority (SFCTA) estimated that TNC vehicles drive approximately 570,000 vehicle miles within San Francisco on a typical weekday, accounting for 20% of all local daily vehicle miles traveled.





California Clean Miles Standard

SB 1014 (Skinner, 2018)

The California Clean Miles Standard establishes targets and goals, developed and implemented by CARB and CPUC, for the reduction of GHG emissions per “passenger-mile” driven from TNCs by January 1, 2020.

- **2020**: CARB establishes the GHG emissions baseline for TNCs set by January 1, 2020.
- **2021**: CARB sets targets and goals, for implementation by CPUC by January 1, 2021, for reducing TNC GHG emissions below the established emissions baseline.
- **2022**: TNCs must develop and submit GHG reduction plans by January 1, 2022 and every 2 years afterwards.
- **2023**: TNCs must begin reducing emissions in accordance with the targets/goals and their GHG emissions reduction plans.





Current Work on Clean Miles Standard

CPUC staff work closely with CARB on development of the TNC emissions baseline.

- TNC Data Collection: Collecting and reviewing data on TNC operations in 2018 to calculate GHG emissions baseline – involves frequent meetings with CARB and TNCs regarding data analysis.
- CARB Workshops and Working Groups: Participating in public workshops and “Expert Working Group” meetings hosted by CARB in connection with its rulemaking process.
- Meetings Every Two Weeks: Meeting with CARB staff every two weeks to collaborate and coordinate on program implementation – meetings include Consumer Protection and Enforcement Division & Energy Division staff.





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Climate Change Adaptation

- **Adaptation Rulemaking Ongoing**
- **Scoping Memo issued October 2018**
- **Held working group meetings**
 - Definition of Climate Adaptation for utilities.
 - Climate Data, Models, and Tools.
 - Needs of vulnerable and disadvantaged communities.
- **Future working group meetings**
 - Guidelines for utility climate adaptation assessment & planning.
 - Framework for climate-related decision-making & accountability.
- **Link to other proceedings**

Proposed staff definition: “Strategic and data-driven consideration and incorporation of current and likely future climate-driven risks into utility planning, operations, and communications, in order to maintain safe, reliable, affordable, and resilient operations, in alignment with state policy goals.”





Climate Change Adaptation – Water Division

- **Sustainable Groundwater Management Act (SGMA)**
 - The CPUC is assisting Water IOUs in their participation with Groundwater Sustainability Agencies (GSAs) to implement SGMA
- **Emergency Preparedness and Response Plans**
 - R.15-06-009:
 - Will establish standards for Disaster and Emergency Preparedness Plans for electrical corporations and regulated water companies
 - Pursuant to Public Utilities Code Section 768.6.
 - Class-A Water IOUs are participating in this CPUC proceeding
 - A decision is expected by year-end 2019
 - Jurisdictional Class-A water utilities have filed plans at the CPUC





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Implementing State Mandates – Energy

- **California Environmental Quality Act**

- Review applications for gas, water, and telecom projects.
- 2018: 15 utility filings for CPUC review; monitored 30 projects.

- **AB 32 (2006) and SB 32 (2016) Cap-and-Trade**

- IOUs distribute Climate Credit and other customer credits.

- **SB 350 (2015)**

- Integrated Resource Planning.
- Renewables Portfolio Standard.
- Transportation Electrification.
- Energy Efficiency.





Implementing State Mandates - Energy

- **SB 1477 (2018) Building Decarbonization**
 - Opened a proceeding in January 2019
- **SB 1371 (2014) Methane Leaks**
 - Methane Leak Proceeding is adopting rules and procedures to minimize leaks
 - CPUC/CARB Annual Report on utility natural gas leaks and emissions
 - Emissions in 2017 decreased by 3% from the 2015 baseline
- **Biomethane**
 - SB 1383 (2016): Commission funded the construction of pipelines to transport biomethane from six dairy biomethane producers to the pipeline system
 - SB 840 (2016): Commission reevaluated and made some updates to standards for injecting biomethane into pipelines





Implementing State Mandates – Water

- **Water Meters**
 - Water Code Section 527.
 - IOU water utilities on track for full compliance by 2025.
- **Water Conservation**
 - IOUs: 21.4% savings since June 2015.
 - Statewide: 18.6% savings since June 2015.
- **Making Water Conservation a Way of Life**
 - Agency Coordination Team Member.
 - AB 1668 / SB 606 Implementation.





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Environmental Justice

- **California Environmental Justice Alliance Agency Assessment**

- CPUC's 2018 Grade: B+.

- **Disadvantaged Communities Advisory Group**

- Initiated in 2018 pursuant to SB 350.
- Advises CPUC and CEC on clean energy programs.

- **Environmental and Social Justice Action Plan**

- Considers environmental and social justice throughout all areas of Commission work.
- Approved in January 2019.
- Implementation ongoing.





Environmental Sustainability

- **Water Action Plan**
 - Water Conservation at top of the Loading Order to meet new demand.
 - Decoupling of revenues from sales.
 - Greater revenue recovery through quantity rates.
 - Provides conservation signal to customers
- **Greater Water Conservation Spending**
 - Messaging.
 - Equipment: Faucets, Shower Heads, Toilets, etc.
- **Consolidation of Small Water Systems**
 - 96 water utilities, down from 134 in 2007.
 - 5 pending acquisitions; more expected.





Environmental Sustainability

- **Low-Income Programs**
 - R.17-06-024.
 - SWRCB.
 - AB401 - Statewide Low-Income program
- **Water Affordability Standard**
 - R.18-07-006.
 - Decision expected by year-end.
- **School Lead Testing**
 - Assembly Bill 746 – July 2019 deadline.
 - IOUs: 92% tested.
 - Public Agencies: 62% tested.





Compliance with Strategic Directive 06

- CPUC staff believe the organization is substantially in compliance with SD 06.





Questions?





Backup Slides





Emissions Associated with Natural Gas System Leaks

Table 1: Total SB 1371 Sector Emissions, 2015-2017

Sector Emissions	2015 Baseline	2016	2017	2015 Baseline to 2017 Change		2016 to 2017 YOY Change	
				MMscf	%	MMScf	%
Volume of Natural Gas (MMscf)	6,601	6,267	6,399	(202.5)	(3.1%)	132.0	2.1%
Mass Equivalent, 100-Yr GWP, AR 4 (MMTCO ₂ e)	2.96	2.81	2.86	(0.1)	(3.2%)	0.05	2.0%
Mass Equivalent, 20-Yr GWP, AR 4 (MMTCO ₂ e)	8.51	8.08	8.25	(0.3)	(3.0%)	0.17	2.1%

