

Addressing Climate Change Through Leadership in Technology and Innovation

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INTRODUCTION

- Western States Petroleum Association (WSPA) is a non-profit trade association that represents companies that account for the bulk of petroleum exploration, production, refining, transportation, and marketing in Arizona, California, Nevada, Oregon, and Washington
- Founded in 1907, WSPA is the oldest petroleum trade association in the United States
- WSPA is dedicated to ensuring that Americans continue to have reliable access to petroleum and petroleum products through policies that are socially, economically, and environmentally responsible

ENERGY PROUD

CALIFORNIA LEGISLATIVE FRAMEWORK

THE BEGINNING DEBATE

- **AB 4420 (Sher, 1988):** California Energy Commission (CEC) creates inventory of GHG emissions
- **SB 1771 (Sher, 2000):** Creates the California Climate Action Registry
- **SB 527 (Sher, 2001):** Requires Third-Party Verification of metrics and developed GHG emissions protocols
- **AB 1493 (Pavley, 2002):** Clean Car Standards
- **SB 812 (Sher, 2002):** Added Forest Management to Registry
- **SB 1078 (Sher, 2002):** Established Renewables Portfolio Standard Program (RPS)

CALIFORNIA LEGISLATIVE FRAMEWORK

AB 32 & BEYOND

- **AB 32 (Núñez, 2006):** California Global Warming Solutions Act, Goal to Reduce GHGs to 1990 levels by 2020
- **SB 107 (Simitian, 2006):** Increased RPS to 20% by 2010
- **SB 1 (Murray, 2006):** California Million Solar Roofs Plan
- **AB 1803 (Budget Committee, 2006):** California Air Resources Board (CARB) Inventory Takeover
- **SB 97 (Dutton, 2007):** California Environmental Quality Act (CEQA) Guidelines for mitigation of GHGs
- **AB 118 (Núñez, 2007):** Alternative Fuels & Vehicle Technology Program
- **SB 375 (Steinberg, 2008):** Regional GHG Targets for Vehicles & Sustainable Communities Strategies
- **AB 1504 (Skinner, 2010):** Forest Resources & Carbon Sequestration

CALIFORNIA LEGISLATIVE FRAMEWORK

ENVIRONMENTAL JUSTICE

- **SB X1-2 (Simitian, 2011):** RPS Goal of 33% by 2020
- **AB 1532 (Perez, 2012):** Legislative Investment Plan
- **SB 535 (de León, 2012):** Disadvantaged Communities Requirements for Greenhouse Gas Reduction Fund (GGRF)
- **AB 1092 (Levine, 2013):** Building Standards for Electric Vehicles
- **AB 8 (Perea, 2013):** Alternative Fuel & Vehicle Funding
- **SB 1204 (Lara, 2014):** Clean Truck, Bus & Off-Road Vehicle & Equipment Technology Program

CALIFORNIA LEGISLATIVE FRAMEWORK

RPS & SHORT-LIVED CLIMATE POLLUTANTS

- **SB 1275 (de León, 2014)**: Creates goal of one million zero emissions vehicles by 2020
- **SB 605 (Lara, 2014)**: California Air Resources Board (CARB) Strategy for Short-Lived Climate Pollutants
- **SB 350 (de León, 2015)**: Increases the RPS to 50% by 2030
- **SB 32 (Pavley, 2016)**: GHG target of 40% below 1990 levels by 2030
- **AB 197 (E. Garcia, 2016)**: Direct Control Measures – Prioritizes emissions from large stationary and mobile sources
- **SB 1383 (Lara, 2016)**: Short-Lived Climate Pollutant Targets

CALIFORNIA LEGISLATIVE FRAMEWORK

PRESENT DAY

In July 2017, Governor Brown signed a legislative package of three bills which extended the Cap-and-Trade Program through 2030:

- **AB 398** – Implements a number of cost-containment measures and preempts district-level regulation of GHG emissions from covered sources
- **AB 617** – Requires accelerated BARCT implementation and creation of community monitoring and risk reduction programs
- **ACA 1** – Requires a supermajority vote by the Legislature to allocate Cap-and-Trade Program auction revenues beginning on January 1, 2024

Further action by the California Air Resources Board (CARB) required to effectuate extension of Cap-and-Trade Program and implementation of AB 617

BELRIDGE SOLAR PROJECT

AERA ENERGY

- In 2017, Aera announced its partnership with GlassPoint Solar to build California's largest solar energy project
- Located at Belridge oilfield (west of Bakersfield), the Project will be the first of its kind to use solar steam and solar electricity to power oilfield operations
- The facility will save more than 376,000 metric tons of carbon dioxide emissions per year
 - This offsets the equivalent of 80,000 cars (more than one-third of the cars in Bakersfield)

BELRIDGE SOLAR PROJECT

AERA ENERGY



DRIVING INNOVATION

EXXONMOBIL

- This year, Exxon announced it will become the first founding member of the new Stanford Strategic Energy Alliance
 - The initiative will examine ways to improve energy access, security, and technology while reducing impacts on the environment
- Exxon is also undertaking a number of initiatives to significantly reduce methane emissions
 - These actions include greenhouse gas reduction measures, as well as XTO Energy's leak-detection-and-repair efforts and operational improvements at U.S. production and midstream sites
- For a number of years, Exxon has worked with Synthetic Genomic, Inc. on research to turn algae into a low-emission transportation fuel
 - A new phase was recently announced that includes an outdoor field study that will grow naturally occurring algae in several contained ponds in California

ADVANCED BIOFUELS & ALGAE RESEARCH

EXXONMOBIL









ADVANCING THE ENERGY TRANSITION

BP

- In April 2018, BP published a report entitled “Advancing the Energy Transition,” which sets forth the framework for delivering BP’s commitment to a low carbon future
- The Report helps to meet the dual challenge of providing the increasing energy the world demands while also working to reduce greenhouse gas emissions
- The framework of the report sets forth principles and targets for BP to:
 - Reduce greenhouse gas emissions in its operations;
 - Improve its products to help customers reduce their emissions; and
 - Create low carbon businesses

ADVANCING THE ENERGY TRANSITION

BP

Reducing emissions in our operations	Improving our products	Creating low carbon businesses
Zero net growth in operational emissions out to 2025	 Provide lower emissions gas	 Expand low carbon and renewable businesses
3.5Mte of sustainable GHG emissions reductions by 2025	 Develop more efficient and lower carbon fuels, lubricants and petrochemicals	 \$500 million invested in low carbon activities each year
Targeting methane intensity of 0.2% and holding it below 0.3%	 Grow lower carbon offers for customers	 Collaborate and invest in the Oil and Gas Climate Initiative's \$1 billion fund for research and technology

Advancing low carbon
Our accreditation programme for low carbon activities

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