



California
DEPARTMENT OF TECHNOLOGY

2017 NASCIO State IT Recognition Awards Submission
California Open Data Portal

Category: State CIO (or equivalent) Special Recognition

State: California

Contact:

Scott Gregory
Deputy Director, Office of Digital Innovation
(916) 431-5449

Scott.Gregory@state.ca.gov

Project Initiation Start Date: September 2015

Project Launch Date: October 2016

Executive Summary

In an effort to reduce California's carbon footprint, California Governor Edmund G. Brown Jr. issued [Executive Order B-18-12](#) directing state agencies and departments to take immediate steps to noticeably decrease non-renewable energy usage, water usage, and greenhouse gas emissions from California government buildings.

In March 2017, Governor Brown reaffirmed California's commitment to exceed the targets of the Clean Power Plan and the state's efforts to curb carbon pollution, which include establishing the most ambitious greenhouse gas emission reduction targets in North America and the nation's toughest restrictions on destructive super pollutants. The Governor also signed legislation that directs cap-and-trade funds to greenhouse gas reducing programs which benefit disadvantaged communities, support clean transportation and protect natural ecosystems.

This action builds on landmark legislation the Governor signed in October 2015 to generate half of the state's electricity from renewable sources by 2030 and double the rate of energy efficiency savings in California buildings. He also committed to reducing today's petroleum use in cars and trucks by up to 50 percent within the next 15 years; make heating fuels cleaner; and manage farm and rangelands, forests and wetlands so they can store carbon.

The Governor traveled to the United Nations headquarters in New York, the United Nations Climate Change Conference in Paris, France, the Vatican in Italy and the Climate Summit of the Americas in Toronto, Canada to call on other leaders to join California in the fight against climate change. The Governor joined an unprecedented alliance of heads of state, city and state leaders convened by the World Bank Group and International Monetary Fund to urge countries and companies around the globe to put a price on carbon. These efforts build on a number of other international climate change agreements with leaders from the Czech Republic, the Netherlands, Mexico, China, North America, Japan, Israel, Peru, Chili, Australia, and Scotland. Governor Brown's efforts to gather hundreds of world renowned researchers and scientists around the groundbreaking call to action translates key scientific climate findings from disparate fields into one unified document. The impacts of climate change are already being felt in California and will disproportionately impact the state's most vulnerable populations.

Recognizing the significant benefits and value of transparency from an active open data program, the Government Operations Agency (GovOps), in partnership with the California Department of Technology (CDT), launched an Open Data Portal to house publicly available data sets collected by state departments and agencies.

This program is in line with the California IT Strategic Plan to enhance transparency, accessibility, and openness through online and mobile solutions. State government captures massive amounts of high value data sets across a multitude of programs and is committed to maximizing the value of this data to allow for feedback and solutions to encourage use of the data to drive progress and achieve the goals in the Green Buildings Initiative and beyond.

Project Narrative

Concept

Problem:

Over the past 50 years, the average global rate of temperature increase has nearly doubled and is rising at the fastest rate in recorded history. Experts see this trend accelerating: All but one of the 16 hottest years in NASA's 134-year record have occurred since 2000. Scientists say that unless we curb global-warming emissions, the average United States temperatures could increase by up to 10 degrees Fahrenheit over the next century.

In 2012, California Governor Edmund G. Brown Jr. issued [Executive Order B-18-12](#) to “Green” or reduce the environmental impact of California government buildings. Governor Brown stated that, “Doing something real about the growing threat of global warming requires more than just new laws. We must lead by example. Greening the state’s buildings will shrink our environmental footprint and save taxpayers millions of dollars.”

The immediate goals in the Executive Order/Green Buildings Initiative directs state agencies and departments to:

- Reduce greenhouse gas emissions by 10% by 2015 and 20% by 2020, as measured against a 2010 baseline;
- Reduce overall water use by 10% by 2015 and 20% by 2020, as measured against a 2010 baseline; and
- Reduce grid-based energy purchases and other non-building, grid-based retail energy purchases by 20% by 2018, as compared to a 2003 baseline.

Solution:

Making data open and accessible in a standard, online-readable format by default can have significant productivity and cost savings for agencies. When California expressed renewed interest in developing an open data platform. The following benefits were identified as beneficial for the development of the platform:

Save time and money responding to Freedom of Information Act (FOIA) requests.

When data is open by default, the public can access the information it seeks directly, freeing an agency or department from the time and cost expenditures related to responding to FOIAs.

Avoid duplicative internal research.

Transparency of data held by departments and agencies helps prevent the possibility of reducing funds and re-collecting data due to a particular program or department data’s existence. Maintaining a central data catalog for an agency or department allows for ease of understanding current information available and is a recommended best IT practice.

Discover complementary datasets held by other agencies.

The benefits of transparency into your agency's own datasets are amplified when every agency maintains its own standardized data catalog. Programs need to realize that some or all of the data required is already held by one or more other agencies, or that better conclusions can be drawn from combining existing agency-held datasets with additional data across other agencies.

Empower employees to make better-informed, data-driven decisions.

Develop requirements to publish details regarding each dataset owned by an agency or department in a specific format benefits from a centrally organized and maintained searchable platform. Ease in locating existing data is key to being able to incorporate that data into a department or agency's everyday decision-making processes.

Positive attention from the public, media, and other agencies.

The release and use of open government data have taken center attention with corresponding media and international outlets. The more data an agency makes available in easy-to-consume formats, the better opportunities there are for positive coverage of the availability and impact of those data and the agency's efforts.

In order to track the progress of the state's progress toward shrinking California's environmental footprint, the CDT and GovOps decided to launch an Open Data Portal to provide a platform for state entities to share their energy purchases, water usage, and greenhouse gas emission data on a publicly-accessible website. Using IT Best Practices and an Agile Methodology approach, the California Open Data Portal (data.ca.gov) officially launched as a pilot in September 2015 with 11 data sets from three different California State departments. The Portal is a proprietary, closed-license platform.

In an effort to engage citizens in the Green Buildings Initiative ([Executive Order B-18-12](#)), a public code-a-thon called GreenGov, was held. The GreenGov event challenged volunteer coder citizens to find innovative ways to reduce energy consumption and increase sustainable practices using the 11 data sets on the portal.

The event was a success, generating three prototype applications using the data sets from the Open Data Portal. One of the applications was the Greenbuildings.ca.gov accountability website. The application visually tracks comparative state building energy consumption data from 2003 through 2016, updating information annually as data sets are published by EnergyStar, Department of General Services and the Climate Registry. This program tracks 34 departments and 1,530 state buildings. The website displays easy-to-read charts and graphs showing the most efficient energy users. The site focuses on positive improvements, it also publishes high energy usage on the website.

Based on the success of the pilot program, the CDT and GovOps decided to officially launch an open-source, fully accessible, and 508 compliant Open Data Portal on a DKAN platform. The current version of the Open Data Portal launched in October 2016.

Significance

The Open Data Portal for California is significant in that it is completely open source. The tool is curated by a community of developers worldwide and received multiple contributions from State of California employees. Recognizing the significant benefits and value of transparency from an active open data program, California launched a new open source, open data portal with a multitude of datasets that include information on the economy, transportation, water and other areas of interest for citizens and researchers. The Open Data Portal runs on DKAN, an exclusively open-source data management platform. The tool is based on Drupal's content management system (CMS) which allows the user to decide how to visualize, present and organize the data.

By utilizing data on the Open Data Portal and engaging citizen coders, the public is able to easily track success of California government efforts to reduce its carbon footprint. Citizens can view the Executive Order, its goals, and follow California's progress by department location or statewide. Raw data can also be downloaded for analytical purposes.

The success of the [Greenbuildings.ca.gov](https://www.greenbuildings.ca.gov) website is one of many accomplishments that was brought about as a result of Open Data. In a broader perspective and in alignment to the California State IT Strategic Plan, the Open Data Portal functions as a statewide resource to do the following:

- **Improve Government:** Open data improves government, by increasing transparency, and enhancing public services and resource allocation.
- **Empower Citizens:** Opening access to government data gives citizens the ability to make informed decisions and demand change.
- **Create Opportunity:** Open data creates new opportunities for citizens and organizations by fostering innovation.
- **Solve Public Problems:** Open data plays an increasingly important role in solving big public problems, primarily by allowing citizens and policymakers access to new forms of data-driven assessment of the problems at hand. It also enables data-driven engagement, producing more targeted interventions and enhanced collaboration.

Impact

The Open Data Portal facilitates government improvement by assisting officials in critical decision-making based on data, transparency, innovation and citizen engagement. It takes community collaboration on data to develop innovative solutions, as demonstrated with the Green Buildings Initiative, the GreenGov Code-A-Thon, and the [Greenbuildings.ca.gov](https://www.greenbuildings.ca.gov) website. The GreenGov Code-A-Thon and website were both developed utilizing the Open Data Portal.

With the launch of the [Greenbuildings.ca.gov](https://www.greenbuildings.ca.gov) website, California has seen improvements each year. So far, energy usage is down 18.8%, which is 1.2% from meeting the 2020 goal. Water

usage is down 42.2%, which exceeds California's goal by over 22%. In addition, the state is currently on target to meet its 2020 goal of Greenhouse gas emissions. Our goal is to reduce emissions by 50% and reduction is at 49.9%.

By initiating an innovative pilot program, CDT and GovOps have employed a conservative and iterative Agile Methodology approach to modernize state business practices, increase transparency and assist government officials in decision-making. Increasing accessibility was a critical aspect of the second Open Data Portal launched in October 2016. The platform is based on Drupal, an open and extensible out-of-the-box open data platform solution.

California State government continues to collaborate in partnership with its citizens and local government to develop solutions for open data.

Links:

- California Open Data Portal - <http://data.ca.gov>
- Executive Order B-18-12 - <https://www.gov.ca.gov/news.php?id=17506>
- Greenbuildings.ca.gov - <http://greenbuildings.ca.gov/>
- Under 2 Coalition - <http://www.under2MOU.org>