

National Action Plan for Energy Efficiency Sector Collaborative

Establishing Utility Best Practices for Providing Commercial Customers with Standardized Information on Building Energy Use and Cost

Draft Project Proposal and Approach December 21, 2007

Background

Building owner and manager participants in the Action Plan Sector Collaborative have identified as a key barrier to cost-effective energy efficiency the lack of consistent, standardized utility data for benchmarking and other energy management activities. This lack of uniform data is particularly challenging for organizations conducting business in multiple utility service territories. Expanding access for utility customers to more consistent and standardized utility data would help them improve energy management practices, benchmark their buildings' efficiency, and identify the most cost-effective opportunities for energy efficiency improvements. Increasing access to billing data also benefits utilities as they implement energy efficiency programs by strengthening on-going customer relationships and engaging customers in managing their energy use. This can result in improved energy efficiency program cost-effectiveness and achievement of regulatory goals.

The Need for Best Practice Guidance

An Action Plan effort to support increased billing data availability and consistency will directly support the Action Plan goal of creating a sustainable, aggressive national commitment to energy efficiency. Taking action now to address immediate data needs is a step along the path toward achieving Goal Eight of the National Action Plan for Energy Efficiency Vision for 2025: Establishing State of the Art Billing Systems.

Providing greater access to consistent billing data will enable key energy management actions identified by Sector Collaborative participants. For example, the use of energy performance benchmarking has been estimated to stimulate energy savings of between 4 percent and 30 percent, by allowing commercial building owners to identify low performing facilities with large potential for cost-effective energy efficiency improvements. Use of energy benchmarking is growing among building owners and managers. However, for it to become a widespread and on-going practice, easier access to consistent utility data for all commercial customers is important.

In the context of electronic billing transactions, the North American Energy Standards Board (NAESB) has addressed the issues of data consistency and format and developed

recommended model business practices for utilities.¹ The Action Plan Leadership Group has an opportunity to reinforce and extend the NAESB recommended practices and create benefits for utilities and their customers by issuing specific guidance on best practices for providing customers with standardized information on building energy use and cost. This guidance would be timely in that one state, California, has already adopted legislation requiring that a commercial building's energy performance be benchmarked and disclosed at the time of sale, lease or financing transactions.² The proposed essential, core data discussed herein are limited, but reflect the direction set in recent California legislation. The provision of these core data should lend itself to electronic transfer methods that are less costly and burdensome than those used for bill payment and other commercial financial transactions using electronic data transfer (EDI).

The need for standardized, consistent utility data was raised by participants representing all of the Sector Collaborative end use sectors during the workshop held in June, 2007: Commercial Real Estate; Hospitality; Grocery; Retail; and Municipality. Subsequently, many organizations have committed to working with utility leaders to advance this effort, including Whole Foods, Costco, the National Association of State Energy Officials, Arlington County, VA, King County, WA, and Denver, CO.

Proposed Best Practices Guidance

This National Action Plan project would result in a best practice guidance document with two tiers of practices. The first tier would describe practices that the large majority of utilities could reasonably implement and which would provide the important benefits outlined above. A second tier would describe practices for those utilities in a position to make additional investments in the necessary information technology and support systems to provide additional data through a variety of means. Each tier would describe the recommended data elements and options for making billing data accessible to customers.

Tier 1 Best Practices

The foundation of proposed best practices would be the definition of the core data elements for Tier 1. These data would be selected to provide the minimum information required to determine an energy consumption baseline, support basic energy management activities and allow energy performance benchmarking. As a

¹ NAESB, Joint Retail Electric and Retail Gas Quadrants Business Practices Subcommittees, "Recommendation for R05016 Customer Billing and Payment Notification via Uniform Electronic Transactions," January 31, 2007.

² On October 12, 2007, the California governor signed Assembly Bill 1103, making California the first state in the country to mandate the disclosure of commercial building energy consumption data and benchmarks. The legislation requires electric and gas utilities to maintain energy consumption records for all nonresidential buildings to which they provide service in a format compatible for uploading to the US EPA's ENERGY STAR Portfolio Manager on-line tool. Utilities must have the data in the appropriate format and ready for upload at a customer's request by January, 2009. The bill further mandates that starting in January, 2010, commercial building owners or operators will be required to disclose a building's benchmarking data and EPA energy performance rating, when available, to a prospective buyer, lessee, or lender. The mandate relates only to transactions involving entire buildings.

result of consultation with Sector Collaborative participants and other stakeholders the following data are proposed as the core elements.

Tier 1: Proposed Data

- Monthly meter readings covering at least the previous 12 months, with multiple years preferred
- Unique meter identifiers
- Meter reading start and end dates
- Fuel type (electric or gas)
- Unit of measure (kWh, Mcf, etc.)
- Energy demand (e.g., Kw)
- Cost: total monthly charges
- Customer / facility identifier
- Utility identifier

Tier 1: Proposed Practices for Data Accessibility

Tier 1 guidance related to practices for making data accessible to utility customers would be developed around two key elements:

- Providing electronic access to Tier 1 data to customers in a consistent, national, industry standard format, while addressing issues of data security, content, file layout, accuracy and labeling of data
- Permitting customers to receive the data, even if they do not pay bills electronically

Tier 2 Best Practices

A second tier of best practices would be defined for utilities in a position to extend the Tier 1 practices, in terms of both the scope of data provided and the means for making data accessible to customers.

Tier 2: Proposed Data

Under Tier 2, provision of a wider scope of energy and business information would be considered. An example would be the additional data identified in the NAESB Model Business Practices addressing electronic billing transactions, which fell into five broad categories:

- Detailed Invoicing Information
- Energy Consumption
- Details of Charges
- Billing and Non-Billing Party Contact Information
- Customer Contact Information

A listing of specific data in each of these categories is included in Attachment 1.

An important extension of the Tier 1 energy information would be providing customers with access to interval demand data and load profiles.

Tier 2: Proposed Practices for Data Accessibility

Tier 2 best practices would build upon Tier 1 practices for data accessibility for those utilities in a position to make additional investments in the necessary IT and support systems. The additional best practices to extend accessibility under Tier 2 could include:

- Automatic distribution of monthly consumption data to customers without the need for customer intervention or request
- Providing automated electronic access to consumption data by the customer's (or a designated third party's) benchmarking or data collection system
- Developing single data transmissions that consolidate data across customer-selectable multiple accounts and facilities
- The development of processes that, while taking advantage of technological developments, lend themselves to integration with a wide variety of legacy systems and potential migration to future technology platforms
- Active encouragement of customer use of the data for benchmarking and tracking, and the free or subsidized provision of software and services designed to enable such use.
- Provision of the additional data services at a cost that recognizes the efficiencies associated with electronic data transmission and the possibility for induced energy efficiency actions – and preferably at little or no charge to the customer

Tier 2 guidance could address both new approaches for data transfer and accessibility, as well as the already identified need to bring greater standardization to the electronic presentment and payment of utility bills using Electronic Data Interchange.

Proposed Approach for Developing Recommended Best Practices

The goal of this project is to develop a set of recommended best practices that would be issued as guidance to the utility industry as a product of the Action Plan initiative. The following are the proposed next steps to advance this effort:

January

- Present proposal for development of best practice guidance document to Leadership Group for consideration and approval
- Form an Advisory Group, including members of Leadership Group as well as other key stakeholders

February and March

- Conduct a full scoping of project with Advisory Group
- Outline document and review with Advisory Group
- Draft best practice guidance document
- Circulate draft to Advisory Group

- Discuss draft with Advisory Group and gather comments

April

- Complete revised draft in consultation with Advisory Group
- Circulate revised draft for external review among additional stakeholders beyond Advisory Group

May

- Incorporate comments from external reviewers in consultation with Advisory Group
- Present proposed best practice guidance document to Leadership Group for review

June

- Produce final guidance, with two tiers of recommended best practice in providing customers with standardized information on building energy use and cost

Post- June period

- Support adoption of best practice guidance by key stakeholder organizations, such as National Association of Regulatory Utility Commissions (NARUC) and National Association of State Energy Officials (NASEO).

Attachment 1

Recommended Information for Customer Bills Issued via Uniform Electronic Transaction from NAESB Model Business Practices³

Detailed Invoicing Information

- Invoice number (unique number associated with this individual invoice)
- Date of invoice
- Invoice due date
- Type of invoice (original, cancel, or final)
- Type of meter reading (actual or estimated)
- Billing type indicator (e.g., Distribution Company standard offer billing, Dual Billing, Consolidated Billing)
- Billing Party account number
- Service Delivery Point identifier, if applicable
- Non-Billing Party account number where available

Energy Consumption

- Product code (electric or gas)
- Meter reading start date
- Meter reading end date
- Quantity used
- Unit of measure (kWh, ccf, Mcf, etc.)

Details of Charges

- Rate code
- Total amount of previous bill
- Total payments received since last bill
- Outstanding balance prior to current period charges
- Current period charges and adjustments, at the appropriate level of detail
- Taxes on current period charges where required
- Tax type code (e.g., state, local, gross receipts)
- Total amount due

Billing and Non-Billing Party Information

- Billing Party name (sender)
- Billing Party contact name
- Billing Party contact phone number
- Non-Billing Party name
- Non-Billing Party contact name
- Non-Billing Party contact phone number
- Non-Billing Party type (e.g., Distribution Company, Supplier)

Customer Information

- Customer name (receiver)
- Customer service address
- Customer contact name
- Customer contact phone number

³ These data were identified in Model Business Practices developed by the North American Energy Standards Board (NAESB) in its work to advance the availability of consistent invoice data to utility customers. NAESB, Joint Retail Electric and Retail Gas Quadrants Business Practices Subcommittees, "Recommendation for R05016 Customer Billing and Payment Notification via Uniform Electronic Transactions," January 31, 2007.