

Speaking Their Language: Seattle’s Collaborative Approach to Data-Driven Customer Engagement

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ABSTRACT

Seattle has analyzed three years of energy benchmarking data and has achieved 99% compliance in buildings required to report 2013 and 2014 data, resulting in a robust dataset of energy performance on more than 3,200 commercial and multifamily properties. Seattle’s Office of Sustainability and Environment recognizes that this data should be used to engage building owners and operators to take action and realize the benefits of energy efficiency for reduced operating costs and enhanced asset value. The Energy Benchmarking Performance Profiles, sent to office and multifamily building managers and owners in 2015, used each building’s unique performance data, physical attributes and estimated savings to tailor messages that included incentives from the City municipal electric utility, Seattle City Light, providing both motivation and immediate action steps. This collaborative approach among City departments to share and utilize building energy benchmarking data is unique and represents an emerging area for market transformation to drive buildings towards better performance. Building energy benchmarking is now mandatory in 15 US cities, two states and one county, affecting approximately 6.6 billion square feet of real estate. Buildings account for 33% of Seattle’s core greenhouse gas (GHG) emissions. In 2011, the City of Seattle was one of the first in the nation to require energy benchmarking – the Energy Benchmarking and Reporting Ordinance supports Seattle’s Climate Action Plan to achieve zero net greenhouse gas (GHG) emissions by 2050. According to Seattle’s 2013 data analysis, buildings with high energy use could significantly reduce costs merely by reducing to about average consumption.

Introduction: What’s the Point of all this Data?

As energy benchmarking increases the visibility of energy performance data for building owners and operators, energy efficiency advocates and providers are realizing opportunities to leverage data to drive energy efficiency activities. Building energy benchmarking is “the process of measuring a building’s energy use over time” (Hart 2015) and comparing performance against that of similar buildings. The rationale for performance benchmarking is that it allows building owners, operators and users to understand their buildings’ operational performance and identify opportunities for improvement.

During the past few years, city and state benchmarking requirements have gone from limited applications to the cusp of standardization and expected practice for any city or agency with a climate action initiative. To date, energy performance data is already “transparent” or will soon be publically available for nearly 45,000 U.S. buildings, opening the way for increased engagement with building energy performance.

Both policy and technical solutions are generating tremendous amounts of data. To what end? Numerous studies indicate that benchmarking alone leads to some reductions in energy consumption – comparison of a building against similar facilities, put in the hands of a motivated

owner or facility manager, motivates both capital and operational changes (Hart 2015). Smart-meter data is often used in large facilities or across portfolios for fault detection, as the basis of energy audits, and to track performance. Smart-meter data also enables third-party service providers and technology applications that create value streams from efficiency. At first glance, these policy and technical strategies are working – at least, grounding energy performance activities in quantifiable baselines; at best, directly motivating actions.

Still, the pace of progress is slow. Technology deployment specific to data collection (often for tracking and reporting) throughout a utility service area is often cost-prohibitive. Policy mandates can take years to implement.

Often overlooked are the messages to building owners and operators about what they can do to improve performance and lower costs – the benefits of taking action, and clear guidance along the path. For even the most progressive efforts, delivering data-driven information across a substantial portion of buildings in a given jurisdiction is a challenge. Building owners may see mandatory benchmarking as unnecessary or prohibitively onerous. Even with data in hand, there is a yawning gap between information and action. Put simply, effective communications may be the missing piece – the bridge between data and engagement with energy performance at scale. Taking lessons from customer-service oriented businesses that aggregate messaging and deliver simple, actionable messages to customers, cities and utilities can collaboratively use data to help building owners and operators realize benefits.

The City of Seattle is using a low-cost, customer-centric approach to strategic communications that compliments its successful benchmarking policy. This paper presents the basis for the communications effort – called the Energy Benchmarking Performance Profiles or “scorecards” – and the potential for such efforts to make data actionable for diverse audiences.

Opportunity: Benchmarking Takes Off

Energy is often called an invisible commodity. Like other commodities, energy has value tied to production, distribution, and consumption. Unlike other commodities, energy – or its inherent value – is not subject to constant efforts to engage consumers to create new value through optimization and innovation.

Building energy benchmarking makes the cost of energy more visible, and in so doing, may also help people use energy more efficiently. The concept is this: Give energy consumers – utility customers, building owners, operators and tenants – a way to engage with energy and they will find ways to realize the value of consuming less energy.

Cities Drive Awareness through Benchmarking

As of February 2016, 15 US cities, one county and the states of California and Washington have benchmarking and disclosure policies (BuildingRating 2016). The first municipal benchmarking law was passed in Washington, DC, in 2008, followed by Austin, Texas and New York City (Palmer and Walls 2015). Seattle enacted its Energy Benchmarking and Reporting Ordinance in 2010 and has collected and analyzed data for all required buildings for 2012, 2013 and 2014.

Benchmarking requires basic building characteristics and energy consumption data, and a process to normalize data for variables such as weather and occupancy or use intensity. For this

purpose, nearly all jurisdictions require the use of the U.S. Environmental Protection Agency's free online tool, ENERGY STAR Portfolio Manager.

Proponents of benchmarking assert that transparency, or public disclosure, motivates decision makers to invest in energy efficiency to reduce costs, enhance asset value, and improve competitive market position. The Institute for Market Transformation positions benchmarking and transparency as the necessary foundations of a robust energy efficiency marketplace (Hart 2015). Certainly, building data is beneficial to policymakers and utilities in crafting policy and creating programs that target reductions in energy use and related greenhouse gas emissions. Additional opportunities include economic development via the energy efficiency marketplace, which includes jobs creation and equipment sales.

Performance Improvements Indicate Value of Benchmarking, With a Catch

Often, benchmarking brings attention to energy performance. Ideally, this attention motivates building owners and operators to make changes that target improved energy performance – smarter capital upgrades, and operational and behavioral changes. Causality is still to be determined.

Buildings are high value assets, and in terms of realizing greater value in the building sector, benchmarking addresses a critical information gap (Hart 2015): “When buildings are uniformly benchmarked – meaning their energy use is measured on a consistent basis – and that information is shared publicly, the real estate market is empowered to consider and recognize the value of energy efficiency.” Analysis of benchmarked buildings indicates improvement in energy performance across participating buildings, relative to buildings that are not required to benchmark (Hart 2015).

Because many building owners and operators are not aware of a given building's energy performance in either absolute or comparative terms, they simply don't know what they don't know. Even when presented with baseline data, many owners overestimate performance (Granade et al 2009). Still others lose track – one owner in Seattle responded to benchmarking data by saying that the revelation reminded him that a “recent” lighting retrofit was already ten years past.

IMT asserts that “merely measuring and gaining awareness of a building's energy use” increases the likelihood that an owner will take action, with evidence of “modest but still significant” reductions in energy consumption (Hart 2015). A California study of both participants and non-participants in benchmarking efforts showed that 84 percent¹ of participating owners planned or implemented efficiency improvements (NMR 2012). The US EPA conducted an analysis of 35,000 benchmarked buildings and estimated average annual savings of 2.4 percent and three-year savings of 7 percent (EPA 2012). Here, it is important to note that both the EPA and NMR studies were limited to buildings that are voluntarily benchmarked, a key difference from cities with mandatory benchmarking policies.

However, at least one study suggests that the causal effects of benchmarking and disclosure policies on building energy performance are unknown. In a study of the four US cities

¹ “Benchmarking appears to have resulted in about three-fifths (62%) of participants taking energy management actions in their buildings such as monitoring of controls, thermostats, buildings, or electrical or steam usage. These participants identified two measure upgrades most frequently, lighting upgrades (96%) and HVAC improvements (83%), followed by three management or behavioral changes: adding energy management system or controls (82%), conducting energy audits or feasibility studies (81%) and changing thermostat set points and turning off lights (80%).”

that first adopted disclosure laws – Austin, New York City, San Francisco, and Seattle – Palmer and Walls (2015) point to two potential areas for further research: “Most cities are collecting a year or two of pre-treatment energy use data for the buildings subject to the laws, but they are not publicly disclosing this information. Moreover, it is now widely recognized that simple before and after comparisons for treatment groups will produce biased estimates of policy impacts (Angrist et al 2010).”

This research indicates performance improvements consistent with EPA’s analysis: participating buildings realized decreases in utility expenditures per square foot of 2.5 to 3 percent, on average. However, the authors qualify these results: “Because a relatively short amount of time has passed since the policies have taken effect, we view the effect as resulting from increased attentiveness to energy use and costs. Building owners and managers have had to look carefully at their utility bills and fill out forms to submit to the local government. This may have led to operational changes such as adjusting temperature and lighting controls or fine-tuning airhandling [sic] systems, which are relatively easy and could have been spurred by the policies in the short run.” (Palmer and Walls 2015). The takeaway is that more data is needed to comprehensively evaluate the impacts of benchmarking and disclosure in isolation.

The intent of this paper is not to attempt to prove or disprove the direct effects on energy performance of benchmarking and disclosure, nor develop a methodology to do so. Rather, this research is provided to suggest that, while essential to driving awareness of energy performance, benchmarking and disclosure may require complimentary approaches to drive action.

Seattle Builds a Compelling Story with Policy Tools

The City of Seattle Energy Benchmarking and Reporting Ordinance requires about 3,200 non-residential and multifamily buildings 20,000 square feet and larger to report annual energy performance data to the City of Seattle by April 1st for the prior year ending December 31st. Site and Source Energy Use Intensity (EUI) and ENERGY STAR score (if available), fuel use and other metrics about the size and space uses in the building are collected. Seattle’s Office of Sustainability and Environment (OSE) implements the ordinance and all three utilities serving Seattle (Seattle City Light, Puget Sound Energy and Enwave) make whole-building, aggregated monthly energy consumption uploads available to Portfolio Manager available upon request.

Benchmarking is one of several policy tools the City of Seattle is using to achieve an overall 39 percent reduction in building-related emissions by 2030 and an 82 percent reduction by 2050. Its Climate Action Plan indicates that commercial building energy use must be reduced 45 percent by 2050, residential building energy use by 63 percent, and the greenhouse gas (GHG) intensity of all energy use (emissions per BTU) by 63 percent (City of Seattle 2013). According to a linear analysis, commercial buildings should reduce net energy use approximately 1.10% annually to reach the 39 percent reduction target. In actuality, commercial buildings collectively reduced energy consumption by an average of 0.25% annually between 2008 and 2012 (City of Seattle 2016).

New initiatives passed in 2016 by Seattle City Council include amendments to the city’s Energy Benchmarking and Reporting Ordinance to require public disclosure, or data transparency, for all benchmarked buildings, starting with 2015 energy performance data. (Seattle was previously one of just two benchmarking cities without public transparency.) Other initiatives are heavily based on building performance data – mandatory Building Tune-Ups for commercial buildings 50,000 square feet and larger, and progressive mandates for city-owned buildings to lead by example (City of Seattle 2016).

Additionally, the Seattle Energy Code is among the most progressive in the nation, raising the minimum performance of new buildings and driving substantial improvements in existing buildings undergoing substantial renovations. Due to time lag of code adoption and implementation, followed by design and construction, the impacts of codes are not yet fully revealed in the benchmarking data. Seattle’s 2013 benchmarking analysis, however, showed that median ENERGY STAR scores for office building have improved in each decade since the 1970s. This trend may indicate that Seattle’s efforts to improve energy performance in new construction for office buildings, such as codes and incentive programs, have had a positive effect (City of Seattle, OSE. 2014).

In this light, the most important aspect of mandatory benchmarking and disclosure is in the context of establishing baselines. The next step is using data to motivate owners to take action to help meet the city’s climate action goals.

Beyond Benchmarking: Communicating for Action

IMT (2015) asserts that “building efficiency is not highly valued in the real estate market, largely due to a lack of available information about building performance and energy use.” This may be true, but the position of the authors is that information alone is no guarantee that the informed will take action – that is, *information* is not equivalent to *communication*. Furthermore social marketers and behaviorists have long known that information is just the starting line in a long path towards driving action towards energy efficiency.

While benchmarking and disclosure provide the data that is necessary to inform the marketplace, many energy efficiency advocates recognize that complimentary efforts are necessary to motivate building owners, operators and users – to increase awareness, generate interest, motivate planning, and inspire action.

Of course, an additional concern is the degree to which building managers and the real estate market find the data useful and relevant to their goals. Even where data is readily available, with motivated consumers, there is friction between energy related applications and consumers’ capacity or willingness to engage. Real-time pricing information and smartphone enabled energy efficiency activities may have short-term effects, but persistence is unknown. Because conscious thoughts and attitudes often are not aligned with behaviors, some efficiency experts focus on changing unconscious behaviors (Murray 2013). While data are foundational to building a culture that values energy efficiency as a resource, the path to cultural transformation may not be *through* data. Building owners and operators are driven by cost and profit data, but the impact of trust, convenience, and emotion in decision making should not be overlooked.

In early 2015, Seattle and Resource Media convened two focus groups and interviewed a dozen building managers, owners and service providers to learn what motivates energy efficiency improvements at their facilities– in sum participants felt that regardless of how “green” the building or organization, a project must pencil out with a quick ROI to even be considered (Resource Media, 2015). As one manager said, “It’s a nice badge to walk around on (green buildings and LEED certification). But there are a whole lot of people in the final analysis that just care about how much they are paying in occupancy costs.”

Furthermore, focus group participants as well as callers to Seattle’s help desk have time and again noted how busy they are with tenant complaints and turnover, such that benchmarking alone for many is time constrained. They report being grateful for Seattle’s help desk as a source of support for benchmarking. They are not disinterested in the energy performance data per se,

but are maxed already with requests and information. Thus both convenience of the data and having it in a format that helps them make the case to those that hold the purse strings is critical.

Seattle's experience with three years of benchmarking implementation has illuminated many details about the diversity of the benchmarking audience. Buildings required to report include everything from class A downtown high-rise office buildings, many owned by REITs and professionally managed by national firms already well versed in the merits of ENERGY STAR certification, to class B and C commercial buildings with less experienced management and ownership for whom tracking of energy data is an entirely new concept. Furthermore, half of Seattle's required buildings are multifamily – with a manager/owner audience that mostly still assumes only their bill-paying tenants have control over the building's energy use. Although all of Seattle's utilities provide access to aggregated tenant data and EPA released the multifamily ENERGY STAR score in fall 2014, there is still a learning curve about the value of benchmarking in both the multifamily and small commercial markets. Nonetheless, Seattle benchmarking staff are increasingly asked by building managers and owners of all stripes questions like, "What's next after benchmarking?" and "What can I do to improve my score?"

Given the data availability, diverse audience and growing interest in what the energy reports mean, Seattle decided to try a tactic to drive action by creating a feedback loop with actionable information: the Energy Benchmarking Performance Profiles, or "scorecards".

Just Start Somewhere: Reaching Customers & Motivating Action

How can cities and utilities leverage data to build trust with customers and motivate energy conservation activities? Targeted, actionable messaging may seem simplistic, but is often overlooked or disregarded as ineffective. A gap exists between information and communication.

One foundation of effective communications is to build messages around the consumer or customer experience, not the need of the city or utility. Rather than trying to convince building owners of the importance of benchmarking, for example, cities and utilities can consider the voice of the customer: "Benchmarking was not convenient, but now I see the benefits and opportunities." This frames energy efficiency as a shared experience rather than a request, and demonstrates commitment to customer service.

Related, cities and utilities should use technology in ways that meet customers' needs and wants – for example, once messaging is established, cities and utilities can move beyond data presentation to use technology platforms based on socially and environmentally contextualized information such as peer comparisons, or with contextual data specific to social or environmental impact (Murray 2013).

Another foundation of effective messaging is to deliver complimentary messages – that is, use the data as one piece of a broader story. For example, a city's commitment to a healthy urban environment can frame data collection as part of a bigger issue that most people support. Presenting information through the lens of social norms and collective impact is also helpful in tapping into emotions.

Next, effective messaging must communicate qualitative benefits. Seattle is building a communications strategy that brings together multiple interests and begins to focus on whole-building energy use. Thus OSE worked closely with Seattle City Light (SCL) on the performance profiles. This approach to consolidating interests and demonstrating convenience to consumers is an attempt to demonstrate responsive, consumer-focused governance.

Ideally, the commitment to human connection creates some sort of feedback loop that informs ongoing messaging, design of offers/incentives, implementation strategies, and evaluation.

Many marketing efforts won't get it right on the first try – cities and utilities must experiment and test approaches and products in the market. If scorecards prove ineffective, further customer research may reveal that regular touch-points via customer service are effective. Diverse audiences need different services and messages, and Seattle OSE heard this during its benchmarking focus groups (Resource Media, 2015), even though in general “profit” was a primary issue, as stated earlier. Cities and utilities are expected to respond to different needs and wants, education levels, capacities, and motivations.

Of course, a more personal approach to communications requires resources. Often, city agencies are not fully equipped to deliver such services, or manage potential increases in customer demands. SCL and OSE are sharing data to categorize benchmarked buildings and customers according to previous participation in energy efficiency programs, however, they do not yet have a streamlined CRM tool. By combining resources at both the whole-building and account (meter) scales, cities and utilities can find new savings opportunities and leverage other energy efficiency work (Krukowski, 2014). For example, SCL and OSE have already used data to ground-truth building data, making both departments' efforts more effective.

Ultimately, experimentation and rapid iteration in communicating with building owners and operators is essential, with focus on the customer experience. The goal should be to know the audience as much as possible, establish some measure of trust, and try to streamline communications. .

Action-Oriented Beautiful Messaging: Seattle's Scorecards

Seattle, through the Office of Sustainability & Environment (OSE), was the first U.S. city to drive energy efficiency action using Energy Benchmarking Performance Profiles or “scorecards” through a pilot program in 2014 for about 400 office buildings. In 2015, OSE used feedback from the pilot and focus group research to develop and send profiles to owners and managers of offices and multifamily buildings (about 1,500 total) that submitted benchmarking reports to the City. The profiles – for the first time ever – show how each building stacks up to its “peers” in Seattle.

OSE tailored scorecard content to five market sectors or peer groups: large (>100K sq. ft.+) and mid-size (20-100K sq. ft.) offices and three multifamily sectors (low-rise, mid-rise, and high-rise). An additional mailing was sent to lowest-use office buildings (top performers) promoting their potential for ENERGY STAR certification. Seattle focused its efforts on office and multifamily because each sector represented a large number of buildings that could be reviewed for potential errors and outliers, as well as ranked by energy use intensity (EUI) quartiles from lowest to high. Seattle based its quartiles and ranking on its three years of benchmarking data analysis (City of Seattle 2014 and 2015).

The profiles had several objectives. First off, the profiles thanked the recipient for benchmarking and demonstrated the value of tracking energy use. Through its focus groups, Seattle learned that recipients wanted personalized messages, such as year over year performance and incentive options tailored to *their building*—they were less interested in how they compare to *other buildings*. (Resource Media 2015). This is an important finding—public disclosure alone may be of interest to the “market” but not as much to the building manager. And if the building

manager is the gate keeper for projects, communications are needed at both levels: public transparency for the market and direct feedback for the building.

Nonetheless “peer” norming is well-established as effective for behavior change (Palmer and Walls 2015), therefore, in addition to showing 2013 to 2014 energy performance, the profiles also compared the building’s energy use to similar-type buildings and listed their peer rank. They also estimated the building’s cost savings if the building reduced energy use to either “average” or a “top performer.” Thus combining social norming with actual, building-specific savings data. This addresses a theme found in the focus group research, as exemplified by this participant comment, “You could take this score and show if you moved to average, you’d save this much, if you moved to the top 25th percentile, you’d save this much and personalize and monetize the savings.”

OSE partnered with SCL and Puget Sound Energy to list energy efficiency incentives. Workshops on Portfolio Manager and Building Operator Certification and/or recognition programs tailored to the building sector were also included. Although these offerings were not as specific to the individual buildings as more “energy efficiency experienced” managers desired, they were designed to inform the wider less knowledgeable, audience about opportunities.

The messages were packaged into a beautiful and pleasing visual design that told a story: here’s how your building is doing and how it compares to others. The savings were positioned as both a longer term goal – improve to average or top performance as well as short term more attainable goals of 10-20% reductions. The visual message was factual and optimistic, “our goal is to help you” — with no bright red colors or admonishments about “waste” or negativity. Instead it conveyed “your building path to improvement.”

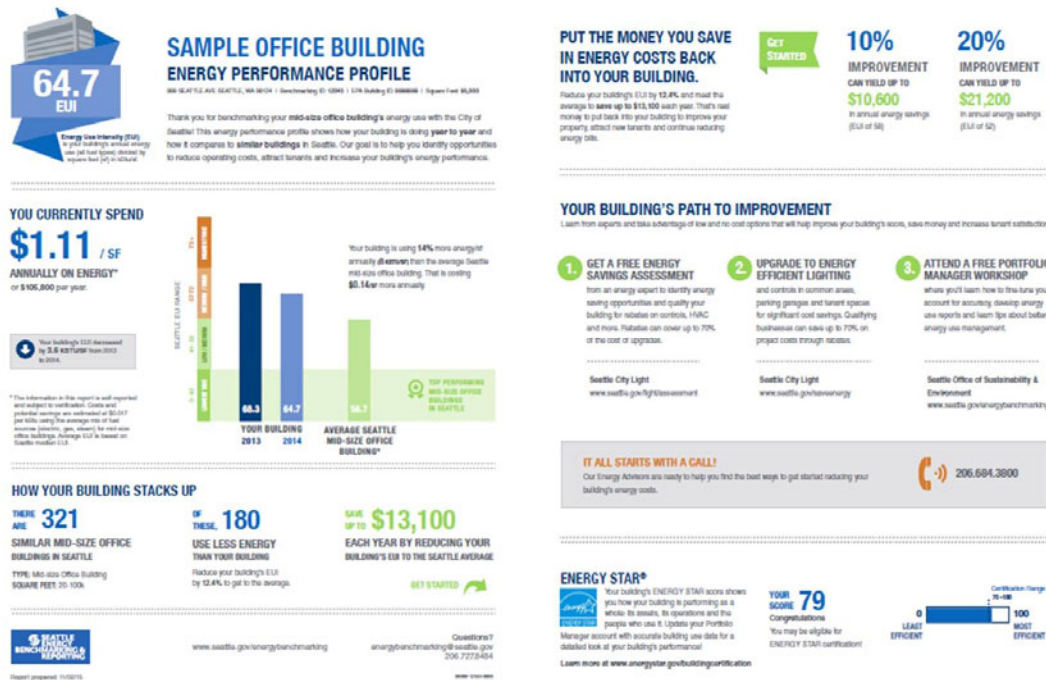


Figure 1. City of Seattle Energy Performance Profile sample, sent to office buildings participating in mandatory performance benchmarking. *Source:* City of Seattle 2015.

The design team included both the EUI and ENERGY STAR, but kept them visually separated on the front and back page. This was because the two metrics are often a point of confusion for persons newer to benchmarking. For EUI, a lower number indicates better energy performance, but for the ENERGY STAR score, a higher number signals better performance. Visual scales for each further helped explain the importance and usefulness of each metric.

For the “top performer” office buildings, the design team listed both EUI and ENERGY STAR score on the first page, knowing that the majority of this audience was already familiar with the difference between the metrics—many of the organizations receiving them already had some ENERGY STAR certified buildings. The visual message for this group was similar to the others, but more congratulatory with a small “best place” ribbon next to the building name and the message, “Our goal is to help you continue your success as one of Seattle’s top performing buildings and get recognized for your efforts.”

Delivery. OSE delivered the profiles via email to building managers (typically was person submitting benchmarking report) and via print and standard mail to building owners. Opens from the emails were tracked via log files of downloads of a unique link for each building, but Seattle has not yet followed-up to those receiving paper copies. Delivery and tracking is a challenge that Seattle and other cities now are actively working to streamline for future “scorecard” projects.

Open rates, referrals and feedback. Nearly 1,500 scorecards were sent to building owners and property managers (425 office; 1071 multifamily). For those sent by email only, open rates were about 53% for office and 25% for multifamily. Many scorecards were opened by more than one unique user, suggesting that recipients shared their report with others – *exactly what was hoped they would do*. About 77% of “top performer” large office buildings profiles were opened which suggests their existing commitment to energy efficiency.

Although multifamily open rates were 25%, SCL leads for multifamily programs tripled after the scorecards were sent in mid-November 2015 (from an average of about 12/month to 36/month). Additionally, SCL noted that six direct referrals were received (those citing they were contacting SCL in response to receiving the scorecard). The two workshops promoted on the scorecards garnered 40 participants.

Table 1. Summary of Scorecards distribution and responses. Data is based on “unique visitors,” meaning if more than one recipient opened one scorecard, multiple opens are logged.

Market Sectors	Number Sent	Number of Visitors (Suggests Sharing)	Percent of Unique Visitors (Suggests Sharing)
Medium-Low to High Use Buildings			
Office - Large Size (>100K SF+)	98	49	50.0%
Office - Medium Size (20-100K SF)	224	123	54.9%
<i>Sector SubTotal</i>	<i>322</i>	<i>172</i>	<i>53.4%</i>
Multifamily Low Rise (1-4 floors)	672	181	26.9%
Multifamily Mid Rise (5-7 floors)	339	69	20.4%
Multifamily High Rise (10+ floors)	60	19	31.7%
<i>Sector SubTotal</i>	<i>1071</i>	<i>269</i>	<i>25.1%</i>
“Top Performer” Lowest Use Buildings			
Office Large Size (>100K SF+)	43	33	76.7%
Office Medium Size (20-99K SF)	60	28	46.7%
<i>Sector SubTotal</i>	<i>103</i>	<i>61</i>	<i>59.2%</i>
Grand Total	1496	502	33.6%

Recipient feedback (via a survey link on both a test and the final version²) indicated that the profiles contained about the right amount of information. Recipients receiving reports for “top performing” buildings were more likely to say they’d share the report with others. Those receiving “top performer” profiles all reported they would definitely or maybe pursue ENERGY STAR certification, but most reported needing support to fill out the certification forms.

“I knew this building was using a lot of energy, but I didn’t know how bad it was until I saw it was ranked one of the worst on the performance profile.” ~ Property manager of a poor-performing multifamily building

We suspect the higher open rates for “top performers” were influenced by the email text that said: “Congratulations! Your building listed below was one Seattle’s best performing (lowest energy use) office buildings, based on its 2014 energy benchmarking report!...” It is also possible

² OSE pre-tested a version with a mix of 44 building owners, managers and service providers. Of the 17 respondents, 81% felt the scorecards had the right amount of information and 100% said they would share the scorecard (most often with an owner, manager or buyer/tenant). For the final version, each email contained a link to a survey, but only 10 surveys were taken. The authors think this may be because the recipients were focused on the link to the scorecards and did not return to the original email after downloading their report. Nonetheless, responses were similar to the test; however, the limited data suggests that recipients with poor performing buildings were less likely to want to share their report than those with high performing buildings.

that this group already has an inherent interest in the data. For all other reports, we said had more factual text: “Thank you for benchmarking and reporting your multifamily building's 2014 energy performance to the City of Seattle...” that was not indicative of results.

OSE and SCL are partnering on follow-up marketing in 2016 to benchmarked buildings, using and adding to the messages relayed in the performance profiles. Additional outreach could be used to test marketing messages as well as delivery methods that best motivate owners and managers less engaged in tracking energy performance data. Surveys could also ask about any planned energy efficiency actions in response to the communication.

Seattle’s Energy Performance Profiles are a prime example of how to use data to build communications tools to structure messages for vastly different audiences to reach decision makers, and to test method of presenting information in a way that motivates people to action. With more streamlined CRM tools shared between benchmarking cities and utilities and more robust delivery/tracking methods, cities and utilities could build on both the wealth of energy data and customer intelligence to further target messages and follow-up. For example, information about the building space uses and energy use could be combined with details about the building’s ownership and leasing structure and messages could be tailored and tested to those audiences. At the market level, these messages could be intertwined with visually appealing public disclosure or “transparency” dashboards. Thus providing a link between the needs to motivate both the decision makers and the building level and the market forces driving energy efficiency transformation.

Conclusion: What’s Next, What’s Needed

Proponents of benchmarking and efficiency advocates in kind agree on a need to make data actionable – to motivate decision makers to take actions to improve building energy performance.

Many utilities and customers have access to large volumes of data, although much more can and should be done to ensure comprehensive access on the path to real-time tracking that is demonstrated to influence energy consumption activities. Undoubtedly, much more data is on the way, as smart-meter deployment increases and third-party vendors exploit value streams through energy efficiency.

However, data may be irrelevant unless cities and utilities learn how to better drive behavior change. Seattle’s Energy Benchmarking Performance Profiles are intended to do just this – to use data to inform messages that build trust and convey actionable ways to realize value from energy conservation. The city’s scorecards demonstrate a low-cost way to engage building owners and managers with effective energy efficiency messaging, proving value to owners, and setting the stage for engagement based on more robust data that are increasingly available.

Seattle’s efforts are intended to use whole building energy data more effectively – to help overcome confusion about what the data mean and what actions can be taken to improve performance and save money. Benchmarking data and more granular smart-meter data can become actionable through a holistic approach that includes:

- Harnessing the motivational forces around comparative performance and social norms
- Using a baseline to establish levels of performance improvement
- Linking cause and effect in consumers’ minds – providing a sense of agency
- Using benchmarking as a foundation for additional policies that require action

- Using benchmarking to link to other stakeholder resources, most notably utility resources
- Communicating effectively in ways that meet customers' needs and wants – establishing trust through simple and beautiful tools that speak to emotional drivers

References

Angrist, J.D., and J. Pischke. 2010. The Credibility Revolution in Empirical Economics: How Better Research Design Is Taking the Con out of Econometrics. *Journal of Economic Perspectives* 24(2): 3–30.

BuildingRating. 2016. buildingrating.org/featured-documents

City of Seattle, OSE. 2013. “Climate Action Plan.”
www.seattle.gov/Documents/Departments/OSE/2013_CAP_20130612.pdf

City of Seattle, OSE. 2014. “2011/2012 Building Energy Benchmarking Analysis Report.”
www.seattle.gov/Documents/Departments/OSE/EBR-2011-2012-report.pdf

City of Seattle, OSE. 2015. “Building Energy Benchmarking Analysis Report – 2013 Data.”
www.seattle.gov/Documents/Departments/OSE/EBR-2013-report.pdf

City of Seattle, OSE. 2016. “Next Generation Energy Efficiency Policy.”
www.seattle.gov/environment/buildings-and-energy/energy-policy

EPA (United States Environmental Protection Agency). 2012. “DataTrends: Benchmarking and Energy Savings”.
www.energystar.gov/sites/default/files/buildings/tools/DataTrends_Savings_20121002.pdf

Granade, H.C., J. Creyts, A. Derkach, P. Farese, S. Nyquist, and K. Ostrowski. 2009. “Unlocking Energy Efficiency in the U.S. Economy.” McKinsey & Company.
www.mckinsey.com/usenergyefficiency

Hart, Z. 2015. “The Benefits of Benchmarking Energy Performance”. Institute for Market Transformation (IMT).
www.imt.org/uploads/resources/files/PCC_Benefits_of_Benchmarking.pdf

Krukowski, A. 2014. “Creating Value from Benchmarking: A Utility Perspective.” Institute for Market Transformation (IMT). www.imt.org/resources/detail/creating-value-from-benchmarking-a-utility-perspective

Murray, M. 2013. “Follow-Up to SB'13: Lucid's Michael Murray on Using IT to Drive Behavior Change.” Interview by B. King in *Sustainable Brands*.
www.sustainablebrands.com/news_and_views/behavior_change/follow-sb13-lucids-michael-murray-using-it-drive-behavior-change

- Murray, M. 2015. “New Report Documents the Benefits of Consumer Energy Data Access.”
www.missiondata.org/news/2015/12/16/new-report-documents-the-benefits-of-consumer-energy-data-access
- NMR (NMR Group, Inc). 2012. “Statewide Benchmarking Process Evaluation.”
www.calmac.org/publications/Statewide_Benchmarking_Process_Evaluation_Report_CPU0055.pdf
- Palmer, K., and M. Walls. 2015. “Does Information Provision Shrink the Energy Efficiency Gap? A Cross-City Comparison of Commercial Building Benchmarking and Disclosure Laws.” Washington, DC: Resources for the Future (RFF).
www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-15-12.pdf
- Resource Media. 2015. “What Inspires Action? Understanding Motivations for Improving Building Energy Efficiency.”
- SGCC (Smart Grid Consumer Collaborative). 2016. “State of the Consumer Report”.
smartgridcc.org/research/sgcc-research/sgccs-2016-state-of-the-consumer-report-summary-2/