

## DOCKETED

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**FirstFuel Software Comments on CEC's Existing Building Energy Efficiency Action Plan - Draft**

*Additional submitted attachment is included below.*

## Comments of FirstFuel Software

April 21, 2015

California Energy Commission  
Re: Docket Number: 15-IEPR-05  
1516 Ninth Street, MS-29  
Sacramento, CA 95814-5512

### **RE: FirstFuel’s Comments on the CEC’s Existing Building Energy Efficiency Action Plan - Draft**

#### **1. Introduction**

FirstFuel Software (First Fuel) appreciates the opportunity to comment on the California Energy Commission’s (CEC) Existing Building Energy Efficiency Action Plan – Draft (Draft Action Plan). FirstFuel commends the extensive effort undertaken by the CEC in producing the Draft Action Plan, and the outreach activities to educate and engage stakeholders throughout the state of California.

FirstFuel Software is a customer intelligence company that transforms utilities into trusted advisors for their business customers, by delivering energy efficiency and effective customer engagement solutions for commercial building portfolios. FirstFuel combines state-of-the-art analytics with deep building science expertise to remotely disaggregate whole building interval data into its end uses and patterns of activity – without on-site visits or installed devices. FirstFuel uses advanced analytics to benchmark and assess building energy performance remotely, creating rich energy profiles that can be used to identify actionable buildings specific efficiency opportunities, increase customer participation and satisfaction, and deliver, monitor, and verify energy savings.<sup>1</sup>

Since 2011, FirstFuel has analyzed 40 billion kWh of energy consumption and conducted portfolio-screening analysis of over 2 billion gross square feet of commercial, government, and institutional space across thousands of buildings. We have identified 5 tWh of total savings opportunities. Founded in 2010 and privately held, FirstFuel’s office is located at 420 Bedford St. Suite 200, Lexington, MA. 02420.

FirstFuel supports the Draft Action Plan and recommends: **(1) CEC-CPUC Coordination on the “Code-as-Baseline” Issue; and (2) Including Commercial Operational Program Offerings Within Strategy 2.2 Consumer Focused Efficiency.**

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<sup>1</sup> Additional background regarding FirstFuel is available at [www.firstfuel.com](http://www.firstfuel.com).

## **2. FirstFuel Recommends CEC-CPUC Coordination on the “Code-as-Baseline” Issue**

FirstFuel was encouraged to see the CEC Draft Action Plan acknowledge the “code-as-baseline” issue as key challenge<sup>2</sup> for energy efficiency project implementation within utility programs. The Draft Action Plan states, “ratepayer-funded incentive programs are generally allowed to claim only the “above-code” portions of a project. Therefore, “to-code” projects have little or no program support – however challenging they may be for many older, inefficiency existing buildings – while “above-code” savings opportunities represent only incremental savings and tend to be more complex. If this disconnect between codes and standards and voluntary programs is not addressed, attractive upgrades of existing buildings may go unrealized or be driven underground – done without a permit. The agencies must better understand the extent of unrealized savings and the potential role of energy efficiency programs to make a positive impact.”<sup>3</sup>

FirstFuel has been an active participant in the CPUC Energy Efficiency Order Instituting Rulemaking (OIR) Regarding Phase II and has advocated the “to-code baseline is a critical issue to expedite because it affects goals, programmatic approaches, savings estimation and incentive structures – all integral components of planning and implementing cost-effective portfolios.”<sup>4</sup> Further, FirstFuel has been working on a bottom up code-baseline analysis with PG&E to examine the savings opportunity in a subset of 164 buildings and to inform the design of PG&E’s to-code pilot. Preliminary results from this code-baseline analysis are finding that 2/3 of these buildings have “to-code potential” and 1/3 of these buildings have “above-code potential.” These preliminary results begin to suggest that utilities and customers could benefit from a different programmatic approach that takes into consideration code baseline vs. existing conditions baseline. Baseline implications could also influence the energy conservation measures that are recommended to business customers, which could affect participation in energy efficiency.

In addition, CPUC Decision (D) 14-10-0046 has directed the investor owned utilities to develop to-code pilots to understand the customer decision making around different baselines through test and control pilots. FirstFuel would encourage the CEC, as the main regulatory body responsible for updating codes, to be an active participant in these discussions at the CPUC and in other forums as they arise. The CPUC is hosting an Existing Baseline Workshop on 4/28 and the California Technical Forum (Cal TF) regularly holds Below-Code Subcommittee calls to discuss these issues.

## **3. FirstFuel Recommends Including Commercial Operational Program Offerings Within Strategy 2.2 Consumer Focused Efficiency**

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<sup>2</sup> [http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-05/TN203806\\_20150310T093903\\_California's\\_Existing\\_Buildings\\_Energy\\_Efficiency\\_Action\\_Plan.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-05/TN203806_20150310T093903_California's_Existing_Buildings_Energy_Efficiency_Action_Plan.pdf). P. 7.

<sup>3</sup> Ibid.

<sup>4</sup> R13-11-005 FirstFuel Software Pre-Hearing Conference Statement on Phase II. January 25, 2015.

**a) FirstFuel strongly recommends including a paragraph on expanding commercial operational program offerings (p. 64-65).** FirstFuel is deployed at utilities across the U.S., Canada, and Europe, and without exception has noted that operational program offerings such as retro-commissioning programs are a great way to start engagement with business customers. On the customer side, operational & maintenance cost savings are key benefits from energy efficiency.<sup>5</sup> As mentioned earlier, recent innovations at the intersection of building science, advanced analytics, and software have opened up exciting new possibilities for the delivery of utility energy efficiency programs. FirstFuel analytics are helping utilities to discover a vast opportunity of operational improvements in commercial buildings that can be implemented at little to no cost. Current FirstFuel deployments are finding 50% retrofit savings and 50% operational savings within commercial building portfolios. Identifying operational energy conservation measures has traditionally been a challenging endeavor since it requires analyzing thousands of energy consumption data points and walk through audits/surveys. Data analytics and engagement platforms are stepping in to uncover significant new untapped low hanging fruit of operational savings in the commercial sector, savings that were previously hidden, and in a highly scalable and cost-effective manner.

**b) FirstFuel recommends including the words operational and retro-commissioning under “Targeted Programs” (p.65) in the following locations (suggested language to add is noted in the bracketed and underlined text below).**

*“Using the assessment tools described in Strategy 1.3 and new sources of comparative data made available in Strategy 2.1, program implementers can better target resources to meet consumer needs. New tools accessing all available data can quickly and inexpensively provide key insights, even a relatively complete picture of a building’s energy performance.*

*The Plan recommends, as an example, prioritizing based on energy use as follows:*

- *High users receive highest priority and personal attention with a broad array of tangible offerings, including behavior [and operational] programs.*
- *Mid-level users are encouraged to engage with online tools and education that explain targeted actions, including next level energy efficiency (whole building, PV, and solar thermal), and behavior [and operational] measures.*
- *Low-level users are recognized as low-energy leaders and are encouraged to continue their behavior through awards and other recognition activities. These groups could become advocates in their community for energy efficient behaviors and investments in comprehensive retrofits [and retro-commissioning projects].”*

**FirstFuel recommends enhancing operational savings within current programs throughout the state, both in municipal and IOU territories, and understands that policy changes will be needed to allow IOUs to fully account for these savings toward goals.**

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<sup>5</sup> Lazar. J and Colburn. K. RAP. (September 2013). Recognizing the Full Value of Energy Efficiency.

FirstFuel Software appreciates the opportunity to comment. We look forward to supporting the CEC on the Draft Action Plan, and other key stakeholders in CA in developing, incorporating, and deploying new technologies and approaches that can scale energy efficiency and increase consumer, environmental, and economic benefits in California.

Respectfully Submitted,

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