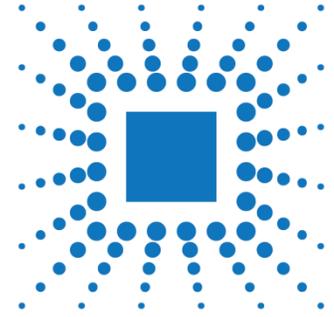


CASE STUDY

## Green Buyer Project Implementing Transparency in California's State Spend

**California Department of General  
Services, Procurement Division**

Submitted by: Mark Wriston, Senior Procurement Engineer and  
Devika Singh, Research Data Specialist



**SUSTAINABLE  
PURCHASING  
LEADERSHIP  
COUNCIL**  
CASE STUDY  
LIBRARY

## Abstract

California’s Governor, Gavin Newsome signed Executive Order (EO) N-19-19 to redouble efforts to reduce greenhouse gas emissions and mitigate the impacts of climate change. The Department of General Services (DGS) addressed the EO by encouraging sustainable purchasing across state departments that prioritize purchases such as recycled materials consistent with State climate policies. DGS participated in a Green Buyer website project to track state department progress toward achieving California’s climate goals and to minimize its environmental footprint and human health impacts guided by California Public Contract Code (PCC) 12400-12404. Using the State Contract and Procurement Registration System (SCPRS) data, DGS was able to track overall total Environmentally Preferable Purchasing (EPP) contracting dollars reported by California state departments. In addition, by requesting usage reports from our suppliers DGS was able to utilize life cycle assessment (LCA) calculators to estimate the environmental impacts of over \$97 billion of state spending from 2016 to 2019. These items included, printers, copiers, laptops, desktops, monitors, multifunctional devices as well as a range of paper products.

## Summary

Goals	Strategies	Results
Create transparency in state agency EPP spend and show the contrast between spend that could be EPP vs. spend that was not EPP.	Provide a web site with public facing data for state department spent on purchases that could have been green and to further create opportunities for departments to incorporate EPP.	Drive the use of sustainable purchasing and EPP by identifying areas that require improvement in their procurement practices.
Benchmark the maturity of state department sustainable purchasing against others to provide transparency and identify leadership in purchasing across California.	Analyze the results of each state department noncompliant and compliant EPP spend to further identify spend impacts.	Departments are able to identify other departments that have a more mature sustainable purchasing program and leverage their insight to improve their own process.
Benchmark opportunities for transparency associated with statewide contract purchases to further identify supply-chain impacts with state expenditures.	Communicate results and outcomes of the Spend analysis in conjunction with holding the Collaboration and Building your Sustainable Purchasing Program Interactive Workshop on April 2, 2019.	Recommendations were offered to use and adopt DGS EPP statewide contracts to lessen environmental impacts. State departments were encouraged to use suppliers that offer recycled products.

## Goals

The goal is for the overall advancement of integrating Environmentally Preferable Purchasing (EPP)

### SPLC Principles of Leadership

**Understanding.** Understanding the relevant environmental, social, and economic impacts of its purchasing.

**Commitment.** Taking responsibility for the relevant environmental, social, and economic impacts of its purchasing by committing to an action plan.

**Results.** Delivering on its commitment to improve the relevant environmental, social, and economic impacts of its purchasing.

**Innovation.** Actively promoting internal and external innovation that advances a positive future.

**Transparency.** Soliciting and disclosing information that supports a marketplace of innovation.

into California’s eProcurement process and to provide transparency. With the implementation of the Green Buyer departments across the state must consider EPP as an integral part within their procurement process. EPP integration promotes California’s transparency, its commitment to “buy green”, and market innovation in the way California’s government conducts its procurement processes. California state departments are now asked to measure the maturity

of their own internal procurement operations. Comparing Sustainable Public Procurement (SPP) strengthens SPP globally, creating a shared understanding of the possibilities and opportunities for improvement, thus establishing a framework for specific actions: With the above mentioned guiding principles in mind, DGS promotes inclusion, planning, and clear thinking derived from SPLC guidance. The approach is both analytical and pragmatic, and features the goals, strategies, and results listed below.

## Strategies and Actions

The Green Buyer site brings about transparency in state departments commitment to sustainable purchasing. It highlights departments’ missed opportunity to buy EPP and is one of three internet websites displaying the departments’ sustainability progress; buildings, fleet and purchasing. Departments are able to compare their progress in relation to other department’s progress statewide.

<b>Social</b>	<b>Environmental</b>	<b>Economic</b>
<p>Social factors affect the social systems on which communities depend, now and in the future.</p> <ul style="list-style-type: none"> <li>+ anti-discrimination</li> <li>+ community engagement</li> <li>+ diversity/equal opportunity</li> <li>+ employee engagement</li> <li>+ equal remuneration</li> <li>+ fair trade</li> <li>+ freedom of association</li> <li>+ grievance &amp; remedy processes</li> <li>+ human rights</li> <li>+ indigenous rights</li> <li>+ occupational health &amp; safety</li> <li>+ right to collective bargaining</li> <li>+ sustainable compensation</li> <li>+ training and education</li> <li>+ worker rights</li> <li>- child labor</li> <li>- forced/compulsory labor</li> <li>- human trafficking</li> <li>- sourcing from conflict zones</li> </ul>	<p>Environmental factors affect the natural systems on which life depends, now and in the future.</p> <ul style="list-style-type: none"> <li>+ biodiversity preservation</li> <li>+ climate adaptation</li> <li>+ resource optimization</li> <li>+ soil health stewardship</li> <li>- acidification</li> <li>- desertification</li> <li>- eutrophication</li> <li>- freshwater pollution</li> <li>- greenhouse gas emissions</li> <li>- habitat depletion</li> <li>- human health impacts</li> <li>- land use change</li> <li>- marine pollution</li> <li>- ozone depletion</li> <li>- radiation pollution</li> <li>- resource depletion</li> <li>- smog</li> <li>- waste</li> <li>- water consumption</li> </ul>	<p>Economic factors affect the financial systems on which our markets depend, now and in the future.</p> <ul style="list-style-type: none"> <li>+ fair dealings</li> <li>+ innovation research / investment</li> <li>+ open competition</li> <li>+ transparency of information</li> <li>+ use of diverse suppliers</li> <li>+ use of HUB zones</li> <li>+ use of local suppliers</li> <li>- conflicts of interest</li> <li>- corruption (bribery, extortion...)</li> <li>- dividing territories</li> <li>- dumping</li> <li>- exclusive dealing</li> <li>- misleading market claims</li> <li>- monopoly (seller collusion)</li> <li>- monopsony (buyer collusion)</li> <li>- patent misuse</li> <li>- price fixing</li> <li>- product tying</li> <li>- refusal to deal</li> </ul>

The department of General Services used these lists to ensure purchased goods generate benefits, not only for the organization, but also for the environment, society and economy. Therefore, our strategic plan was to think expansively and holistically about the full range of opportunities to increase benefits and reduce negative impacts. As a result, the tangible economic benefits were innovation and performance tracking. The intangible benefits were building supplier relationships by requesting completed usage reports and providing investor visibility by reporting that data publicly on the Green Buyer site.

The three lists draw on areas of sustainable purchasing from the UN Guiding Principles on Business and Human Rights, International Bill of Human Rights, the Global Reporting Initiative, lifecycle Assessment standards, UN Global Compact and other resources.

### Planning and making a request

Department of General Services/ Procurement Division (DGS/PD) had an opportunity to leverage greater cost savings and more sustainable outcomes through the Leveraged Procurement Agreements (LPA) contract process since specifications and solicitations are developed within DGS/PD. To understand where contract decisions are made we decided to analyze the various procurement methods and contract types.

Leveraged Procurement Agreements (LPA), delegated purchasing authority and exempt purchases are some of the methods used to purchase. Contracts identified as “EPP” can offer sustainability benefits to both state and local governments and are posted to the DGS web site

(<https://www.dgs.ca.gov/PD/Resources/Find-EPP-Goods-and-Services#@ViewBag.JumpTo a DGS Buying Green Guide>).

Some of these contracts meet a minimum of EPEAT silver and ranks within the top twenty-five

Contract Types
INFORMATION TECHNOLOGY (IT) GOODS
IT SERVICES
IT CONSULTING SERVICES
NON-IT GOODS
NON-IT SERVICES
NON-IT CONSULTING SERVICES
PUBLIC WORKS
ARCHITECTURAL AND ENGINEERING SERVICES
INTERAGENCY AGREEMENTS
GRANTS AND SUBVENTIONS
MEMBERSHIPS AND SPONSORSHIPS

percent for energy savings of similar EnergyStar® rated products. Through delegated purchasing authority departments follow the State Contracting Manual (SCM), DGS/PD procurement policy, to create contracts within their internal department procurement offices and report these transactions within SCPRS. Departments exempt from DGS authority however, are not exempt from governors' executive orders and therefore are included in the transparency results.

### Preparing Data

To conduct the Green Buyer project DGS/PD ran an analysis with three fiscal years of SCPRS data

understanding SCPRS exempt spend may only be recorded in departments financial systems. Analyzing multiple years of data was important to convey the challenges of measuring improvements and thus leadership on the basis of spend alone. Sways in spending can reflect decreased spending related to recession or operational changes. Another challenge to consider is data quality. The cleaner the data, the less time spent on cleansing it and the more accurate the results of the non EPP and EPP spend will be. Sustainable purchasing can yield economic benefits in State government in terms of cost reduction and revenue growth.

## PHASE 1: Economic Impacts California state Spend

The data sources used for calculations are:

- Fi\$Cal State Contract & Procurement Registration (SCPRS):

  - Tracks overall total contracting dollars and contracts procured by the state of California.
- United Nations Standard Products and Services® (UNSPSC®):

  - Managed by the GS1 US™ for the UN Development Programme (UNDP), the UNSPSC is a classification standard used to categorize products and services to achieve statewide visibility and allow for spend analysis. Encompassing a five level hierarchical classification code set, UNSPSC enables expenditure analysis at grouping levels.
- CalRecycle publishes its *State Agency Buy Recycled Campaign (SABRC) Reporting Results*

In order to calculate the progress of EPP purchases several steps were taken:

1. The Department of General Services (DGS) Environmental Preferred Program (EPP) Unit, identified UNSPSCs at the lowest level of the hierarchical classification code set to identify EPP qualified items from statewide contracts, third-party certifications and purchasing standards.
2. Using SAS Enterprise Guide, the EPP UNSPSCs table was then matched to the Fi\$Cal SCPRS data set. This created a table of all purchases identified with EPP UNSPSCs.
3. Using the table of all purchases identified with EPP UNSPSCs a query was developed to identify purchases made within several categories:
  - a. Contract Purchases (Yes/No)<sup>i</sup>
  - b. Third Party Purchases (Yes/No)<sup>ii</sup>
  - c. Purchasing Standard (Yes/No)
  - d. Leveraged Procurement Agreements (LPA) Group<sup>iii</sup>
  - e. LPA Group Name (statewide/No)<sup>iv</sup>
  - f. EPP (Yes/No)<sup>v</sup>

This query also summed the spend by EPP UNSPSCs and provided the calendar year in which the purchases were made. The data results of this query were then used to create the graphs found on this website.

The data sets were derived from the EPP UNSPSCs Spend query results with the contracts indicator of 'Yes' and a summation of spend based on the LPA Group Name identifier of 'No' or 'statewide'. The 'statewide' indicator means a statewide contract was used for the purchase, and therefore the EPP standards and specifications were used. The 'No' indicates items with the same UNSPSCs that could have been purchased on a statewide contract, but were not thus a missed EPP opportunity.

EPP UNSPSCs were assigned a Buying Green Category Code and Category to stay consistent with the *Green Buyer website*.

1. A match was performed between the EPP UNSPSCs with the Category Codes and Category to the EPP UNSPSCs Spend query results. This resulted in the identification of the appropriate Category Code and Category.
2. Using the LPA Group Name of 'No' (Non-statewide purchases) and the EPP indicator of 'No' the Spend by EPP Category groups was summed. The results from this data extract provided information on purchases made by the state that were potentially *not* EPP purchases.
3. In order to designate a purchase as Environmentally Preferable (EPP), the purchase must fulfill one or more of the following criteria:

- a. Acquired through an EPP Item
- b. Meet a DGS purchasing standard
- c. Include third-party environmental certifications
- d. Include the availability of a take-back program
- e. Be SABRC compliant
- f. Get recorded in Fi\$Cal as EPP

California Department of Resources and Recovery (CalRecycle) annually reports publically an overview of state agency purchasing of post-consumer recycled content (PCRC) and require reporting on the result of their recycled content purchases within 11 categories of material types. CalRecycle also monitors each agency performance, identifies special needs, technical assistance and identifies obstacles and market trends. SABRC is one of the criteria to designate a purchase as EPP. Therefore, DGS included this data on the Green Buyer website.

1. Identify agencies using the department naming format we used for EPP
2. Include the total non-compliant dollars for each department. DGS calculated this on our end but the information was provided in the SABRC reporting results (Fiscal Year (FY) 2017-2018 Reporting Cycle) for the state overall and not by department. Once agencies start entering the SABRC data correctly into Fi\$cal we would no longer need this workaround.

## PHASE 2: Environmental Impacts and Transparency in the Supply chain

### Green Buyer Sidebar Data Sources and Calculations

- The side bar utilizes purchasing data from the Department of General Services' Procurement Division's 2017 calendar year Fi\$Cal reports for paper products, PC goods, and imaging equipment. This shows the environmental impacts from purchasing products that meet Environmentally Preferable Purchasing (EPP) criteria compared to those that do not.
- This includes the items of: printers, copiers, laptops, desktops, monitors, and multifunctional devices, as well as a range of different size and formations of paper.

Product <sup>vi</sup>	EPP metric <sup>vi</sup>	Quantity <sup>vi</sup>
Desktop	ENERGY STAR certified	units
Laptop	ENERGY STAR certified	units

Monitor	ENERGY STAR certified	units
Multifunctional device	ENERGY STAR certified	units
Printers	ENERGY STAR certified	units
Paper	Postconsumer Recycled Content	Pounds

The following calculators were used to evaluate products purchased:

1. *The Paper Calculator*

The Paper Calculator is a comprehensive assessment tool developed by the Environmental Defense Fund and is now under ownership by the Environmental Paper Network – a coalition of over 100 non-profit organizations. It allows users to measure and compare lifecycle environmental impacts based on mass of paper, paper choice, and postconsumer recycled content (PCRC). The environmental impacts presented here were calculated using pounds of paper purchased containing PCRC compared to equal mass of virgin paper.

The Office Equipment Calculator was developed by the U.S. Environmental Protection Agency and Department of Energy to estimate energy and operating costs of office equipment certified by ENERGY STAR. Quantities of each office equipment commodity purchased was entered and kilowatt-hours (kWhr) saved over the course of a product’s lifetime was calculated. More information on this calculator and its methodology can be found within the calculator.

2. *U.S. Environmental Protection Agency (EPA) Greenhouse Gas Equivalencies Calculator*

The Greenhouse Gas Equivalencies Calculator takes emissions or energy data and converts them into relatable terms. The sum of kWhr saved by ENERGY STAR certified office equipment and manufacturing paper with postconsumer recycled content was entered to produce the equivalencies seen on the side bar including, CO2 emissions from cars diverted, millions of trees saved, etc. More information on the methodology and conversions can be found on the calculator’s website.

3. *U.S. Energy Information Administration (EIA)*

The average site electricity consumption for homes in California was calculated at 6.9 megawatt-hours. This number came from the U.S. Energy Information Administration’s Quick Facts, and was used to calculate the annual number of California homes’ that could be powered with the electricity saved from buying ENERGY STAR PC goods and office equipment.

Savings in 2018		
		
Energy Savings 14,268 Megawatt hours Saved	Emissions Reduction 32,384,922 Pounds of CO <sub>2</sub>	EPP Contracts 88 As of December 2018

EPP Statewide Contract Use at a Glance Calendar Year 2018	
Paper	
 Energy Savings 4,598 Megawatt hours Saved	 Equivalent Emissions Reduction 1,621 Gasoline powered cars taken off the road
 Trees Saved 40,719	 Gallons of Water Saved 2,254,000

EPP Statewide Contract Use at a Glance Calendar Year 2018	
Office Equipment	
 Energy Savings 9,379 Megawatt hours Saved	 Equivalent Emissions Reduction 1,311 Gasoline powered cars taken off the road

 <b>Equivalent Energy Savings</b> 1,562 Homes powered	 <b>Dollars Saved</b> \$1,199,574 Using life cycle cost analysis
---	--

<sup>1</sup> DGS Usage Reports for Calendar year 2018

TIP

Degree of Influence

**STAKEHOLDER ENGAGEMENT:** An invitation to be part of the solution.

DGS must share the results of the analysis, answer questions, and begin engaging appropriate departments and agencies in the development of next steps and action plans.

- Understanding your own state department policy in relation to the data maintained with an enterprise resource system can help determine the amount of spend data to analyze. Policies assist in gaining management support and understanding where the greatest opportunities are to influence change.
- Kick-off meetings internally and externally are crucial to the success of your analysis especially if you are reliant on data for various resources to alleviate apprehension and uncooperative behaviors.
- Data Key and point of contact are also important in understanding how you can use the data to identify spend and environmental impacts.

## Financial Information

There was not a budget for this project outside of DGS staff. DGS employees were tasked with developing the Green Buyer website. Department of General Services serves as business manager for the state of California; therefore, the DGS/PD management approved the Green Buyer project to increase EPP purchasing and provide transparency within our supply chain.

## Results

This Green Buyer pilot project successfully quantified economic and environmental impacts associated with state spend for three fiscal years and prioritized actions to address climate policies. The success can be attributed to the support and commitment of executive management, stakeholder engagement and training offered to state government. Exploration about how to measure the leadership maturity in sustainable purchasing by large governmental organizations would further advancement.

## Benefits

The Green Buyer project successfully quantifies economic and environmental impacts associated with state spend and prioritizes strategies to address climate policies. Public facing results provide a multi organizational approach to bring about shared lessons, greater collaboration and opportunities to streamline processes to further sustainable purchasing practices globally. This approach can drive suppliers to address purchasers' requests for information. By mapping the process to provide transparency in state spend and environmental impacts promotes other organizations to gain more insight into procurement processes. Others can reference the lessons learned by those producing similar work and plan accordingly to avoid pitfalls or celebrate like achievements. Cost and time to run a spend analysis and calculate environmental impacts will lessen as purchasers and suppliers become more familiar with the overall process.

## Lessons Learned

- An understanding of the complexities within the procurement processes is critical in order to take the results of Spend Analysis into an action.
- Varied levels of authority to control or influence the procurement decisions is an integral part of the analysis.
- An in-depth understanding of procurement process and policy is necessary in order to bring the findings of Spend Analysis into practicable action within an organization to conduct a quantitative, spend analysis
- Engagement with buyers and or suppliers for top priority spend categories is essential to improve the reliability of Spend Analysis results and, more importantly, to understand how meaningful impact reductions can be achieved in these areas
- Provision of information on social and financial implications of purchasing such as job creation potential and cost savings help public organizations make informed decisions in the context of sustainable purchasing.
- Communicating the outcomes of a spend analysis and environmental impacts provides an opportunity to develop sustainable procurement practices within an organization. failure of departments to comply with mandatory contract usage

## References and Additional Resources

Financial Information System of California (FI\$CAL) State Contract

Procurement Registry System (SCPRS)

<https://green.ca.gov/Buyer>

<https://www.calrecycle.ca.gov/buyrecycled/stateagency/status/>

- 
- <sup>i</sup> Contract Purchases derived from the Fi\$Cal Acquisition Method
  - <sup>ii</sup> Third Party Purchases and Purchasing Standards identified by the EPP Unit
  - <sup>iii</sup> Leveraged Procurement Agreements extracted from Fi\$Cal LPA data field
  - <sup>iv</sup> LPA Group Name derived from LPA Group: if LPA Group = 'statewide'; then 'statewide'; else 'No'
  - <sup>v</sup> EPP column derived directly from Fi\$Cal
  - <sup>vi</sup> Usage Report data derived from DGS Usage reports