

Energy Efficiency Tax Credits

POLICY DESCRIPTION

Owners who complete some designated level of energy efficiency upgrade would be eligible for a tax credit for the “lifetime” of the measure.

POLICY OBJECTIVE

To provide a tangible and significant financial incentive for energy efficiency improvements.

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: ★★★

- Broadly applicable across sectors and measures:** Policy could apply to all fuels (gas, oil, steam, electricity) and measures within these sectors. The tax credits could be designed to benefit targeted measures in order to influence installation of particular measures.
- Applicable only to sectors paying taxes:** Unless a pass-through program (akin to Oregon’s model) was initiated, non-profits and public institutions (e.g. schools and local governments) would not benefit from this policy.
- Addresses the “split incentive” problem:** Commercial owners that lease their buildings and have tenants pay the utility bills will have more incentive to adopt measures with this policy relative to some of the other policies being considered.
- Oregon’s energy tax credit programs (BETC/RETC) could serve as model:** Although Washington does not have a state income tax like Oregon, the BETC and RETC tax credit programs have been very successful in Oregon and could be modified to fit other taxes in place for Washington and/or Seattle. In particular, the BETC pass through program allows non-profits to participate in the program by selling their tax credit to an entity with a tax appetite.

ECONOMIC BENEFIT

Rating: ★★★★

- **Moderate to High economic potential:** The medium-high energy efficiency potential for this option results in a relatively high level of expected economic benefits. Based on our modeling, this policy ranked in the upper third in economic impacts among all the policies reviewed.
- **Applicable to all sectors:** This policy could be implemented in both the residential and commercial sectors. Installation contractors for the various efficiency measures (e.g. lighting, AC, heating) would benefit from this policy. The general economy would also benefit from increased spending and business output resulting from reduced energy bills. There are little or no manufacturing benefits expected from this policy as all measures are likely manufactured outside the Seattle city limits.

COST OF POLICY IMPLEMENTATION

Rating: ★★

- The total cost to City and partners of establishing this policy is estimated to be \$270,000 to well over \$1 million.
- Policy Assessment: \$50,000-\$150,000.** Extensive work would be needed to establish the specifics of this policy, both in terms of the tax to be credited and the level of credit to offer.
 - Technology Upgrades: \$20,000 - \$50,000.** If a tax credit was enacted at the City level, technological upgrades would likely be necessary to track and administer the program.
 - Legislative Development: \$50,000 - \$200,000.** City staff and legal council would need to develop the policy specifics and legislation.
 - **Forgone revenue for the City: \$100,000 - \$1,000,000.** A tax credit would likely reduce tax revenues. The degree of reduction would depend on the level of credit offered.

Energy Efficiency Tax Credits

(continued)

INDIVIDUAL CRITERIA RATINGS (CONTINUED)

ADMINISTRATIVE FEASIBILITY

Rating: ★★

- **Establishing an energy efficiency tax credit is likely to be a lengthy process.** The biggest initial challenge would be identifying what tax to credit. The City portion of the business B&O tax is relatively small (generally about half a percent, although it varies by sector) and is not likely a good candidate. The property tax (or potentially the real estate excise tax) is likely a better target as it is tied directly to the property.
- **Reduction in tax revenues or a tax shift may not be possible in this fiscal climate.** The tax credit would either reduce available funds for other City programs or potentially result in a property tax shift (i.e. others pay more)—both options could be challenging in this fiscal climate.
- **Legal framework is uncertain.** Significant legal review would likely be needed to assess options for providing an incentive on the property tax or real estate excise tax.
- **Relatively high burden of documentation.** The Department of Revenue must be able to verify that a taxpayer was entitled to a tax benefit through documentation provided by the taxpayer; preferably something that the taxpayer has already received (e.g. materials with a required ENERGY STAR rating).
- **Compliance mechanisms are needed, but enforcement can be challenging.** Some means of ensuring accuracy of the energy efficiency claims would be needed (e.g., conducting random spot-check audits), but the capacity to implement such enforcement could be challenging to develop and could require new, highly trained staff.

STAKEHOLDER IMPACTS

- **Commercial and residential building owners** could potentially see impacts similar to those associated with disclosure mandates and upgrade mandate policies. At the least, building owners would likely be responsible for the cost of an energy audit to determine the applicability of the tax incentive. Owners of high-performing buildings would benefit by receiving the rebate or incentive payment, but significant costs could be incurred in order to attain an energy efficiency rating worthy of a tax credit.
- **Low-income homeowners** could be less able to receive the tax credit given their decreased financial ability to perform the upgrades or document their performance through an audit.

ADDITIONAL LESSONS FROM OTHER JURISDICTIONS

The following jurisdictions have established energy efficiency tax credit programs:

- **Montgomery County, Maryland** introduced a 'Green Building' Tax Credit for commercial buildings in 2008. The property tax credit applies to buildings that achieve a silver, gold, or platinum LEED-EB (Existing Building) certification. Buildings with a silver rating receive a 10% credit, gold receives a 25% credit, and platinum receives a 50% credit. The credit can only be applied for three years.
- **The State of New Mexico** enacted Sustainable Building tax credits in 2007 for commercial and residential building stock. Commercial buildings must achieve a LEED-EB Silver certification or higher and residential building stock must receive a score of 60 or lower on the HERS index. The tax credit is commensurate with the level of energy efficiency achieved and is attached to the state income tax.
- **The State of Virginia** has amended the state tax code to give authority to local jurisdictions to levy lower taxes on energy efficient buildings (both existing and new buildings). Any building that exceeds the energy efficiency standards prescribed in the Virginia Uniform Statewide Building Code by 30 percent can now be taxed at a lower rate than other real property.

Key Lessons Learned:

- Due to the complexity of taxes and tax credits, implementing an energy efficiency tax credit in Seattle would be challenging.
- Eligibility for tax credit must be widely understood and worthwhile for the taxpayer to pursue from a cost-benefit and administrative perspective.

Energy Efficiency Fee-bate

POLICY DESCRIPTION

An energy efficiency fee-bate would charge a fee on all existing buildings. The fee would be waived for all properties in compliance with a minimum energy efficiency requirement (whether performance- or prescriptive-based). Properties exceeding the requirements would instead receive incentive payments as a reward for attaining a high degree of energy efficiency.

POLICY OBJECTIVE

To provide a tangible and significant financial incentive for energy efficiency improvements.

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: ★★★★★

-Broadly applicable across sectors and measures: Policy applies equally to all fuels (gas, oil, steam, electricity) and measures within these sectors. Policy does provide a direct financial incentive when requirements are exceeded and a fee when requirements are not met, resulting in a high level of efficiency potential. Policy could potentially be structured to target efficiency upgrades that go beyond current SCL and/or PSE incentive programs.

-Policy is not technology specific: A fee-bate policy has the advantage of providing an incentive without favoring one way to reduce emissions over another. Business and individuals can choose to avoid it by reducing usage, increasing efficiency, changing fuels, adopting new technology or any combination of these approaches.

-Could encourage participation in existing programs: The fee-bate policy could encourage participation in existing energy efficiency programs (with historically low participation rates), especially among owners who do not consider energy savings benefits substantial enough to spur them to action.

-The policy does not necessarily provide guidance as to which specific measures should be installed Fee-payers are not required to make specific upgrades as a result of the policy, but could surely benefit from an assessment of the highest-potential opportunities.

ECONOMIC BENEFIT

Rating: ★★★★★

-High economic potential: The high energy efficiency potential for this option results in a high level of expected economic benefits. Based on our modeling, this policy ranked very high in economic impacts among all the policies reviewed.

-Applicable to all sectors: This policy could be implemented in both the residential and commercial sectors. Installation contractors for the various efficiency measures (e.g. lighting, AC, heating) would benefit from this policy. The general economy would also benefit from increased spending and business output resulting from reduced energy bills. There are little or no manufacturing benefits expected from this policy as all measures are likely manufactured outside the Seattle city limits.

COST OF POLICY IMPLEMENTATION

Rating: ★★★

The total cost to City and partners of establishing this policy is estimated to be \$250,000 - \$550,000.

-Assessment of existing rating systems and appropriate fee levels: \$100,000 - \$250,000. Experience to date has indicated that existing rating systems must be vetted in the marketplace before making mandatory. In addition to selecting a rating system, the City would need to assess and select fee levels sufficient to drive behavior change and tied to specific performance benchmarks.

-Development of database: \$100,000 - \$200,000. A database could be developed to house and provide ability for property owners or City program managers to access the ratings and fee history.

-Legislative Development: \$50,000 - \$100,000. City staff and legal council would need to develop the policy specifics and legislation. Much of this work could be done within existing staffing levels, meaning few to moderate new resources would be needed.

In addition, establishing a compliance mechanism and technical assistance program is expected to be a significant cost amounting to several hundred thousand dollars annually.

Energy Efficiency Fee-bate

(continued)

INDIVIDUAL CRITERIA RATINGS (CONTINUED)

ADMINISTRATIVE FEASIBILITY

Rating: ★★

- **Establishing a fee-bate is likely to be a lengthy process.** City staff would need to first establish a performance rating or label system and then develop an equitable and rational fee structure, along with numerous administrative systems.
- **Furthermore, few existing models for existing buildings are available.** Most fee-bate models under consideration apply to new buildings (or, in California, new vehicles). Reasonable conduits for charging and rebating the fee on existing buildings include the property tax, the utility bill, or potentially a stand-alone fee mechanism. As with the mandate policies, some trigger point (whether point of sale or date certain) would be needed.
- **Compliance mechanisms are needed, but enforcement can be challenging.** Some means of ensuring accuracy of the performance rating used in the fee calculation would be needed (e.g., conducting random spot-check audits), but the capacity to implement such enforcement could be challenging to develop and could require new, highly trained staff.
- **Potential exists for legal challenges.** The City must operate under certain rules about what fees can be charged, and some onlookers could contend that the fee places undue financial burden on them to comply with the City's energy efficiency standard.

STAKEHOLDER IMPACTS

- **Commercial and residential building owners** could experience impacts similar to the disclosure mandates and upgrade mandate policies. At the least, building owners would likely be responsible for the cost of an energy audit to determine the fee level and would then also be assessed the fee. Owners of high-performing buildings would benefit by receiving the rebate, but significant costs could be needed to attain an energy efficiency rating worthy of a fee waiver or payment.
- **Low-income homeowners** who are unable to perform upgrades and receive an incentive payment (i.e., rebate) would be further penalized by the fee, raising equity concerns. Some form of exemption would be needed.

ADDITIONAL LESSONS FROM OTHER JURISDICTIONS

No jurisdictions are currently implementing a carbon fee-bate applied to existing buildings. However, the following jurisdictions have implemented or are considering mechanisms with some potential applicability to this policy:

- **Portland, OR** has proposed a Green Building Feebate that would charge higher permit fees for new buildings meeting only the minimum requirements of Oregon's energy code and would waive the fee or provide a cash reward for new buildings meeting higher performance standards. Although the current proposal applies only to new buildings, the City had also considered similar structures for existing commercial buildings, wherein buildings receiving a Portfolio Manager Score of less than 30 would be assessed a fine. Buildings receiving LEED EB certification with Portfolio Manager scores greater than or equal to 69 would be eligible for financial incentives. One of the key challenges Portland experienced in considering an incentive for existing buildings was limitations in Portfolio Manager. Portland was reluctant to base an incentive on a rating system with limited sectoral coverage and challenges with mixed use buildings.
- **British Columbia, Canada** has recently implemented a broad based, revenue neutral carbon-tax. All fossil fuels (including home heating fuels) imported or sold are taxed at the wholesale level (\$10 per ton of carbon). All revenue generated by the carbon tax will be returned to individuals and businesses through reductions in other taxes.
- **Boulder, CO** has a carbon tax (not a true fee-bate) on wholesale fuel to fund the city's Climate Action Plan.

Carbon fee-bates are being considered across the country for vehicles. For example:

- **The State of California** proposed a "Clean Car Discount" program, designed to help reduce the state's greenhouse gas emissions by imposing a fee of up to \$2,500 on new, high carbon emitting vehicles (starts with 2011 models), and then rebating the fee to buyers of new low emission vehicles.

Key Lessons Learned:

-In theory, an energy efficiency fee-bate offers very significant potential for energy efficiency improvements. With few proven models, however, establishing a carbon fee-bate for existing buildings will require careful study.

Prescriptive Upgrade Requirements

POLICY DESCRIPTION

Building owners would be required to complete certain energy efficiency upgrades at a pre-defined trigger point (e.g., time-of-sale, date certain, or as a requirement for financing). The policy is similar to (and would likely incorporate) an energy measure checklist. The prescriptive upgrade requirements (the items on the checklist) would be established to achieve a minimum level of cost-effective energy efficiency (roughly comparable to the 20% efficiency target).

POLICY OBJECTIVE

To establish an absolute level of energy efficiency in all targeted building stock by mandating 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: ★★★★★

- **Broadly applicable across sectors and measures:** Policy applies equally to all fuels (gas, oil, steam, electricity) and measures within these sectors. It also provides guidance as to what measures should be installed.
- **Policy required for all property owners:** Since this policy is a mandate, it eventually could achieve a high level of technical efficiency potential within the city and realize the significant energy savings attainable through the upgrades on the checklist.

ECONOMIC BENEFIT

Rating: ★★★★★

- **High economic potential:** The high energy efficiency potential for this option results in a very high level of expected economic benefits as most of the technical efficiency potential could be achieved. Based on our modeling, this policy ranked very high in economic impacts among all the policies reviewed.
- **Applicable to all sectors:** This policy is eligible to be implemented in both the residential and commercial sectors. Specific industries that would receive economic benefits would be installation contractors for the various measures (lighting, AC, heating, etc.). The general economy would also benefit from increased spending and business output resulting from reduced energy bills. There are little or no manufacturing benefits expected from this policy as all measures are likely manufactured outside the Seattle city limits.

COST OF POLICY IMPLEMENTATION

Rating: ★★★

The total cost to City and partners of establishing this policy is estimated to be \$145,000 - \$350,000.

- **Assessment of required upgrades: \$75,000 - \$150,000.** Although sample checklists from other jurisdictions are available, assessing and establishing what upgrades are needed in each sector to meet city-wide energy efficiency goals, while also assessing the cost-effectiveness of those measures, is likely to be a significant task.
- **Development of a database: \$20,000-\$100,000.** A database would be needed to track what properties are in compliance with the mandate. Alternatively, existing databases could potentially be leveraged for cost savings.
- **Legislative Development: \$50,000 - \$100,000.** City staff and legal council would need to develop the policy specifics and legislation. Much of this work could be done within existing staffing levels, meaning few to moderate new resources would be needed.

In addition, the challenge of **establishing a compliance mechanism** and conducting on-going enforcement is expected to be a significant cost. Based on the experience of other jurisdictions, the City would likely require at least two full time administrators (one for residential and one for commercial), as well as support staff.

Prescriptive Upgrade Requirements

(continued)

INDIVIDUAL CRITERIA RATINGS (CONTINUED)

ADMINISTRATIVE FEASIBILITY

Rating: ★★

- **Identifying the required upgrades can pose some difficulty.** Residential programs have typically been able to apply a more general set of measures due to more uniform building stock. Commercial programs have had greater difficulties identifying consistent requirements that are easily enforceable, especially for larger buildings with complex and varied heating and cooling systems.
- **Compliance mechanisms are needed, but enforcement can be very challenging.** Programs have only been successful if there is a way of enforcing the mandates and consequences for non-compliance. Enforcement is particularly challenging for this policy due to the need to conduct spot-check audits, which require a new class of highly-trained workers, and potential complexities associated with checklist-based compliance. For example, enforcement difficulty in commercial buildings led San Francisco to discontinue its commercial prescriptive upgrade requirement. Alternatively, compliance could be tracked through registration of deeds at time-of-sale, involving new costs passed on from the County.
- **Quality assurance can be an ongoing concern.** In order for an upgrade program to be successful, there must be a workforce of contractors able to perform upgrades at a level that ensures compliance. Some residential programs have found that homeowners who attempt to do the upgrades or hire untrained "handy-men" do not achieve true compliance.
- **Legal constraints may exist regarding state residential energy code.** State law restricts a city's ability to exceed the State energy code for residences, restricting the potential scope of residential upgrade requirements (per RCW 19.27A). Nevertheless, many older homes are not up to the current code and large gains would still be attainable.

STAKEHOLDER IMPACTS

- **Residential homeowners** would be affected financially, as the cost of required upgrades could be many thousands of dollars. In the medium term, homeowners would benefit from lower energy bills, but up-front capital would still be required. If upgrades were required at time of sale, the policy could potentially delay a transaction, although some jurisdictions allow for responsibility to be transferred to the buyer. In addition, most residential (single and multi-family) energy ordinance programs have a cost ceiling of between 1% and 3% of the sale price of the home. Homeowners could benefit from higher home sale prices for higher-performing homes as well as from the energy savings of the homes.
- **Commercial building** owners would be similarly affected. The maximum expenditure for commercial programs is often around 1% of the value of the property, or is limited to improvements that are cost-effective over a pre-defined time period.
- **Low-income homeowners** could face particular difficulty with the cost of performing upgrades. Other jurisdictions typically include some form of financial or technical assistance or (in time-of-sale requirements) permit the seller to pass on compliance responsibilities to the buyer as part of the sale negotiations. Low-income renters would benefit from lower utility bills associated with upgrades made to rental properties.

ADDITIONAL LESSONS FROM OTHER JURISDICTIONS

The following jurisdictions have established prescriptive upgrade requirement programs:

- **Berkeley, CA** established a Residential Energy Conservation Ordinance (RECO) program in 1981 and a Commercial Energy Conservation Ordinance (CECO) in 1994. The City reports that compliance has become a routine part of doing business and between 400 and 500 homes make upgrades as a result of the ordinance each year.
- **San Francisco** has a RECO policy in place, but its CECO policy is no longer in effect. Building inspectors (who enforced the CECO requirements) found the inspection process very difficult for large buildings with numerous systems.
- **Burlington, VT** passed an ordinance in 1997 to establish a Minimum Rental Housing Energy Efficiency Standards for single and multi-unit rental properties, saving each housing unit an estimated average of \$240 per year in electricity costs.

In 2008, the following jurisdictions have been considering implementing or expanding prescriptive upgrade requirements:

- **New York City** is considering requiring larger buildings (those over 50,000 or 100,000 square feet) to perform an energy audit every 10 years and perform those retrofits that are cost-effective with a 5-year payback period.
- **Austin, TX** is developing an 8-item checklist for residential upgrades. Austin is proposing voluntary targets for the percent of single-family homes sold that receive upgrades -- if these targets are not met, Austin will consider requiring upgrades up to a financial limit of the lesser of: (1) the total cost of performing upgrades with a 7-year pay-back period or (2) one percent of the sales price of the home. Austin is proposing a similar system for multi-family buildings, but with additional mandatory upgrades for "energy hog" properties using 50% more than the average energy use intensity in the City.

Key Lessons Learned:

- Prescriptive upgrade requirements have generally been more effective for single-family homes than for non-residential properties.
- Certification of third-party auditors (and possibly retro-commissioners) is a necessary precondition for required upgrades based on audits.

Performance Upgrade Requirements

POLICY DESCRIPTION

Building owners would be required to meet a minimum level of energy performance based on a selected energy rating or labeling system (e.g. 20% better than baseline, ENERGY STAR, or some other rating equivalent to a 20% improvement). Compliance would be enforced at a pre-defined trigger point (e.g., time-of-sale, date-certain, as a requirement for financing).

POLICY OBJECTIVE

To establish an increased level of energy efficiency in all targeted building stock by mandating compliance with a selected performance standard.

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: ★★★★★

- **Broadly applicable across sectors and measures:** Policy applies equally to all fuels (gas, oil, steam, electricity) and measures within these sectors. Labels such as ENERGY STAR, and EPS ratings typically provide some guidance as to which specific measures should be installed to achieve an improved rating.
- **Policy required for all property owners:** Policy would be mandated for all properties and could eventually result in achieving most (if not all) the technical achievable efficiency potential.

ECONOMIC BENEFIT

Rating: ★★★★★

- **High economic potential:** The high energy efficiency potential for this option results in a high level of expected economic benefits. Based on our modeling, this policy ranked near the top in economic impacts among all the policies reviewed.
- **Applicable to all sectors:** This policy is eligible to be implemented in both the residential and commercial sectors. Specific industries that would receive economic benefits would be installation contractors for the various measures (lighting, AC, heating, etc.). The general economy would also benefit from increased spending and business output resulting from reduced energy bills. There are little or no manufacturing benefits expected from this policy as all measures are likely manufactured outside the Seattle city limits.

COST OF POLICY IMPLEMENTATION

Rating: ★★★

The total cost to City and partners of establishing this policy is estimated to be **\$225,000 - \$500,000**.

- **Assessment of existing rating systems: \$75,000 - \$200,000.** Experience to date has indicated that existing rating systems must be vetted in the marketplace before making mandatory. In addition to selecting a rating system, the City would need to assess and select appropriate performance requirements.
- **Development of database: \$100,000 - \$200,000.** A database could be developed to house and provide ability for property owners or City program managers to access the ratings. Alternatively, existing databases (such as the Multiple Listing Service or EPA's Portfolio Manager) could potentially be leveraged for residential and commercial ratings, respectively.
- **Legislative Development: \$50,000 - \$100,000.** City staff and legal council would need to develop the policy specifics and legislation. Much of this work could be done within existing staffing levels, meaning few to moderate new resources would be needed.

Performance Upgrade Requirements

(continued)

INDIVIDUAL CRITERIA RATINGS (CONTINUED)

ADMINISTRATIVE FEASIBILITY

Rating: ★★

- **Potentially easier to develop standards than prescriptive requirements.** Performance-based upgrade requirements may be easier to develop (and solicit support for) because they allow for more flexibility and are not measure-specific.
- **Compliance mechanisms are needed, but enforcement can be challenging.** Programs have only been successful if there is a way of enforcing the mandates and consequences for non-compliance. Enforcement of this policy may not be as dependent on site-visits as a prescriptive (checklist)-based approach due to the ability to track building performance through a regular reporting of a performance score (whether Portfolio Manager, a home energy EPS, or other metric). Still, spot-check audits or other mechanisms requiring new highly-trained workers may still be necessary.
- **Legal constraints may exist regarding state residential energy code.** State law restricts a city's ability to exceed the State energy code for residences, restricting the potential scope of residential upgrade requirements (per RCW 19.27A). Requiring upgrades at time-of-sale may help address this concern, but further legal review is needed.

STAKEHOLDER IMPACTS

- **Residential homeowners** would be affected financially, as the cost of attaining the performance standard could be many thousands of dollars. In the medium term, homeowners would benefit from lower energy bills, but up-front capital would still be required. If upgrades were required at time of sale, the policy could potentially delay a transaction, although some jurisdictions allow for the responsibility to be transferred to the buyer. In addition, most residential (single and multi-family) energy ordinance programs have a cost ceiling of between 1% and 3% of the sale price of the home. Homeowners could benefit from higher home sale prices for higher-performing homes as well as from the energy savings of the homes.
- **Commercial building owners** would be similarly affected, although many measures would likely be cost-effective. Using Portfolio Manager (or other energy performance tools) as a basis for requiring performance upgrades may pose an equity concern due to variation in building stock—even within one class of buildings, e.g. office buildings.
- **Low-income homeowners** could face particular difficulty with the cost of performing upgrades. Other jurisdictions typically include some form of financial or technical assistance. Low-income renters, on the other hand, would benefit from upgrade mandates applied to rental properties.

ADDITIONAL LESSONS FROM OTHER JURISDICTIONS

The following jurisdictions have been considering implementing performance-based upgrade requirements:

- **Portland, OR** has been considering a performance-based upgrade requirement for existing commercial and multifamily buildings. The requirement would apply to buildings receiving an ENERGY STAR Portfolio Manager score of less than 30 (on a 100-point scale). Such buildings would have 3 years to improve their score to 30 or demonstrate a 15% improvement in their energy use intensity (EUI). Portland is looking to phase in this requirement, with a policy threshold of 100,000 square feet in 2011 (2% of Portland's existing buildings), 50,000 square feet in 2012 (an additional 3%), and 20,000 square feet in 2013 (an additional 6%). Commercial buildings over 20,000 square feet represent 74% of Portland's commercial building stock. Multi-family buildings over 20,000 square feet represent 65% of Portland's multi-family building stock. Buildings that rate below 30 and do not meet the upgrade requirements would be subject to a financial penalty.
- **Austin, TX** is considering a goal of having 80% of commercial square footage in the City achieve a Portfolio Manager score of 50 or 20% improvement in energy efficiency within 5 years (after an initial 2-year audit period). The provision would exclude properties that have a Portfolio Manager score over 75, certain historic properties, and certain other property types. Austin is considering making these performance-based goals mandatory if the voluntary targets are not met.
- **Berkeley, CA**, after many years using a prescriptive-based Residential Energy Conservation Ordinance (RECO), is moving towards a performance-based approach. The City hopes that a performance-based approach will help even RECO-compliant homes continue to improve.

Key Lessons Learned:

- Performance-based upgrade requirements can allow for greater flexibility in selecting upgrades and therefore potentially greater cost-effectiveness
- Performance-based upgrade requirements are generally considered better suited than prescriptive-based approaches for the non-residential sector.

Summary Assessment Matrix

10/21/2008

POLICIES	ASSESSMENT CRITERIA			
	Energy Efficiency Potential	Economic Benefit	Cost of Policy Implementation	Administrative Feasibility
FUNDING SOURCES				
Low-interest Loans	★★	★★	★★	★★★★
Private Financing Pool	★★	★★	★★★	★★
Energy Efficient LIDs	★★	★★	★★★	★★
Revenue or General Obligation Bond Sale	★★	★★	★★★	★★★
Energy Efficiency Mortgages	★★★	★★★	★★★★	★★
INNOVATIVE REPAYMENT MECHANISMS				
Add-on to Property Taxes	★★★	★★	★★★★	★★★★
On-Bill Financing	★★	★★	★	★★
OTHER FINANCIAL INCENTIVES				
Energy Efficiency Tax Credits	★★★	★★★★	★★	★★
Energy Efficiency Feebate	★★★★	★★★★	★★★	★★
DISCLOSURE MANDATES				
Building's Historical Energy Use	★	★	★★★	★★★★
Building Energy Performance Checklist	★★★	★★★★	★★★	★★★★
Building Energy Performance Rating/Label	★★★	★★★★	★★★	★★★
UPGRADE MANDATES				
Prescriptive Requirements	★★★★	★★★★	★★★	★★
Performance Requirements	★★★★★	★★★★★	★★★	★★