

The Next Chapters

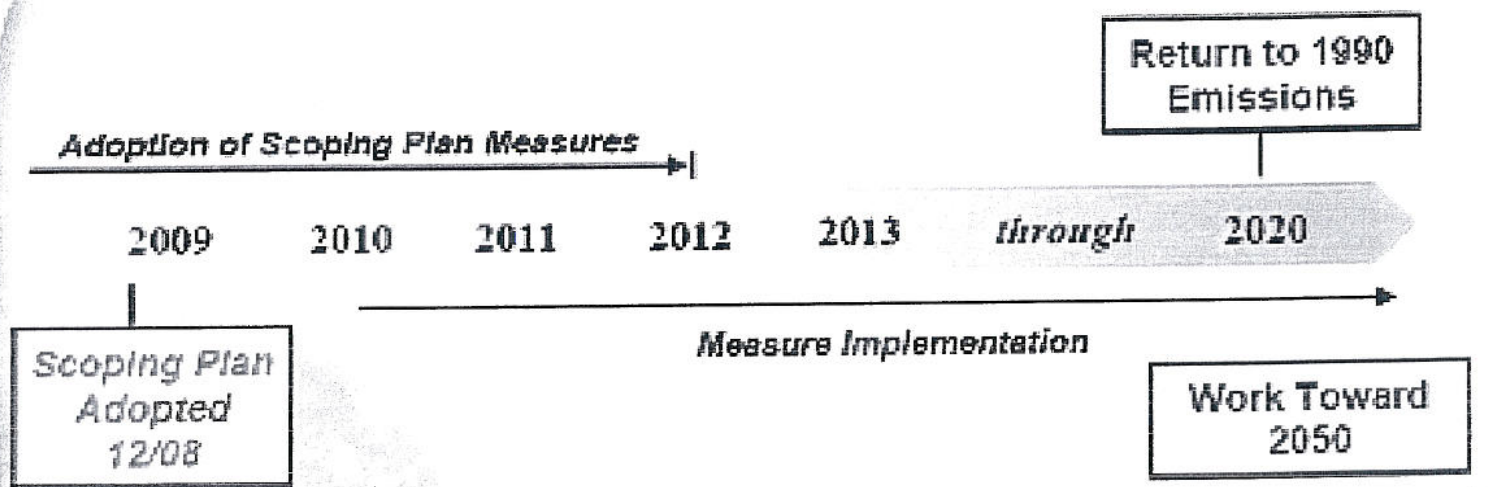
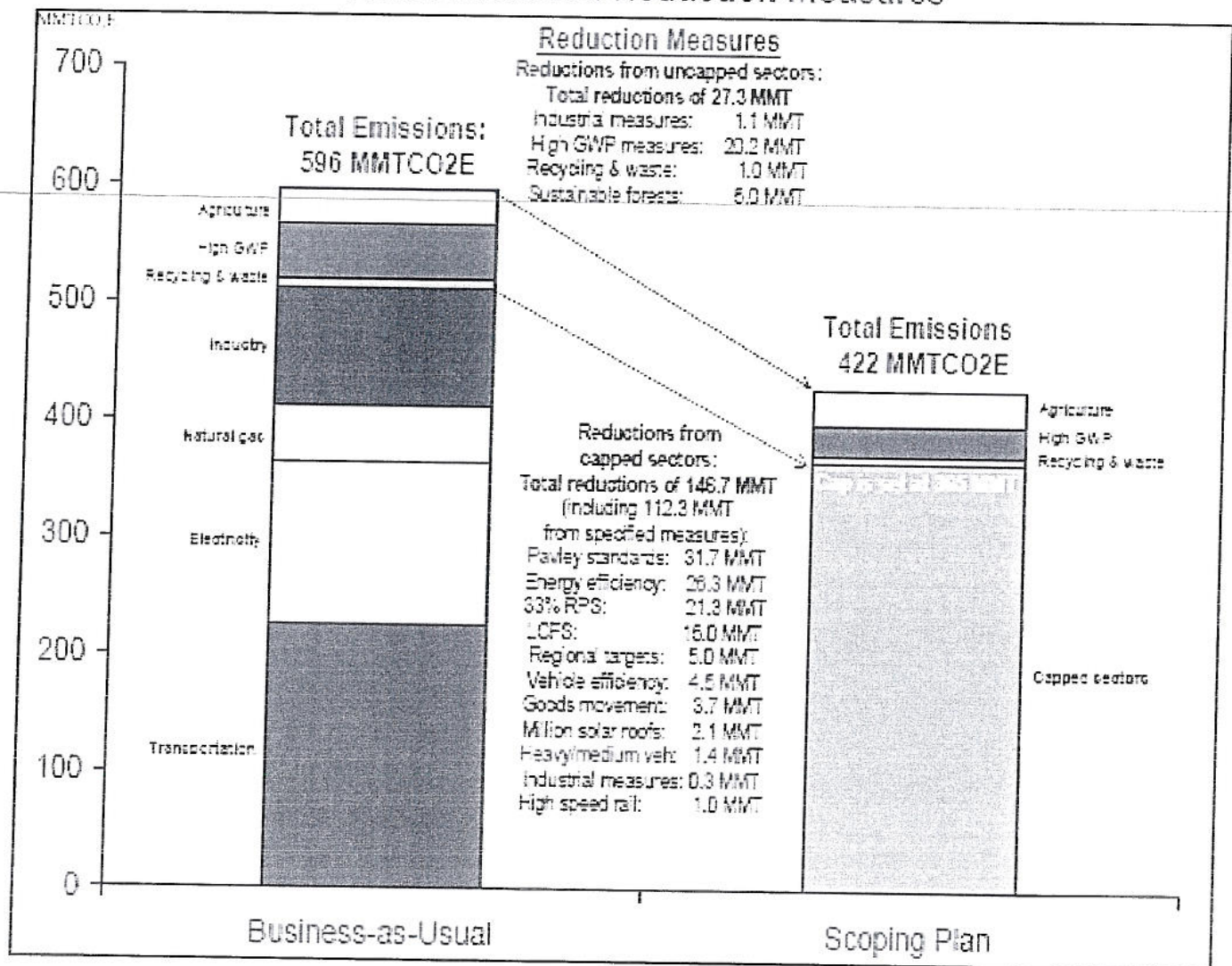


Figure 3: California Greenhouse Gas Emissions in 2020 and Recommended Reduction Measures



Scoping Plan Measures Implementation Timeline
January 29, 2009

Row #	Scoping Plan Measure	Measure #	Page #	Responsible Agency (ies) (Lead in bold)	Projected Date Measure to be Adopted by Lead Agency	Implementation Date	Million Tons of GHG Reductions by 2020	Type of Action (Regulation, Voluntary etc.)
1	Pavley (AB 1493)	T-1	C-57	ARB	Sep-04	2009-2016	27.7	Regulation
2	Ship Electrification at Ports (Discrete Early Action)	T-5	C-66	ARB	Dec-07	2010	0.2	Regulation
3	Port Drayage Trucks	T-6	C-68	ARB	Dec-07	Beginning 2010	3.5*	Regulation
4	Limit High GWP Use in Consumer Products (Discrete Early Action); Pressurized Gas Duster GWP Limit of 150	H-4	C-179	ARB	Jun-08	2010	0.23	Regulation
5	Heavy-Duty Vehicle GHG Emission Reduction (Aerodynamic Efficiency) (Discrete Early Action)	T-7	C-73	ARB	Dec-08	Phased-in Schedule for large fleets: Beginning 2010; Final compliance 2013	0.93	Regulation
6	Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing (Discrete Early Action)	H-1	C-175	ARB	Jan-09	2010	0.26	Regulation
7	SF ₆ Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	H-2	C-176	ARB	Feb-09	2010	0.1	Regulation
8	Reduction of Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	H-3	C-177	ARB	Feb-09	2012	0.18	Regulation
9	Tire Pressure Program	T-4	C-63	ARB	Mar-09	2010	0.55	Regulation
10	Low Carbon Fuel Standard (Discrete Early Action)	T-2	C-64	ARB	Apr-09	2010	15	Regulation
11	Landfill Methane Control Measure (Discrete Early Action)	RW-1	C-160	ARB	Apr-09	2012	1	Regulation
12	Water Use Efficiency	W-1	C-132	DWR, SWRCB, CEC, CPUC, ARB	Spring 2009	2020	1.4**	Regulation
13	Solar Reflective Auto Paints and Window Glazing	T-4	C-63	ARB	May-09	2012	0.89	Regulation
14	Stationary Equipment Refrigerant Management Program- Refrigerant Tracking/Reporting/Repair/Deposit Program	H-6	C-182	ARB	May-09	2010	11	Regulation
15	Energy Efficiency and Co-Benefits Audits for Large Stationary Sources	I-1	C-150	ARB	Oct-09	2010	TBD	Regulation
16	Sulfur Hexafluoride (SF ₆) Emission Reductions from the Electricity Sector and Particle Accelerators/SF ₆	H-6	C-186	ARB	Dec-09	2012	0.1	Regulation
17	Mitigation Fee on High GWP Gases	H-7	C-189	ARB	Dec-09	2010	5	Regulation

*All of the T-6 measures together add up to 3.5 MMTCO₂e

**Not counted toward the 2020 total of 174 MMTCO₂e

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18	Tire Tread Program	T-4	C-63	CEC	2009	2010	0.3	Regulation
19	Oil and Gas Extraction GHG Emission Reduction	I-2	C-153	ARB	2009	2015	0.2	Regulation
20	Transport Refrigeration Units Cold Storage Prohibition and Energy Efficiency	T-6	C-69	ARB	March-10	TBD	3.5*	Regulation (cold storage) and Guidelines (energy efficiency)
21	Foam Recovery and Destruction Program	H-6	C-185	ARB	Jul-10	2010	0.3	Regulation
22	Cap-and-Trade		C-11	ARB	Nov-10	2012	34.4	Regulation
23	Pavley II	T-1	C-57	ARB	2010	2017	4.1	Regulation
24	High GWP Reductions from Mobile Sources Low GWP Refrigerants for New Motor Vehicle Air Conditioning Systems	H-5	C-179	ARB	2010	2015	2.5	Regulation
25	Refinery Flare Recovery System Improvement	I-4	C-155	ARB	2010	2012	0.33	Regulation
26	Removal of Methane Exemption from Existing Refinery Regulations	I-5	C-156	ARB	2010	2012	0.01	Regulation
27	GHG Leak Reduction from Oil and Gas Transmission	I-3	C-154	ARB	2010	2015	0.9	Regulation
28	Alternative Suppressants in Fire Protection Systems	H-6	C-187	ARB, Cal Fire	Dec-11	2011	0.1	Regulation
29	Stationary Equipment Refrigerant Management Program- Specifications for Commercial and Industrial Refrigeration	H-6	C-183	ARB and CEC	2011 (CEC)	2012	4	Regulation
30	Low Friction Engine Oil	T-4	C-63	ARB	TBD	TBD	2.8	Regulation
31	Medium- and Heavy-Duty Vehicle Hybridization	T-8	C-73	ARB	TBD	TBD	0.5	Regulation
32	Reuse Urban Runoff	W-4	C-134	SWRCB	TBD	2020	0.2**	Regulation
33	Public Goods Charge for Water	W-6	C-136	DWR, ARB, CPUC, SWRCB	TBD	2012	TBD	Regulation
34	Water Recycling	W-2	C-133	SWRCB, DWR	TBD	2030	0.3**	Regulation
35	Feebates (in lieu of Pavley regs)	T-1	C-61	ARB	TBD	TBD	31.7	Regulation (if needed)
36	Refrigerant Recovery from Decommissioned Refrigerated Shipping Containers	H-5	C-181	ARB	2010	2012	0.2	Regulation/ Program
37	Solar Water Heating: AB 1470	CR-2	C-118	CPUC	2010	2020	0.1	Incentive

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January 29, 2009**

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38	Million Solar Roofs: 3,000 MW by 2017	E-4	C-120	CPUC, CEC, ARB	Current Program	Through 2016	2.1	Incentive
39	Residential Refrigeration Early Retirement Program	H-6	C-188	ARB	Dec-10	2011	0.1	Incentive Partnership w/ Utilities
40	Commercial Recycling	RW-3	C-161	CIWMB	2010	2020	5**	Mandate
41	High Speed Rail	T-9	C-85	HSRA	NA	2020	1	NA
42	Green Buildings	GB-1	C-142	DGS, ARB, CEC, CPUC, HCD	Ongoing	TBD	26**	NA
43	Enforcement of Federal Ban on Refrigerant Release during Servicing or Dismantling of Motor Vehicle Air Conditioning Systems	H-5	C-182	ARB	2009	2010	0.1	Partnership
44	Air Conditioner Refrigerant Leak Test During Vehicle Smog Check	H-5	C-180	ARB, BAR	2010	2012	0.5	Partnership
45	Renewables Portfolio Standards (33% by 2020 for IOUs & POUs)	E-3	C-126	CPUC, CEC, ARB	2009	2020	21.3	Various
46	Increasing Combined Heat and Power Use by 30,000 GWh	E-2	C-122	CPUC, CEC, ARB	2009	2020	6.7	Various
47	Regional Transportation-Related Greenhouse Gas Targets	T-3	C-74	ARB, Local Governments, Regional Planning Agencies	Sep-10	Set targets by 2010. Local actions have begun already in some areas	5	Various
48	Energy Efficiency Measures (Electricity)	E-1	C-99	CEC, CPUC, ARB	Ongoing	Through 2020	15.2	Various
49	Energy Efficiency (Natural Gas)	CR-1	C-99	CPUC, CEC, ARB	Ongoing	Through 2020	4.3	Various
50	Local Government Assistance	NA	C-49	ARB, CalTrans, CEC, CTC, HCD, OPR	Ongoing	NA	NA	Various
51	Sustainable Forest Target	F-1	C-166	Board of Forestry and Fire Protection	TBD	TBD	5	Various
52	State Government	NA	C-25	Cal/EPA, ARB, DGS	TBD	Ongoing	1-2**	Various
53	N ₂ O collaborative research	NA	67	ARB	Feb-09	NA	NA	Voluntary
54	Local Government Toolkit	NA	27	ARB	Apr-09	Ongoing	NA	Voluntary
55	Business Toolkit	NA	86	ARB	Apr-09	Ongoing	NA	Voluntary
56	Cargo Handling Equipment- Anti-Idling, Hybrid, Electrification	T-6	C-69	ARB	Nov-09	TBD	3.5*	Voluntary

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57	Goods Movement System-Wide Efficiency Improvements	T-6	C-67	ARB	2010	2010-2015	3.5*	Voluntary
58	Methane Capture at Large Dairies	A-1	C-194	ARB	NA	2020	1**	Voluntary
59	Increase Production and Markets for Compost (studies underway for data development)	RW-3	C-161	CIWMB	Ongoing	2020	2**	Voluntary
60	Greening New and Existing State Buildings	GB-1	C-142	DGS	Ongoing	TBD	TBD	Voluntary
61	Greening Public Schools	GB-1	C-143	DGS	Ongoing	TBD	TBD	Voluntary
62	Forest Conservation, Forest Management, Afforestation/Reforestation, Urban Forestry, and Fuels Management	NA	C-167	Cal Fire	Ongoing	2020	Potentially 2**	Voluntary
63	Extended Producer Responsibility	RW-3	C-162	CIWMB	Pending Legislation	2020	TBD**	Voluntary
64	Commercial Harbor Craft	T-6	C-69	ARB	TBD	TBD	3.5*	Voluntary
65	Commercial Harbor Craft-Maintenance and Design Efficiency	T-6	C-69	ARB	TBD	TBD	3.5*	Voluntary
66	Increasing the Efficiency of Landfill Methane Capture	RW-2	C-160	CIWMB	TBD	2020	TBD**	Voluntary
67	Anaerobic Digestion	RW-3	C-162	CIWMB	TBD	2020	2**	Voluntary
68	Environmentally Preferable Purchasing	RW-3	C-162	CIWMB, DGS	TBD	TBD	TBD**	Voluntary
69	Water System Energy Efficiency	W-3	C-133	CEC, CPUC, DWR, SWRCB	TBD	2020	2**	Voluntary
70	Increase Renewable Energy Production (from Water sector)	W-5	C-135	CEC, CPUC	TBD	2020	0.9**	Voluntary
71	Clean Ships	T-6	C-68	ARB	TBD	TBD	3.5*	Voluntary/Regulation
72	Vessel Speed Reduction	T-6	C-68	ARB	TBD	TBD	3.5*	Voluntary/Regulation
73	Greening New Residential and Commercial Construction	GB-1	C-145	CEC, CPUC, Building Standards Commission	Ongoing	TBD	TBD	Voluntary/Incentive
74	Greening Existing Homes and Commercial Buildings	GB-1	C-146	CEC, CPUC	Ongoing	TBD	TBD	Voluntary/Incentive

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