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California Benchmarking Collaborative Comments on the Initial Staff Proposal to Implement Building Energy Use Data Access and Public Disclosure Provisions of AB 802

Additional submitted attachment is included below.

April 14, 2016

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket Number: 15-OIR-05

California Benchmarking Collaborative Comments on the Initial Staff Proposal to Implement Building Energy Use Data Access and Public Disclosure Provisions of AB 802

On behalf of the California Benchmarking Collaborative [henceforth "Collaborative"] the Center for Sustainable Energy® (CSE) respectfully submits these public comments in response to the Initial Staff Proposal [henceforth "proposal"] presented at the California Energy Commission (Energy Commission) staff workshop on March 25, 2016 for the Building Energy Use Data Access and Public Disclosure Provisions of AB 802. The Center for Sustainable Energy (CSE; www.energycenter.org) is a mission-driven nonprofit organization accelerating the adoption of clean and renewable energy technologies, policies, and practices. The Collaborative is comprised of CSE, the Natural Resources Defense Council (NRDC), the California Housing Partnership Corporation (CHPC), the Institute for Market Transformation (IMT), Green Cities California (GCC), San Francisco Department of the Environment, the City Energy Project, Berkeley Office of Energy and Sustainable Development, Los Angeles Mayor's Office of Sustainability, the California Energy Efficiency Industry Council (CEEIC), the National Electrical Manufacturers Association (NEMA), the Local Government Sustainable Energy Coalition (LGSEC), Zachary Brown: BOMA San Francisco Energy & Environment Committee Chair, Daniele Horton: BOMA Greater Los Angeles Sustainability Committee, Verdani Partners, stok, and US Green Building Council California (USGBC CA). The Collaborative has received technical advice from the U.S. Environmental Protection Agency (EPA), the National Renewable Energy Laboratory (NREL), and the U.S. Department of Energy (DOE).

In addition to these comments, parties may also submit individual comments.

AB 802: Whole-Building Data Access, Building Energy Benchmarking, and Public Transparency

The Collaborative strongly supports AB 802 and the Energy Commission's development of implementing rules for a statewide, time-certain benchmarking and transparency program. These comments build on the recommendations provided in public comments filed by the Collaborative on December 22, 2015. In these comments, we:

1. Recommend the implementing regulations reflect the intent of AB 802 to provide broader access to energy usage information to support energy efficiency market transformation;
2. Strongly recommend the Energy Commission include buildings with 1-2 meters in the statewide benchmarking and transparency program;
3. Urge the Commission to not limit the number of accounts by fuel type;
4. Propose definitions for and inclusion of mixed-use buildings;
5. Recommend adoption of meter mapping best practices; and
6. Support the creation of stakeholder outreach and training resources, including a Benchmarking Help Center.

Section 1: Introduction

1.1 The Collaborative thanks the Energy Commission for addressing critical items in this initial staff proposal.

The Collaborative thanks the Energy Commission for addressing the following items, suggested in comments filed on December 22, 2015, in the March 25, 2016 Staff Workshop:

<u>Definitions</u>

- Draft definitions for eligible buildings for data access
- Draft definitions for buildings included in benchmarking and transparency

<u>Data Access</u>

- Guidance on how utilities deliver usage information to owners
- Specifying required delivery formats (e.g., Excel CSV and Portfolio Manager), data fields utilities must provide upon request, how the authorization process will work for owners, operators, and designated agents, and offering initial guidance on the frequency of requests, time period of provided data, and options for continuous downloads

Statewide Benchmarking and Transparency

- Establishing Portfolio Manager as the benchmarking and reporting tool
- Clarifying that compliance with "accepted" local ordinances will be sufficient
- Proposing a phase-in of buildings and reporting and transparency deadlines
- Identifying building owners as the entity responsible for reporting

We appreciate the thoroughness of this initial staff proposal and herein offer our comments on these topics. We also note that the following topics remain to be addressed, and urge the CEC to do so in its next round of regulations:

- Ramifications of noncompliance
- Technical assistance and outreach
- Data quality procedures

1.2 The three core areas of AB 802 should be addressed in parallel with separate implementing regulations.

The Collaborative reiterates the importance of addressing data access and benchmarking and transparency separately in implementing regulations. The three operative sections of AB 802:

- Require utilities to provide whole-building energy usage information (WBUI), also referred to as aggregate data, to building owners (or agents) upon request, so long as their buildings have a minimum number of accounts. This is a sum of all the usage in the building, even if it occurs on multiple customers' meters;[1]
- Require large commercial and multifamily buildings to benchmark energy use, report certain information to the Commission, and make certain information available to the public;[2]
- Authorize the Energy Commission to streamline how utilities verify that a building owner has obtained the permission of a tenant to obtain WBUI for buildings that fall below the aggregation threshold or to obtain tenants' monthly energy usage information.[3]

[1] Cal. Pub. Resources Code Section 25402.10(c).
[2] Cal. Pub. Resources Code Section 25402.10(d).
[3] Cal. Pub. Resources Code Section 25402.10(f).

The data access provisions within AB 802 cover more buildings than the benchmarking and transparency program, have no restrictions according to building size, and, importantly, **owners may use the information for different energy management purposes in addition to benchmarking**.

The recommendations provided in these comments are organized by AB 802 Goals for Market Transformation (**Section 2**), Best Practices for Implementing Data Access Provisions of AB 802 **(Section 3**), and Best Practices for Implementing Benchmarking and Transparency Provisions of AB 802 (**Section 4**).

Section 2: AB 802 Goals for Market Transformation

The Energy Commission's proposed implementing recommendations unduly limit the breadth of AB 802. The Legislative intent of AB 802 clearly states: "Building owners should have access to their buildings' energy usage information."

Our recommendations below all reflect this core principle. Several of the Energy Commission's proposed regulations would further restrict access to data and limit the number of buildings required to publicly benchmark. We urge the Energy Commission to more closely reflect the Legislature's intent. For this reason, and as we describe in more depth in later sections, we recommend the Energy Commission:

- Not restrict data disclosure or benchmarking by fuel type
- Not restrict disclosable buildings by number of accounts

2.1 The Energy Commission's implementing recommendations should reflect the Legislature's clear intent to resolve data access issues in favor of broader transparency.

The purpose of AB 802 was to correct the problems of AB 1103 (Stats. 2007, ch. 533) by prioritizing data access, benchmarking, and transparency for the largest number of buildings possible, and provide building owners with aggregated tenant data where possible.

AB 1103 established the nation's first statewide energy benchmarking program. In 2009, the Legislature doubled down with two additional laws, AB 531 and AB 758. AB 531 (Stats. 2009, ch. 323) made minor procedural changes to the benchmarking mandate and underscored the State's commitment to transparency. AB 758 (Stats. 2009, ch. 470) directed the Energy Commission to develop and implement comprehensive energy efficiency programs for existing buildings using all available tools, including benchmarking. These bills were not successful in supporting statewide energy benchmarking and transparency, primarily because owners of buildings with separately metered tenants were not able to obtain whole-building data with reasonable speed or effort.

In 2015, the Legislature acted for a *fourth time* via AB 802 to reiterate that it is reasonable and necessary to make specific, limited amounts of information publicly available to inform decision makers with energy usage data and empower markets via transparent benchmarks. Learning from the past, the Legislature explicitly directed the provision of monthly whole-building usage information (WBUI) to owners and eliminated the obstacle of perceived liability on the part of utilities or building owners in this specific case. We call upon the Energy Commission to recognize and implement the direction of the Legislature to strike a better balance between data access and data protection.

2.2 AB 802 sought to ensure that the maximum number of building owners have access to whole-building energy use data.

Public Resources Code Sections 25402.10 (b) and (c) correct the central problem of AB 1103 by extending access to monthly whole-building energy use data to the owners/operators/agents of the largest possible set of buildings.

The primary goal of these provisions is to maximize data access and provide guidelines for the appropriate use of aggregation (3+ utility meters) to protect owners and tenants. Where there are 1-2 meters in a commercial building – a threshold where it is much less cumbersome to seek tenant consent – 25402.10(c)(2)(B) ensures that the owner may obtain monthly usage data via electronic or written tenant consent, using the same or similar procedures to what are available today. Section 25402.10(f) authorizes the CEC to further expedite this process.

On the matter of data access, the Energy Commission's March 25, 2016 staff presentation was generally consistent with the principle of maximizing building owners' data access under AB 802, but there were key differences detailed below. We applaud the Energy Commission for working to implement AB 802 expeditiously, because these thresholds of three meters for non-residential, and five meters for buildings that include residential units, are new to California.

The threshold of three (and even two) meters for aggregation is supported by the only statistical analysis to date that has specifically and directly addressed monthly-resolution whole-building energy use data for individual buildings. The Pacific Northwest National Laboratory found that the number of buildings served drops drastically as the minimum number of meters to be aggregated increased beyond two. (Buildings with a single meter cannot benefit from aggregation, so are excluded from **Figure 1.**)

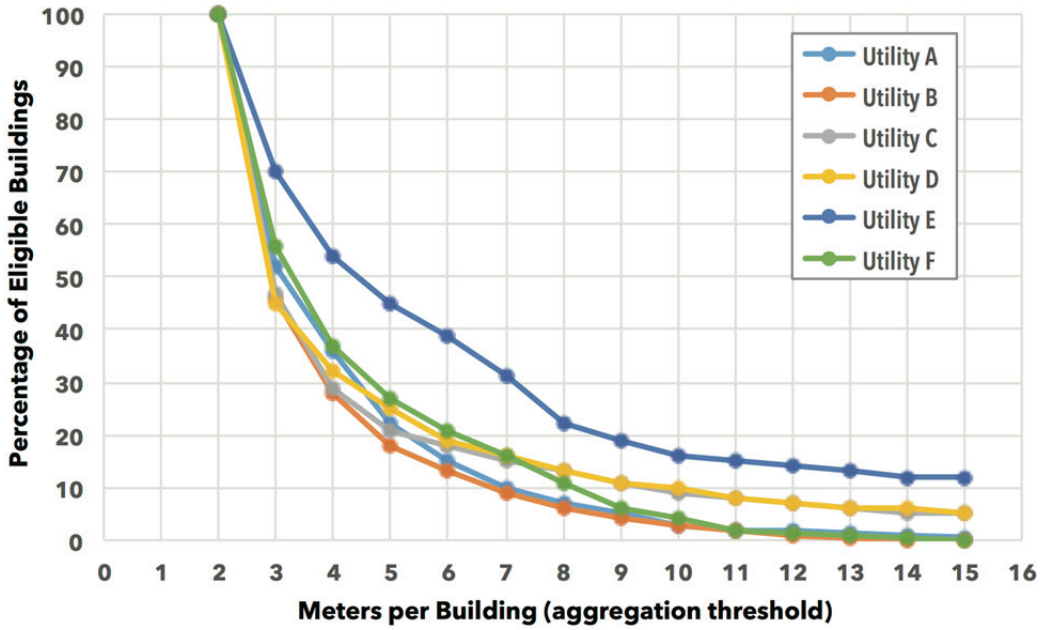


Figure 1. Percentage of buildings able to receive aggregated data at various aggregation thresholds. Source: Pacific Northwest National Laboratory (2014) Commercial Building Tenant Energy Usage Data Aggregation and Privacy.[4]

Numerous verbal comments from both stakeholders and staff at the March 25 workshop examined how to prevent owners from having the potential to calculate tenant energy usage under various scenarios. Such comments are beside the point; the Legislature cut the Gordian knot and determined three meters is the acceptable threshold for monthly whole-building data access without consent in non-residential buildings, five meters is the acceptable threshold in buildings that include residential use, and buildings with 1-2 meters can reasonably be expected to obtain the consent of separately metered tenants.

The Legislature has removed ambiguity and set a reasonable threshold for whole-building data access in California's commercial and multifamily buildings and ensured that the utility would be free from any perceived liability for compliance. Concern that a building owner could attempt to calculate the usage of individual tenants is not material in light of the adopted statute, and in any event, such theoretical opportunities are equivalent to building owners' existing potential to simply visually read tenant meters. Nothing is gained by adding great complexity in an effort to prevent something that is already possible.

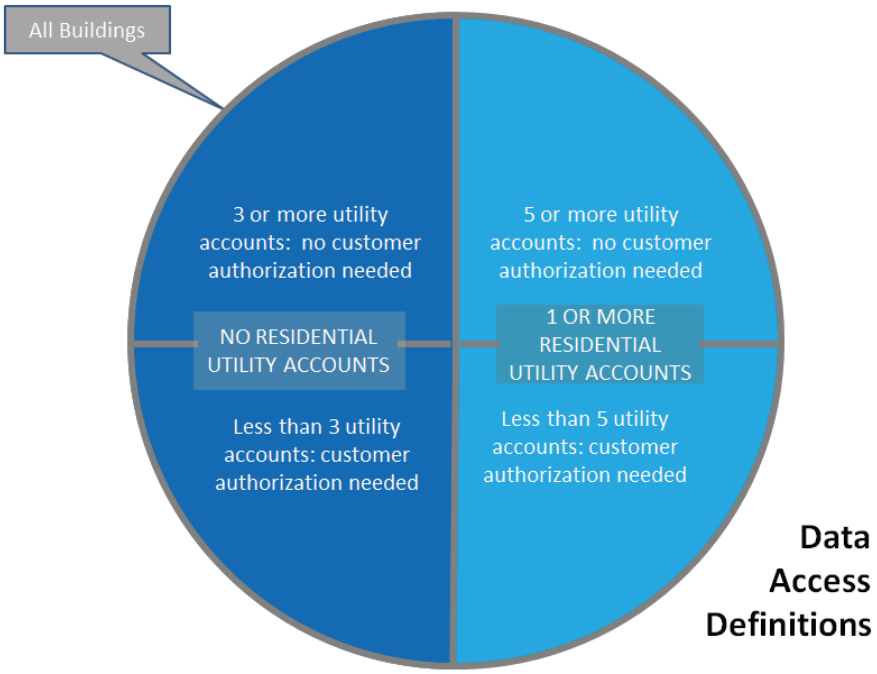
The following two diagrams illustrate the characteristics of buildings subject to the whole-building data access and/or benchmarking and disclosure provisions of AB 802.

[4] *www.pnnl.gov/main/publications/external/technical_reports/PNNL-23786.pdf*

The Data Access Definitions diagram shows which buildings are eligible for whole-building data both with and without customer consent under AB 802. These include:

1) Buildings with three or more utility accounts, none of which is residential: No customer authorization needed

2) Buildings with five or more utility accounts: No customer authorization needed

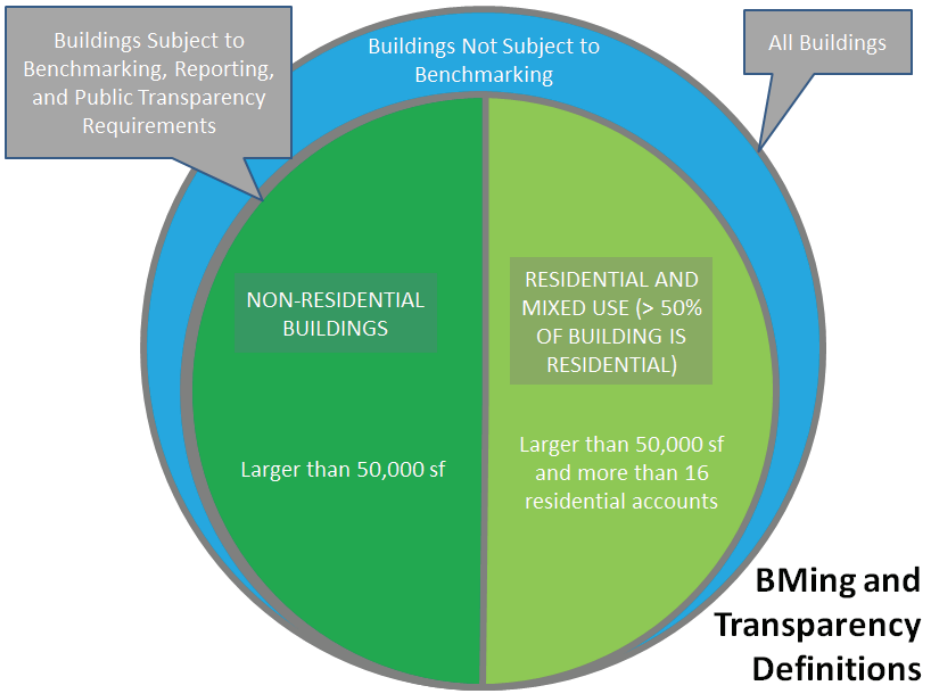


As we discuss below, Section 25402.10(f) provides authority to the CEC to streamline data access for all buildings.

The Benchmarking and Transparency Definitions diagram shows that of all buildings identified in the Data Access Definitions diagram, buildings possessing one of the following characteristics must report benchmarking results to the Energy Commission and thus make up the subset of buildings known as Disclosable Buildings in AB 802. These include:

1) Non-residential buildings greater than 50,000 square feet in area

2) Residential and Mixed Use (where greater than 50% of the building is residential) buildings that are larger than 50,000 square feet and that have either 17 or more residential utility accounts or one utility account for the whole building



Section 3: Best Practices for Implementing Data Access Provisions of AB 802

3.1 Eliminate the use of "covered building" terminology in implementing regulations and do not use fuel type to further limit access to whole-building data.

We recommend the Energy Commission remove any mention of "covered building" from the implementing regulations. Instead, we recommend the Energy Commission provide a clear definition of: (1) which buildings are eligible for whole-building data; and (2) which buildings are required to benchmark publicly, as described above. Providing a specific definition for "covered buildings" creates confusion and is duplicative with the above categories.

Furthermore, we strongly recommend the Energy Commission not limit access to whole-building data by fuel type. The legislation does not provide this distinction, and the Energy Commission's proposed definition would unnecessarily complicate the implementation of AB 802 and severely limit the number of owners who can access whole-building data. The legislature chose to provide broad access to whole-building data, and ensured that owners and utilities would not be liable for any use or disclosure of usage information delivered as required by Section 25402.10.[5]

[5] Cal. Pub. Resources Code Section 25402.10(e).

3.2 The Energy Commission can look to the DOE Data Accelerator for best practices to assist utilities with meter mapping.

The Energy Commission has suggested that utilities provide meter numbers and customer names to building owners to facilitate delivery of WBUI. The Collaborative offers the following feedback on these provisions for data access:

Staff proposal: *Utilities shall deliver the meter numbers, customer names, number of utility accounts, and building ID through the method of the building owner, owner's agent, or operator's choice.*

For utilities to be able to provide meter numbers, customer names, number of utility accounts, and building ID, utilities will need to first go through the process of mapping meters to buildings. It is critical that this process be completed, and with a high degree of accuracy.

As recommended in the Collaborative's December comments, we strongly suggest that the Energy Commission and utilities refer to the work, and lessons learned, of the Better Buildings Energy Data Accelerator. Through this two-year program, utilities worked to improve whole-building data access for building owners. In order to provide this service, the utility had to "map meters to buildings".

Of the utilities participating in the Energy Data Accelerator, the following utilities "led" the mapping meters to buildings process: Eversource, Commonwealth Edison, Xcel, National Grid, PECO, and Puget Sound Energy. According to DOE, "the utility assists (utility-led) with mapping meters or accounts to physical buildings based on information provided by the building owner. Building owners or customers will need to ultimately validate the results. Utilities that don't do utility-led mapping ask the customer to collect all of the meter or account numbers for their building and provide this to the utilities".[6]

As such, the Collaborative encourages the Commission to engage with utilities, as soon as possible, to ensure the process of mapping meters to buildings aligns with the requirement to provide building owners with meter numbers upon request in January 2017. Please find below an excerpt, specific to mapping meters to buildings, from the recently published DOE resource, *Best Practices for Providing Whole Building Energy Data; A Guide for Utilities*:

[6] http://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Best%20Practices%20for%20Providing%20Whole-Building%20Energy%20Data%20-%20Guide%20for%20Utilities.pdf

Key Components of a Utility Solution

Many utilities have developed internal approaches and systems to provide whole-building energy data to building owners. There are three best practices that utilities are using to develop their capability to provide whole-building data access:

- ***Mapping energy meters to buildings***
- *Simplifying the tenant authorization process*
- *Streamlining the transfer of data into benchmarking tools.*

This section describes each of these best practices and provides background on the current state-of-practice and information about how the best practice helps overcome specific barriers.

Mapping Energy Meters to Buildings

Many commercial and multifamily buildings have numerous energy meters serving different areas of the building, including tenant spaces. Utilities that provide whole-building energy consumption data to building owners must first be able to link those meters (or in some cases, the customer accounts) to each building. Although this may seem straightforward, in reality it is a challenge. Many utility customer information systems—the systems utilities use to bill customers—are not designed to track energy consumption at the building level, and may not be able to "map" individual meters to specific structures. Additionally, the addresses used by utilities to associate meters with buildings (known as service addresses) often differ from the physical street address for a building.

This issue has presented a significant barrier for many utilities considering whole-building data access. Figure 1 shows the difference between traditional billing practices and the new demands being placed on utility data systems to aggregate meters at the building level.

Current State-of-Practice

Utilities that have mapped meters to buildings used several different methods:

- *Run queries in their customer systems to identify all service points, accounts, or meters associated with the addresses of individual buildings. Building owners helped utilities identify cases where a building had multiple street addresses, an issue that occurs frequently in some jurisdictions.*

- *Match customer account information with external data sets, such as tax assessment information, to link accounts to physical addresses.*
- *Use geographic information system data to match meters to a specific geographic location (typically, only newer meters will have this capability).*
- *Send requests to building owners to provide them with the meter numbers for all meters that supply energy to a particular building.*

Best Practice

Utilities should develop an internal process to map meters to buildings, leveraging building owners or customers to validate results or to provide specific information that only they can provide. The exact process used by a utility will depend on the capabilities of their existing customer information and metering systems, but might include one of the first three methods listed above. Building owners or customers will need to provide information to initiate the mapping, and then ultimately validate the results. When implementing new customer information systems, utilities should ensure meter mapping is addressed early in system design.

3.3 Customer consent should only be necessary for buildings that fall below the aggregation threshold, or owners seeking tenant-level data.

In section 2(7)(B) the Energy Commission provides that for commercial buildings with three or fewer accounts, two options shall confirm customer permission. We are generally supportive of both of these options but recommend a few adjustments:

An executed lease or supplemental agreement in which a customer consents to sharing his/her energy use data with the building owner, owner's agent, or operator.

- We recommend the Energy Commission provide standardized language for owners that utilities must accept to eliminate the administrative cost of individual negotiations between owners and separate utilities.

In the absence of such an agreement, the utility shall notify the customer within seven calendar days of receiving a data request that the customer's energy use data will be shared with the building owner. No customer response to this notification within fourteen calendar days shall constitute permission to share the data. The utility shall not require the building owner, owner's agent, or operator to contact the customer on the utility's behalf

- The Collaborative recommends that this also apply to multifamily and mixed use buildings with five or fewer accounts.

Overall, we also note that customer consent should only be necessary for buildings that fall below the aggregation threshold, or owners seeking tenant-level data. Utilities currently

have generally applicable terms and conditions to provide a requesting party with energy usage information for specific customers so long as the recipient of the information (e.g., the building owner, or an energy auditor) is authorized by the customer to obtain the information. AB 802 provides the Energy Commission authority to prescribe how utilities implement their current policies to share information with authorized parties who have customers' permission.[7] Such streamlining will be critical for buildings that fall below the aggregation threshold specified by AB 802 and for owners seeking tenant-specific data.[8]

For tenant-level data, we recommend the Energy Commission also offer lease language, and at minimum, require utilities to provide a statewide standardized electronic authorization form for tenants. Utilities should not be required to streamline multifamily tenant-level data immediately so they can focus on the January 1, 2017 deadline, but providing direction now will help utilities plan for future developments.

Section 4: Best Practices for Implementing Benchmarking and Transparency Provisions of AB 802

4.1 It is critical that the statewide benchmarking and transparency program include buildings with 1-2 meters.

The staff presentation was thorough and clearly communicated the Energy Commission's intention to fully implement the AB 802 provision that ensures owners have access to monthly whole-building usage information. However, on the separate matter of re-establishing a benchmarking and transparency program, now focused upon buildings of 50,000 square feet or larger, the Energy Commission's presentation took a puzzlingly narrow approach. Where AB 802 Section 1 states,

> "It is the Intent of the Legislature that the [Energy Commission] create a benchmarking and disclosure program through which owners of commercial and multifamily buildings above 50,000 square feet gross floor area will better understand their energy consumption…."

The staff presentation pivots from this broad vision and proposes a benchmarking and transparency program that narrows to apply only to buildings that are not only larger than 50,000 square feet, but also are served by three or more utility "accounts", possibly three+ accounts of at least one fuel type.

[7] Cal. Public Resources Code Section 25402.10(f).

[8] Owners seek tenant data for a number of reasons, including: 1) tracking and verifying energy savings; 2) targeting energy efficiency upgrades; 3) calculating utility allowances at deed-restricted, low-income housing properties (now required as part of HUD guidance); and 4) participating in grant and incentive programs, especially for low-income housing owners.

The Collaborative supports the Energy Commission's intention to minimize complexity but recommends against undercutting the market transformation opportunity presented by AB 802 by narrowing disclosure to exclude buildings with 1-2 accounts. The logic of this approach is to "simplify" by eliminating buildings which continue to be required to obtain consent from any separately metered tenants. However, this approach is illogical and counterproductive because:

The relationship between "meters" and "accounts" must be explicitly resolved. We believe staff's proposed definition of an "account" would recognize each meter as corresponding to one utility account under AB 802, and we strongly support such an approach for purposes of practicality, consistency, and meaningful applicability of both data aggregation and transparency. If so, we support this interpretation, as it greatly simplifies building owners' ability to understand the legislation and their obligations, and facilitates tracking of improvement by ensuring such obligations for a given building are consistent over time.

Consider an office park at 1234 Main St which consists of 20 bays, each separately metered, as is common in office, light industrial and retail buildings.

Year 1. 20 different companies each rent one bay in the building. The building owner may obtain WBUI.

Year 2. Two companies lease 10 bays each. The building owner must obtain consent from each tenant for WBUI.

Year 3. Two companies lease 10 and six bays each; Four bays are leased by a third tenant for six out of 12 months and vacant for the balance of the year.

Year 4. Two companies lease 10 and six bays each; Four additional bays are leased by four different companies for nine out of 12 months.

Result:

- Option A: "Accounts" corresponds 1:1 to each utility point of service (meter), because each meter is a separate location point of measurement which the utility and customer have agreed upon will measure usage served by that meter location. Therefore, the building qualifies for WBUI in all four years.
- Option B: "Accounts" is interpreted to refer to the customer organization paying for services, which may be responsible for >1 meter serving a building. As a result, the same building could have different compliance obligations every year:

Year 1. The building has 20 "accounts" and qualifies for WBUI.

Year 2. The building has two "accounts" and is exempt from benchmarking.

Year 3. and **Year 4.** The building has two "accounts" for a portion of the year, and is therefore exempt from benchmarking for the year.

Option B presents logistical problems for both the utility and the building owner, and provides the building owner with no consistent insight into the performance of the facility over time. Clearly, a practical interpretation consistent with national best practice is warranted: "accounts" under AB 802 must correspond 1:1 to utility meters.

Furthermore, the quantity of meters serving a building is only loosely related to building use type, and there is no direct linkage between building size, number of units/tenants, and number of meters. As a result, exempting buildings with 1-2 meters of a given fuel type will yield far lower applicability in California than is implied by the analysis of CoStar tenant data that Energy Commission staff presented. It will also add a level of complexity for both the Energy Commission and the building owner to determine whether or not a building would be required to comply.

It was understandable to use tenants as an analytical proxy since the Energy Commission has little direct information about the number of meters per building. However, this is an overly optimistic analytic approach to inform program design. While *submetering* is growing, and is now required in new construction, *utility* master-meters remain common in both existing and new large buildings. **Figure 1** above may contribute to this misperception – it excludes buildings served by one utility meter. San Francisco Department of Environment analysis found that as many as 52% of commercial buildings in San Francisco >10k sq ft are served by one electric meter, and up to 84% are served by one gas meter, including the majority of large multi-tenant commercial office buildings that represent the bulk of the market and commercial energy use in San Francisco. Available data in San Francisco has similar implications for existing multifamily buildings: both master-metered multi-tenant buildings and facilities with individual tenant electric meters abound, with no consistent relationship between vintage, size, *or number of tenants* and number of utility meters. As a result, utility metering configuration has little meaning for the market, but inconsistent and non-representative data undercuts the intent and impact of transparency.

One possible reason the staff presentation suggested not including buildings with 1-2 utility meters in disclosure is Cal. Public Resources Code Section 25402.10(c)(2)(A) which details that for buildings with three+ active utility accounts,

> *"Notwithstanding any other law, energy usage data aggregated in this manner shall not be deemed customer utility usage information or confidential information by the utility for purposes of delivery to the owner, owner's agent, or operator of a building. The building owner and utility shall not have any liability for any use or disclosure of aggregated energy usage data delivered as required by this section."*

However, this elimination of perceived liability is not limited to buildings with three+ meters; Cal. Public Resources Code Section 25402.10(c)(2)(E) states,

> *"The building owner and utility shall not have any liability for any use or disclosure by others of usage information delivered as required by this section."*

In this case, the entirety of Cal. Public Resources Code Section 25402.10 is the "section" in question – so utilities and building owners have no liability for the Energy Commission's exercise of its legislative mandate to require benchmarking and transparency for buildings of 50,000 square feet or larger without regard to the number of meters.

The Collaborative recommends that the Energy Commission establish a robust benchmarking and transparency program that applies consistently and comprehensively, and not unnecessarily exclude *the majority* of large buildings. We acknowledge that mandatory disclosure predicated on some tenant consent is challenging, both for building owners and regulators. The Collaborative therefore urges the Energy Commission to balance these concerns by including 1-2 unit buildings in the transparency program, *and* when the program reaches an enforcement stage, to prioritize enforcement to sites with three+ meters – where there is no excuse for non-compliance.

4.2 Mixed use buildings should be defined by the designation of the majority of the floor area, and included in benchmarking and transparency accordingly.

Slide 10 of the staff presentation implies that buildings with between 1-16 residential accounts are exempt from benchmarking and disclosure. This may unintentionally exclude two types of buildings: "master metered" multifamily buildings and large commercial buildings with a small number of residential units, such as hotels that sell a suite as a condominium. The source of this limitation is Cal. Public Resources Code Section 25402.10(d)(1), which the Collaborative recommends should be interpreted as:

- Multifamily = "non-residential". AB 802 is unambiguous that buildings where there are 1-16 residents that are individually metered by the utility are exempt

from disclosure. However, where tenants share a utility meter, the meter should be considered a "non-residential" utility account – in the exact same manner that multifamily high rise buildings are subject to the "non-residential" construction requirements under the Title 24 Part 6 Energy Standards.

- Mixed use = "non-residential". Similarly, buildings where the majority of floor area is designated for commercial use, including retail, office, common areas, and all similar non-residential uses, benchmarking and transparency should apply.

4.3 Do not use fuel type to limit access to benchmarking and transparency.

Slides 13 and 14 of the staff presentation indicate an intention to limit applicability of benchmarking disclosure to buildings with three+ accounts. Staff verbal presentation accompanying the slide indicated this could be interpreted as three+ accounts for *each* fuel type serving the building. The Collaborative believes that this potential additional requirement (that buildings have three+ electric meters *and* either zero or three+ gas meters, *and* either zero or three+ steam meters) was an unintentional misstatement, or our misinterpretation. The best (and only) data available to the Collaborative indicate that in San Francisco, as few as 0.7% of commercial buildings larger than 50,000 square feet may be served by three+ electric meters *and* three+ gas meters. SF Environment staff believes this is an underestimate emblematic of the challenge of mapping meters to buildings, but it is not promising.

4.4 Utilities should provide building owners/managers 13 months of energy consumption data for the purposes of benchmarking.

Through Web Services in ENERGY STAR Portfolio Manager, it has been the practice for utilities to provide historic data to the utility service account owner. Under AB 1103 there was inconsistency in the time period in which each utility provided data access. For example, SoCalGas would provide 36 months of consumption data, whereas Southern California Edison would provide 12 months of energy data.

To further avoid inconsistencies of this type, we propose the following:

- Utilities must provide at least 13 months of consumption data to the building owner;
- This shall include a full calendar year from January 1 to December 31 of reporting period; and
- This shall include data from months with overlapping energy consumption during the reporting period.

For example, if a customer reports in 2018 about energy use in 2017, the utilities would be required to provide monthly consumption data overlapping January 1, 2017 through December 31, 2017. Presumably, the utilities with Portfolio Manager Web Services would continue to provide data in an automated and ongoing basis indefinitely.

4.5 Public agencies can demonstrate leadership with early transparency in the first year of reporting.

The Collaborative agrees with the approach of not requiring public disclosure in the initial reporting year for commercial buildings. We do however advocate for public disclosure for publicly- owned facilities in the initial year and suggest that public agencies work closely with the Energy Commission to beta test compliance tools.

The Collaborative also supports the concept of displaying the disclosed consumption in a geospatial interface that allows stakeholders, including legislators, to view the covered facilities, those that have met the reporting deadlines, and eventually the EUIs of the covered facilities. However, we strongly encourage the Energy Commission to include annual kWh and therms in public reporting.

4.6 Data accuracy can be improved through data verification processes and training.

Successful benchmarking programs must minimize inaccuracies in the building and energy data they collect. Automatic and spreadsheet energy data uploads, rather than manual entry, are the best way to improve the accuracy and completeness of reported energy consumption information.

The complementary building characteristics and operations information can be vetted through a data verification process. At a minimum, the Energy Commission should require owners to run the automated data checking function built into Portfolio Manager, which flags typos, possible incorrect meter readings, missing information, and similar common problems. Any errors discovered should be required to be corrected before a report is accepted as compliant with AB 802; where such errors are not corrected prior to submittal, the Energy Commission should allow owners to amend and submit updated benchmarking reports within 30 days of being notified electronically of any inaccuracy. The Collaborative further recommends that non-weather normalized site and source energy use information be included in reporting metrics (in addition to weather normalized metrics) as a verifiable reference point.

Additionally, the Energy Commission may consider requiring that benchmarking be periodically performed, or verified, by a qualified individual in order to improve data accuracy. Such an individual or entity would ideally possess relevant training, a professional license or the “Certificate of Proficiency in Benchmarking” online training recently launched

by the U.S. Department of Energy, Environmental Protection Agency, the New Jersey Institute of Technology, and City Energy Project. The training is regularly updated and includes a recertification protocol.

The Benchmarking Help Center (discussed in **Section 5.4.1**) can be used to improve the quality of data submitted by building owners. The Help Center can send messages to owners with directions on how they can address possible data errors detected by Portfolio Manager's Data Quality Checker. Chicago has used a similar system to encourage owners to correct their own mistakes by resubmitting corrected reports. An analysis by the Consortium for Building Energy Innovation (CBEI) in 2013 found that feedback to the building owner on how to improve the quality of the data they report was a crucial factor in data quality for Philadelphia's benchmarking results.[9]

4.7 Stakeholder outreach and training is critical to the success of the benchmarking and transparency program.

The importance of adequate support, including technical assistance, trainings, How-To Guides, and other materials, to the success of a benchmarking program cannot be overstated. The Collaborative recommends the following resources:

4.7.1 Create a Benchmarking Help Center

The Collaborative recommends that the Energy Commission develop a statewide Benchmarking Help Center that provides in-person hands-on benchmarking trainings throughout the State and web-based training for building owners, managers, and interested stakeholders. The Benchmarking Help Center can produce reference documents to answer FAQs based on common issues and would also be available via email and a hotline number to provide assistance, ideally starting no later than Q1 2017. This strategy has been implemented in other jurisdictions with successful benchmarking and transparency ordinances, such as the District of Columbia, Seattle, San Francisco, and New York City, and has been shown to boost compliance rates, increase building owner satisfaction, and improve data quality. This recommendation has been strongly supported by building owner/management groups who prefer a statewide, centralized resource for information and assistance.

Education materials to answer questions regarding access to WBUI will also be important. Whether or not this is a function the Benchmarking Help Center needs to be determined.

[9] http://energy.gov/sites/prod/files/2015/05/f22/cbi72_Wagner_041515.pdf

4.7.2 Establish an implementation advisory group

A formal or informal advisory group can guide the Energy Commission's efforts to implement the law. The advisory group can provide input on the design of implementation activities and support the execution of such activities including education, benchmarking training, program outreach, compliance resource development, and data analysis. The group should represent key stakeholder segments such as commercial and multifamily real estate ownership and management, local governments, energy efficiency service providers, labor groups, environmental nonprofits, professional associations, universities, and utilities.

4.7.3 Create a benchmarking website to host training and compliance materials.

A benchmarking website is an important tool to provide useful information about reporting requirements, deadlines, training resources, and reported data. Answering common questions on a benchmarking website can reduce the frequency and length of help center responses and reduce benchmarking training requirements.

The website should host a collection of easy-to-access information about how to acquire building characteristic and energy consumption data, enter it into Portfolio Manager, verify it, and report it to the Energy Commission. The site should include at a minimum:

a) Benchmarking How-to-Guide: a detailed walk-through of the benchmarking process that addresses common sources of error, complete with screenshots of how to provide data to the Energy Commission.

b) Benchmarking Checklist: a 1-2 page document that describes the main actions an owner needs to complete to comply.

c) Frequently Encountered Problems Document: a short document that shows users how to solve common errors in Portfolio Manager, including missing EUI output, missing space use details, extreme ENERGY STAR score values, and missing meters.

d) FAQs and/or a fact sheet on the law, who is required to comply, and how to comply.

We recommend that the website go live to the public at least six to 12 months before the initial compliance deadline. The website should be considered a living document that is regularly reviewed and updated.

4.7.4 Notify owners of covered buildings

If possible, the Energy Commission or another party should attempt to notify covered buildings of their initial obligation to comply. This can be done via:

a) Direct mail – Notify building owners through direct mailings, about 4–6 months before the first reporting deadline. To keep the costs of the mailings down, the Energy Commission could include the notice in regular mailings that are already being sent out, such as California Employment Development Department communications, since EDD is responsible for collecting unemployment insurance premiums on a premise-by-premise basis.

b) Official Energy Commission benchmarking website – Covered buildings may be posted on the benchmarking website. This would allow private sector partners to assist with outreach to building owners.

c) Related websites and communication channels including: Energy Upgrade California® website and social media; utility websites; and local governments (including utility partnership programs, Regional Energy Networks, and Community Choice Aggregation programs).

d) Partner with the trade organizations to get the word out via existing relationships and communication channels such as Building Owners and Managers Association, Institute for Real Estate Management, NAIOP, the Urban Land Institute, chambers of commerce (statewide and local), and the California Hotel & Lodging Association.

e) Email Campaigns – Once a given facility has complied, official emails from the Energy Commission become an effective means of notifying building owners about compliance deadlines, and providing useful resources such as how-to guides, trainings, and education materials. The Energy Commission can use the email provided by the party responsible for benchmarking to engage in targeted and bulk personalized communication (such as scorecards and reminders about upcoming deadlines).

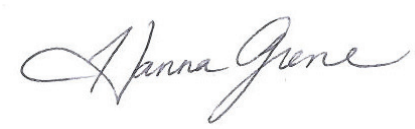
4.7.5 Offer live trainings

The Energy Commission should consider ways that it can partner with local jurisdictions, nonprofits, private sector organizations, CCA programs, and utilities to offer and publicize live training events and workshops where owners, building managers, and building energy consultants can learn more about the requirements of AB 802. Training sessions should walk attendees through entering information into Portfolio Manager and running the program's Data Quality Checker application.

On behalf of the Collaborative members, CSE thanks the Energy Commission for the opportunity to provide comments in response to the initial staff proposal to Implement Building Energy Use Data Access and Public Disclosure Provisions of AB 802. We look forward to continuing to engage with the Energy Commission in support of whole-building data access and developing a statewide benchmarking program.

Submitted on behalf of the CA Benchmarking Collaborative.

Regards,



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