

STATE OF CALIFORNIA  
 Budget Change Proposal - Cover Sheet  
 DF-46 (REV 08/15)

Fiscal Year 2016/17	Business Unit 3360	Department California Energy Commission	Priority No.
Budget Request Name 3360-008-BCP-DP-2016-GB		Program VARIOUS	Subprogram VARIOUS

Budget Request Description  
 SB 350 (De Leon) Implementation of the Clean Energy and Pollution Reduction Act of 2015

Budget Request Summary

This proposal requests baseline authority for 29.5 permanent positions and ongoing contract funds of \$3.45 million, for a total request of \$7.646 million from the Cost of Implementation Account, Air Pollution Control Fund, to implement the Clean Energy and Pollution Reduction Act of 2015 (Senate Bill 350, De León, Chapter 547, Statutes of 2015). The Act requires the Energy Commission to: establish annual targets for statewide energy efficiency savings and demand reductions to achieve a cumulative doubling of energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; prepare an assessment of the effects of these savings on electricity demand statewide, in local service areas, and on an hourly and seasonal basis by 2019; administer an increased Renewables Portfolio Standard of 50 percent by 2030 for publicly owned utilities; produce guidelines for and review integrated resource plans from the 16 largest publicly owned utilities starting in 2019 and make recommendations on any deficiencies in those plans; and conduct studies on barriers to renewable energy, energy efficiency, and zero- and near-zero emission transportation options for low-income and disadvantaged communities by January 1, 2017.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed
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Does this BCP contain information technology (IT) components? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO	Date
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For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

<input type="checkbox"/> FSR <input type="checkbox"/> SPR	Project No.	Date:
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If proposal affects another department, does other department concur with proposal?     Yes     No  
*Attach comments of affected department, signed and dated by the department director or designee.*

Prepared By	Date	Reviewed By <i>UWail</i>	Date 12/21/15
Department Director <i>[Signature]</i>	Date 12-21-15	Agency Secretary <i>[Signature]</i>	Date 12/30/15

Department of Finance Use Only

Additional Review:     Capital Outlay     ITCU     FSCU     OSAE     CALSTARS     Dept. of Technology

BCP Type:                     Policy                     Workload Budget per Government Code 13308.05

PPBA	Original Signed By: Ellen Moratti	Date submitted to the Legislature 1/7/16
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# BCP Fiscal Detail Sheet

BCP Title: Clean Energy and Pollution Reduction Act of 2015 (SB 350)

DP Name: 3360-008-BCP-DP-2016-GB

## Budget Request Summary

	FY16					
	CY	BY	BY+1	BY+2	BY+3	BY+4
Positions - Permanent	0.0	29.5	29.5	29.5	29.5	29.5
<b>Total Positions</b>	<b>0.0</b>	<b>29.5</b>	<b>29.5</b>	<b>29.5</b>	<b>29.5</b>	<b>29.5</b>
Salaries and Wages						
Earnings - Permanent	0	2,211	2,211	2,211	2,211	2,211
<b>Total Salaries and Wages</b>	<b>\$0</b>	<b>\$2,211</b>	<b>\$2,211</b>	<b>\$2,211</b>	<b>\$2,211</b>	<b>\$2,211</b>
Total Staff Benefits	0	952	952	952	952	952
<b>Total Personal Services</b>	<b>\$0</b>	<b>\$3,163</b>	<b>\$3,163</b>	<b>\$3,163</b>	<b>\$3,163</b>	<b>\$3,163</b>
Operating Expenses and Equipment						
5301 - General Expense	0	266	266	266	266	266
5302 - Printing	0	59	59	59	59	59
5304 - Communications	0	118	118	118	118	118
5306 - Postage	0	59	59	59	59	59
5320 - Travel: In-State	0	118	118	118	118	118
5322 - Training	0	59	59	59	59	59
5324 - Facilities Operation	0	295	295	295	295	295
5340 - Consulting and Professional Services - External	0	3,450	3,450	3,450	3,450	3,450
5346 - Information Technology	0	59	0	0	0	0
<b>Total Operating Expenses and Equipment</b>	<b>\$0</b>	<b>\$4,483</b>	<b>\$4,424</b>	<b>\$4,424</b>	<b>\$4,424</b>	<b>\$4,424</b>
<b>Total Budget Request</b>	<b>\$0</b>	<b>\$7,646</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>
<b>Fund Summary</b>						
Fund Source - State Operations						
3237 - Cost of Implementation Account, Air Pollution Control Fund	0	7,646	7,587	7,587	7,587	7,587
<b>Total State Operations Expenditures</b>	<b>\$0</b>	<b>\$7,646</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>
<b>Total All Funds</b>	<b>\$0</b>	<b>\$7,646</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>

## Program Summary

Program Funding						
2380019 - Electricity Analysis	0	496	490	490	490	490
2385010 - Building and Appliances	0	4,107	4,082	4,082	4,082	4,082

2385028 - Demand Analysis	0	1,214	1,204	1,204	1,204	1,204
2390028 - Renewable Energy	0	1,829	1,811	1,811	1,811	1,811
<b>Total All Programs</b>	<b>\$0</b>	<b>\$7,646</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>	<b>\$7,587</b>

**Personal Services Details**

Positions	Salary Information								
	Min	Mid	Max	<u>CY</u>	<u>BY</u>	<u>BY+1</u>	<u>BY+2</u>	<u>BY+3</u>	<u>BY+4</u>
3578 - Supvng Mech Engr (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	2.0	2.0
3583 - Mech Engr (Eff. 07-01-2016)				0.0	5.0	5.0	5.0	5.0	5.0
4056 - Assoc Energy Spec (Tech Eval & Develmt) (Eff. 07-01-2016)				0.0	3.0	3.0	3.0	3.0	3.0
4058 - Energy Commission Supvr II (Tech Eval & Develmt) (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
4184 - Energy Commission Spec I (Tech Eval & Develmt) (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	2.0	2.0
4599 - Energy Commission Supvr II (Forecasting ) (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
4841 - Electric Generation Sys Spec I (Eff. 07-01-2016)				0.0	3.0	3.0	3.0	3.0	3.0
4847 - Electric Generation Sys Program Spec I (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
4936 - Energy Commission Spec II-Efficiency (Eff. 07-01-2016)				0.0	3.0	3.0	3.0	3.0	3.0
4937 - Energy Commission Spec III-Efficiency (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
4947 - Energy Commission Spec I-Forecasting (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	2.0	2.0
4948 - Energy Commission Spec II-Forecasting (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
4949 - Energy Commission Spec III-Forecasting (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	1.0	1.0
5795 - Atty III (Eff. 07-01-2016)				0.0	1.5	1.5	1.5	1.5	1.5
5837 - Energy Analyst (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	2.0	2.0
<b>Total Positions</b>				<b>0.0</b>	<b>29.5</b>	<b>29.5</b>	<b>29.5</b>	<b>29.5</b>	<b>29.5</b>

Salaries and Wages	<u>CY</u>	<u>BY</u>	<u>BY+1</u>	<u>BY+2</u>	<u>BY+3</u>	<u>BY+4</u>
3578 - Supvng Mech Engr (Eff. 07-01-2016)	0	221	221	221	221	221
3583 - Mech Engr (Eff. 07-01-2016)	0	314	314	314	314	314
4056 - Assoc Energy Spec (Tech Eval & Develmt) (Eff. 07-01-2016)	0	180	180	180	180	180
4058 - Energy Commission Supvr II (Tech Eval & Develmt) (Eff. 07-01-2016)	0	94	94	94	94	94

4184	- Energy Commission Spec I (Tech Eval & Develmt) (Eff. 07-01-2016)	0	132	132	132	132	13
4599	- Energy Commission Supvr II (Forecasting ) (Eff. 07-01-2016)	0	94	94	94	94	9
4841	- Electric Generation Sys Spec I (Eff. 07-01-2016)	0	261	261	261	261	26
4847	- Electric Generation Sys Program Spec I (Eff. 07-01-2016)	0	98	98	98	98	9
4936	- Energy Commission Spec II-Efficiency (Eff. 07-01-2016)	0	217	217	217	217	21
4937	- Energy Commission Spec III-Efficiency (Eff. 07-01-2016)	0	80	80	80	80	8
4947	- Energy Commission Spec I-Forecasting (Eff. 07-01-2016)	0	132	132	132	132	13
4948	- Energy Commission Spec II-Forecasting (Eff. 07-01-2016)	0	72	72	72	72	7
4949	- Energy Commission Spec III-Forecasting (Eff. 07-01-2016)	0	80	80	80	80	8
5795	- Atty III (Eff. 07-01-2016)	0	159	159	159	159	15
5837	- Energy Analyst (Eff. 07-01-2016)	0	77	77	77	77	7
<b>Total Salaries and Wages</b>		<b>\$0</b>	<b>\$2,211</b>	<b>\$2,211</b>	<b>\$2,211</b>	<b>\$2,211</b>	<b>\$2,211</b>
Staff Benefits							
5150350	- Health Insurance	0	257	257	257	257	25
5150600	- Retirement - General	0	695	695	695	695	69
<b>Total Staff Benefits</b>		<b>\$0</b>	<b>\$952</b>	<b>\$952</b>	<b>\$952</b>	<b>\$952</b>	<b>\$952</b>
<b>Total Personal Services</b>		<b>\$0</b>	<b>\$3,163</b>	<b>\$3,163</b>	<b>\$3,163</b>	<b>\$3,163</b>	<b>\$3,163</b>

## Analysis of Problem

### A. Budget Request Summary

This proposal requests baseline authority for 29.5 permanent positions and ongoing contract funds of \$3.45 million, for a total request of \$7.646 million from the Cost of Implementation Account, Air Pollution Control Fund, to implement the Clean Energy and Pollution Reduction Act of 2015 (Senate Bill 350, De León, Chapter 547 Statutes of 2015). The Act requires the Energy Commission to: establish annual targets for statewide energy efficiency savings and demand reductions to achieve a cumulative doubling of energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; prepare an assessment of the effects of these savings on electricity demand statewide, in local service areas, and on an hourly and seasonal basis by 2019; administer an increased Renewables Portfolio Standard of 50 percent by 2030 for publicly owned utilities; produce guidelines for and review integrated resource plans from the 16 largest publicly owned utilities starting in 2019 and make recommendations on any deficiencies in those plans; and conduct studies on barriers to renewable energy, energy efficiency, and zero- and near-zero emission transportation options for low-income and disadvantaged communities by January 1, 2017.

### B. Background/History

This Budget Change Proposal (BCP) addresses resource needs in three distinct program areas within the Energy Commission: Energy Efficiency; Energy Assessments; and Renewable Energy.

#### ENERGY EFFICIENCY

SB 350 calls for the Energy Commission to design, implement, evaluate, and report on comprehensive programs over a 15-year period. The Energy Commission anticipates requesting additional staff and resources in future fiscal years as mandated programs are developed and future needs are identified. SB 350 continues, enhances and expands the existing building energy efficiency program established by Assembly Bill 758 (Skinner, Chapter 470, Statutes of 2009), providing new direction including periodic updating of the program to achieve the governor's and legislature's energy efficiency savings doubling goal. The following are some of the more significant energy efficiency mandates of SB 350:

- Added Public Resources Code (PRC) section 25943(f)(2) to require the Energy Commission, on or before January 1, 2017, and at least every three years thereafter to update the AB 758 program in furtherance of achieving a cumulative doubling of statewide energy efficiency savings by 2030.
- Directs the Energy Commission, in collaboration with the California Public Utilities Commission (CPUC) and local publicly owned utilities, to establish annual targets for statewide energy efficiency and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030
- Requires the Energy Commission to adopt, implement and enforce responsible contractor policies to ensure that retrofits meet high-quality performance standards and reduce energy savings lost or forgone due to poor-quality workmanship, and to establish consumer protection guidelines for energy efficiency products and services.
- Requires the Energy Commission by January 1, 2017, to develop and publish a study on barriers for low-income customers to energy efficiency and weatherization investments, including those in disadvantaged communities, and recommendations on how to increase access to these investments

#### ENERGY ASSESSMENTS

As pointed out in January 2013 by the Little Hoover Commission, the Legislative Analyst's Office, and the Senate Committee on Energy, Utilities and Communication, questions exist about whether energy efficiency, demand response, and customer-side generation reductions are being appropriately captured in the Energy Commission's demand forecasts. To meet the goals of SB 350, the Energy Commission must acquire and analyze massive amounts of energy consumption data to document energy-using equipment and characteristics in buildings, new energy efficiency measures being added, and, consequently, how retail consumption changes over time.

## Analysis of Problem

### RENEWABLE ENERGY

California established its RPS program with the enactment of Senate Bill 1078 (Sher, Chapter 516, Statutes of 2002), which required California's electricity retail sellers (defined as investor-owned utilities, community choice aggregators, and electric service providers) to procure 20 percent of their retail electricity sales with eligible sources of renewable energy by 2017. In 2006, Senate Bill 107 (Simitian, Chapter 464, Statutes of 2006) accelerated the RPS target to 20 percent by 2010, and in 2011, Senate Bill X1-2 (Simitian, Chapter 1, Statutes of 2011) expanded the RPS target to 33 percent renewables by 2020. SB X1-2 also expanded the RPS requirements to include publicly owned utilities (POUs) and directed the Energy Commission to adopt regulations specifying procedures for enforcement of the RPS for POUs; certify and verify eligible renewable energy resources procured by POUs in addition to the retail sellers; and monitor POU compliance with the RPS and refer any failures to comply to the Air Resources Board (ARB), which may impose penalties.

SB 350 expands the existing RPS program to 50 percent by 2030, amends rules for the existing program, and includes new requirements for the expanded target which begin in 2021. SB 350 significantly increases the amount of renewable generation data the Energy Commission will need to collect and process (approximately half again as much as under the 33 percent RPS). It also requires: a new rulemaking to implement new requirements in SB 350; updates to the RPS Eligibility Guidebook to reflect new eligibility criteria and reporting requirements; and the Energy Commission to conduct studies on barriers to, and opportunities for, solar photovoltaic energy generation and access to other renewable energy by low-income customers, and barriers to contracting opportunities for local small businesses in disadvantaged communities, both due January 1, 2017.

#### **C. State Level Considerations**

This proposal is consistent with and enhances a number of statewide energy efficiency and greenhouse gas reduction policies and goals:

- In April 2015, Governor Brown issued Executive Order B-30-15 to establish a California greenhouse gas (GHG) reduction target of 40 percent below 1990 levels by 2030 – the most aggressive benchmark enacted by any government in North America to reduce dangerous carbon emissions over the next decade and a half.

The *Existing Buildings Energy Efficiency Action Plan* was expressly adopted with the intent of achieving the Governor's and now Legislature's doubling goal. The *Action Plan* provides a 10-year roadmap to activate market forces and transform California's existing residential, commercial, and public building stock into high-performing and energy-efficient buildings. The Energy Commission develops a 10-year forecast of electricity and natural gas demand every two years as part of the IEPR. The CPUC, CA ISO and California utilities provide historical energy efficiency savings and additional achievable energy efficiency savings estimates used in the Energy Commission's demand forecast and to analyze peak electricity demand. The forecasts are used by the agencies for the following purposes:

- CPUC's efficiency potential and goals studies, which guide future program and funding decisions for the investor-owned utilities.
- CPUC and CA ISO decisions on electricity procurement and transmission planning.
- CPUC and Energy Commission recommended portfolios of resources used in the CA ISO's transmission planning process.

Recent studies have indicated that to achieve California's greenhouse gas emissions reduction targets, the state's electricity system will likely need to be higher than 50 percent renewable by 2030. California's RPS program is therefore critical to achieving the state's clean energy goals and must be sufficiently staffed to be implemented successfully, to ensure compliance, and to monitor progress toward the state's goals.

No other state departments are adversely impacted by this proposal. The CPUC uses the Energy Commission staff's RPS procurement verification findings for retail sellers to determine RPS compliance and carry out RPS enforcement for those entities. The CPUC will also coordinate with the

## Analysis of Problem

Energy Commission to implement various components of SB 350, including establishing an advisory group representing disadvantaged communities and a publicly available tracking system to show progress toward SB 350's clean energy goals, among other things. The ARB will use the Energy Commission's compliance findings for POUs to determine possible enforcement penalties. RPS staff meets regularly with CPUC and ARB staff to coordinate on RPS rules and policies, and both agencies have been supportive of the Energy Commission's role in implementing the state's RPS program.

The objectives and mandates of SB 350 are consistent with the Energy Commission's strategic plan.

### D. Justification

#### **ENERGY EFFICIENCY**

##### **Energy Efficient Existing Buildings Data Tools and Planning (5 PY + \$1M in contracts)**

- **Data Analytics Platform and Energy Use Baselines**

SB 350 requires the Energy Commission to acquire and manage a very large volume of data. This data is key to the Governor's and Legislature's goal of expanding energy efficiency in California. Energy Commission staff will adopt and align common data exchange protocols to ensure streamlined collection, effective management and security. Staff will develop a system to provide simple, standardized access to customers and market agents assisting them so they can easily understand their real-time energy use and assess needs. Armed with detailed energy data, the energy efficiency market will be able to provide tools to enable building owners to perform extensive energy efficiency upgrades.

Staff will also establish energy-use baselines at appropriate granular, geographic, building type, and building vintage levels.

The Energy Commission will develop a standardized data vocabulary of energy and carbon related terms and define each term's constraints (such as units, range, type) to be followed consistently across agencies and programs. This common dictionary will provide the critical foundation necessary for seamless data exchange across sectors, programs, agencies, markets and consumers.

- **Energy Consumption Baselines**

Energy Commission staff will develop and publish baseline building energy use and greenhouse gas emissions estimates for all California existing buildings, for use in establishing methods to monitor the attainment of doubling energy savings by 2030. It is critical that we understand our baseline in order to determine whether we are making progress against our goals.

- **SB 350/AB 758 Action Plan and Program Updates Based on Energy Efficiency Targets**

SB 350 [PRC section 25310(e)] directs the Energy Commission to provide recommendations and an update on progress toward achieving a doubling of energy efficiency savings in final end uses of retail customers through direct setting of annual targets for energy efficiency and demand reduction, in conjunction with the Energy Commission's demand forecasting staff, the CPUC, and local publicly owned utilities [PRC section 25310(c)(1)]. To respond to this mandate the Energy Commission will establish energy savings potential estimates that are not constrained to utility energy efficiency savings levels. Energy Commission staff will:

- Use a public process to engage appropriate stakeholders, and develop cost-effectiveness calculation methodologies to judge the merits of possible energy savings options.
- In collaboration with the CPUC, plan and implement potential studies of statewide residential and nonresidential existing building energy savings including the Energy Commission's cost-effectiveness methodologies.
- Critically review all potential efficiency technologies and their savings estimates.

## Analysis of Problem

- **Barriers to Low-income Energy Efficiency and Weatherization**

SB 350 requires the Energy Commission to:

- Engage with private investors, facility managers, contractor workforce, community-based organizations, utilities, energy design consultants, and other stakeholders working with disadvantaged communities to understand barriers to increased investment in energy efficiency and identify both short-term and long-term solutions. Requested resources would be used to develop study methodologies, including interview questionnaires, identification of stakeholder groups and review of best practices, and conduct investigations required to complete the study. Study findings and recommendations will include how to increase public investment, and how to strategically achieve greater private investment for low-income and disadvantaged communities.
- Engage with statewide utilities to develop functional requirements for machine-readable utility rate information. Once finalized, integrate utility rate data protocols with the energy data dictionary being developed as discussed in the data exchange protocols discussed above.
- Establish and maintain an ongoing, statewide tariff database and building energy modeling software that uses that database to expand the use of site-specific utility allowances, as one important tool for achieving greater investment in affordable housing.

### **Contractor High-Quality Performance Standards and Consumer Protection (1 PY + \$500K in contracts)**

SB 350 [PRC section 25943(a)(3)] requires the Energy Commission to adopt, implement and enforce responsible contractor policies to ensure that retrofits meet high-quality performance standards and reduce energy savings lost or forgone due to poor-quality workmanship, and to establish consumer protection guidelines for energy efficiency products and services. Energy Commission staff will adopt contractor standards to ensure retrofits meet high-quality performance standards. An additional Budget Change Proposal (BCP) will be submitted for the 2017/2018 fiscal year to request additional resources needed to implement and enforce the performance standards.

Energy Commission staff will also establish a quantitative baseline and tracking data system. The Energy Commission will thoroughly vet the design and implementation of the quantitative baseline and tracking data system in a public proceeding to identify potential unintended consequences before the system is implemented, and obtain stakeholder feedback on how the proposed system can be improved to increase the value of the data that it provides to the market and to state and local agencies, and make it simple, non-intrusive, low cost, reliable and secure.

- **Enforcement of Existing High-Quality Standards**

SB 350 [PRC section 25943(a)(3)] not only directs the Energy Commission to develop and implement a responsible contractor policy to ensure that retrofits meet high-quality performance standards and reduce energy savings lost or foregone due to poor-quality workmanship, but it directs the Energy Commission to enforce those high-quality performance standards. The Energy Commission will need to hire enforcement staff to accomplish this purpose in the future. This BCP requests staff needed to establish contractor performance standards.

The Energy Commission will work with California utilities and other stakeholders to identify ways to introduce new, high-quality performance standards into incentives programs, and will consider the value in adopting these new standards into the California Building Energy Efficiency Standards or the California Green Building Standards.

### **Simplified and Enhanced Building Energy Efficiency Standards for Existing Buildings (4 PY + \$500K in contracts)**

- **Upgraded and Simplified Standards Requirements and Tools for Existing Buildings**

SB 350 identifies the measures to achieve the energy reduction targets may include building and appliance standards and energy efficiency savings from a variety of efficiency programs for existing buildings. The Energy Commission will conduct a focused review of the Building Energy Efficiency Standards as they relate to existing buildings and make modifications to ensure that the

## Analysis of Problem

requirements are practical and will result in realized energy savings. The Energy Commission will develop approaches to simplify implementation of the Standards for existing buildings by unifying them with industry practice, clarifying code requirements, and enabling the use of expert systems and tools. A substantial effort will be necessary to respond to these *Action Plan* expectations in furtherance of accomplishing the Governor's and Legislature's energy efficiency savings doubling goal.

- Energy Commission staff will work with building owner organizations to gain a more in-depth understanding of barriers and challenges to the accomplishment of energy efficiency measures that may be very achievable in newly constructed buildings, but substantially more difficult in existing buildings, especially those of older vintages. The staff will prepare for, conduct, and participate in an extensive public vetting process for these draft requirements, including targeted stakeholder meetings and extensive public workshops in the pre-rulemaking stage, and then public hearings during the official rulemaking. The staff will be required to respond to all comments received during the rulemaking proceeding in conformance with and the Administrative Procedure Act and Building Standards Commission review process, in order to adopt and approve the Standards revisions for publication with the rest of the California Building Code.

### **Appliance Energy Efficiency Standards Upgraded Compliance and Enforcement (1 PY + \$250K in contracts)**

SB 350 [PRC section 25310(d)(1)] also places California's appliance energy efficiency standards at the top of the list of programs that should be relied upon for achieving energy efficiency and demand reductions to accomplish the Governor's and Legislature's doubling goal. The Appliance Standards have long been among the most cost effective means of delivering energy efficiency savings and achieving GHG reduction goals, as indicated by the Governor's Clean Energy Jobs Plan, ARB's AB 32 Scoping Report, CPUC's Long-term Energy Efficiency Strategic Plan, and the Energy Commission's Integrated Energy Policy Report.

Currently, the Energy Commission has only one PY assigned exclusively to Appliance Standards enforcement. This is insufficient to complete the necessary investigations, to build cases against noncompliant manufacturers and retailers, and to bring those cases to a successful settlement or decision. Adding an additional staff person to help implement and manage the compliance assistance and enforcement program would ensure that the Energy Commission can use its new authority to impose penalty sanctions to achieve increased compliance with its appliance efficiency regulations while also using its administrative discretion to assist manufacturers who wish to get into compliance with the standards. This increased enforcement of the Standards will increase the energy savings and GHG emission reductions from the Energy Commission's appliance efficiency standards, consistent with the Governor's and Legislature's energy efficiency doubling goal, and protect consumers from the energy losses from noncompliant products sold by unscrupulous manufacturers and retailers.

### **ENERGY ASSESSMENTS**

#### **Setting Statewide Energy Efficiency Targets and Assessing Effects (5 PY + \$500K in contracts)**

The bill requires the Energy Commission, on or before November 1, 2017, in collaboration with the CPUC and local publicly owned electric utilities, to establish annual targets for statewide energy efficiency savings and demand reductions to achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030.

Beginning in 2019, and every two years thereafter, the Energy Commission would provide in its *Integrated Energy Policy Report* (IEPR) recommendations and an update on progress toward achieving a doubling of energy efficiency savings in electricity and natural gas final end uses of retail customers by 2030. The Energy Commission would also assess the effects of savings on electricity demand statewide in local service areas and on an hourly and seasonal basis.

## Analysis of Problem

Specific requirements of the new work in SB 350 are described below:

- **Statewide Energy Efficiency Potential**

Existing law requires the publicly owned utilities, by March 15, 2013 and by March 15 of every fourth year thereafter, to identify all potentially achievable, cost-effective electricity efficiency savings and establish targets for energy efficiency savings and demand reduction for the next 10 years. Establishing feasible and cost-effective targets for statewide and utility-specific savings and demand reduction, as called for in SB 350, will require realignment with the potential and goals study process of the CPUC, which occurs every two years.

SB 350 calls for updates to the program at least once every three years, starting on or before January 1, 2017. The Energy Commission intends to conduct potential studies (estimates of future savings from changes to programs, new programs, new standards, etc.) to contribute to such re-assessments.

- **Double Energy Efficiency Savings**

SB 350 requires the Energy Commission to adopt targets that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas for retail customers by 2030. To accomplish this work by November 1, 2017, staff will be needed to:

- Establish a current efficiency savings baseline from which to double targets and appropriate metrics for assessing the targets in a public process.
- Conduct meetings with approximately 40 publicly owned utilities' staff and management to propose specific targets that conform to the requirements of the law that are potentially achievable and cost-effective.
- Conduct one or more publicly noticed workshops to accept comments on the proposed annual targets.
- Publish and revise the annual targets as needed.
- Identify cost-effective additional achievable energy efficiency for the four electric and natural gas investor owned utilities and the 16 largest publicly owned utilities.
- Adopt a method for aggregating energy efficiency savings from both electricity and natural gas final end uses (e.g. how will each sector be able to contribute to energy efficiency targets as the electric grid is decarbonized)

- **Enhance Reporting Requirements**

SB 350 requires the Energy Commission to develop enhanced reporting requirements. Energy Commission staff will be required to:

- Assess each publicly owned utility's current reporting practices and gauging how much improvement is desirable and feasible through 2030.
- Create tiers of reporting requirements based on the size and customer composition of each publicly owned utility to fairly establish enhanced reporting requirements on specific publicly owned utilities.
- Provide technical assistance to publicly owned utilities to improve their reporting practices through time.
- Receive and processing energy savings estimates from roughly 40 publicly owned utilities.
- Develop data management and processing techniques to use reported savings, adjusted as necessary to be consistent with the models used to prepare energy demand forecasts as required by PRC 25310(e)(1).

## Analysis of Problem

- **Assess Progress**

Once efficiency savings and demand reduction are reported on a regular basis, staff will begin to report on progress toward achieving the targets, beginning with the 2019 IEPR. This assessment of progress in meeting targets will take into account:

- The overall reduction in normalized metered electricity and natural gas consumption, where possible.
- Effect of savings on electricity demand statewide, in local service territories and on an hourly and seasonal basis.
- Updated progress made toward maximizing contribution of savings in disadvantaged communities.

Ongoing contract funds of \$500,000 will be needed to develop energy efficiency potential studies, principally for publicly owned utilities, using specialized contractors. Such studies will need to be repeated periodically because new energy efficiency measures may become commercially available and existing measures may have cost reductions, both of which lead to changes through time in what is cost-effective and feasible for consumers.

### **Developing Guidelines For and Reviewing Integrated Resource Plans (3 PY)**

Under SB 350, beginning January 1, 2019 and at least once every five years after that date, local publicly owned electric utilities with an annual electrical demand exceeding 700 gigawatt hours—which describes 16 local publicly owned electric utilities—must adopt and file with the Energy Commission an integrated resource plan and periodic plan updates. Integrated resource plans are comprehensive electricity system planning documents that lay out the resource needs, policy goals, physical and operational constraints, and general priorities of an electric utility, including preferred resources. These documents are extremely detailed and form the basis for procurement decisions over the near term (3-5 years) for most electric utilities.

SB 350 requires that these integrated resource plans meet certain criteria. The plans must: (1) ensure the utilities meet greenhouse gas emission reduction targets (set by the Air Resources Board, in coordination with the Energy Commission and the CPUC) for the electricity sector and each local publicly owned electric utility that reflect the electricity sector's percentage in achieving the economy wide greenhouse gas emissions reductions of 40 percent from 1990 levels by 2030; (2) ensure the procurement of at least 50 percent of eligible renewable energy resources by 2030; and (3) meet other energy goals, including electricity supply reliability and minimizing impacts on ratepayer bills.

If the Energy Commission determines that a plan or plan update is inconsistent with statutory requirements, the Energy Commission is required to make recommendations to correct deficiencies. The Energy Commission is required to adopt guidelines for the submission of information and data and reports needed for the review of the utility's integrated resource plan.

- **Adopt Guidelines in Public Process**

Staff will be required to establish both the form and content necessary to determine if the publicly owned utility plan is consistent with the guidelines of this legislation. Staff must:

- Review existing integrated resource plans for format and existing content and meet with publicly owned utilities staff and management to identify needed information and best format options.
- Collaborate with the CPUC in establishing integrated resource plan format and content for investor owned utilities. This participation informs the Energy Commission staff on what would be consistent with investor owned utilities integrated resource plan documents.
- Publish the draft integrated resource plan format and content prior to January 31, 2018.

## Analysis of Problem

- Conduct at least one publicly noticed workshop prior to March 1, 2018 to propose the format and content requirements for the integrated resource plans and accept comments prior to issuing a final version for adoptions.
- Adopt the integrated resource plan forms and instructions at an Energy Commission Business Meeting on or before July 1, 2018.
- **Review Integrated Resource Plans and Updates**

Staff will collect, collate, and review the integrated resource plans provided by the 16 publicly owned utilities to ensure that these plans meet the requirements of the law, and if necessary, provide recommendations on how utilities might make adjustments to achieve their goals. A particularly important aspect of integrated resource plan review is reliability. The unprecedented shift toward reliance upon energy efficiency and renewables to satisfy electricity needs creates numerous challenges for operating the bulk electricity system in a reliable manner. SB 350 requires that the plans submitted to the Energy Commission satisfy the requirements of Public Utility Code 9620, but determining whether this has been met is complex. This work will require staff to:

  - Conduct a thorough and in-depth analysis of each of the 16 utility integrated resource plans for how they align with both the energy and other policy goals outlined in the law. This includes assessing the trade-off choices each utility may have to make in deciding how much additional cost, reduced greenhouse gas emissions, and potential impacts to low income and disadvantaged communities are balanced as priorities.
  - Provide a set of recommendations, if a plan is found to be inconsistent with the intent of the law.
  - Compare supply resource filings with the plan outlined in the current integrated resource plan and provide an update as part of the IEPR process on each utility's progress.

## RENEWABLE ENERGY

### RPS Program (8 PY + \$600K in contracts)

SB 350 establishes new responsibilities for the Energy Commission related to the RPS program including an expanded target of 50 percent by 2030, new eligibility rules for municipal solid waste technologies, new long-term contracting rules, new rules for calculating excess RPS procurement, new rules for calculating retail sales for POUs that have green pricing programs, new exemptions for POUs that use more than 50 percent large hydro or have long-term coal contracts, and revised rules for cost limitation and delay of timely compliance exemptions. SB 350 does not provide a deadline for the Energy Commission to revise its regulations, but does require the CPUC to adopt new rules for the IOUs by 2017. To be consistent with the CPUC's schedule and ensure comparable treatment of IOUs and POUs under the RPS, the Energy Commission intends to open a rulemaking in early 2016 to revise the existing RPS regulations for the POUs to incorporate the extensive changes identified in SB 350, with the goal of having the regulations approved by the Office of Administrative Law in January 2017.

During that time, staff currently assigned to the RPS program would be required to focus on the rulemaking rather than on verification and compliance issues, which would delay processing of IOU and POU compliance reports and determination of compliance for the first (2011-2013) and second (2014-2016) compliance periods.

### ● **RPS POU Regulations (2016)**

In early 2016, Energy Commission staff will open a rulemaking to address the new RPS program requirements in SB 350, as described above.

### ● **Implementation of Expanded RPS Target (2020 and beyond)**

Post 2020, retail sellers and POUs will be required to procure 40 percent renewables by December 31, 2024; 45 percent by December 31, 2027; and 50 percent by December 31, 2030 and thereafter. This represents a significant increase in the amount of data that the Energy Commission will be

## Analysis of Problem

required to collect, analyze, verify, and maintain as compared to the current RPS program. The verification process from 2002-2010 included the following tasks:

- Verify RPS eligibility of renewable facilities from which each reporting entity is claiming procurement.
- Verify that the amount of renewable electricity procurement claimed by each entity was actually generated by each eligible facility.
- Determine the amount of renewable electricity attributed to facilities that use multiple fuel sources and eliminate any non-eligible generation from fossil and other non-renewable fuels.
- Verify that out-of-state renewable facilities satisfy electricity delivery requirements in statute and regulations.
- Verify that renewable procurement exclusively serves California's RPS and is not double counted for another renewable energy regulatory or market program in California or the western interconnection.
- Identify eligible, ineligible, pending, and withdrawn procurement claims for each reporting entity and the total amount of eligible procurement.
- Analyze eligible procurement claims by resource type, claims attributed to new and repowered facilities, and the time between dates of generation and retirement of claims (to verify that renewable energy certificates are retired within 36 months of creation).

The new requirements under SB 350 will add yet another layer of complexity, compounded by a significant increase in the amount of actual data submitted to the Energy Commission for verification due to increased renewable procurement representing more than half again as many procurement claims from approximately 60 entities by 2030. The Energy Commission will need additional staff to accommodate this workload.

- **RPS Eligibility Guidebook Updates (2016 and 2017)**

Energy Commission staff will need to update its RPS Eligibility Guidebook to address the changes in eligibility and RPS program rules mandated by SB 350. Currently, the Energy Commission holds an annual scoping workshop in the first quarter of the calendar year to seek input from stakeholders on changes that may be needed to the guidebook to reflect market and statutory changes. The Energy Commission intends to hold a scoping workshop in early 2016 to address the new eligibility rules in SB 350, with adoption of the revised guidebook in mid-to-late 2016. To address the revised requirements in the regulations that are anticipated to be adopted in early 2017, the Energy Commission will hold a scoping workshop in early 2017 to seek public input on proposed changes, with adoption anticipated in mid-to-late 2017. The guidebook revision process can be very contentious and involves drafting proposed changes and making conforming changes to any forms impacted by the changes; conducting public workshops; soliciting feedback from stakeholders; reviewing comments; making recommendations to decision makers for responses to comments; incorporating comments; and adopting the final guidebook at an Energy Commission Business Meeting.

**Studies on Barriers to Solar PV, Other Renewables, and Small Business Contracting Opportunities, and Coordination with CPUC on Advisory Group and Tracking System (1 PY + \$100K in contracts)**

SB 350 establishes a new responsibility for the Energy Commission to conduct two studies – one focusing on the opportunities for and barriers to solar PV and other renewables for low-income customers, and the other on opportunities for and barriers to small businesses in disadvantaged communities. Reports describing the results of these studies must be completed by January 1, 2017, meaning the work will take place during the same time as the new rulemaking.

Energy Commission staff will need to conduct outreach to communities throughout California as well as environmental justice organizations; research of the issues; hold public workshops to seek stakeholder

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input; draft the reports for management and public review; review public comments and incorporate as appropriate; adopt at an Energy Commission Business Meeting; and submit the reports to the Legislature.

Given the extent of work these reports will require and the fact that new resources will not be available before July of 2016, it will be necessary for existing staff to begin this task as soon as SB 350 takes effect, and then bring in new staff that will be hired and trained after July 1, 2016.

SB 350 establishes new responsibilities for the Energy Commission to work with the CPUC to (1) establish an advisory group of representatives from disadvantaged communities to solicit advice on clean energy and pollution reduction programs and determine whether those programs will be effective and useful in disadvantaged communities, and (2) establish a publicly available tracking system to provide up-to-date information on progress toward meeting the clean energy and pollution reduction goals of SB 350. These activities will require additional staffing and are ongoing activities; therefore, additional staff will be needed to be assigned to these tasks on a permanent basis.

### **LEGAL SUPPORT (1.5 PY)**

The Energy Commission's Chief Counsel's Office (CCO) requests 1.5 PY for legal support to implement SB 350. Additional work will include providing legal advice and assistance to: 1) develop, implement and enforce new regulations, guidelines, and programs for the Energy Commission's new Energy Efficiency, Renewables Portfolio Standard, and Energy Assessment efforts; 2) review plans and other submittals, including required data and reports, by regulated entities to determine compliance with applicable statutory and regulatory requirements; 3) advise Energy Commission staff and decision makers regarding the compliance of such plans and submittals; 4) make legal recommendations to decision makers regarding appropriate enforcement actions; and 5) initiate and defend any regulatory or enforcement actions proposed or taken by the Energy Commission.

## **E. Outcomes and Accountability**

The following outcomes are expected from the approval of this proposal:

- **Energy Consumption Baselines.** Estimates of predicted building energy consumption for all California building types designed for integration into local land use and climate change planning and building financing datasets to enable advanced energy efficiency program and market development.
- **SB 350/AB 758 Action Plan Updates Based on Energy Efficiency Targets.** Energy efficiency savings potentials that are not constrained to previous utility levels, and that take into consideration metered energy consumption accounting for progress towards the use of interval meter data and transformation to a performance-based market and programs. Recommendations for the IEPR that achieves SB 350 required upgrades to the SB 350/AB 758 Existing Building Energy Efficiency Program and regular course corrections towards meeting the doubling goal.
- **Study on Barriers to Low-income Energy Efficiency and Weatherization.** Report on barriers to increased access to energy efficiency for low-income and disadvantaged communities. Continually maintained statewide tariff database and energy modeling software to expand the use of site-specific utility allowances. Recommendations for how to increase public investment and strategically achieve greater private investment as directed by SB 350.
- **Effective Implementation and Enforcement of Existing High-Quality Performance Standards: Critical baseline and tracking data system.** Design for a quantitative baseline and tracking data system for which data collection is simple to do, inexpensive, and non-intrusive; as well as reliable, secure, and valid. Identified opportunities for coordination of existing data collected by other local and state agencies, and inclusion of the data needs of those agencies in the data system design. Publicly vet ways to make data from the data system of greatest value to the market, the industry, and enforcement agencies. Periodic feedback regarding the implementation of the data system to determine needed improvements.

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- Consumer Protection Guidelines: Consultation with the CPUC to identify energy efficiency products and services that may be good candidates for consumer protection guidelines. Publicly vetted guidelines and implement them in utility incentives programs. Consumer outreach materials to explain the consumer protection guidelines and benefits to consumers. Consideration for adoption in the Building Energy Efficiency Standards.
- Improved software for compliance and analysis: Investigation of ways to make performance standards approaches for additions and alterations to existing buildings simpler and more manageable, including a review of compliance software modeling approaches and algorithms. Upgraded public domain compliance software programs to implement easier-to-use performance standards approaches, revisions to the Standards for simplification and savings enhancement, and conduct an extensive testing process to identify needed improvements and needed bug fixes. Technical support for private software developers who wish to incorporate compliance modules into their software products, and ongoing support for compliance software users.
- Improved enforcement of appliance standards. Investigate noncompliant products through existing market survey and test laboratory contracts, subpoenas, and other methods. Develop and manage enforcement cases, including administrative adjudication, litigation, or settlements.
- Greater accountability that California's clean energy goals are being met through enhanced data collection, more rigorous analysis of hourly and seasonal impacts along with more specific geographical certainty about energy efficiency and other demand side savings.
- Greater transparency and consistency across the investor-owned and publicly owned utilities in California in their integrated resource plans and progress toward achieving state mandated greenhouse gas reductions. This legislation marks the first time such coordination and reporting is required of publicly owned utilities.
- Greater public coordination between investor-owned and publicly owned utilities in setting and assessing energy efficiency targets to reliably achieve California's low carbon goals.
- Accurate verification of utility renewable energy procurement claims and renewable power plant eligibility to prevent double counting and ensure that utilities are meeting RPS targets and other requirements in SB 350.
- Development of clear guidelines and regulations in an open and transparent public process.
- Analysis of barriers to solar PV and other renewable technology deployment in low-income areas and barriers to small business contracting in disadvantaged communities to assist California communities who are often disproportionately impacted by the burning of fossil fuels.
- Improvement in processing time and accuracy in RPS certifications, verification of RPS procurement data from utilities, and determination of RPS compliance for POUs.

### **Controls in place to ensure the appropriate use of the requested resources or authority**

The authorized positions will be established in the specific division/office responsible for the work authorized in this proposal. Annually, the Energy Commission prepares detailed work plans including allocations of staff and authorized funds.

### **How requested resources will be accounted for and monitored**

The newly authorized positions will be established in the appropriate program/element and office, and expenditures will be accounted for through work plans and schedules approved by the Executive Director and the lead commissioner for electricity and the lead commissioner for the IEPR, regular briefings of management, and through routine timekeeping procedures.

### **Completion of progress and/or outcome reports, timing, and distribution**

Staff will provide periodic progress reports to keep supervisors, management, the lead commissioner for efficiency, electricity and renewable energy, the lead commissioner for the IEPR and the Executive Director informed about the tasks, milestones and scheduling related to implementation of SB 350.

## Analysis of Problem

### F. Analysis of All Feasible Alternatives

#### 1. Do nothing

No additional resources.

If additional staff and contract funding are not provided, the Energy Commission's existing staff will be unable to provide sufficient and timely support for the requirements of SB 350. Specifically, the bill's intent to more accurately account for and measure energy efficiency's contributions to reduced greenhouse gas emissions will not occur; we will not be able to provide the program improvements and leadership necessary to achieve the Governor's and Legislature's energy efficiency savings doubling goal and the mandates of SB 350; and we will be unable to provide sufficient and timely support for the new RPS requirements.

Pro: Additional funds are not needed.

Con: If additional resources are not provided, the Energy Commission will not be able to comply with the aggressive mandates of SB 350.

#### 2. Redirect existing resources

Existing resources within the Energy Commission are fully engaged in carrying out other programs to achieve all prior mandates of the Legislature and meeting expectations from prior legislative approval of budget resources for those programs.

Pro: No new funds would be needed to meet the mandates of SB 350.

Con: Redirecting existing resources would result in foregoing other requirements and program delivery expectations within the Energy Commission.

#### 3. Approve requested resources

Approve 29.5 permanent positions and \$3,450,000 in ongoing annual contract funds

If additional staff and contract funding are provided, the Energy Commission will have the resources to (1) take actions to expand and improve the effectiveness of programs that are under the Energy Commission's direct authority to conduct, and (2) achieve comprehensive, statewide solutions that will only be realized through Energy Commission leadership and action. This will enable maximum opportunity for the Governor's and Legislature's energy efficiency doubling and increased RPS goals to be achieved.

Pro: Approving this proposal will allow the Energy Commission to fulfill the role established by SB 350, thereby enabling other agencies and the market to transform to achieve the ambitious goals of doubling energy efficiency and increasing renewables to 50 percent by 2030. It will allow all state agencies to get behind a well-defined plan and set the right path to get to the Governor's 2030 goals.

Con: Requires additional resources.

### G. Implementation Plan

1. Begin recruitment for and fill new positions (July 2016)
2. Begin solicitation process to procure technical support contractors, high-quality performance standards baseline and tracking database developers, compliance software developers, and appliance database developers. (July 2016)
3. Engage building departments and other enforcement agencies around the state to determine compliance gaps and needed assistance to better enforce Building Standards requirements for existing buildings. (July 2016-2030)
4. Develop and provide improved and expanded Building Standards outreach, information, training, and technical support for local enforcement agencies and other enforcement agencies on alterations to existing residential, nonresidential, and multi-family buildings, including one-on-one engagement (July 2016-2030)

## Analysis of Problem

5. Develop and conduct public vetting process on simplified and enhanced Building Energy Efficiency Standards for existing buildings (July 2016-July 2018, triennially thereafter)
6. Update compliance software to incorporate new efficiency measures and simplified approaches for existing buildings and develop Energy Design Rating Tools for additions and alterations to existing buildings (July 2016-June 2018, updated triennially)
7. Estimate baseline energy use for all California buildings (July 2016-July 2020)
8. Publicly vet design for baseline and tracking data system for achieving compliance with existing high-quality performance standards (June 2017)
9. Establish smart meter data analytics platform to measure and verify energy savings, and support the enabling of a performance-driven market place (July 2016-July 2020)
10. Support the development of energy efficiency targets consistent with the SB 350/AB 758 *Action Plan*, and develop recommendations for the IEPR that achieves SB 350 required upgrades to the SB 350/AB 758 Existing Building Energy Efficiency Program and regular course corrections towards meeting the doubling goal. (July 2016 – June 2030)
11. Study and prepare report on barriers for low-income customers for energy efficiency (December 2016-December 2017)
12. Develop, publicly vet, and adopt consumer protection guidelines (June 2017 – June 2019)
13. Begin coordination with the CPUC in their integrated resource plan proceeding for investor owned utilities. (January 2016)
14. Begin collaboration with CPUC and discussion with public utilities to align roles and methods for achieving statewide potential and target setting. (January 2016)
15. Assess current reporting practices of publicly owned utilities to gauge improvements needed based on factors such as size or customer composition. (March 2016)
16. Identify available data on cost-effective additional achievable energy efficiency for investor owned and the 16 largest publicly owned utilities. (March 2016)
17. Open public process to establish and gain agreement on energy efficiency savings starting baseline from which to double targets and consider method for aggregating electricity and natural gas efficiency savings. (July 2016)
18. Receive and process energy efficiency savings estimates from roughly 40 public utilities. (August 2016)
19. Propose new statewide annual targets that achieve a doubling of energy efficiency savings by January 1, 2030. (January 2017)
20. Open public process to establish format and content for public utility integrated resource plans. (January 2017)
21. Publish draft guidelines for public utility integrated resource plans (January 2018) and conduct public workshop before final guidelines issued (March 2018).
22. Conduct public workshop to review draft guidelines, accept comment prior to issuing final guidelines. (March 2018)
23. Adopt final integrated resource plan guidelines. (July 2018)
24. Begin review integrated resource plans adopted by 16 public utilities by January 1, 2019 for consistency with requirements in SB 350. (February 2019)
25. Begin initial reports on overall reduction using weather normalized metered data, where possible, in the 2019 Integrated Energy Policy Report, including recommendations on course corrections if programs are not achieving desired savings. (November 2019)

## Analysis of Problem

26. Update combined potentially achievable, cost-effective electricity efficiency savings from public utilities. (April 2021)
27. Open rulemaking to address new RPS program requirements in SB 350. (January 2016)
28. Workshops and Energy Commission adoption of revised RPS regulations for publicly owned utilities to incorporate SB 350 provisions. (Q3 through Q4 2016)
29. Hold scoping workshops on changes needed to the *RPS Eligibility Guidebook* to incorporate new eligibility criteria in SB 350 (January 2016) and new requirements in revised publicly owned utility regulations (January 2017)
30. Kickoff meetings with the CPUC and cross-divisional staff from the Energy Commission on (1) establishing an advisory group of representatives from disadvantaged communities and (2) establishing a publicly available tracking system. (Q2 2016)
31. Conduct workshops and submit studies related to low-income/disadvantaged communities to Legislature. (Q4 2016 through Q1 2017)

### H. Supplemental Information

None.

### I. Recommendations

Approve 29.5 permanent positions and baseline contract funds of \$3.45 million, for a total request of \$7.646 million from the Cost of Implementation Account, Air Pollution Control Fund, to implement the Clean Energy and Pollution Reduction Act of 2015 (SB 350).

**EFFICIENCY DIVISION  
11 New Positions Requested**

	Senior Mechanical Engineer (2 permanent position, 12 months hours)	Energy Commission Specialist III (1 permanent position, 12 months hours)	Energy Commission Specialist II (3 permanent positions, 12 months hours)	Mechanical Engineer (5 permanent positions) (12 months hours)
<b>Energy Efficient Existing Buildings Data Tools and Planning</b>				
<b>Identify all feasible energy savings potential in existing buildings not captured in the current forecasts:</b>				
Through public process, engage appropriate stakeholders to develop and adopt cost-effectiveness calculation methodologies to judge the merits of possible energy savings options				100
In collaboration with the CPUC, plan and implement potential studies of statewide residential and nonresidential existing building energy savings using the Energy Commission's adopted cost-effectiveness methodologies				100
Critically review all potential efficiency technologies and their savings estimates using existing building energy systems expertise				100
Establish Smart Meter Data Analytics platform to measure and verify energy savings, including potential efficiency technologies and savings estimates.				100
Oversee contract development and management, guide contractor in developing deliverables associated with above tasks	250		400	
Research best practices for establishing open source platforms and inform contract scope of work	325		300	
Develop minimum standards for Smart Meter Data Analytics: 1) Develop enhancements to the meter data importing, storage and weather normalization mechanisms 2) Implement methods to aggregate multiple upgrade projects into building cohorts 3) Develop multiple views of the data processed in 1) and 2) plus add data security features 4) Add registry capability. This will make it possible for verified savings to be counted and registered in discrete, non-unique units over time and attributed to a source.	1250		800	
<b>Develop data exchange protocols:</b> Guide and oversee contractor to expand the Energy Commission's Standards Data Dictionary and align with state and national efforts	575		300	
<b>Estimate buildings' energy and carbon footprint for all CA buildings:</b> Oversee contractor work to create energy use and GHG baselines by running parametric models using BEES software for pre-defined building cohorts.	750			
<b>Study barriers for low-income customers for energy efficiency:</b> Engage with private investors, facility managers, contractor workforce, community-based organizations, utilities, energy design consultants, and other stakeholders working with disadvantaged communities to understand barriers to mass deployment of energy efficiency and identify both short-term and long-term solutions.	250	800		
Contract management and development.	80	300		
Oversee development of study methodologies, including interview questionnaires, identification of stakeholder groups and best practices	200	650		
<b>Contractor High-Quality Performance Standards and Consumer Protection</b>				
<b>Quantitative Data System to Establish Market Baseline and Track Compliance</b>				
Work with state and local agencies to identify existing data regarding equipment sales, identify data that would be important to collect in the data system and coordinate data that should be shared.				400
Work with HERS Providers and local building departments to identify existing data systems regarding compliance documentation contained in the HERS registries and permit data in local building department records; identify the data that would be important to collect from these records in the data system.				400
Work with HVAC industry to understand data that is collected and stored by distributors and contractors and how best to mesh the data system with current practices; identify industry concerns regarding simplicity, non-intrusiveness of new data collection, data reliability and data security.				600
Design the data system to meet the needs of data users, persons that will supply data to the data system, and to provide benefits to the industry and the market.				800
Conduct public proceeding to fully vet data system design, rules for submission of data and coordination with other data systems, provisions to ensure data validity and security, and data reporting to enforcement entities and reporting of anonymized and aggregated data to the industry and public.				400
Implement the data system design to establish a working data system, fully test the data system with persons involved in data reporting and data users, and revise data system to address feedback.				800
Roll-out the data system and provide ongoing maintenance, repeating as necessary the activities above to ensure that upgrades to the system continue to achieve the data system goals.				400
<b>Simplified Building Permitting Systems to Remove Market Barriers</b>				
Work with local building departments to investigate actions they have taken to streamline permitting systems in compliance with AB 2188, and identify ways that streamlining can be extended to compliance with high-quality performance standards.				50
Determine best practices taken by local building departments that can be transferred to other building departments, and work with CALBO and individual building departments to transfer those best practices.				50

**SB 350 WORKLOAD DOCUMENTATION**

**EFFICIENCY DIVISION  
11 New Positions Requested**

Senior Mechanical Engineer (2 permanent position, 12 months hours)	Energy Commission Specialist III (1 permanent position, 12 months hours)	Energy Commission Specialist II (3 permanent positions, 12 months hours)	Mechanical Engineer (5 permanent positions) (12 months hours)
<b>Contractor High-Quality Performance Standards and Consumer Protection (cont'd)</b>			
Continuously work with local building departments to identify ways to better mesh Energy Commission developed compliance documentation registries with streamlined permitting to reduce barriers to contractors pulling permits and make enforcement easier for building departments to achieve, identify ways that Energy Commission compliance documentation registries can be improved for better integration with streamlined permitting.			100
Investigate successful approaches to implement online permitting both by local building departments and by other states, such as Oregon, take action to encourage expanded use of online permitting, including the potential for development of a statewide system into which local governments could opt to participate			200
<b>Enforcement of Existing High-Quality Standards</b>			
Once the Quantitative Compliance Baseline and Tracking Data System has been implemented, provide data to local building departments, Contractors State License Board, and state agencies endeavoring to reduce the underground economy. Provide technical assistance to these agencies for any enforcement actions they take based on the data. Identify any improvements that should be made to the data system to improve its usefulness to enforcement agencies			
Analyze data from the data system to determine if there are any major, egregious, repeated violation of permitting and compliance requirements. Notify local District Attorneys and the Attorney General's Office of such cases for potential prosecution as unfair business practices. Provide technical assistance to support such actions. Identify any improvements that should be made to the data system to improve its usefulness to support such legal actions			
<b>New High-Quality Standards Development and Implementation</b>			
Identify building components and equipment for a range of residential and nonresidential building types for which high-quality performance standards do not currently exist. Investigate the existence of manufacturer recommendations, industry consensus standards and/or best practices that can serve as the foundation for new performance standards. Identify needs to standardize installation protocols			
Collaborate with organizations that are motivated to achieve higher performing installations to develop performance standards and protocols /et newly developed protocols and standards with the larger industry and other stakeholders to gain feedback to approve them.			
Work with utilities and other incentives program administrators to implement new high-quality performance standards in those incentives programs. Determine the value of incorporating new performance standards into the Building Energy Efficiency Standards and/or California Green Building Standards			
<b>Consumer Protection Guidelines for Energy Efficiency Products and Services</b>			
Consult with the CPUC to identify energy efficiency products and services that are good candidates for consumer protection guidelines. Working with the affected industry, develop draft consumer protection guidelines. Conduct public vetting of the draft guidelines to gain feedback and improve the guidelines. Conduct approval proceedings at the Energy Commission and/or the CPUC for final guidelines			200
Implement the consumer protection guidelines in incentives or recognition programs conducted by POU's, IOUs or other program administrators. Coordinate with the CPUC and these incentive program administrators to develop outreach and information materials and training explaining the consumer protection guidelines and recommendations for consumer action to choose products and services that conform to the guidelines. Consider the extent to which the consumer guidelines would have value if adopted through the Appliance Energy Efficiency, Building Energy Efficiency Standards or California Green Building Standards, and if so, take action to accomplish that adoption.			
<b>Simplified and Enhanced Building Energy Efficiency Standards for Existing Buildings</b>			
<b>Develop Building Energy Efficiency Standards for Residential and Nonresidential Existing Buildings - Additions and Alterations</b>			
Engage with building owner organizations to investigate challenges to achieving compliance with the Standards in the existing building market. Work with industry to understand the difference between newly constructed and existing building construction including costs; barriers to compliance, uniqueness of vintage buildings in order to incorporate specifics to address those differences into cost-effectiveness strategies, installation protocols, and standards development and compliance tool development to increase energy efficiency in existing buildings.			600
<b>Update CBECC-Res and CBECC-Com public domain compliance software to incorporate simplified and more practical modeling approaches, new energy efficiency measures and design ratings for existing buildings (Alterations and Additions)</b>			
Investigate ways to make performance standards approaches for existing buildings simpler and more manageable, including reviewing of modeling approaches and algorithms. In addition, update the software to include the new measures adopted for alterations and additions to existing buildings, and design ratings for existing buildings. Conduct an extensive testing process to identify needed improvements to the above software upgrades and needed bug fixes.			800

**EFFICIENCY DIVISION  
11 New Positions Requested**

Senior Mechanical Engineer (2 permanent position, 12 months hours)	Energy Commission Specialist III (1 permanent position, 12 months hours)	Energy Commission Specialist II (3 permanent positions, 12 months hours)	Mechanical Engineer (5 permanent positions) (12 months hours)
<b>Simplified and Enhanced Building Energy Efficiency Standards for Existing Buildings (cont'd)</b>			
<b>User support for CBECC-Res and CBECC-Cor compliance modeling and design rating software</b>			
Provide ongoing technical and user support to the industry for the CBECC-Res and CBECC-Cor improvements once they are placed into use. When users report problems with the software and/or rating tools the problems will be logged, analyzed and resolved. The information gained through working with the software users will be used to make improvements. The improvements require working with the software team to develop, review, beta test and recommend for approval at an Energy Commission business meeting. The improvements include bug fixes, updates or the addition of advanced capabilities			
Develop and maintain a website with FAQs, modeling approaches for special cases, timelines for incorporating advanced capabilities, and other valuable information for the user base			
Recommend for approval privately developed computer programs as an alternative calculation method that wish to install compliance modules into their software products, which building permit applicants may then use to demonstrate compliance with the performance standards (energy budgets) in the Standards. The application for approval of compliance software must include documentation demonstrating that the compliance software meets the requirements, specifications, and criteria set forth in the Residential or Nonresidential ACM Approval Manual			
<b>Public Workshops and Rulemaking Process for Public Review and Adoption of Building Energy Efficiency Standards for existing buildings into the California Building Standards Code</b>			
Prepare for, conduct and participate in public proceedings including extensive workshops and hearings in both the pre-rulemaking and rulemaking stages. Respond to all comments received at the workshops and hearings. (estimate based on conducting 10 workshops or hearings)			
Recommend adoption of the Standards through the Energy Commission Business Meeting process, prepare documents, present to Efficiency Lead Commissioner for approval, and recommend adoption to the full Energy Commission at a Business Meeting.			
Compile and complete the rulemaking file that conforms to the Administrative Procedure Act requirements and filed with the Building Standards Commission. Follow through with the California Building Standards Commission process to have the adopted California Building Energy Efficiency Standards approved and published along with the rest of the California Building Code.			
<b>Development of the Compliance Manual Updates</b>			
Develop and gain approval for new compliance manuals for the Residential and Nonresidential Building Energy Efficiency Standards pertaining to simplified and expanded requirements for existing buildings, which provide easy-to-understand information about how to comply with the Building Standards including visual tools and compliance documentation. This process includes reviewing the previous manuals to identify sections that need clarification, simplification or re-write to incorporate Standards changes, updating sections as appropriate in underline/strikeout, reviewing for consistency, editing, distributing for comment from interested parties, incorporating comments, routing through review and approval process, recommending for approval at an Energy Commission Business Meeting and providing for publication and distribution.			
<b>Identification of compliance gaps and enforcement agency needs to make enforcement easier to accomplish and more effective for Standards requirements for existing buildings</b> <ul style="list-style-type: none"> <li>Engage with local building department staff around the state to determine local compliance gaps and needs for information and support</li> <li>Engage with DSA and DGS compliance and enforcement staff to determine compliance gaps for public schools and state-owned buildings and needs for information and support.</li> </ul>			
<b>Increase Compliance for Existing Buildings through Targeted Outreach, Education and Support for Enforcement Agencies</b> <ul style="list-style-type: none"> <li>Maximize engagement with the over 500 local enforcement agencies, including collaboration with California Building Officials (CALBO) and International Code Council (ICC) chapters in regions throughout the state.</li> <li>Maximize engagement with agencies that enforce the standards for the public schools (Division of the State Architect (DSA) and Department of General Services (DGS).</li> <li>Deliver information, education and support through ongoing building department site visits, presentations and participation in CALBO and ICC chapter meetings, targeted information materials, including factsheets, simplified compliance forms, and FAQs, in conjunction with the Energy Commission's hotline, <i>Blueprint</i> newsletter, and quarterly updates to compliance manuals.</li> </ul>			
<b>Develop and Provide Training on Standards requirements for existing buildings to Local Building Department staff and Other Enforcement Agencies</b> <ul style="list-style-type: none"> <li>Develop and provide Standards training at CALBO and ICC education events and independently for individual enforcement agencies, and travel in the field to work one-on-one with enforcement agency staff, including permit technicians, plans examiners, and field inspectors.</li> <li>Develop and provide Standards training at headquarters and field offices of DSA, including one-on-one training for plan examiners and field inspectors, and DGS.</li> </ul>			
Complete staff training efforts to ensure staff are fully qualified to perform duties as assigned and improve skills for upward mobility			

**SB 350 WORKLOAD DOCUMENTATION**

<b>EFFICIENCY DIVISION 11 New Positions Requested</b>	Senior Mechanical Engineer (2 permanent position, 12 months hours)	Energy Commission Specialist III (1 permanent position, 12 months hours)	Energy Commission Specialist II (3 permanent positions, 12 months hours)	Mechanical Engineer (5 permanent positions) (12 months hours)
<b>Appliance Energy Efficiency Standards Upgraded Compliance and Enforcement</b>				
<b>Enforce Appliance Efficiency Standards</b> Investigate enforcement leads, evaluate test results and take appropriate enforcement action (notices of violation, formal administrative adjudications, litigation, and/or settlement) to enforce appliance efficiency standards for state-regulated products.			1280	
<b>Compliance Assistance for Appliance Efficiency Standards</b> Develop and expand existing Appliance Efficiency Database for certifying to standards, respond to compliance questions from manufacturers and retailers, and monitor and evaluate California market to identify areas of noncompliance for future activity			266	
Respond to legislature, Governor's Office, media, and other inquires on the status of the Appliances Program and enforcement efforts.			50	
<b>Contract Management</b> Complete all agreement management activities, including invoice review/approval, progress report review/approval, meetings, project review amendment request processing, problem identification and resolution, and agreement close out activities			100	
Complete staff training efforts to ensure staff are fully qualified to perform assigned duties			80	
<b>Total Staff Hours - Efficiency Division</b>	<b>3,680</b>	<b>1,750</b>	<b>5,328</b>	<b>8,800</b>
<b>Staff PY @ 1,776 Hours/PY</b>	<b>2.1</b>	<b>1.0</b>	<b>3.0</b>	<b>5.0</b>

**ENERGY ASSESSMENTS DIVISION  
8 New Positions Requested**

Energy Commission Supervisor II (1 permanent position) (12 months hours)	Energy Commission Specialist III (1 permanent position) (12 months hours)	Energy Commission Specialist II (1 permanent position) (12 months hours)	Energy Commission Specialist I (1 permanent position) (12 months hours)	Energy Commission Specialist I (1 permanent position) (12 months hours)	Electric Generation System Program Specialist I (1 permanent position) (12 months hours)	Electric Generation System Specialist I (1 permanent position) (12 months hours)	Electric Generation System Specialist I (1 permanent position) (12 months hours)
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**Energy Efficiency Goals, Standards, and Assessments**

Supervise new unit of analytical staff engaged in conducting a public process for developing energy estimates of energy efficiency potential for the next 15 years.	710						
Provide technical expertise for a public process that develops a statewide estimate of potential energy efficiency and a process for establishing annual targets that double statewide energy efficiency and demand reduction savings for individual electric and natural gas utilities	533	266	178	178	178		
Perform administrative duties including work plans, budgets, monthly reports, individual development plans, performance appraisals and probationary reports	355						
Advise the Energy Commission, other governmental agencies, and private entities on issues associated with energy efficiency target setting and assessments	178	178					
Lead as a technical expert in public workshops and meetings, devise methods for measuring and assessing the effects of these savings on the hourly and seasonal, statewide, and local electricity demand		355					
Create and conduct assessments of efficiency impacts on disadvantaged communities, and provide an update every two years on progress toward maximizing the contribution of statewide energy efficiency savings in disadvantaged communities		178	533				
Coordinate and provide technical assistance for analyzing data to provide an estimate of the effect of energy efficiency savings on electricity demand statewide, in local service territories, and on an hourly and seasonal basis		355	355				
Guide the public process to consider whether to establish targets that consider metrics for analyzing greenhouse gas reductions		355					
Develop and review energy efficiency targets and actual energy efficiency savings for one or more investor-owned electric utilities, one or more major publicly-owned electric utilities, and 12-15 small publicly-owned utilities.			178	533			
Monitor annual progress of each electricity utility's progress toward the ultimate 2030 goal, and advise as to whether the annual reported savings require in-depth review and scrutiny.			178	1066			
Develop and review energy efficiency targets and actual energy efficiency savings for one or more investor-owned natural gas utilities, one or more major publicly-owned electric utilities, and 12-15 small publicly-owned utilities			178		533		
Monitor annual progress of each natural gas utility's progress toward the ultimate 2030 goal, and advise as to whether the annual reported savings require in-depth review and scrutiny.			178		1066		

**Integrated Resource Plans Format, Collection, and Review**

In collaboration with Division and Energy Commission management, plan the work for each year, including the timing of key deliverables, needed resources, and how work is coordinated with other priorities within the Division.						60	60	60
Conducts meetings and phone calls with utility representatives on the content of Integrated Resource Plans						300	400	400
Conducts publicly noticed workshops on the format and content of Integrated Resource Plans prior to the adoption of the format by the Energy Commission.						150	200	200
Attend and participate in public meetings and proceedings held at the CPUC regarding the Integrated Resource Plans to be filed by the Investor Owned Utilities						180	100	100
Attend and participate in public meetings and proceedings held at the Air Resources Board on the setting the greenhouse gas emissions standards required under SB 350.						60	30	30
Collect electronic and hard copies of utility Integrated Resource Plans. Follow-up with utilities that fail to file on time to ensure full compliance						100	160	160
Summarize and review IRPs submitted by the IOUs to the CPUC.						60	100	100
Summarize and review IRPs submitted by the POUs to the Energy Commission.						250	250	250
Assess the adequacy of each IRP submitted to the Energy Commission in meeting the goals and requirements of SB 350.						300		
Provide recommendations on how any IRP that is not consistent with the requirements of SB 350 should be changed in order to meet those requirements.						316		
Track and monitor the resource changes and additions of each POU and provide comparisons to the IRP documentation provided.							226	226
Collect and compare the filings provided by each POU during each IEPR cycle under the S-1/ S-2/ and S-5 forms to the IRP and provide documentation of how consistent those filings are.							250	250

<b>Total Staff Hours - Energy Assessments Division</b>	<b>1,776</b>	<b>1,687</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>
<b>Staff PY @ 1,776 Hours/PY</b>	<b>1.0</b>							

**SB 350 WORKLOAD DOCUMENTATION**

**RENEWABLE ENERGY DIVISION  
9 New Positions Requested**

	Energy Commission Supervisor II (1 permanent position) (12 months hours)	Electric Generation System Specialist I (1 permanent position) (12 months hours)	Energy Commission Specialist I (1 permanent position) (12 months hours)	Energy Commission Specialist I (1 permanent position) (12 months hours)	Associate Energy Specialist (1 permanent position) (12 months hours)	Associate Energy Specialist (1 permanent position) (12 months hours)	Associate Energy Specialist (1 permanent position) (12 months hours)	Energy Analyst (1 permanent position) (12 months hours)	Energy Analyst (1 permanent position) (12 months hours)
<b>Administrative</b>									
Modify RPS database to support additional data storage needs and functionality under SB 350 and to ensure functionality matches new requirements.	100	60			100		100		
Oversee and manage staff workload, delegate tasks, conduct regular staff meetings, review and approve deliverables and work products, ensure staff achieve goals and deadlines, hire new staff, review and approve personnel-related documents, facilitate communication between staff, management, and stakeholders, set employee performance standards and ensure they are being met, resolve personnel issues.	526	60							
Oversee and conduct training to ensure staff is fully qualified to perform duties as assigned.	200	60							
Manage technical support contract: prepare solicitations, review proposals, vendor scoring and selection, status meetings with contractor, prepare, review, and approve work authorizations, review and approve work products, process and approve invoices.	60		200				100		
<b>Modifications to RPS POU Regulations</b>									
In coordination with the Chief Counsel's Office, execute rulemaking to amend existing RPS regulations for POU's to incorporate new requirements in SB 350. Duties will include meeting/communicating with management, stakeholders, and other affected parties to discuss proposed changes to the regulations, review and summarize public comments on proposed changes, prepare Order Instituting Rulemaking and schedule, prepare proposed regulation language, conduct public workshops to vet and solicit input on draft and final proposed language, review and incorporate comments as appropriate, draft Express Terms and supporting reports/forms for the Office of Administrative Law, prepare documents for adoption at an Energy Commission Business Meeting.	100	300	300	100			150	150	150
<b>RPS Certification/Eligibility and Verification/Compliance</b>									
Review, process, verify, and approve the increased number of RPS certification applications and procurement data resulting from new RPS goal of 50 percent by 2030 and from changes in SB 350 to eligibility and compliance rules in the current RPS program.	40	60	500	200	500	200	350	350	350
Update <i>RPS Eligibility Guidebook</i> to incorporate new SB 350 eligibility requirements, including those for municipal solid waste, large hydro, unavoidable coal contracts, and green pricing programs. Draft proposed language, conduct public workshops; solicit and incorporate comments, seek management and Commissioner approval of final document; publish document.	100	116		100	200	100	200	200	200
Review and assess new SB 350 exemption for large hydro facilities with over 50 percent of retail sales in any given year of a compliance period beginning January 1, 2011. This review of retroactive RECs may result in changes to previous verification findings.		40		40			40		40
Assist Energy Assessment Division with drafting new guidelines for the Integrated Resource Plans of 16 publicly owned utility which under SB 350 must be submitted to the Energy Commission on or before January 1, 2019.	150	400		400	300	400	300	300	300
Review initial integrated resource plans and 5-year updates from the publicly owned utilities to ensure compliance with requirements of SB 350 related to renewable energy, including RPS procurement plans; provide recommendations to address any identified deficiencies.	50	400		400	200	400	200	200	160
Conduct study on barriers to and opportunities for solar photovoltaic energy generation and access to other renewable energy resources by low-income customers by January 1, 2017. Duties will include outreach to communities throughout California and environmental justice organizations; in-depth research of issues; public workshops to seek stakeholder input; drafting reports for management and public review, reviewing public comments and incorporating as appropriate; adoption at Energy Commission Business Meeting; submittal of the report to the Legislature.	40	20	200	40	200	40	200	200	200
On or before January 1, 2017, conduct and complete a study with input from relevant state agencies and the public on barriers to contracting opportunities for local small businesses in disadvantaged communities. Duties will include outreach to communities throughout California and environmental justice organizations; in-depth research of issues; public workshops to seek stakeholder input; drafting reports for management and public review, reviewing public comments and incorporating as appropriate; adoption at Energy Commission Business Meeting; submittal of the report to the Legislature.	40	20	200						

**RENEWABLE ENERGY DIVISION  
9 New Positions Requested**

	Energy Commission Supervisor II (1 permanent position) (12 months hours)	Electric Generation System Specialist I (1 permanent position) (12 months hours)	Energy Commission Specialist I (1 permanent position) (12 months hours)	Energy Commission Specialist I (1 permanent position) (12 months hours)	Associate Energy Specialist (1 permanent position) (12 months hours)	Associate Energy Specialist (1 permanent position) (12 months hours)	Associate Energy Specialist (1 permanent position) (12 months hours)	Energy Analyst (1 permanent position) (12 months hours)	Energy Analyst (1 permanent position) (12 months hours)
<b>Coordinated Outreach</b>									
Collaborate with CPUC to establish an advisory group consisting of representatives from disadvantaged communities identified in Section 39711 of the Health and Safety Code. The advisory group will review and provide advice on programs proposed to achieve clean energy and pollution reduction and determine whether those proposed programs will be effective and useful in disadvantaged communities. Duties include scheduling and attending regular meetings with the CPUC and the advisory group; outreach to disadvantaged communities and environmental justice organizations to identify potential representatives; analysis of programs of most use to disadvantaged communities; development of process for advisory group review and provision of recommendations to program staff on the effectiveness of proposed programs	40	80		100	75	100	75	75	75
Collaborate with CPUC to establish a publicly available tracking system to provide up-to-date information on progress toward meeting the clean energy and pollution reduction goals of the Clean Energy and Pollution Reduction Act of 2015. Duties will include regular meetings with the CPUC; outreach to disadvantaged communities and environmental justice organizations; analysis of what information about program progress will be most useful to the public and the optimal vehicle for conveying that information; and development of schedules for updates to program information	40	60		100	75	100	75	75	75
Communicate with RPS stakeholders via phone, meetings, and email to correct errors in data submittal and get clarification as needed to ensure compliance with RPS certification and verification programs	40	60	200	60	60	60	60	60	60
Coordinate with Air Resources Board on RPS progress and publicly owned utility enforcement and penalty issues; participate in regular meetings between Energy Commission and ARB staff; review cross-agency documents as needed	50			36	66	36	66	66	66
Prepare legislative analyses; respond to general data requests about renewable energy and the RPS program from the public, media, and legislative staff; prepare fact sheets; update Energy Commission webpages as needed.	200	40	176	100	100	100	100	100	100
<b>Total Staff Hours - Renewable Energy Division</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>	<b>1,776</b>
<b>Staff PY @ 1,776 Hours/PY</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>

# EFFICIENCY DIVISION

o **Deputy Director**  
 o EGSPS III  
 o ER Spec III

Administration Office  
 o AGPA  
 o Executive Assistant

### Appliances and Existing Buildings Office

- o ER Spec III
- o OT
- o SME
- o **SME (Proposed 16/17)**
- o **SME (Proposed 16/17)**
- o SEE
- o Spec III
- o Spec III
- o **Spec III (Proposed 16/17)**

### Appliance Standards Development

- o Attorney T&D to Sup II (EFF)
- o ME
- o ME
- o ME
- o AEE
- o Spec II (EFF)
- o Spec II (EFF)
- o **Spec II (EFF) (Proposed 16/17)**
- o EA

### Existing Buildings

- o Sup II (EFF)
- o ME
- o **ME (Proposed 16/17)**
- o **Spec II (EFF) (Proposed 16/17)**
- o Spec I (EFF)
- o Spec I (EFF)
- o AES (EFF)
- o AES (EFF)
- o EA

### Standards Implementation Office

- o ER Spec III
- o OT
- o SME
- o SME
- o Spec III

### Compliance & Enforcement

- o Sup II
- o ME
- o ME
- o **ME (Proposed 16/17)**
- o Spec I (EFF)
- o Spec I (EFF)
- o Spec I (EFF)
- o EA
- o EE - (LT)

### Outreach & Education

- o Sup II (EFF)
- o EE
- o EE
- o ME
- o ME
- o Spec II (EFF)
- o **Spec II (EFF) (Proposed 16/17)**
- o Spec I (EFF)
- o EA
- o EA

### Building Standards Office

- o ER Spec III
- o OT
- o SME
- o SME
- o SCE
- o SEE

### Building Standards Development

- o Sup II (EFF)
- o AEE
- o EE
- o ME
- o ME
- o ME
- o **ME (Proposed 16/17)**
- o Spec II (EFF)
- o Spec I (EFF)
- o EA

### Standards Tools Development

- o Sup II (EFF)
- o ME
- o ME
- o **ME (Proposed 16/17)**
- o **ME (Proposed 16/17)**
- o Spec I (EFF)
- o EA
- o EA
- o EA

### Local Assistance and Financing Office

- o ER Spec III
- o OT
- o SME
- o SME
- o SME
- o Spec III (EFF)
- o Spec III (EFF)
- o AGPA

### ECAA Energy Assurance & ARRA

- o Sup II (TED)
- o ME
- o ME
- o ME
- o ME
- o Spec II (EFF)

### ECAA Education

- o Sup II (EFF)
- o AME
- o ME
- o ME
- o ME
- o ME
- o Spec I (EFF)
- o Spec II (EFF)

### Prop 39

- o Sup II (EFF)
- o Spec II (TED)
- o Spec II (EFF)
- o Spec I (EFF)
- o Environmental Scientist T&D to Spec I (EFF)
- o AES (EFF)
- o EA

## Energy Assessments Division

### Demand Analysis Office (Current)

#### Energy Resources Specialist III (Managerial)

- o Sr. Mechanical Engineer
- o Sr. Mechanical Engineer
- o Research Specialist III
- o EC Specialist III
- o EC Specialist III
- o EC Specialist III
- o Office Technician

#### Demand Forecasting Unit

- o Sup II
- o EC Specialist II
- o EC Specialist II
- o EC Specialist I
- o Associate Energy Specialist
- o Associate Energy Specialist

#### Data Collection Unit

- o Sup II
- o EC Specialist II
- o EC Specialist I
- o EG System Specialist I
- o Associate Energy Specialist
- o Associate Energy Specialist
- o Management Services Technician

#### Data Analysis and Survey Unit

- o Sup II
- o EC Specialist II (Limited-Term)
- o EC Specialist II (Limited-Term)
- o Research Program Specialist II (Limited-Term)
- o Research Program Specialist I (Limited-Term)
- o Associate Energy Specialist (Limited-Term)
- o Mechanical Engineer (Limited-Term)

#### Transportation Energy Forecasting Unit

- o Sup II
- o EC Specialist II
- o EC Specialist II
- o EC Specialist I
- o EC Specialist I
- o Associate Energy Specialist
- o Energy Analyst

### Demand Analysis Office (Proposed)

#### Energy Resources Specialist III (Managerial)

- o Sr. Mechanical Engineer
- o Sr. Mechanical Engineer
- o Research Specialist III
- o EC Specialist III
- o EC Specialist III
- o EC Specialist III
- o Office Technician

#### Demand Forecasting Unit

- o Sup II
- o EC Specialist II
- o EC Specialist II
- o EC Specialist I
- o Associate Energy Specialist
- o Associate Energy Specialist

#### Data Collection Unit

- o Sup II
- o EC Specialist II
- o EC Specialist I
- o EC Specialist I
- o EG System Specialist I
- o Associate Energy Specialist
- o Associate Energy Specialist
- o Management Services Technician

#### Data Analysis and Survey Unit

- o Sup II
- o EC Specialist II (Proposed Perm 16/17)
- o EC Specialist II (Proposed Perm 16/17)
- o Research Program Specialist II (Proposed Perm 16/17)
- o Research Program Specialist I (Proposed Perm 16/17)
- o Associate Energy Specialist (Proposed Perm 16/17)
- o Mechanical Engineer (Proposed Perm 16/17)

#### Transportation Energy Forecasting Unit

- o Sup II
- o EC Specialist II
- o EC Specialist II
- o EC Specialist I
- o EC Specialist I
- o Associate Energy Specialist
- o Energy Analyst

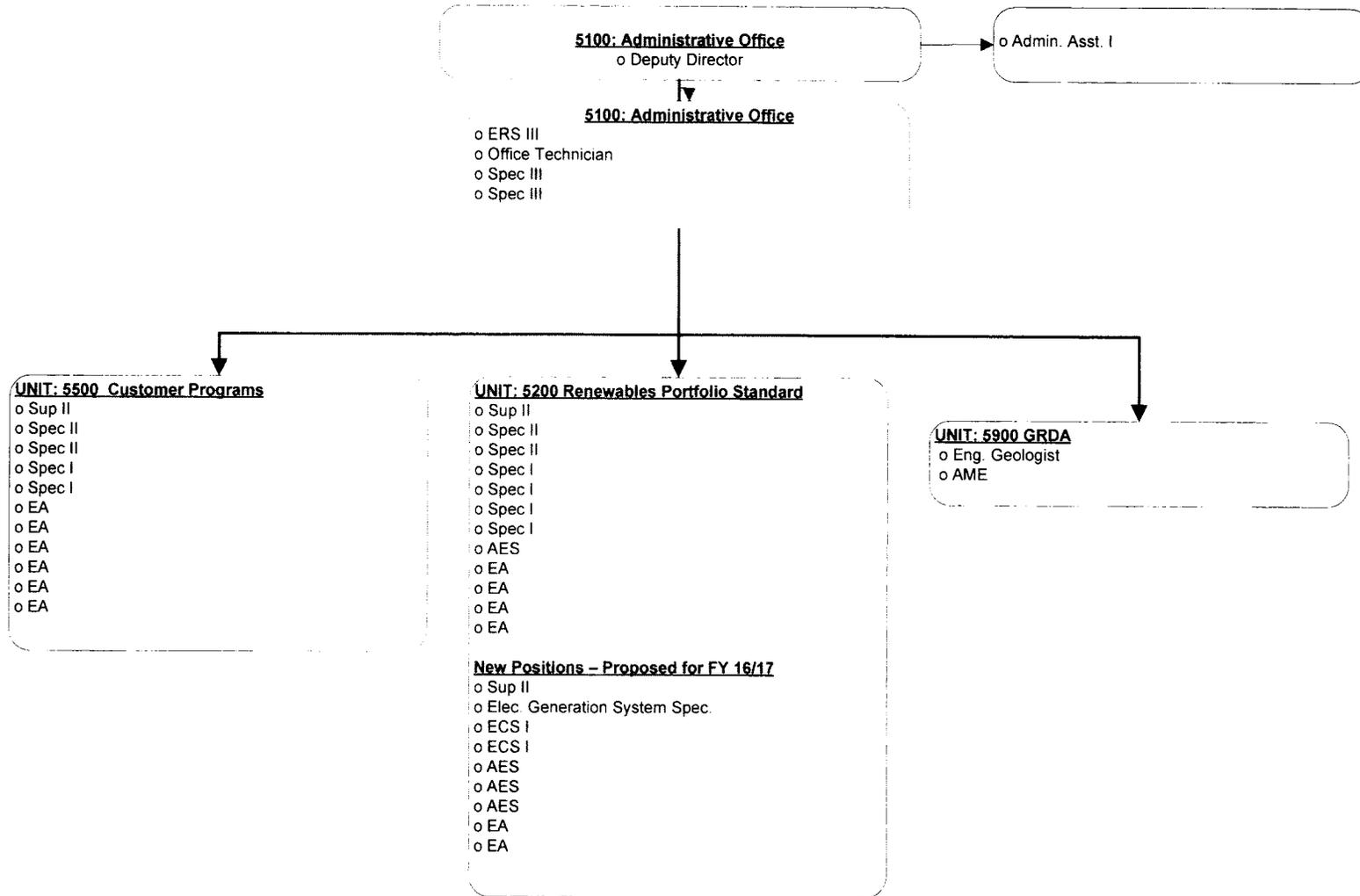
#### Energy Efficiency Assessments Unit – Proposed 16/17

- o Sup II
- o EC Specialist III
- o EC Specialist II
- o EC Specialist I
- o EC Specialist I
- o EC Specialist I (moved from Data Collection Unit)
- o EC Specialist I (moved from Data Collection Unit)

## Energy Assessments Division

Supply Analysis Office (Current)	Supply Analysis Office (Proposed)
<p><b>Energy Resources Specialist III (Managerial)</b></p> <ul style="list-style-type: none"> <li>o Office Technician</li> <li>o Office Technician</li> <li>o Electric Gen Sys Program Spec I</li> <li>o Electric Gen Sys Program Spec I</li> </ul>	<p><b>Energy Resources Specialist III (Managerial)</b></p> <ul style="list-style-type: none"> <li>o Office Technician</li> <li>o Office Technician</li> <li>o Electric Gen Sys Program Spec I</li> <li>o Electric Gen Sys Program Spec I</li> </ul>
<p><b>Natural Gas Unit</b></p> <p><b>o Electric Gen Sys Specialist III</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Specialist I</li> <li>o EC Specialist I</li> <li>o Electric Gen Sys Specialist I</li> <li>o EA</li> <li>o Eng Geologist</li> <li>o EC Specialist I</li> </ul>	<p><b>Natural Gas Unit</b></p> <p><b>o Electric Gen Sys Specialist III</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Specialist I</li> <li>o EC Specialist I</li> <li>o Electric Gen Sys Specialist I</li> <li>o EA</li> <li>o Eng Geologist</li> <li>o EC Specialist I</li> </ul>
<p><b>Procurement and Modeling Unit</b></p> <p><b>o Electric Gen Sys Specialist III</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Program Spec I</li> <li>o Electric Gen Sys Specialist I</li> <li>o Electric Gen Sys Specialist I</li> </ul> <p><b>o EGSS II</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Specialist I</li> </ul>	<p><b>Procurement and Modeling Unit</b></p> <p><b>o Electric Gen Sys Specialist III</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Program Spec I</li> <li>o Electric Gen Sys Specialist I</li> <li>o Electric Gen Sys Specialist I</li> <li>o Electric Gen Sys Program Spec I-Proposed 16/17</li> <li>o Electric Gen Sys Specialist I -Proposed 16/17</li> <li>o Electric Gen Sys Specialist I -Proposed 16/17</li> </ul> <p><b>o EGSS II</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Specialist I</li> </ul>
<p><b>Distributed Gen. Integration Unit</b></p> <p><b>o Electric Gen Sys Specialist III</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Program Spec I</li> <li>o Electric Gen Sys Specialist I</li> <li>o Electric Gen Sys Specialist I</li> <li>o Electric Gen Sys Specialist I</li> <li>o Energy Analyst</li> <li>o Electric Gen Sys Specialist I</li> </ul>	<p><b>Distributed Gen. Integration Unit</b></p> <p><b>o Electric Gen Sys Specialist III</b></p> <ul style="list-style-type: none"> <li>o Electric Gen Sys Program Spec I</li> <li>o Electric Gen Sys Specialist I</li> <li>o Energy Analyst</li> <li>o Electric Gen Sys Specialist I</li> </ul>
<p><b>Transportation Fuels Data Unit</b></p> <p><b>o Sup II</b></p> <ul style="list-style-type: none"> <li>o Assoc Auto Equip. Spec Eng</li> <li>o EC Specialist I</li> <li>o EC Specialist II</li> <li>o EC Specialist I</li> <li>o Energy Analyst</li> <li>o Energy Analyst</li> <li>o Associate Energy Specialsit</li> <li>o Associate Energy Specialist</li> </ul>	<p><b>Transportation Fuels Data Unit</b></p> <p><b>o Sup II</b></p> <ul style="list-style-type: none"> <li>o Assoc Auto Equip. Spec Eng</li> <li>o EC Specialist I</li> <li>o EC Specialist II</li> <li>o EC Specialist I</li> <li>o Energy Analyst</li> <li>o Energy Analyst</li> <li>o Associate Energy Specialsit</li> <li>o Associate Energy Specialist</li> </ul>

# RENEWABLE ENERGY DIVISION



# Office of the Chief Counsel

