

# Modernized Appliance Efficiency Database System

Be Efficient



## The California Energy Commission (CEC)

Consumers pay close attention to the energy costs of household appliances. Depending on the amount of energy they consume, appliances like air conditioners, refrigerators and washers/dryers can cost more to operate over ten years than their original purchase price. Beyond lowering consumer payout, energy-efficient appliances also enhance the environment by reducing the demand for new energy generating facilities – which in turn raises the average cost of power, takes years to prepare, and frequently poses environmental challenges.



The California Energy Commission is one of the leading national voices promoting energy efficiency and conservation. The Commission requires manufacturers to provide detailed information on energy usage for appliances ranging from kitchen equipment, to home entertainment systems, to electric toothbrushes.

## Modernized Appliance Efficiency Database System (MAEDBS)

Over 5,000 manufacturers and authorized testing laboratories report on over 150,000 appliances each year to the CEC. Over 200,000 active and archived makes and models of appliances are included in the CEC database. The database is unique: California is the only State to collect appliance energy data at this level. In fact, many other states rely upon California rather than having duplicate regulatory requirements.

"I have led deployments before I came to the Commission and since I have been at the Commission. This has been by far the smoothest deployment."

– CEC Project Manager

Although the database is a valuable repository of appliance energy usage information, the legacy system – with growing numbers of submittals/approvals of manufacturer data – had not adopted today's tools to become increasingly efficient. Also, consumers could not readily use the database to compare appliances when evaluating them.

## The Delivery and Functionality of the MAEDBS Solution

CEC and Trinity Technology Group (TrinityTG) partnered throughout the project life cycle to successfully deliver MAEDBS. Through this collaboration, the solution was implemented on-budget and ahead of schedule without compromise to the planned functionality or features for ease of use and ongoing maintainability.

By making the new system faster and easier to use by consumers, manufacturers and testing laboratories, MAEDBS ensures that new and modified products have their energy data submitted more quickly with reliable file uploads or direct data entry. Confirmations, edits, requests for clarifications and other communications now occur more efficiently, lowering the cost of compliance and increasing cooperation between the manufacturers and the CEC.



Manufacturers and testing laboratories can submit energy consumption test results directly.



Consumers can evaluate current product energy usage and costs when making new purchases.



Energy Commission program staff can efficiently review, verify, and approve testing reports.

## Benefits of the MAEDBS Solution

**Increased Ease of Use** – MAEDBS enables and simplifies manufacturer, consumer, and CEC staff operations.

**Enhanced Business Rules Management** – The application architecture maintains decisions and rules separate from workflows and data management. This enables greater ease in configuring business rules and verifying decision logic.

**Reduced Response Time to Inquiries** – The average response time for compliance questions pre-deployment was between one and two weeks. Since deployment, response time is less than two days (an 85% reduction).

**Increase in Data Integrity** – The new system is easier to use, update, and maintain. Due to this, there are fewer errors in the data.

**Increase in Processing Speed** – The average time to process appliance energy reports today is less than one day, before the average processing time was about two weeks. This improvement is due to rules that perform more data verification and automates report routing, processes that previously required manual verification.

**Streamlined Processing** – MAEDBS successfully converted multiple independent systems into a single unified system. This has streamlined the transfer of incoming and outgoing materials processed by program staff.



## Solution and Implementation Details

The modernization effort, which was completed ahead of schedule (in 14 months), consolidated six independent systems and integrated online and automated transaction tools.

The methodology and work product standards provided by TrinityTG for the appliance energy project have been adopted for use by the CEC for use by future major automation initiatives. These standards include requirements specification, architecture, detailed design, system testing, maintenance and operations plan, and other product development and ongoing support standards.

## Trinity Technology Group

Trinity Technology Group has been building working IT solutions that solve real business problems for nearly 20 years in Sacramento. Our team of talented professionals – from business analysts to seasoned developers, quality assurance analysts to project managers – work hand-in-hand with you to create formal plans for each critical process and to deliver the solution your department needs.

[trinitytg.com](http://trinitytg.com) | [trinitytg@trinitytg.com](mailto:trinitytg@trinitytg.com) | 916 486 4543 ext. 1016