

Disclose Building Historical Energy Use

POLICY DESCRIPTION

Building owners could be required to disclose the historical energy use of their buildings. Owners would be required to report utility data for a specified time frame (e.g., last 5 years). These data could then be held in a public database and accessed by any investor to help inform purchasing decisions. This option could also be implemented as a voluntary program and coupled with upgrade incentives and financing mechanisms.

POLICY OBJECTIVE

To increase information available to building owners and occupants, create a mechanism for market differentiation, and encourage voluntary upgrades.

SUMMARY OF CRITERIA RATINGS (★★★★★ = best/most feasible)

Energy Efficiency Potential

★

Cost of Policy Implementation

★★★

Economic Benefit

★

Administrative Feasibility

★★★★

INDIVIDUAL CRITERIA RATINGS

ENERGY EFFICIENCY POTENTIAL

Rating:

★

- **Little incentive for measure implementation:** Effectiveness hinges on ability of information alone to provide sufficient motivation to follow through with efficiency upgrades. Historical data also do not provide any guidance on what measures should be implemented.
- **Does not account for normal fluctuations in energy consumption.** Historical use data alone do not account for changes in weather and homeowner or business activity over time that will influence energy use.
- **Motivation only for buildings that are below average.** Providing energy use data would need to be compared to some benchmark to demonstrate how well a building is performing. Even in this context, historical data will only be a motivating factor for buildings that fall below the benchmark. Consequently, some potential upgrades will be missed in "above average" buildings.
- **Broadly applicable across sectors and measures:** Historical billing data could be obtained for all sectors. Policy could apply equally to all fuels (gas, oil, steam, electricity) and measures within these sectors.

ECONOMIC BENEFIT

Rating:

★

- **Low economic potential.** Given the issues discussed above that limit the energy efficiency potential, it is unlikely that simply disclosing historical billing data will result in many new measure installations. As a result of the limited energy efficiency potential, the economic benefit of this policy is low. Based on economic modeling, this policy had the lowest overall impact among all the policies reviewed.

COST OF POLICY IMPLEMENTATION

Rating:

★★★

The total cost to city and partners of establishing this policy is estimated to be \$80,000 - \$170,000.

-**Assessment of disclosure methods: \$10,000 - \$30,000.** The City would need to assess the trade-offs and methods for requiring natural gas and electricity use disclosure and how to address landlord-tenant privacy concerns and other disclosure issues.

-**Development of database: \$50,000 - \$100,000.** A public database could be developed to house and provide access to the ratings. Alternatively, existing databases could potentially be leveraged for residential and commercial ratings, respectively. The database would likely require more security than for a performance checklist but less complexity than for a performance rating.

-**Legislative development: \$20,000 - \$40,000.** City staff and legal counsel would need to develop the policy specifics and legislation. Much of this work could be done within existing staffing levels, meaning few new resources needed.

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(continued)

INDIVIDUAL CRITERIA RATINGS (CONTINUED)

ADMINISTRATIVE FEASIBILITY

Rating: ★★★★★

- Few technical challenges appear to stand in the way.** For example, both Seattle City Light and Puget Sound Energy have approximately five years of data in their records. By state law, the utilities must abide by strict customer confidentiality rules, but with written customer request they can disclose data. If billing records were uploaded to a database, it would likely have to be done in a manner that preserved the confidentiality of the customer.
- **Privacy concerns can raise legal questions that are usually surmountable.** Any mandate that requires public disclosure of customer data or compromises landlord-tenant privacy could raise potential concerns. Most existing programs have avoided the most significant legal hurdles by requiring customers to disclose data (rather than utilities) and by limiting the policy scope for particularly challenging sectors (e.g., commercial tenants).
- **Compliance mechanisms may be needed, but potentially difficult to enforce:** If disclosure is mandated, an enforcement mechanism will need to be defined and a public authority must be in charge of monitoring compliance.

STAKEHOLDER IMPACTS

This policy would likely place the greatest burden on utilities and other providers, but the affects can likely be mitigated:

- Utilities would need to provide data.** Requiring historical energy use disclosure would necessarily involve the active participation of Seattle City Light, Puget Sound Energy, and other energy providers to release data (with written customer request). Depending on the scope of the program, utilities could potentially handle the requests with existing staff but may need to hire additional customer service representatives to handle requests. Nevertheless, the utilities would also benefit from the energy conservation benefits of the policy.
- Residential homeowners.** Disclosing energy use history without considering all the factors that cause energy-use variation could raise equity concerns. There are many reasons why energy use is much higher for certain properties. The size of a family, the number of hours worked out of the home, the age and health of family members, and other lifestyle factors can influence a home's energy use.
- Commercial building owners.** As with residential buildings, variations in energy use of a commercial property are sometimes more related to the activities of the occupants than to the building itself, potentially raising equity concerns for a policy that is based only on energy use and not on other factors related to a building's performance. Building owners would have to obtain permission from tenants to release energy data.

ADDITIONAL LESSONS FROM OTHER JURISDICTIONS

The following three jurisdictions have recently established a system for disclosing historical building energy use:

- Montgomery County, MD,** will be requiring homeowners to disclose energy use and costs to prospective buyers.
- The State of California** will require building owners to disclose their Portfolio Manager benchmarking energy use data (and ratings) to a prospective buyer, lessee, or lender as of 2010. (This Assembly Bill 1103 will also require electric and gas utilities to maintain at least 12 months of records for all nonresidential buildings in a format compatible with Portfolio Manager.)
- Gainesville, FL,** has developed an interactive database that allows homeowners served by the public utility to view their current and past energy use and compare with other homes.

Additional lessons can be learned from several jurisdictions currently considering this option. Among them:

- Portland, OR** has found that disclosing energy use has been their biggest challenge. They can require building owners to report data, but disclosure would be harder to require for sub-metered (and potentially other) tenants. Portland will be developing a request form (reportedly similar to that in California) for owners to use with tenants, but without the legal authority, compliance cannot be mandated.
- Austin Energy** considered an approach requiring the seller to provide data (not the utility) but concluded that the biggest factor in energy consumption was owner lifestyle and behavior (as opposed to performance of the building structure and systems) and that historical energy use alone would not be particularly meaningful.

Key lessons learned:

- Utilities can help play a leading role in trouble-shooting customer privacy concerns and legal issues.
- Developing consumer education is a key piece of this policy option. Prospective buyers must be informed about how to interpret historical energy data and to what degree it should inform their buying decisions.
- This policy could aid the implementation of other policies (e.g., as an input into a full audit) or be used as a way to evaluate and track the success of a policy or incentive.