

AGENDA
LACEY PLANNING COMMISSION MEETING
Tuesday, September 6th, 2022 – 6:00 p.m.
MEETING WILL BE IN-PERSON IN THE COUNCIL CHAMBERS AT LACEY CITY HALL
420 COLLEGE ST SE
AND BY VIDEO CONFERENCE
Register in advance for this webinar:
https://us02web.zoom.us/webinar/register/WN_B1SM3MklQYkWMEgJzs2yog
Webinar ID: 850 3056 8174
YouTube:
<https://youtu.be/-ByWTiQWHKg>

Call to Order: 6:00 p.m.

Approval of Agenda & Consent Items: 6:01 p.m.

- A. Approval of Agenda
- B. Approval of August 2nd meeting minutes

Public Comments: 6:02 p.m.

Commission Members' Reports: 6:04 p.m.

Director's Report: 6:05 p.m.

New Business: 6:10 p.m.

Energy Efficiency Program: Hans Shepherd, Senior Planner. Staff will update the Planning Commission on initial investigation and progress made within Residential Energy Efficiency Program which is a priority implementation item of the Thurston Climate Mitigation Plan.

Communications and Announcements: 6:55 p.m.

Next Meeting: September 20, 2022

Adjournment: 7:00 p.m.

9/6/22

CITY OF LACEY PLANNING COMMISSION WORK SCHEDULE

**Planning Commission Meeting
September 6, 2022**

1. Energy Efficiency Program Update

Packets due: September 1, 2022

**Planning Commission Meeting
September 20, 2022**

Packets due: September 15, 2022

**Planning Commission Meeting
October 4, 2022**

1. LMC 14.29 and 14.36 Amendments – Doug Christenson

Packets due: September 29, 2022

Pending Items: Market Analysis - Wesley Nguyen
 Planning Commission Tour - Rick Walk
 Intro to Hoskins Field Airport Manager - Jud Kelley



PLANNING COMMISSION STAFF REPORT

September 6th, 2022

SUBJECT: Residential Energy Efficiency Program Project Update

RECOMMENDATION: Briefing item only. Action is not required by the Planning Commission. Staff will provide a briefing on proposed steps for the Community and Economic Development Department to undertake in the advancement and implementation of the Residential Energy Efficiency Program.

TO: Lacey Planning Commission

STAFF CONTACTS: Rick Walk, Community and Economic Development Director
Ryan Andrews, Planning Manager
Hans Shepherd, Senior Planner

ATTACHMENT(S): 1. Thurston Climate Mitigation Plan ([Direct Link](#))
2. PSE Efficiency and Green Options ([Direct Link](#))
3. Residential Energy Performance Rating Policy Review

**PRIOR COUNCIL/
COMMISSION/
COMMITTEE REVIEW:**

Planning Commission was last updated at the launch of this program in March of 2022.

Background:

Since its adoption in December of 2020, the City of Lacey has engaged as an active partner in the promotion and implementation of the Thurston Climate Mitigation Plan (Attachment 1). Within this plan, a significant emphasis has been placed on the reduction of energy use within existing residential buildings:

“Residential energy use currently is the largest source of greenhouse gas emissions in our region. While newer buildings may be constructed to meet greener standards, the majority of homes in the Thurston region were built before 1988, with one in five dating back 50 or more years. Looking at our emission reduction targets, more than two-thirds of the housing units that will exist in 2050 already exist today, so retrofitting existing buildings is a key strategy.” -Pg 74 TCMP

In support of *Strategy B1. Reduce Energy Use in Existing Residential Buildings*, six actions were identified for their ability to reduce greenhouse gasses within the community:

ASSESSED ACTIONS		Impact GHG	Impact OTHER	
B1.1	residential energy performance ratings. Require energy performance ratings and disclosures for homes at time of sale, lease, or rent so that owners, tenants, and prospective buyers are informed before making purchasing or rental decisions		  	  
B1.2	residential energy audits. Develop and adopt policies that require residential properties to undertake an energy audit at the time of sale or during a substantial remodel. Work with financial institutions to develop mortgage products that incorporate audited energy efficiency recommendations.		  	  
B1.4	rental housing energy efficiency incentives. Provide incentives such as property tax breaks for landlords who install energy conservation measures in rental housing.		  	  
B1.5	property tax credit. Create incentives such as a property tax credit for property owners who participate in energy efficiency.		  	  
B1.6	rental housing energy efficiency baseline. Require rental units to meet baseline levels of energy efficiency and make more stringent over time.		  	  

Full chart can be found on page 74 of the Thurston Climate Mitigation Plan

These action items are further echoed within the Environmental Element of the City of Lacey Comprehensive Plan. Goal 1 within the Energy Efficiency and Conservation chapter seeks to:

“... maximize energy efficiency and conservation in heating, cooling, and lighting buildings and services”.

Through continued collaboration with regional partners, stakeholder interviews, and general outreach, city staff has been working to advance these goals through a Residential Energy Efficiency Program. As it currently stands, this program is funded through the general fund and is anticipated to conclude on or before December 31st, 2022.

Initial Findings:

Given the diversity of energy efficiency/residential improvement programs already offered within the public, private, and non-profit sectors, city staff reviewed existing programs, identifying areas of overlap, program gaps, and potential barriers for Lacey residents and homeowners. This program review, while still on-going, allowed city staff to better allocate limited resources while avoiding potential redundancies within our program development.

- **Efficiency Boost Program (PSE)** – Rebate program focused on providing financial

assistance in the acquisition of energy efficient upgrades to income-qualified customers (80% of Area Median Income).

- Rebate areas include Weatherization, Windows, Water Heater, Space Heater, Thermostats, Appliances.
- **Low-Income Weatherization Program (Community Action Council)** – Combines federal, state and local funding to offer free home upgrades that increase comfort and lower energy bills for income-qualified customers (60% of Area Median Income).
 - Acquisition and install of various items to improve weatherization.
- **Home Energy Assessment Program (PSE)** – A self-guided online assessment for existing PSE members of current home energy use and energy related habits. Reliant on current knowledge, and accurate self-reporting.
 - Offers recommendations and a usage graphic of home energy consumption over time.
- **In-Home Energy Assessments Programs (Thurston Energy & PSE)** – Discontinued after 2017, the Thurston Energy program worked with local residents and businesses to bundle discounts, rebates, financing and tax incentives to increase returns on energy investments.

Lacey Participation Levels: Over the past year and a half (since 2021), program participation levels within Lacey have varied between program offerings. The following list offers a high-level summary of Lacey resident participation rates:

- Total Participants in listed programs: 1,559
 - Efficiency Boost Program (PSE) – 6 participants
 - Low-Income Weatherization Program (CAC) – 63 participants
 - Home Energy Assessment Program (PSE) – 1,443 participants
- Income Qualified: 50% of participants (80% AMI or lower)
- Average Age of Participants: 53
- Primary Language Spoke: English followed by Spanish and Vietnamese
- Reported Education: 27% Bachelor+, 36% Some College, 28% High school or less
- Top Reported Occupations: Retired, Blue Collar, Professional, Management
- Housing Type: 80% Single-family, 15% Multifamily, 5% Manufactured
- Ownership Status: 54% Homeowner, 14% Renter, 32% Unreported
- Program Engagement: 91% of participants engaged programs through digital formats

It is worth noting that some multifamily records are not captured within this summary as these types of projects are not linked to individual residents and in-home energy assessments participation rates were not captured as they have not been conducted in the last few years.

To date, the review has resulted in a stronger understanding of existing challenges and barriers faced by lacey residents and homeowners as they seek to navigate and qualify for these types of programs.

Residential Energy Performance Rating:

As part of the 2023/2024 draft Regional Initiatives within the Thurston Climate Mitigation Plan – Implementation Strategy, multijurisdictional staff have been discussing the potential of a residential energy performance rating program.

Developing and adopting a regional home energy labeling policy and program would support two actions from the Thurston Climate Mitigation Plan: residential energy performance ratings (B1.1) and residential energy audits (B1.2). By making energy costs transparent to consumers, home energy labeling programs also provide a mechanism for the real estate market to value both energy performance and home energy improvements that reduce the cost of homeownership.

One of the barriers to improving the energy efficiency of existing housing units is a lack of homeowner awareness and information on the energy performance of their properties. A residential energy performance rating program has the potential to greatly reduce our residential greenhouse gas emissions while addressing a potentially hidden cost of renting and homeownership.

Home Energy Internship:

Consistent throughout initial outreach with other municipalities, program managers, and community members, a lack of awareness, the application process (and associated requirements), available information, and the necessary time to perform initial research has created a significant barrier to program participation and change.

Without this information, it is challenging for consumers to prioritize energy efficiency in home purchasing and improvement decisions. To address these barriers and get a jump on a potential residential energy performance rating, the city is looking into the development of an internship that would work within the community to provide home energy assessments and connect residents with available resources and program partners.

Currently, the city offers internships within the Engineering, Transportation, Museum, Executive Team, and Water Resources Departments. While these internships are primarily organized through Saint Martins University, potential partnerships also exist with the Olympia Master Builders, New Market, and Evergreen through their Individual Learning Contracts Program.

Next Steps:

By advancing this program, the City of Lacey will work to counter one of its largest sources of greenhouse gas emissions while identifying ways to lessen the financial burdens of housing within the community. This program will seek to improve both the overall quality of existing housing options and the overall health of its residents.

The Community and Economic Development Department will continue advancing the development, implementation and promotion of this program. Staff will provide periodic updates on project milestones to both the Planning Commission and City Council.

Residential Energy Performance Rating and Disclosure

A review of policy and program considerations for a residential home energy assessment and disclosure policy to support the implementation of the Thurston Climate Mitigation Plan.

Contents

1. BACKGROUND	3
Purpose	3
Key Terms.....	3
Program Goals.....	4
2. LOCAL HOUSING MARKET	5
Housing Type.....	5
Occupancy	5
Housing Age	5
Sale Trends.....	6
3. POLICY PARAMETERS	7
Regional Coordination	7
Disclosed Information	8
Trigger Event	9
Compliance	9
Use Cases	11
Low-Income Subsidies.....	12
4. EXPECTED IMPACTS	14
Housing, Labor, and Climate Impacts	14
Implementation Costs.....	15
References	17

1. BACKGROUND

Purpose

Energy use in residential buildings accounts for 32 percent of inventoried greenhouse gas emissions in the Thurston region (TCAT, 2020). While recent updates to the Washington State Building code will significantly increase energy performance requirements for new residential development, these requirements do not address existing homes, many of which were built to less efficient standards. Most homes in the Thurston region were built before 1988, and more than two-thirds of the housing units that will exist in 2050 already exist today, so retrofitting existing homes is a key strategy to increase the energy efficiency of residential buildings (TRPC, 2020).

One of the barriers to improving the energy efficiency of existing housing units is a lack of homeowner awareness and information on the energy performance of their properties. Without this information, it is challenging for consumers to prioritize energy efficiency in home purchasing and improvement decisions. To address this challenge, several cities and states have developed residential home energy labeling policies and programs.

A home energy labeling program provides homeowners and homebuyers with an assessment of home energy performance, expected energy costs, and cost-effective improvements to reduce energy use and costs. Similar to vehicle mile-per-gallon ratings and home appliance energy guide labels, the home energy label provides a consistent metric to easily compare the energy efficiency of multiple homes. Homeowners, homebuyers, and renters can use this information to estimate energy use and costs and identify energy efficiency upgrades to make their homes more comfortable and affordable. By making energy costs transparent to consumers, home energy labeling programs also provide a mechanism for the real estate market to value both energy performance and home energy improvements that reduce the cost of home ownership.

Developing and adopting a regional home energy labeling policy and program would support two actions from the Thurston Climate Mitigation Plan: residential energy performance ratings (B1.1) and residential energy audits (B1.2). This review describes key elements and considerations for the design of a local home energy labeling policy and program.

Key Terms

Energy Score: The primary energy performance metric, a single value which allows a direct comparison of multiple homes (Definitions Earth Advantage, 2014).

Energy Label: Typically, a one page-document that summarizes key information and metrics related to the energy performance of a home and includes the Energy Score.

Energy Reports: A document that supplements the Energy Label, and which provides more detail about the home, including specific recommendations for energy improvements.

Program Goals

A well-designed regional home energy labeling and disclosure policy and program could be designed to achieve the following goals:

- **Inform residents about home energy performance, expected energy costs, and cost-effective improvements to reduce the cost of home ownership/occupancy.**
- **Provide a mechanism for the real estate market to value both home energy performance and home energy improvements that reduce the cost of homeowner/occupancy and increase preparedness for extreme weather.**
In a review of home energy disclosure impacts, the US Department found that green certified and energy efficient homes can sell at a 2-6% premium above similar homes (US DOE, 2017).
- **Support energy reduction targets identified in the Thurston Climate Mitigation Plan to reduce residential electricity use 20% below 2015 levels by 2030 and 30% below 2015 levels by 2050.**
- **Support energy reduction targets identified in the Thurston Climate Mitigation Plan to reduce residential natural gas use 20% below 2015 levels by 2040 and 50% below 2015 levels by 2050.**
- **Achieve 60% compliance in year 1 of implementation, 70% compliance in year 2, and 80% compliance thereafter.**
The effectiveness of a regional home energy labeling program depends on widespread compliance. With sufficient monitoring and enforcement, jurisdictions with similar policies have observed compliance rates as high as 80 – 90% (Roy et al., 2018).
- **Increase demand for home energy improvements: 10% of listed homes perform at least one recommended energy efficiency improvement in year 1 of implementation, 15% in year 2, and 20% thereafter.**
Increased information about home energy performance and cost-effective energy improvements, have been shown to increase the demand for energy efficiency retrofits (Hill et al., 2016). For example, the Energy Conservation and Audit Disclosure ordinance in Austin, TX, which mandates home energy audits at time of sale, resulted in a 12% retrofit rate in its first year of implementation. After implementing home energy labeling requirements, EU countries achieved even higher retrofit rates, up to 22% in the Netherlands and 37% in France.
- **Create 10 new home energy assessor jobs.**
Full implementation of a regional home energy score program will require 11-14 full time energy assessors (Table 3). It is unknown how many energy assessors currently serve with Thurston Region, but with current limited demand for home energy assessments, there are likely few service providers.

2. LOCAL HOUSING MARKET

Housing Type

There are 109,983 occupied housing units across Thurston County (U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates). Most dwelling units are detached single family or townhouse (single-family attached) units (72%). The second most common type of housing includes multifamily (> 5 units; 12%), and 2-, 3- or 4-plex units (6%). Mobile homes and other housing types make up the remaining 9% of housing.

The recommended program design (described in Section 3) would apply only to dwelling units that own the space from foundation to attic (i.e., most single-family homes, including attached townhouse units). Mobile homes and stacked multifamily homes would be exempt as they are not suitable for the recommended home energy score tool.

Table 1. Occupied housing units by building and occupancy type, 2015-2019 average.

Building Type	Occupied Housing Units	Occupancy Type	
		Owner (%)	Renter (%)
Single Family and Townhouse Units	79,482	0.80	0.20
2-, 3- or 4-plex Units	6,620	0.08	0.92
Multifamily Units	13,738	0.04	0.96
Mobile home and other units	10,143	0.75	0.25
Total Occupied Units	109,983	0.65	0.35

Source: U.S. Census Bureau, American Community Survey, 2019.

Occupancy

Sixty-five percent of the housing units in Thurston County are owner-occupied, while 35% are renter occupied. Single family dwellings and townhouses, which would be included in the recommended program design, are predominantly owner-occupied (80%). Buildings with two or more units, most of which would be excluded from the recommended program design, are almost exclusively rented.

Housing Age

More than 50% of the homes in Thurston County were built before 1990, with nearly 20% built at least 50 years ago (U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates). The large proportion of older homes in the region suggest that many would benefit from energy-and-cost-saving retrofits. Additionally, more than two-thirds of the housing units that will exist in 2050 already exist today, so retrofitting existing homes to improve energy efficiency is a key strategy to meet regional climate mitigation goals (TRPC, 2020).

Sale Trends

Over the past three years (2018-2020), an average of 5,313 homes were sold annually in Thurston County (Redfin Data Center, 2021). In that same time, listed homes remained on the market for an average of 13 days. Peak sales typically occur from June – August, with a peak monthly sale of 594 homes in June 2018 and August of 2019. Peak listings typically occur from May – July, with a peak monthly listing of 753 homes in May 2018.

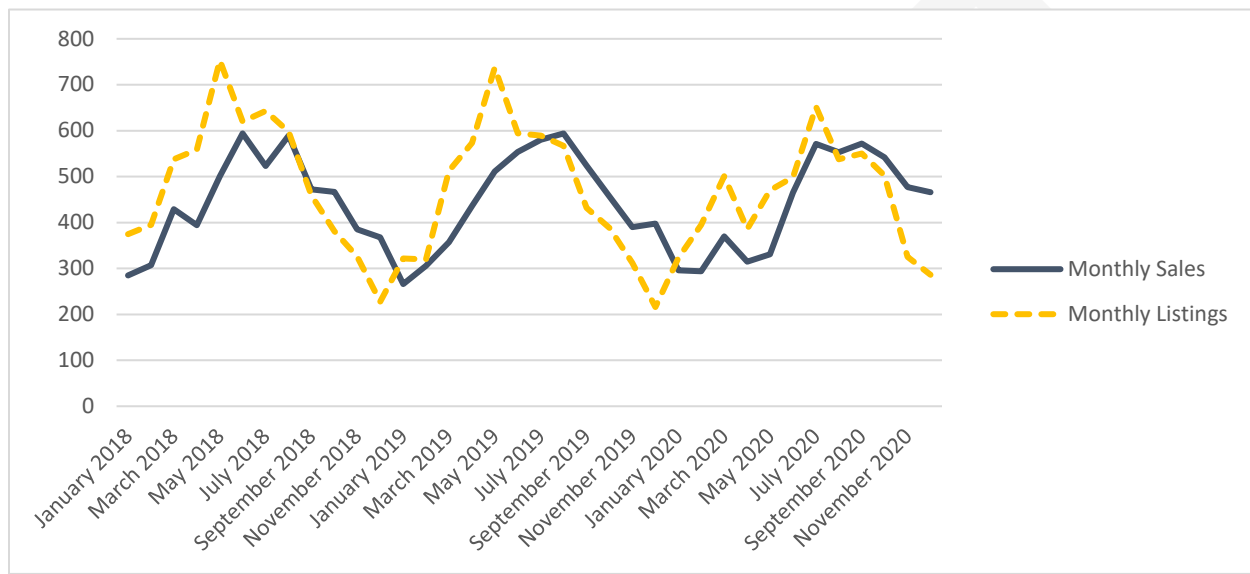


Figure 1. Monthly total homes sales and listings in Thurston County from 2018 – 2020. Source: Redfin Data Center, 2021.

3. POLICY PARAMETERS

Key considerations for the design of a home energy score policy includes the type of information that is disclosed, timing of disclosure, suitable use cases and exclusions, and any provisions for low-income subsidies. The following section describes options and staff recommendations for these policy parameters.

Background and recommendations for the design of this policy were informed by resources from the “Home Energy Labeling Partnership” developed by Rocky Mountain Institute and Earth Advantage, as well as conversations with staff from local governments (Portland, OR and Milwaukie, OR) and partner organizations (Earth Advantage) experienced in home energy labeling programs.

Regional Coordination

Regional Coordination Options

A residential energy performance rating disclosure policy could be developed and adopted by individual jurisdictions or as regionally coordinated policy across all partner jurisdictions.

- **Individual jurisdictions develop and adopt unique home energy score policies.** Individual jurisdictions may choose to develop their own energy score policy, with unique policy requirements, exceptions, procedures, or opt out entirely. While this approach would allow jurisdictions to develop custom policies that best suit their individual needs or goals, the local housing market is not constrained to individual jurisdictions. Inconsistent policies and requirements would likely result in substantial confusion for local home buyers, sellers, realtors, and energy assessors.
- **All jurisdictions across Thurston County develop and adopt a consistent home energy score policy.** A unified approach would provide consistent requirements that are easy to understand, and ensure that energy performance information widely available and easily comparable across jurisdictions. A large regional program would also support the development of a robust energy assessor market to provide the required home energy score assessment.

Staff Recommendation

- To provide consistent standards across jurisdictions and ensure that energy performance information is easily comparable across the Thurston region, partner jurisdictions should prioritize the development of a regionally coordinated home energy score policy and program.

Disclosed Information

Energy Disclosure Options

Home energy performance can be evaluated and reported as operational data or asset ratings.

- **Operational data use the home's past utility bills as an indication of home energy use and costs.** Although operational data is often simple to provide and may be more familiar to consumers, it is heavily dependent on occupant behavior and therefore a poor predictor of future energy costs. Operational data also does not include recommendations for cost-effective energy improvements.
- **Asset ratings quantify the energy efficiency of a building based on the home's physical assets (e.g., size, envelope, and heating/cooling equipment).** Asset ratings are typically completed by professional energy assessors through on-site evaluations. This approach provides objective energy efficiency information that is independent of occupant behavior. An asset score allows prospective buyers and homeowners to compare the energy performance of multiple homes based on their assets, rather than how they are operated by current occupants. Asset ratings are generally considered to be a more effective representation of home energy performance but require developing a trained assessor workforce to ensure effective service delivery.

Asset Rating Tool Options

If home energy performance is disclosed in the form of asset ratings, a consistent rating tool must be selected. The two most common rating tools are the [Home Energy Score \(HES\)](#) and the [Home Energy Rating System \(HERS\) Index](#).

- **Home Energy Score (HES)** is a nationally standardized home energy rating tool geared towards existing homes, administered by the US Department of Energy. HES assessments typically take 1 hour and cost about \$150-\$300 per assessment. See Attachment 1 for an example HES Report.
- **Home Energy Rating System (HERS)** is a nationally standardized home energy rating tool geared towards new homes, administered by the Residential Energy Services Network. HERS assessments typically take 2-4 hours and cost about \$500-\$1,000. While commonly used for new construction, the HERS system can be challenging and expensive to implement on older homes.

Staff Recommendation

- To provide consistent and objective energy performance information that can be easily compared across multiple homes, energy performance information should be disclosed in the form of asset ratings.
- To provide the most affordable and easily implemented energy assessment, home energy performance should be assessed using the US Department of Energy's Home Energy Score (HES).
- To provide prospective buyers with a high level of access to home energy and costs savings information, HES reports should be made widely available. HES reports should be disclosed through the multiple listing service (MLS), included on real estate listings (printed advertisements, internet postings, and third-party listing services), and provided to real estate agents and prospective buyers.

Trigger Event

Trigger Event Options

Trigger events refer to the time at which disclosure of home energy information is required. Trigger events are typically at time of listing or time of sale.

- **Disclosure at time of sale requires energy information to be disclosed to the expected home buyer at or before time of closing.** Providing energy information at the time of closing (i.e., beginning of a new homeownership cycle) can increase the likelihood of a new homeowner investing energy efficiency upgrades. However, a time of sale disclosure is too late in the real estate transaction to include energy improvements in mortgage products. It is also too late to allow prospective buyers to compare homes and make informed decisions. Time of sale disclosure policies may also complicate or delay real estate closings.
- **Disclosure at time of listing requires energy information to be disclosed at the earliest possible stage in the real estate transaction process, making the information more actionable for prospective buyers and the market.** Early disclosure allows buyers to compare the energy performance, expected energy costs, and recommended efficiency upgrades for all prospective homes. With early access to home energy scores, buyers can finance recommended energy improvements as a part of a new mortgage with Fannie, Freddie, and FHA products. By disclosing energy information as soon as possible, this approach provides a direct link to home valuation and market transformation, and will not interfere with or delay closings.

Staff Recommendation

- To ensure prospective buyers can compare the energy efficiency of all homes and integrate energy efficiency upgrades within home financing, home energy information should be disclosed at the time of listing.

Compliance

Compliance Options

Energy information may be disclosed through voluntary or mandatory policies and programs.

- **Voluntary disclosure programs can offer energy reports at any time for voluntary use in the real estate market, but may be targeted towards specific trigger events.** Voluntary programs generally achieve significantly lower levels of market penetration than mandatory policies and require significant incentives, subsidies, and marketing to drive demand. Historically, no jurisdiction has been fully successful at creating a functioning voluntary market based only on consumer demand for energy labels.
- **Mandatory disclosure policies require home energy information to be provided and specify what information, when, and to whom it must be disclosed.** Mandatory programs generally achieve much higher levels of market penetration and better support market transformation by making home energy information widely available. Mandatory programs are also typically less expensive to administer if customers pay for the cost of the energy labels.

Non-compliance Penalty Options

Mandatory home energy labeling policies typically include non-compliance fines or penalties. Important considerations for determining non-compliance penalties include the local housing market and average cost of home energy score assessments.

- **Non-compliance penalties should be strong enough to encourage compliance (i.e., greater than the cost of obtaining the assessment), but not overly burden low to moderate income households.** The most common approach is to set a standard rate, typically about \$500 (Table 2). This is about twice the cost of typical home energy score assessments (\$150-\$300). Non-compliance fines can also be set as a percentage of the home listing price. This approach may help encourage compliance for all sellers, while reducing the burden on lower income sellers, but can complicate program design and enforcement.
- **The timeline to trigger non-compliance penalties should be determined based on market trends (i.e., average days on market).** Listed homes in Thurston County remain on the market for an average of 13 days (Redfin Data Center, 2021), so a short timeline is critical to ensure compliance before homes are purchased by a new buyer. Warning notices for non-compliant homes should be sent as soon as possible so sellers have time to act and disclose a score to prospective buyers.

Staff Recommendation

- To ensure widespread adoption of the home energy score, staff recommend adopting a mandatory disclosure policy, with a non-compliance penalty of \$500.
- To ensure that all homes disclose a home energy score before being purchased by a new buyer, warning letters for non-compliant listings should be sent as soon as possible after listing. The frequency with which staff can provide warnings will depend on staff workload and capacity.
- Given that the average time to sell a house in Thurston county is only 13 days, the timeline to trigger non-compliance penalties should be no longer than 30 days of receiving a written warning.

Table 2. Examples of non-compliance fines and disclosure requirements for jurisdictions with mandatory home energy scoring policies.

Jurisdiction	Trigger Event	Non-compliance Fines	Time to trigger penalties	Disclosed information
Austin, TX	Time of sale	\$500 - \$2,000	By time of sale	Audit of home conditions that influence energy performance, not a Home Energy Score or asset rating.
Berkeley, CA	Time of listing	\$110 fee to defer to buyer and \$85 late fee	If deferred, buyer has 6 months to complete energy assessment.	Custom Energy Score Report based on the DOE Home Energy Score.
Portland, OR	Time of listing	\$500	90 days from written warning	Custom Energy Score Report based on the DOE Home Energy Score.
Milwaukie, OR	Time of listing	\$500	30 days from written warning	Custom Energy Score Report based on the DOE Home Energy Score.

Use Cases

Suitability and Exclusions

Energy score requirements typically apply to most homes able to be scored with the selected home energy rating tool. Certain homes may be exempted from an energy score policy due to the suitability of the energy rating tool, previous certification of high energy efficiency, or distressed sale situations.

Considerations for exemption of certain home types.

The recommended HES rating tool is suitable for detached single-dwelling units and attached dwelling units that extend from foundation to roof (e.g., duplex, rowhouse, or townhome). The tool is not suitable for homes in a stacked configuration with other units above or below. It is also not suitable for mobile, manufactured, or floating homes.

Considerations for exemption of homes already certified to high efficiency standards.

Many jurisdictions exempt homes that have already received home energy scores through an alternative energy audit or scoring program. For example, Berkeley, CA exempts homes participating in the Energy Upgrade California Program, and Portland, OR exempts homes that have received an Energy Trust of Oregon Energy performance score. Homes may also be exempted if they have already been certified to meet high energy efficiency standards through other certification programs. For example, the City of Berkeley's Building Energy Saving Ordinance (BESO), exempts buildings that have completed a verified home energy upgrade or rating such as Net Zero Energy or Passive House.

Considerations for exemption of new construction.

Some home energy score policies may exempt new construction under the assumptions that new homes are more energy efficient. However, the purpose of a home energy score is not just to encourage energy efficiency improvements, but also to inform prospective buyers of energy performance and expected energy costs. Exempting new construction prevents prospective buyers from comparing the energy performance and cost of new and existing homes. Most of the home energy score policies evaluated for this review also apply to new construction (e.g., Berkeley, Portland, and Milwaukee). Only the City of Austin exempts new construction.

Considerations for exemption due to distressed sale situations.

Many energy disclosure policies include exemptions for distressed sale situations. For example, the cities of Portland and Milwaukee exempt the following transactions "trustee's sales, deed-in-lieu of foreclosure sales, and pre-foreclosure sale in which the seller has reached an agreement with the mortgage holder to sell the property for an amount less than the amount owed on the mortgage". Rather than providing exemptions for low-income sellers, many jurisdictions subsidize the cost of home energy assessments for low-income constituents.

Staff Recommendation

- To ensure energy performance information is widely available, the policy should be applied to all suitable existing homes. This includes all detached single dwelling units and any attached single dwelling unit, where the unit extends from foundation to roof, such as row house, attached house, duplex, or townhouse.
- Housing types not suitable for the HES tool, including mobile homes, manufactured homes, or floating homes, and units in a stacked configuration should be exempt.

- Homes already certified to a high efficiency standard may be exempt. These standards will need to be explicitly defined.
- To increase consumer awareness of energy performance and better allow comparison of multiple homes, staff recommend that newly constructed homes also be required to disclose a home energy score.
- Certain distressed sale situations should be exempt from the energy disclosure policy. These exemptions will need to be explicitly defined.
- Rather than exempting low-income households, jurisdictions should subsidize the cost of obtaining a home energy score for low-income sellers.

Low-Income Subsidies

Home energy scores provide energy cost visibility, so that all households, including low-moderate income households, are better informed of the total cost of home ownership. This can help prevent scenarios where new occupants are unprepared for unaffordable utility bills. To ensure that energy performance information is widely available, and not overly burdensome to obtain, many jurisdictions with residential energy performance disclosure policies subsidize the cost of the home energy assessment for income-qualified sellers.

Subsidy Options

Options for subsidizing the cost of home energy assessment for low-income households meeting certain criteria include:

- **Directly covering the cost of the home energy assessment.** In Portland, energy assessments for income qualified sellers are completed by authorized Home Energy Assessors under an agreement with the Community Energy Project. In the first 30 months of the program, 89 sellers applied for this service and 80 met the eligibility requirements, well-below 1% of total homes scored in this time-period (City of Portland, Oregon Bureau of Planning and Sustainability, 2020).
- **Encouraging realtors/selling agents to provide financial incentives.** Anecdotal evidence from Portland suggests that in some cases, real estate agents will obtain the home energy score on behalf of their clients.
- **Partnering with a local utility provider to offer free assessments.** In Minneapolis, low-income sellers can access a free energy inspection through an existing utility energy audit program (this program is already free for low-income households). In the Thurston County region, Puget Sound Energy previously offered a home energy assessment program, but it was discontinued in July 2020.

Staff Recommendation

- To ensure energy performance assessments are not overly burdensome to low-income sellers, staff recommend contracting with a community partner, to provide free home energy assessments for income-qualified sellers.

- Income qualification scenarios will need to be explicitly defined.
 - Rather than collecting and assessing income information, eligibility for low-income subsidies may be determined based on participation in existing programs. Examples of accepted forms of eligibility proof may include a copy of participant/family's free or reduced lunch letter, DSHS/SNAP/TANF food assistance letter, SSI documentation, DSHS Respite Care documentation, Income Verification, or Lifeline Utilities bill.

4. EXPECTED IMPACTS

Housing, Labor, and Climate Impacts

Expected impacts of the recommended program design were calculated using the Home Energy Labeling Program Impact Calculator provided by Rocky Mountain Institute and Earth Advantage.

Depending on the rate of compliance, the number of homes rated annually is expected to range from 3,671 to 4,894 and would require 11-14 full time-assessors to meet the demand for energy scores. It is unknown how many certified HES assessors currently serve the Thurston County region, but there are likely few providers given current limited demand for home energy assessments.

The number of homes retrofitted each year could range from 367 to 1,468 homes, resulting in up to \$820,304 in total energy cost savings and 2,933 tons of CO₂ emissions avoided. Total energy cost savings and greenhouse gas reduction would compound annually as an increasing percentage of homes are assessed and retrofit. Energy performance upgrades would also increase business for local builders and home performance contractors.

Table 3. Expected year 1 results of a home energy disclosure policy.

Year 1 Results	Estimated Value		
	Low Impact	Moderate Impact	High Impact
Homes Rated	3,671	4,282	4,894
Minimum Energy Raters Required	11	12	14
Homes Retrofitted	367	856	1,468
Energy Savings (MmBtu)	3,914	18,267	46,973
Energy Cost Savings	\$68,359	\$319,007	\$820,304
Carbon Reduction (tons CO ₂)	228	1,064	2,735
Increased Real Estate Value	\$4,269,587	\$12,452,962	\$27,475,139

Source: Values estimated using local data with the Home Energy Labeling Impact Calculator provided by Rocky Mountain Institute and Earth Advantage. Calculator and sources available upon request.

The estimated low impact scenario assumes a low retrofit rate (10%), a low energy savings rate (10%), a low value increase for retrofitted homes (4%), and low compliance with the regulation (60%).

The estimated moderate impact scenario assumes a moderate retrofit rate (20%), a moderate energy savings rate (20%), a moderate value increase for retrofitted homes (5%), and moderate compliance with the regulation (70%).

The estimated high impact scenario assumes a high retrofit rate (30%), a high energy savings rate (30%), a high value increase for retrofitted homes (6%), and high compliance with the regulation (80%).

Implementation Costs

Effective implementation of a residential energy performance and disclosure ordinance will require additional costs and staff time to develop and implement a supporting home energy score program. Key components and initial cost estimates for a regionally coordinated program are provided below.

Phase 1: Program Development (1 year)

Estimated Program Development Costs: \$20,000 plus in-kind staff support

- **Develop a website with program details and resources.**

The program website would provide a centralized location for homeowners, buyers, builders, and energy assessors to find program information and details.

Estimated cost:

- **Design custom Home Energy Score report with local utility rates and emissions factors.**

The Department of Energy HES provides a 6-page energy score report that is free to use (Attachment 1. US Department of Energy HES Report). However, most jurisdictions with an Energy Score Program develop a simplified home energy label to highlight key information (Attachment 2. Portland Custom HES Report). An experienced home energy score partner can provide technical support to design an integrate a custom home energy score report.

Estimated cost: \$10,000 (Note: This is only a rough estimate of cost for support by an experienced home energy partner. A more detailed scope of work will need to be defined for a more accurate cost estimate).

- **Support energy-assessor recruitment and training.**

The Department of Energy HES program provides a training and exam to certify home energy assessors. Conducting outreach to recruit potential home energy assessors and providing certification support will ensure there are enough energy assessors available to provide home energy scores during program implementation. An experienced home energy score partner can support energy-assessor outreach, training, and certification.

Estimated cost: \$10,000 (Note: This is only a rough estimate of cost for support by an experienced home energy partner. A more detailed scope of work will need to be defined for a more accurate cost estimate).

- **Conduct stakeholder outreach to ensure real estate agents are aware of the home energy score requirement and provide input on program and policy design.**

Real estate agents are a key partner to ensure the home energy score is obtained and provided with all listings.

- **Conduct stakeholder outreach and develop implementation strategy.**

Even with third-party partner support, launching a home energy score policy will require substantial jurisdiction staff support to provide stakeholder outreach and develop a regionally coordinated implementation strategy.

Estimated Cost: 0.25 FTE per jurisdiction

Phase 2: Program Implementation (on-going)

Estimated Annual Program Implementation Costs: \$182,500

- **Quality Assurance**

The US DOE requires a quality assurance review of at least 5% of randomly selected Home Energy Scores each quarter. Quality assurance can be provided by a third-party partner and paid for through administrative fees.

Estimated cost: \$35 administrative fee per assessment, paid for by home energy assessment customers. This fee includes quality assurance and compliance services. No cost to jurisdictions.

- **Compliance**

Ensuring policy compliance will require regular reviews of online listings to ensure home energy score information is properly disclosed. A third-party partner can provide compliance review and notify jurisdictions of any non-compliant listings for warnings and enforcement.

Estimated cost: \$35 administrative fee per assessment, paid for by home energy assessment customers. This fee includes quality assurance and compliance services. No cost to jurisdictions.

- **Enforcement**

After notification of compliance by a third-party partner, jurisdictions would be responsible for providing warning notices and enforcing any non-compliance penalties.

Estimated cost: \$13,750 - \$27,500

- Low-compliance scenario (60% compliance): Warning letters and/or enforcement would be required for about 2,200 listings annually. Estimated cost to support enforcement is \$27,500 (assuming 15 minutes per enforcement at \$50/hour).
- High-compliance scenario (80% compliance): Warning letters and/or enforcement would be required for about 1,110 listings annually. Estimated cost to support enforcement is \$13,750 (assuming 15 minutes per enforcement at \$50/hour).

- **Low-income Subsidy**

Examples from Portland, OR suggest that less than 1% of assessments will seek low-income subsidies. Assuming a high compliance rate (80%), at \$300 per assessment, the cost to subsidize energy assessments for 1% of annual listings would be less \$15,000 per year for a regional program.

Estimated Cost: up to \$15,000 per year

- **Continued stakeholder outreach, workforce recruitment, website maintenance, and customer support, and other program implementation needs.**

Long term program implementation will require continued staff support. For example, in addition to contracting third party support for quality assurance and compliance, the City of Portland, OR staffs approximately one full-time employee for HES program implementation.

Estimated Cost: Approximately \$140,000 for 1 FTE (either split across jurisdictions or coordinated regionally through a third-party partner)

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