EBCE Data Analytics Platform

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The EBCE Platform in Context

External Online Customer Resources
- Information Resources
- Trade Network Services
- Product Marketplace

CCA Customer Interaction
- CCA Website
- Email Management
- Interactive Voice Response
- Personalized Online Services

Operations Support and Analytics
- Customer Relationship Management
- Program and Rebate Management
- Analytics Tools / Data Repository

Enterprise Transaction/Data Management
- Customer Master
- Usage
- Billing and Collections
- Procurement / Payable
- Financial / GL
- Utility/Partner Data Exchange
EBCE Platform 101…

Foundational Principle

*Synthesize all customer, usage and transaction data into one common environment in order to have full visibility into system conditions at any point in time and at any aggregation level.*

- **Customer Status & Characteristics** (e.g. PG&E 4013 Files)
- **Usage Data** (e.g. PG&E Share My Data)
- **Transaction Data** (e.g. billing transactions)
- **Enriching Data** (e.g. Weather, Prices, Tax Assessor, etc.)
How Is It Built... And Why?

We built the EBCE Analytics Platform using open cloud technologies. Why?

- **Performance**
  - Industrial-strength performance
  - Access to cloud-only capabilities

- **Cost**
  - Minimal Overhead Required
  - Low Cost of Entry & Operation

- **Accessibility & Expandability...**
  - Access to Cutting-Edge Technologies
  - Open API and Integration Options
  - Highly Scalable (up and out)

**EBCE Data Assets:**
86+ Billion Rows / 3.3+ Terabytes of Data / 100+ Tables

**Hourly Aggregation of 500K+ Meters over 1 year:**
< 10 seconds

**Same as above + 5 dimensions:**
<= 1 minute

**Current Monthly Fees:**
< $2K / month

**Dedicated EBCE Staff:**
1.5 FTE
What Does it Do?
Already Paying Dividends…

• **Load and Revenue Forecasting and Settlement**
  – Daily output of last 90 days and next 10 day forecast delivered to SC
  – Shadow validation of settlement data submitted to the ISO
  – Visibility into future loads and revenues, and scenario analysis (PCIA impact)

• **Customer Service and Program Design**
  – Customer Segmentation
  – Evaluation of the impact of upcoming TOU changes
  – Implementation of pilot Demand Response Program
  – Customer usage and billing reports and access to meter data
Why Develop This? Why Does it Matter?

Unfettered access to data is a necessary and fundamental precursor to innovation.

• **Understand** how customer behavior is driving energy usage and the impact this has on EBCE, the county of Alameda, and California.

• **Develop** the right product for the right customer at the right place and at the right time.

• **Create** an environment where customers, local government and third-party service providers have access and visibility into the energy landscape.
Next Steps…

• Load is **just one side** of the equation… It’s our fundamental stepping stone, but the platform can and will extend to the incorporation of DERs.

• The analytics platform is **just one component** of the full solution. Interaction and integration with other systems, solutions, and providers is on the roadmap.

• Collaboration and joint activities with other **CCAs** are also on the horizon. Initial ‘socialization’ of the platform is currently taking place.