



## Addressing Climate Change Grows and Sustains Good Jobs

California's pioneering clean energy and climate law (AB 32), and other policies that have extended the state's goals through 2030, including SB 350, SB 32 and AB 197, are advancing a strong economy and healthy environment—proof that a thriving, prosperous and fair economy is one that also addresses climate change. These policies are helping to create and sustain jobs ranging from building solar farms to manufacturing electric vehicles and components to providing more public transit options—positioning California for long-term prosperity.

“Our members care about the health and safety of the communities in which we live and work...AB 32 and its policies are key stepping stones to a better future for all Californians.”

*Communications Workers of America, District 9*

### *California leads the nation in job growth*

- **California gained 330,400 jobs in 2016**, up 2% from the previous year, representing 14% of all jobs gained in the U.S, and outpacing the national rate of 1.6%.<sup>i</sup>
- In 2017, California employers project that advanced energy employment will increase by 8% bringing **the total number of employees to almost 550,000 in this sector.**<sup>ii</sup>
- With 1 in every 6 advanced energy workers nationwide, **California has the largest advanced energy industry by employment of any state** in the country. Employment in the state's **advanced energy industry grew 18 percent in 2015**, six times the rate of statewide employment growth. **More than 500,000 California**

**workers spend some or all of their time on advanced energy work**, including energy efficiency, advanced electricity generation, biofuels, advanced grid technology, and advanced vehicles.<sup>iii</sup>

- In the energy efficiency sector specifically, **California has the largest workforce in the nation, with more than 320,000 workers**, who spend about 50 percent of their time on energy efficiency services.<sup>iv</sup>
- California is **the top state for solar jobs**, employing 152,947 workers.<sup>v</sup>
- Despite overstated fears of AB 32's impact on manufacturing, **California led the nation in manufacturing jobs, firms and output in 2015 producing more than \$278 billion.**<sup>vi</sup>
- Many of the state's largest employers have **adapted to the state's climate policies** by improving the efficiency of their operations and reducing pollution - thus maintaining jobs and improving air quality.

California's job growth has outperformed national job growth every year for the last five years, according to an April 2017 report by the Public Policy Institute of California.

## Building Stronger, Healthier Communities

Too often, California's working families struggle with stagnant low wages and job insecurity. Many live in communities most impacted by pollution. From asthma to contaminated neighborhoods, working families can be hit from many sides. We need to create and maintain economic opportunity while ensuring that the communities hurt by pollution are the ones that benefit from its solutions. That's what AB 32 has done and what SB 32 will advance, which is why we need to continue to both invest in our communities and make our economy cleaner and more energy efficient.

California's Climate and Clean Energy policies help working families and the communities in which they live. Billions of dollars from cap and trade funds are being injected into clean energy, energy efficiency, clean transportation, affordable housing and active transportation projects across California—**\$1.1 billion in fiscal year 2016-17, and a projected \$2.2 billion in fiscal year 2017-18.**

- These measures create **quality jobs through the investment of cap and trade proceeds**, spurring growth in clean energy and contributing to:
  - More affordable housing, facilitating construction jobs across the state, as well as affordable living opportunities for working families.
  - Inter-city and high-speed rail that creates demand for well-trained, high-skill union workers, beginning in the Central Valley where unemployment remains high.
  - Increased recycling and compositing facilities that create more jobs and reduce pollution.
  - Better public transit and more frequent and cleaner bus services, providing ways for Californians to get to work without relying on personal vehicles.

#### Climate Investments for CA

- Nearly \$3.4 billion appropriated since 2013
- FY 2016-17 = \$1.1 billion appropriated
- FY 2017-18 budget= \$2.2 billion proposed
- Min. 35% to disadvantaged and low-income communities

**Four of the top ten metro areas in the nation** for clean-tech investment, innovation and workforce ranked in the 2016 U.S. Clean Tech Leadership Index are located in California: #1 San Jose, #2 San Francisco, #5 San Diego, and #7 Los Angeles.

## Promoting Economic Opportunity and a Better Future

- In addition to the **RPS creating about 53 million hours of blue-collar and 15 million hours of white-collar construction work** from 2002 to 2015, the quality of the jobs has been high - supporting skilled workers with family-sustaining compensation and benefits.<sup>vii</sup>
- SB 350's increase of the Renewable Portfolio Standard (RPS) to 50 percent by 2030 will create an estimated additional **354,000-429,000 direct job years and a total of 879,000-1,067,000 total job years** from the construction of new renewable generation.<sup>viii</sup>
- In the San Joaquin Valley alone, home to many of California's more rural communities where unemployment has remained higher than other areas of the state, construction on **RPS-related projects created 88,000 total jobs** and resulted in a **total economic impact of \$11.6 billion.**<sup>ix</sup>
- California's 35-plus year history with energy efficiency shows that **50 new jobs were created** across the state's diverse economy **for every job forgone in the oil, gas and electric power sector.**<sup>x</sup>
- Analysis from University of California researchers estimates that AB 32 policies could **increase household incomes by \$48 billion and create about 400,000 jobs.**<sup>xi</sup>
- California **can reduce greenhouse gas emissions while growing the economy**; we have been doing it for the last 35 years. Innovative energy policies over the past three decades have **saved Californians \$56 billion on household energy costs** and allowed them to reduce expenditures on imported fossil fuels and redirect spending to **create 1.5 million full-time jobs.**<sup>xii</sup>
- California's **Low Carbon Fuel Standard (LCFS)**, a key component of AB 32, **could create as many as 9,100 new jobs for California.** This number could be higher, particularly if the state attracts more clean fuel production facilities and technology providers.<sup>xiii</sup>
- With meaningful job training and standards that support high quality contractors, **California's clean energy economy helps create quality jobs and career pathways** that can provide a

- middle-class living for workers in every corner of the state.
- The clean energy sector is **sustaining good jobs** that already exist with new purpose and additional value in combating climate change.
  - Clean energy, smart growth and other projects can serve as an entry point into **career pathways for skilled electricians, ironworkers and others in construction**—careers on the front lines of addressing climate change.<sup>xiv</sup>
  - California is reshaping and expanding our existing jobs to be cleaner and greener. Jobs in **building maintenance and transit services** are key players in reducing greenhouse gas and other pollutants that impact communities.
- Clean energy jobs provide an **opportunity for people to learn a craft and build a career** for themselves, when those jobs are bound to comprehensive training on a broad set of skills and supported by large investments in construction or building retrofits—turning single-skill, low-wage jobs into entry-level earn-while-you learn jobs leading to family-supporting careers.

California Delivers is supported by the following labor leaders and organizations:

BlueGreen Alliance	IBEW Local 569
Communications Workers of America (CWA) – District 9	North Bay Labor Council
Communications Workers of America (CWA) – Local 9003	United Food and Commercial Workers Western States Council
Benigno Delgado, Associate Director, Homecare Division, SEIU UHW	Utility Workers Union of America, AFL – CIO (UWUA)

For a complete list of California Delivers supporters, go [here](#).

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<sup>i</sup> “California Labor Market Review,” California Employment Development Department, January 2017. <http://www.labormarketinfo.edd.ca.gov/Publications/Labor-Market-Analysis/calmr.pdf>

<sup>ii</sup> “2016 U.S. Clean Tech Leadership Index,” Clean Edge, May 2016. <https://cleanedge.com/reports/2016-US-Clean-Tech-Leadership-Index>

<sup>iii</sup> “Advanced Energy Jobs in California 2016,” Advanced Energy Economy, April 2016. <https://www.aee.net/articles/new-survey-california-s-advanced-energy-industry-up-18-percent-from-last-year>

<sup>iv</sup> “Energy Efficiency Jobs in America,” Environmental Entrepreneurs and E4TheFuture, December 2016. [http://www.e2.org/wp-content/uploads/2016/12/EnergyEfficiencyJobsInAmerica\\_FINAL.pdf](http://www.e2.org/wp-content/uploads/2016/12/EnergyEfficiencyJobsInAmerica_FINAL.pdf)

<sup>v</sup> “2017 U.S. Energy and Employment Report,” U.S. Department of Energy, January 2017. <https://energy.gov/downloads/2017-us-energy-and-employment-report>

<sup>vi</sup> “California Manufacturing Facts,” National Association of Manufacturers, October 2016. <http://www.nam.org/Data-and-Reports/State-Manufacturing-Data/State-Manufacturing-Data/October-2016/Manufacturing-Facts--California/>

<sup>vii</sup> “The Link Between Good Jobs and a Low Carbon Future,” UC Berkeley Labor Center, July 2016. <http://laborcenter.berkeley.edu/pdf/2016/Link-Between-Good-Jobs-and-a-Low-Carbon-Future.pdf>

<sup>viii</sup> “Job Impacts of California’s Existing and Proposed Renewables Portfolio Standard,” UC Berkeley Labor Center, August 28, 2015. <http://laborcenter.berkeley.edu/pdf/2015/job-impacts-ca-rps.pdf>

<sup>ix</sup> “The Economic Impacts of California’s Major Climate Programs on the San Joaquin Valley,” Next 10, January 19, 2017. <http://www.next10.org/sites/next10.org/files/econ-impacts-climate-programs-san-joaquin-valley-final.pdf>

<sup>x</sup> Id.

<sup>xi</sup> Id.; see also David Roland-Holst, UC Berkeley, “Climate Action for Sustained Growth: Analysis of ARB’s Scoping Plan,” April 19, 2010. <http://www.arb.ca.gov/cc/scopingplan/economics-sp/meetings/042110/rolandholst.pdf>

<sup>xii</sup> “Energy Efficiency, Innovation and Job Creation in California,” David Roland-Holst, UC Berkeley, Next 10, October 2008. [http://are.berkeley.edu/~dwrh/CERES\\_Web/Docs/UCB%20Energy%20Innovation%20and%20Job%20Creation%2010-20-08.pdf](http://are.berkeley.edu/~dwrh/CERES_Web/Docs/UCB%20Energy%20Innovation%20and%20Job%20Creation%2010-20-08.pdf)

<sup>xiii</sup> “California’s Low Carbon Fuel Standard: Compliance Outlook & Economic Impacts,” CalETC, April 2014. <http://www.caletc.com/wp-content/uploads/2014/04/ICF-Report-Final-2.pdf>