



# *Whole Building Energy Efficiency Concepts*

## Market Actor Perspectives / Design Research

*Report Number: E26-519*

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## Introduction

This report presents insights from market actor interviews on proposed market transformation concepts for the NEEA Whole Building Special Project, which is focused on whole-building market transformation for energy efficiency and load flexibility in Northwest US.

The goal of this study is to determine which resources, tools, strategies, and interventions the Special Project should build out for the Northwest market.

**Motivating Market Actors.** The aim of the Special Project is to motivate key commercial real estate market actors (particularly building owners, property managers, and brokers) to pursue energy retrofits.

**Small & Medium-sized Buildings.** NEEA seeks practical, scalable solutions that respond to the real constraints facing owners and managers of small and medium-sized buildings with limited resources and partnership networks. The need to provide this type of support grows urgent as Building Performance Standards take effect in Washington and Oregon.

**Testing Concepts.** NEEA has contracted with ETHNO to test early concepts with market actors to assess their relevance and potential to motivate action.

# ➤ Concept Development

## Concept Generation

NEEA collected 150+ fragments of potential market transformation concepts in the months preceding this design research project.

## Concept Development Workshop

NEEA narrowed the list of concepts to 50 that seemed most promising and during a 3-day workshop in September 2025:

- Assessed each concept on Feasibility vs. Potential Impact
- Chose 5-6 concepts to build out and brainstormed elements of those concepts
- Planned for next steps of Design Research, including prototyping of concepts and market actor interviews



## Workshop Attendees:

- NEEA
- ETHNO
- Hayden Tanner
- Wade Lange
- Cyclops
- University of Washington Integrated Design Lab (UW-IDL)



# *Concept Evaluation Methods*

## Participants for Concept Evaluation

Tested the resulting five concepts with market actors in Washington and Oregon (N=12).

- To determine relative strengths & weaknesses.
- To suggest improvements.

### Research participants:

- Active professionals in OR, or WA (all).
- Commercial building owners (N=4).
- Commercial real estate property managers (N=4).
- Commercial real estate brokers (N=3).
- HVAC contractor/ESCO engineer (N=1).

### Recruiting:

- NEEA, UW-IDL + Hayden Tanner contacted participants from professional network.

Location of Headquarters	Participants
Portland, OR	8
Seattle, WA	2
Tacoma, WA	1
Bellevue, WA	1
Total	12

Building Types (multiple)	Participants
Mixed Use Office & Retail	7
Multifamily	6
Mid-rise Office	5
Commercial Retail Center	4
Industrial & Warehouse	3
Medical	3
Institutional / Edu & Gov	2
Historic	2
High-rise Office	1

Company's Reach	Participants
Local	5
Regional	5
National	2
Total	12

Main Property Locations	Participants
Urban	10
Suburban	2
Total	12

# of Bldgs Person Handles	Participants
Small Portfolio (2 – 5)	2
Medium Portfolio (6 – 20)	5
Large Portfolio (21 or more)	1
Total (not contractor, brokers)	8

Max Bldg Size Served (sq ft)	Participants
Under 20,000	2
20,000 – 49,000	2
50,000 – 99,000	5
Over 100,000	3
Total	12

Property Ages (yr built)	Participants
Aging (1970-2000)	10
Old (prior to 1970)	8
New	5

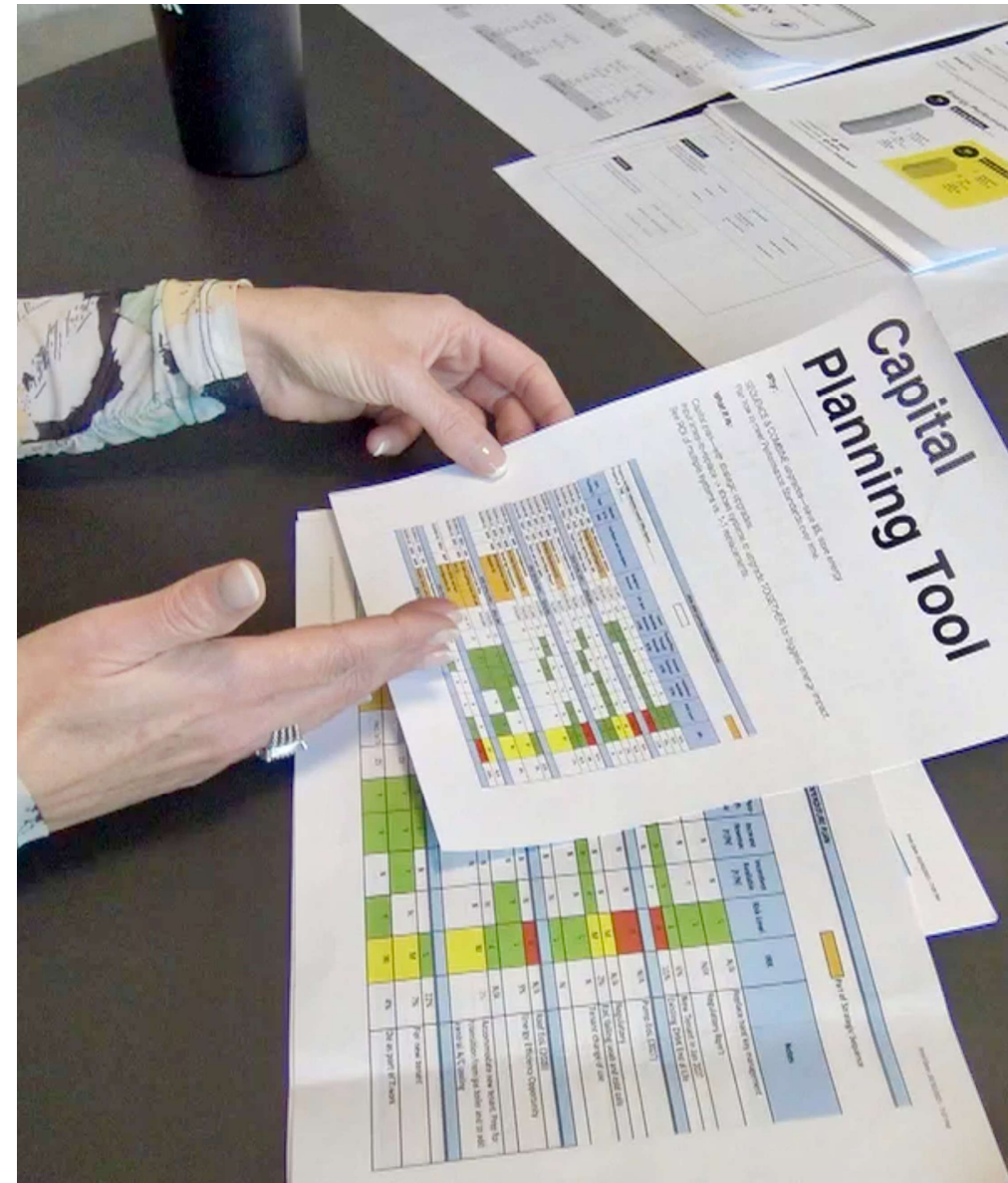
## The Interview

### In person & on-site:

- To facilitate rapport.
- To help participants call out elements.
- To anchor in real-world context.

### Semi-structured, qualitative:

- 90 – 120 minutes.
- *Context*: Discussion of participant's role, portfolio, and relevant experiences and perspectives.
- *Responses*: Exploration of each of the five concepts in turn: relevance, feasibility, potential impact.
- *Ranking*: Ordering of concepts by development priority.



# Example of a Complete Concept Shown to Participants

Contents (2-6 pieces):

- Description
- Sample collateral
- Supporting terms
- Graphic illustration

See Appendix for all five of the complete concepts.

## On-Bill Financing

**Why:**  
Get low/no-interest funding for energy upgrades. Keep top off the balance sheet.

**What it is:**  
Loan paid through the utility bill—uses energy savings to cover payments. For projects that lower energy bills or help meet Performance Standards. Utilities & banks offer.

Your Account Summary	
Service Fee	\$11.14
Electricity Charges	\$1,121.80
On-Bill Financing	\$1,156.74
<b>Total Amount Due by 03/12/2020</b>	<b>\$4,158.74</b>



**Important Messages:**  
We are working with your third party to bill applicable charges. These charges will appear in subsequent bills.

### EASY BUTTON ON-BILL FUNDING TERM SHEET

Energy Efficiency Building Retrofit Project

**Gain a competitive edge by mastering energy efficiency and building performance standards (BPS).**

**Financing Details:**  
Loan Amount: \$400,000 (loan amounts available up to \$1M)  
Interest Rate: 0.00% (zero interest financing)  
Structure: On-Bill equipment through UTILITY bill (does not impact the mortgage)  
Pre-approved contractor network - fast audit

**Use of Proceeds:**  
Primary Purpose: Energy Efficiency Building Retrofit  
Eligible Project Categories:  
• HVAC system equipment with high efficiency requirements \$375,000  
• LED lighting conversion (interior and exterior) \$20,000  
• Building envelope improvements (insulation, windows) \$85,000  
• Energy management and building automation systems \$85,000  
• High efficiency electric motors and pumps \$45,000  
**Total Project Cost (average): \$400,000**

**Monthly Benefits:**  
Monthly Energy Savings: \$10,000  
Estimated Monthly Payments: \$10,000  
Net Monthly Cash Flow: \$10,000 (net utility bill is equal to or lower than pre-projected energy requirements. Estimated 2.5 energy consumption and 15% less in utility bills)

**Program Guarantees:**  
• Performance and installation by Contractor and technical review by Building compliance team  
• Operations and maintenance set by the contractor  
• Equipment and materials

**Program Structure:**  
• Repayment and installation by Contractor and technical review by Building compliance team  
• Operations and maintenance set by the contractor  
• Equipment and materials

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• Equipment and materials

**Energy Statement**  
Account No: 0225/2020  
Statement Date: 02/27/2020  
Due Date: 03/27/2020

Your Account Summary	
Amount Due on Previous Statement	\$3,531.18
Payment(s) Received Since Last Statement	-3,531.18
Previous Unpaid Balance	\$0.00
Current PG&E Electric Delivery Charges	\$1,000.41
On-Bill Efficiency Financing	\$1,000.00
Money Buy Community Power Electric Generation Charges	1,121.80
Current PG&E Gas Delivery Charges	978.73
<b>Total Amount Due by 03/12/2020</b>	<b>\$4,158.74</b>

**Monthly Billing History**  
Bar chart showing monthly energy charges from 2019 to 2020. Includes a 'Daily Usage Comparison' inset.

**betterbricks/**

### Clean Building Standards Compliance "Easy Button" with On-Bill Funding

Helping Pacific Northwest Multi-Family Owners and Small-Medium Size Property Owners Fund Energy Efficiency Projects

Lower your energy bill and fund upgrades with low- or no-interest loans financed directly on your regular utility bill.

**How it works:**

- A program for the efficiency upgrades is added to your monthly utility bill. It does not affect the mortgage!
- Repayment is structured to be equivalent or less than estimated energy savings, thereby keeping your monthly expense neutral or less than your current energy costs.
- Programs can serve both commercial and multi-family residential buildings greater than 5,000 GSP. The amount can be:
  - But multiple integrated building upgrades into one package.
  - Choose a subcontractor from a pre-vetted list.

**Program Guarantees:**  
• Washington Governor's office is exploring on-bill financing as part of their energy efficiency portfolio. The state's Clean Energy Transformation Act (CETA) creates opportunities for residential and commercial financing limited to utility clean energy goals.  
Oregon The Energy Trust of Oregon has selected on-bill equipment experts with utilities, aligning with the state's building performance and efficiency policies.

The complete "On-Bill Financing" concept.

## Concept Summaries

**RETROFIT PATHWAYS:** Web-based interface. Can self-evaluate different retrofit scenarios & costs. Includes technology choices, business case, access to financial mechanisms.

# Retrofit Pathways

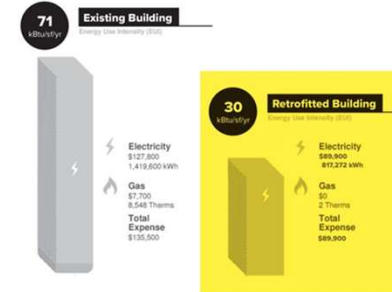
### Why:

Compare different upgrades—save \$\$, save energy.  
Compare own building to Performance Standards.

### What It Is:

Website.  
Input building parameters-> see different impacts on energy use & dollars.

### Energy Performance



Energy Use: **58%**  
Energy Cost: **30%**  
Annual Energy Savings: **\$45,600**

# Concept Summaries

**CAPITAL PLANNING TOOL:** Identifies investment opportunities to break the cycle of 1:1 replacements, encourage long-term planning.

# Capital Planning Tool

**Why:**

SEQUENCE & COMBINE upgrades—save \$\$, save energy. Plan how to meet Performance Standards over time.

**What It Is:**

Capital plan—with strategic upgrades. Input times-to-replace -> shows systems to upgrade TOGETHER for biggest energy impact. See ROI of multiple systems vs. 1-1 replacements.

2018-2020 CAPITAL EXPENDITURE PLAN											
Property No: 9801 Industries Leased Office Spaces											
Property # : 780											
OPS Tracking #	Year	Months to be Paid	Job Name and Description	Budgeted Amount	Life Span	Linear Operating Expenses (Y/N)	Recent Pass Through Potential (Y/N)	Increase Revenue (Y/N)	Incentives Available (Y/N)	Risk Level	IRR
012345-01	2018	JAN	New Keycard Access System	\$5,000	10	N	N	N	N	L	N/A
012345-02	2018	MAR	Energy Audit and Report (1)	\$12,000	N/A	N	N	N	Y	L	N/A
012345-03	2018	AUG	Tn New Lighting Suite 100	\$130,000	15	Y	Y	Y	Y	L	6%
012345-04	2018	FEB	Heat Pump Water Heater	\$22,000	15	Y	N	N	Y	High	11%
2018 TOTAL COST:				\$169,000							
012345-05	2017	FEB	New Fire Suppression Pump	\$4,500	10	N	N	N	N	High	N/A
012345-06	2017	MAR	Elevator service	\$8,000	5	N	N	N	N	M	N/A
012345-07	2017	MAY	Window Replacement (2)	\$190,000	30	Y	N	Y	Y	M	2%
012345-08	2017	AUG	Replace Air-Brake Phase 1	\$6,500	N	N	N	N	N	L	N
012345-09	2017	OCT	Paint and patch lobby	\$4,500	10	N	N	N	N	L	N
2017 TOTAL COST:				\$213,500							
012345-10	2018	MAR	Roof Replacement	\$150,000	25	N	N	N	N	High	N/A
012345-11	2018	MAR	Insulate Roof Insulation (1)	\$12,000	25	Y	N	N	Y	L	9%
012345-12	2018	SEPT	Central Air Replacement	\$50,500	7	N	N	N	N	L	N/A
012345-13	2018	NOV	Electrical Service Capacity Upgrade (4)	\$105,000	50	N	N	N	N	M	3%
2018 TOTAL COST:				\$267,500							
012345-14	2019	JAN	Insulation of Low Flow	\$100,000	10	Y	Y	N	N	L	22%
012345-15	2019	AUG	Tn New Lighting Suite 200 and 300 (1)	\$430,000	15	Y	Y	Y	N	M	7%
012345-16	2019	SEPT	New ODA3 and dust recirculation (3)	Not in Tr	25	Y	Y	N	Y	M	4%
2019 TOTAL COST:				\$530,000							
012345-17	2020	JAN	Computer Replacement	\$9,800	15	N	N	N	N	M	N/A
012345-18	2020	MAR	Replace Boiler with HR (2)	\$125,000	20	Y	N	N	Y	High	14%
2020 TOTAL COST:				\$134,800							

## Concept Summaries

**BROKER ADVISORY TRAINING:** Educates brokers to reach building owners and help them plan for upgrades that improve NOI (Net Operating Income), increase value of building, and understand impact of Building Performance Standards.

# Advisor Training

**Why:**

Brokers help owners -> save \$\$, improve buildings, meet Performance Standards. Strengthens broker/owner relationship.

**What it is:**

Classes & certification.  
Ready-to-use tools (scripts, content).



## Concept Summaries

**ON-BILL FINANCING:** Provides low-cost funding “off the books” for energy upgrade projects. Utility arranges capital and manages repayment via customer utility bills.

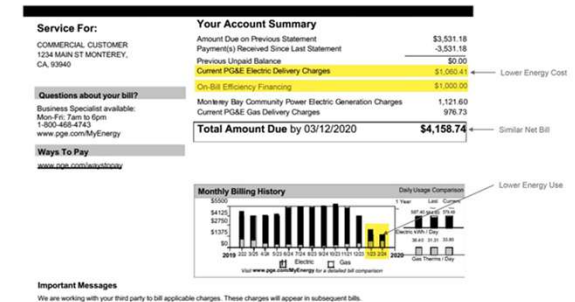
# On-Bill Financing

### Why:

Get low/no-interest funding for energy upgrades.  
Keep loan off the balance sheet.

### What It Is:

Loan paid through the utility bill—uses energy savings to cover repayments.  
For projects that lower energy bills or help meet Performance Standards.  
Utilities & banks offer.



## Concept Summaries

**SERVICES FINDER:** Offers vetted list of approved contractors, with pre-negotiated pricing, for energy efficiency services and equipment.

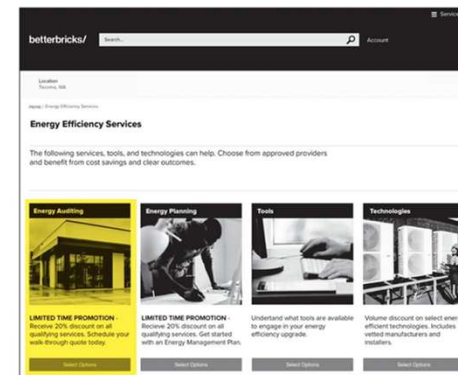
# Services Finder

**Why:**

Save money through group discounts.  
Easily find & choose energy upgrade services.

**What It Is:**

A website.  
Pre-vetted, high-quality service deals (e.g., audits, controls engineering).  
Equipment deals (e.g., HVAC).  
Shows prices.



## THE QUALITATIVE LENS

**This was a qualitative study rather than a quantitative one.**

While the report will note frequency counts, these are indicative rather than definitive, given the small size of the sample.

When in doubt, readers are asked to prioritize the participants' ***underlying reasoning*** rather than the numerical tallies to judge the success of a given concept.



# *Results*



## **Stakeholder Motivations & Obstacles**

To set the stage, we will outline key elements of the roles interviewed in relation to tackling energy-efficient upgrades.

These show how different market actors assessed the concepts in view of their day-to-day priorities.

## Stakeholder Motivations & Obstacles

### OWNER (N=4)

#### Motivations

- Prevent vacancies: keep tenants happy.
- Keep operating costs low.
- Find low-cost capital for improvements.
- Work with proven vendors.

#### Obstacles

- Backlash from rent increases, tenant business disruptions.
- False confidence about cost drivers known.
- High interest rates, complex application procedures.
- Existing vendors slow to adopt new & unfamiliar systems.



## Stakeholder Motivations & Obstacles

### PROPERTY MANAGER (N=4)

#### Motivations

- Keep tenant complaints to minimum.
- Ensure leases get renewed.
- Meet owner-agreed budgets.

#### Obstacles

- System failures that lead to tenant complaints.
- Keeping rent on par with market.
- Keeping operating costs low, without hurting service.



## Stakeholder Motivations & Obstacles

### BROKER (N=3)

#### Motivations

- Close deals.
- Win best package for client (seller/buyer, owner/tenant).
- Strengthen trust by sharing good advice, contacts & resources.

#### Obstacles

- High costs of capital & property insurance.
- Time and effort to make finances work for both parties.
- Over-promising on savings or projected benefits, creating liabilities.



## Stakeholder Motivations & Obstacles

### CONTRACTOR/ENGINEER (N=1)

#### Motivations

- Find right solution for the building.
- Minimize risk of system failure.
- Provide verifiable, measurable outcomes.
- Continuing the relationship, earn repeat business.

#### Obstacles

- Pre-determined solutions, stakeholder biases.
- Reactive vs. planned response: “two minute drill.”
- Unreliable, incomplete data.
- Owner/vendor mismatch.





# *On-Bill Financing*

# On-Bill Financing

*The On-Bill Financing tool aimed to help building owners fund energy efficiency upgrades by repaying the investment through their utility bill, using the projected energy savings to avoid paying those costs upfront.*

## **On-Bill Financing was the most successful of the five concepts.**

Though NEEA may not be able to develop this concept independently, previous research suggested that On-Bill Financing could motivate action. The team wanted to understand key elements that would succeed (or not) and why.

The particular concept shown:

- Received the the most “first choice” rankings.
- Appealed most to property owners.

Participants perceived it to offer the following benefits:

- Addressed a critical ownership need: inexpensive capital.
- Required no out-of-pocket expenditures.
- Enabled cost-sharing with tenants for upgrades.
- Could help retain tenants by keeping their costs low in the long-term.

We will discuss each of the above strengths in turn.



# On-Bill Financing

## Main prototype elements

### EASY BUTTON ON-BILL FINANCING TERM SHEET

#### Energy Efficiency Building Retrofit Project

**Gain a competitive edge by mastering energy efficiency and building performance standards (BPS).**

**Borrower Information (example)**

**Company Name:** Cascade Professionals Plaza, LLC  
**Business Type:** Commercial Real Estate (Medical Office Building)  
**Property:** 30,000 sq. ft. Professional Medical Office Building (eligible building sizes between 5,000-50,000 sq. ft.)

**Funding Details (example)**

**Loan Amount:** \$850,000 (loan amounts available up to \$4MM)  
**Interest Rate:** 0.00% (zero percent financing)  
**Structure:** On-bill repayment through UTILITY bill (does not impact the mortgage)  
**Pre-approved contractor network + fast audit**

**Use of Proceeds (example)**

**Primary Purpose:** Energy Efficiency Building Retrofit

**Eligible Project Components:**

- HVAC system replacement with high-efficiency equipment: \$375,000
- LED lighting conversion (interior and exterior): \$200,000
- Building envelope improvements (insulation, windows): \$150,000
- Energy management and building automation systems: \$80,000
- High-efficiency electric motors and pumps: \$45,000

**Total Project Cost (example):** \$850,000

**Terms**

**Interest Rate:** 0.00% (no interest charges)  
**Term:** Based on estimated energy savings and equipment life  
**Estimated Term:** 10+years, linked to projected payback period of upgrades  
**Payment Method:** Monthly charges added to UTILITY bill  
**Estimated Monthly Payment:** Cap at ~90% of estimated savings.  
**Security:** Unsecured. Utility collection procedures apply. (non-payment may result in utility disconnection)  
**Early Payoff:** Allowed without penalty  
**Transfer:** Loan transfers with property ownership

**Program Structure**

**Payments:** Monthly payment structured to not exceed estimated monthly energy savings.  
**Savings Guarantee:** UTILITY does not guarantee energy savings estimates.  
**Equipment Requirements:** All equipment must be energy-efficient replacements.  
 May be paired with other financing to facilitate a broader renovation of building.

**Eligible Project Costs**

- Implementation and installation costs
- Contractor and technical review fees
- Building compliance costs
- Operations and maintenance setup
- Tax and labor costs
- Equipment and materials

**Projected Benefits (example)**

**Monthly Energy Savings:** \$10,400  
**Estimated Monthly Payment:** \$9,400 (~90% of savings)  
**Net Monthly Cash Flow:** \$1,000 positive (monthly utility bill is equal to or lower than prior to retrofit)  
**Environmental Impact:** Estimated 38% reduction in energy consumption and 175 tons of CO2 annually

## Energy Statement

Account No: 0123456789-1  
 Statement Date: 02/24/2020  
 Due Date: 03/12/2020

www.utilityname.com/MyEnergy

### Service For:

COMMERCIAL CUSTOMER  
 1234 MAIN ST MONTEREY, CA, 93940

### Your Account Summary

Amount Due on Previous Statement	\$3,531.18
Payment(s) Received Since Last Statement	-3,531.18
Previous Unpaid Balance	\$0.00
Current PG&E Electric Delivery Charges	\$1,060.41
On-Bill Efficiency Financing	\$1,000.00
Monterey Bay Community Power Electric Generation Charges	1,121.60
Current PG&E Gas Delivery Charges	976.73
<b>Total Amount Due by 03/12/2020</b>	<b>\$4,158.74</b>

**Questions about your bill?**  
 Business Specialist available:  
 Mon-Fri: 7am to 6pm  
 1-800-468-4743  
 www.pge.com/MyEnergy

**Ways To Pay**  
[www.pge.com/waystopay](http://www.pge.com/waystopay)

### Monthly Billing History

Daily Usage Comparison

Visit [www.pge.com/MyEnergy](http://www.pge.com/MyEnergy) for a detailed bill comparison

### Important Messages

We are working with your third party to bill applicable charges. These charges will appear in subsequent bills.

**Annotations:**

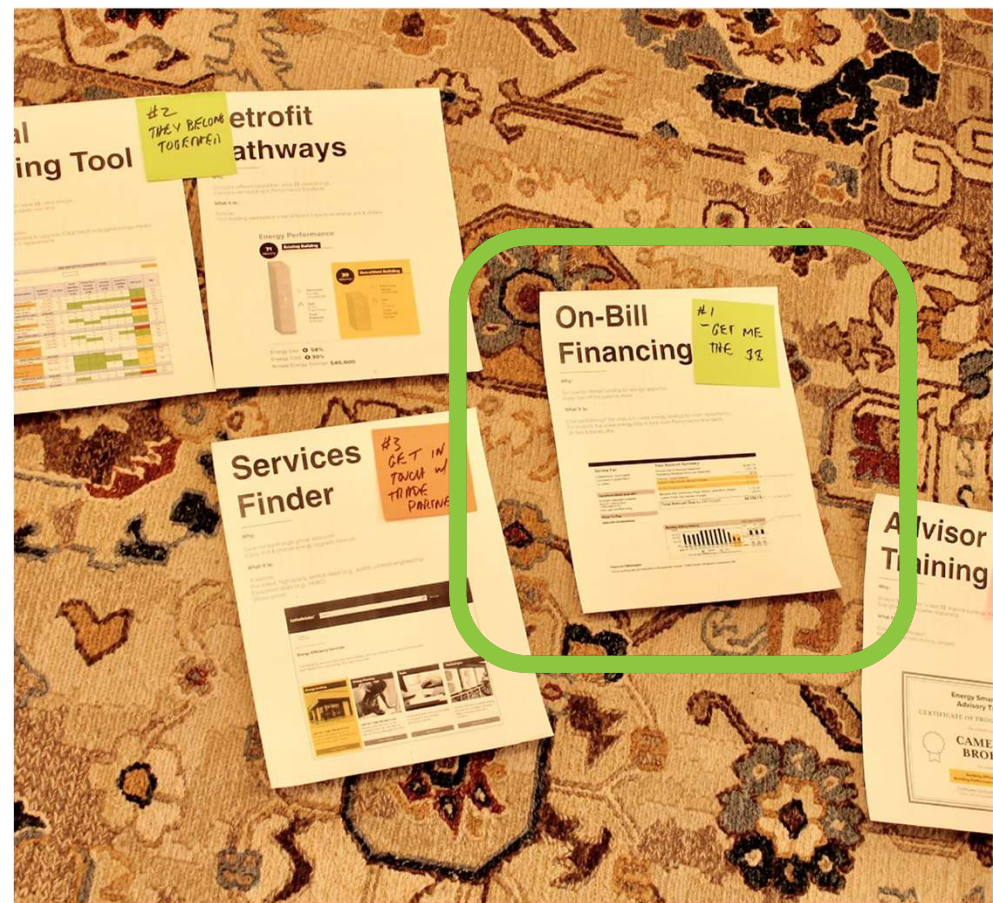
- Lower Energy Cost (points to On-Bill Efficiency Financing)
- Similar Net Bill (points to Total Amount Due)
- Lower Energy Use (points to Daily Usage Comparison chart)



# On-Bill Financing

Received the the most “first choice” rankings.

- 5 of 12 participants chose On-Bill Financing when asked, “Which concept should be developed if resources are available to deliver just one idea?”
- This represented the highest number of selections for first choice.
- Three owners, a property manager, and a broker agreed the concept would likely succeed with owners.



Example of one owner’s rank-ordering exercise. (Small Mixed Office & Retail, Portland)



## ***On-Bill Financing***

**Appealed to owners by offering inexpensive capital.**

Building owners are key decision-makers.

On-Bill Financing appealed to owners the most.

*“I would focus on that one, On-Bill Financing. It's money, right? We all need money to do projects. And if you can get me financing for these projects, I don't care about anything else.”*

*—Owner, Small Mixed Office & Retail, Portland*

*“So it's a loan that's offset by the energy savings. That would be great. Especially if it's a somewhat lower interest rate than from a bank. If it's streamlined, easy thing to do, and the utility is making it achievable, then that's a no-brainer.”*

*—Owner, Medium Multifamily, Portland*



## ***On-Bill Financing***

### **Required no out-of-pocket expenditures.**

Paying back the costs through an energy bill meant the owner could make upgrades without spending money out of pocket.

This was especially important to small-scale owners who looked to their buildings for predictable cash flow, which is a sizeable share of the market, according one of the brokers.

(The number of small-scale owners in the NW is even higher than the broker quoted here indicates. A recent quantitative study of CoStar data by Retech indicates that 80% of owners of <100K sq ft commercial properties [N=36K properties] own just one property" [Retech 2025: 25].)

*"65% of our Oregon housing stock is owned by your mom & dad. Their average portfolio size is 20 units (i.e. apartments/condos), their level of expertise is not high. ... A lot of them would take advantage of this. They live on the cash flow, so any substantial increase in expenses is a living expense choice."*

*—Broker, Multi-family, Portland*

*"You're not coming out of pocket, right? So that would be a huge selling point. That's a lot easier (than) for us to say, 'Hey, you really should take a look at upgrading this.'"*

*—Owner / Property Manager / Contractor, Small-Medium Mixed Office & Retail, Portland*



## On-Bill Financing

### Costs passed through to tenants.

Owners and property managers typically pass through expenses to tenants as a best practice, so long as doing so does not create friction that could increase the risk of vacancies.

As one property manager in Tacoma, WA put it, *“Most of our clients—as they should—try to maximize how much they can pass through to the tenants.”*

Consistent with this thinking, a property manager in Portland said that the program’s ability to pass through upgrade costs to tenants was **a key reason owners would find On-Bill Financing compelling**, as she says in the quotation at right.

*“Yes this would nudge owners. And it would definitely sell if it is allowable as a pass-through. ...In terms of actually getting the upgrades done and accomplishing the goal of making things more energy efficient, this gets you there.”*

*—Property Manager, Regional Management Firm, Medium-Large Office & Mixed Use, Portland*



## ***On-Bill Financing***

### **Could keep tenants' costs low in the long term.**

Keeping tenant CAM (Common Area Maintenance) costs low and stable over time was another important key advantage.

One owner, a partner in a family owned commercial office complex (suburban, 1980's build), noted that On-Bill Financing could stabilize costs for his tenants without much burden in the short-term.

A completed energy efficiency project would lower future operating costs for his office tenants in ways that translate to retention.

*“What I’m trying to do is make my tenant super happy, so they stay here and renew their lease. ...I’m looking at how this impacts my tenants’ operating expenses. We could do the project, it’s not going to have any impact to the tenants whatsoever. And over a couple of years, it’s going to lower the bill by twenty percent. It definitely is a good opportunity. It’s business as usual, but I get a bunch of new equipment and long-term energy savings. This is low-hanging fruit, plug & play.”*

*—Owner, Small-Medium Commercial Office, Bellevue*



# *On-Bill Financing* Improvements

## **IMPROVEMENTS TO CONSIDER**

Outlined below are potential improvements to the On-Bill Financing Concept the team shared. Details on each point will follow.

- Minimize administrative complexity.
- Highlight that funds are “unsecured,” meaning no impact on mortgage or title.
- Highlight the benefit of passing through costs to tenants.
- Clarify how & where to disclose pass-through.
- Provide flexibility in choice of equipment.
- Emphasize income more than energy efficiency.



# ***On-Bill Financing*** Improvements

## **1. Minimize administrative complexity.**

Most found the concept straightforward. But at least two participants feared it would not stay that way.

One HVAC contractor (former ESCO engineer) predicted that On-Bill Financing could become difficult to utilize in reality—especially if the utilities offering the program were to add many legal and administrative provisions beyond those outlined.

An owner voiced a similar concern, based on his experiences with SBA loans (US Small Business Administration) and grant programs. Both ultimately created more administrative work than they were worth.

*“The utilities have done amazing work. But you have to recognize that if they're on the hook for this thing, performance-wise, then they're gonna layer it up with bureaucracy to protect themselves.”*

*—Contractor/ESCO Engineer, Seattle*

*“After an SBA loan, people always go, ‘God, if I knew it was going to be that much work, I wouldn't have gone that route.’ Almost any time that there's been free money, the loopholes and the hurdles to get it end up negating what might have been the perceived benefit there.... Keep the ability to get into this program simple enough that it is easy to understand and doesn't scare people off.”*

*—Owner/Property Manager/Contractor, Small-Medium Mixed Office & Retail, Portland*



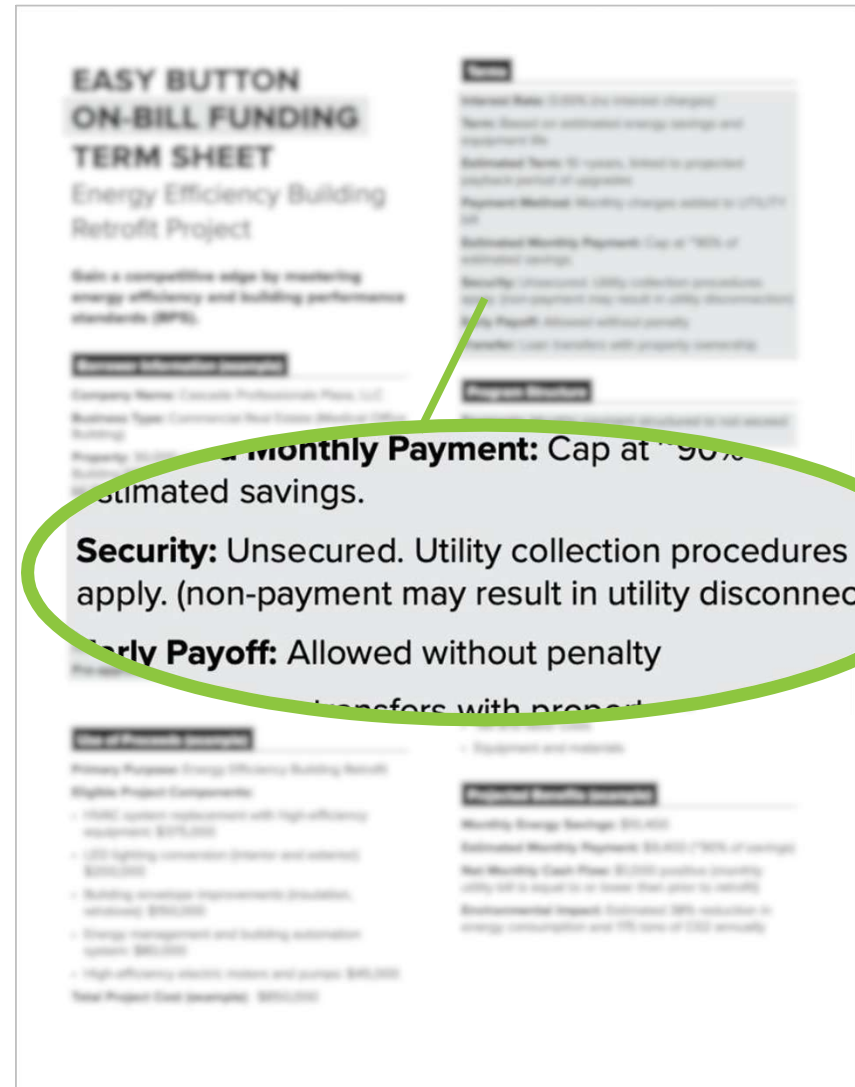
# On-Bill Financing Improvements

## 2. Highlight that funds are “unsecured,” meaning no impact on mortgage, or title.

Ideally, the issuer will differentiate On-Bill Financing sharply from C-PACER (Commercial Property Assessed Clean Energy and Resiliency), which is a more restrictive program in its debt structure.

Participants viewed C-PACER as potentially similar. Like the proposed On-Bill Financing idea, CPACER supports large, long-term improvements related to energy efficiency (as well as water- and climate-related projects). Also, CPACER debt “stays with” property ownership; it is a loan that attaches to the owner’s property tax bill.

But unlike On-Bill Financing, CPACER is tied to the property itself (as collateral) and usually requires approval from the mortgage lender. On-Bill Financing typically does not. In the current concept, funds are “unsecured”.





## ***On-Bill Financing*** Improvements

### **2. Highlight that funds are “unsecured,” meaning no impact on mortgage, or title.**

“Unsecured” means that if the loan is not repaid, enforcement does not involve claiming the property as collateral. (A utility can pursue collections, or sue to recover unpaid balances, or can disconnect the utility service. But it would not assert claims to the property.)

It will be important for a future sponsor or issuer to keep this structure, so that a mortgage lender is not likely to have a problem with their client’s receiving On-Bill Financing.

A future sponsor may also let interested parties know upfront that On-Bill Financing will be secured in a completely different way than C-PACER funds.

*“This reminds me of C-PACER a lot in it in that it’s a non-traditional financing option. ...We were really excited about C-PACER at first. Until we got to the fine print that said your current mortgage company basically has to let go of their first position on the property and let C-PACER take first position if they have to collect on that. So most of our mortgage companies are like, ‘We’re so glad that you’re looking at improving the building. But no, we’re not gonna willingly let go of our first position on this loan.’ So we’ve run into dead ends where we can’t utilize that program because the mortgage companies aren’t able to work with us.”*

*—Property Manager, Regional Property Management Firm,  
Medium Mixed Office & Retail, Tacoma*



## ***On-Bill Financing*** Improvements

### **2. Highlight that funds are “unsecured,” meaning no impact on mortgage, or title.**

The concept will also do well to clarify that so long as the debt is unsecured, the obligation would ***not be recorded on the title documents*** like a mortgage loan would be. Instead, it will transfer to whomever takes over the utility account.

Nor would a seller have to pay off those costs in order to sell the property. The buyer could expect to see the charge as a recurring utility payment that will fall off when the repayment term ends.

Such questions about what would happen at sale were a cause for concern to some participants, as quoted at right.

*“It could get a little messy if it's a recorded utility on title. ...It's one more thing to pro-rate at closing, of how much value did you get out of it. I'm not sure how that would work. ”*

*—Broker, Multi-family, Portland*

*“If it's transferable to the new owner, then it shouldn't be an issue. If it's not, and you gotta pay it off before you sell, then that's that's a big negative.”*

*—Owner, Medium Multifamily, Portland*



## ***On-Bill Financing*** Improvements

### **3. Highlight the benefit of passing through costs to tenants.**

Some participants recognized that owners could pass through upgrade costs to tenants. As noted previously, they felt this could be a significant market lever.

However, not all participants were able to work out that pass-through was an option.

To strengthen communications about On-Bill Financing, a future sponsor might consider stating this more explicitly: *“A key benefit for owners/landlords is the ability to pass these costs through to tenants under a typical triple-net lease.”*

*“Is this a triple net item? Can this be passed through in the CAM charges to the tenants? Can we recollect this? Or do these things have to be considered capital expenses that get handled outside of the triple nets? In all of these clean building conversations that we’re having with our owners, that is the first thing that they are asking us.”*

*—Property Manager, Regional Property Management Firm,  
Medium Mixed Office & Retail, Tacoma*



## ***On-Bill Financing*** Improvements

### **4. Clarify how & where to disclose pass-through.**

Property managers needed reassurance about the disclosure mechanisms for passing through the financing.

They worried about the optics of charging tenants for something that could conceivably be argued is a “loan.”

It will be helpful for property managers like the person quoted here to know that:

- Most triple net leases allow such charges under operating and maintenance costs.
- Documents can frame the financed amount as a “utility cost,” not a loan.
- The amount will go into in an ordinary CAM notice as a utility charge.

*“If there's a loan taken out and the repayment is part of the bill, I think it would appear the same with no change in the utility cost to the tenant and that you could pass it through. But I do wonder if tenants catch wind of it, if they realize they're kind of repaying the loan in a sense. ...If the lease excludes capital improvements and you've done this and it's showing up on their utility bill, do we then as property managers have a responsibility to manually deduct the loan repayment piece out and only pass through the electricity expenses?”*

*— Property Manager, Regional Management Firm, Medium-Large Office & Mixed Use, Portland*



## ***On-Bill Financing*** Improvements

### **5. Provide flexibility in equipment choices.**

One owner mentioned wanting to control the brands of equipment he could install in a project financed through an On-Bill Financing program.

Having control over equipment choices would give confidence the project would not compromise tenant satisfaction.

Past experiences with incentive programs, for lighting and low-flow faucets, were not entirely satisfactory. He would have made different choices in equipment if permitted.

*“I’ve participated in a number of these things (i.e., LED lighting, low-flow faucet retrofits paid through the utility bill). You lose a little bit of control on what brands of products are being used. A third party contractor comes in, does the work, and uses the products that have been provided. And then you have to support those products. ... If they had flexibility on the brands being used that would be an (important) message. You might have a building that has a standard, and a vision or a look, which the retrofit could change. So having some flexibility on what can be used might be beneficial.”*

— Owner, Small-Medium Commercial Office, Bellevue



## ***On-Bill Financing*** Improvements

### **6. Emphasize income more than energy efficiency.**

A broker cautioned against coming across as too “green” in messaging about On-Bill Financing—as well as in the other concepts.

The owners he dealt with were nonplussed by language about energy savings, and even “upgrading your building.” Construction projects connoted expense.

But such owners would be attracted by the prospect of mechanisms that could increase their operating income, he believed.

*“I might phrase the benefit more as: ‘Helping Northwest multifamily/ small-medium sized property owners fund Net Operating Income-increasing efficiencies,’ right? Throw buzzwords into that so that it doesn’t feel like just a construction project. These people by and large are very financially driven to make choices. I think we are making this a little bit ‘green.’ If instead you come across as a fixer on how to increase the net operating income of your building by reducing energy expenditure, that’s a win.”*

*—Broker, Multi-family, Portland*



# *Retrofit Pathways + Capital Planning*

# Retrofit Pathways + Capital Planning

*Retrofit Pathways was an interactive database that helped building owners **compare the costs, savings, and payback of different energy upgrade scenarios.***

*The Capital Planning tool helped owners to **sequence major upgrades into a time-based budget roadmap.***

## Two concepts ranked second best: Retrofit Pathways, and Capital Planning.

An equal number of **owners** chose Capital Planning Tool and Retrofit Pathways as their second choice (N=3/4 owners chose Capital Planning as their second choice, and N=3/4 owners chose Retrofit Pathways as their second choice [choosing multiples for one rank order was allowed]).

Two of the owners said that both the Capital Planning and Retrofit Pathways concepts “belonged together,” and they ranked them both equally as their second choice.

**Non-owner participants** found concepts equally appealing, too. When combining everyone’s first-choices and second choices in aggregate, Retrofit Pathways (N=9) and Capital Planning (N=8) were almost equally appealing as first-or second-choices.



# Retrofit Pathways + Capital Planning

## Main Prototype Elements

My plan
My projects
Settings

### Your Energy Retrofit Plan Business Case

I'm retrofitting to:

- MEET BUILDING PERFORMANCE STANDARDS
- LOWER ENERGY COSTS

EDIT

DOWNLOAD THE REPORT

HOW TO READ MY PLAN | HOW THE DATA WORKS

#### Building Performance Standards Impact

Our modeling shows that your building DOES NOT meet BPS, and would exceed Building Performance Standards with implemented recommendations.

Does Not Meet BPS

Your Building

Target for BPS

Implemented Recommendations

#### Energy Impact

Existing Building

71

Retrofitted Building

30

Energy Use: 58%  
Energy Cost: 30%  
Annual Energy Savings: \$45,600

By implementing the project scope, your building may significantly improve its energy performance, increase cashflow, revitalize, and enhance its competitiveness.

#### 10 Year Economic Impact

By implementing the project scope, your building may significantly improve its energy performance, increase cashflow, revitalize, and enhance its competitiveness.

Present Value (PV) Of Value Creation Components	Amount
Asset Appreciation	\$1,142,600
Rent Differential	\$456,400
Energy Savings	\$234,500
Reduced O&M Expense	\$0
<b>Total</b>	<b>\$1,833,500</b>

2026-2030 CAPITAL EXPENDITURE PLAN											
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Property #		740									
OPS Tracking #	Year	Month to be Paid	Job Name and Description	Budgeted Amount	Life Span	Lower Operating Expenses (Y/N)	Tenant Pass-Through Potential (Y/N)	Increase Revenue (Y/N)	Incentives Available (Y/N)	Risk Level	IRR
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012345-18	2030	MAR	Replace Boiler with HP (7)	\$128,000	20	Y	N	N	Y	H	18%
2030 TOTAL COST:				\$137,800							



## **Retrofit Pathways + Capital Planning**

### **Fit together as a complementary whole.**

Retrofit Pathways provided a “big picture dashboard” of energy efficiency options. This could help owners (and managers) to see and discuss possibilities.

Capital Planning Tool, on the other hand, translated those opportunities into specific projects, with actual budgets and execution dates.

Our recommendation is that, in addition to supporting development of an On-Bill Financing concept, NEEA may wish to combine the Retrofit Pathways and Capital Planning Tools into a single, unified concept.

*“Retrofit Pathways lets you put in different things to see how it affects costs. And this Capital Planning Tool is your budget. They go hand in hand.”*

*—Owner, Medium Multifamily, Portland*

*“They go together as one thing. They help me build a roadmap as to what I need, and when, and then how much is it going to cost.”*

*—Owner, Small Mixed Office & Retail, Portland*

*“Retrofit Pathways is your hook. This gets the most eyes. Followed by this, deeper dive Capital Planning Tool.”*

*—Broker, Multi-family, Portland*

# *Retrofit Pathways*

# Retrofit Pathways

*Retrofit Pathways was an interactive database that helped building owners **compare the costs, savings, and payback of different energy upgrade scenarios.***

## **Strengths of the individual Retrofit Pathways concept.**

According to participants, the Retrofit Pathways concept could potentially help them in the following ways:

- Provided a high-level visualization of building health.
- Generated options to discuss with contractors & architects.
- Encouraged pro-active planning for properties.



## Retrofit Pathways

### Provided a high-level visualization of building health.

One owner felt that the Retrofit Pathways tool might give him a single, intuitive visual interface, or a "dashboard," that consolidates complex building performance data into a high-level overview.

This dashboard would then help him monitor his building's overall health (and regulatory compliance status).

He could review it periodically to see which systems (e.g., HVAC, lighting) are the biggest contributors to energy consumption, or provide reports to a lender to show proactive management.

*"I see this as the high level dashboard. My eye is going to the visualization that shows you this is where you are, and this is where you could be.... This is really just the health of the building and how do I compare to my peers.... A bank will want this type of information. With so many buildings going into foreclosure, lenders are getting more nervous about buildings not being properly maintained. So they're doing visits annually, checking up on your rent roll, and asking questions about your capital and everything like that."*

*—Owner, Small-Medium Commercial Office, Bellevue*



## Retrofit Pathways

### Generated options to discuss with contractors & architects.

Owners didn't imagine they would use Retrofit Pathways entirely on their own. They relied on their contractors and architects to help them to understand which energy efficiency upgrades were optimal. They were unlikely to change this pattern.

But they did seem to think the Retrofit Pathways tool could help them become a more informed client in these discussions.

*“Usually I’m just Googling ‘green building’ and then saying, ‘Well, how can I utilize that case study?’ If I stumbled across these tools on your website I would use them and verify with my contractor and my architect.”*

*—Owner, Small Mixed Office & Retail, Portland*

*“This would help me decide, ‘Do I put in mini-splits, or do I put in PTACs?’ ... What do I want to put money into? What’s most important? What happens if I just keep what I have?”*

*—Owner, Medium Multifamily, Portland*

*“This feels like a conversation coming up from the design-side architect.”*

*—Owner / Property Manager / Contractor, Small-Medium Mixed Office & Retail, Portland*



## Retrofit Pathways

### Encouraged pro-active planning for properties.

Several mentioned that Retrofit Pathways could be a good place to start the discussion about energy efficient upgrades, because it provided a “user-friendly” visual introduction.

One property manager (quoted at right) thought such a discussion could help owners to plan for their properties in a “pro-active” way.

*“It looks visually user-friendly. I can think of some clients who, if I were to say there is a tool out here that can help with planning, and they could see actual metrics and costs in a user-friendly way, they would be open to it.... If we can plan earlier, that would be great. The goal in property management is to be proactive. The reality is usually that you're dealing with what's in front of you.”*

*—Property Manager, Regional Management Firm, Medium-Large Office & Mixed Use, Portland*



# *Retrofit Pathways* Improvements

## **IMPROVEMENTS TO CONSIDER**

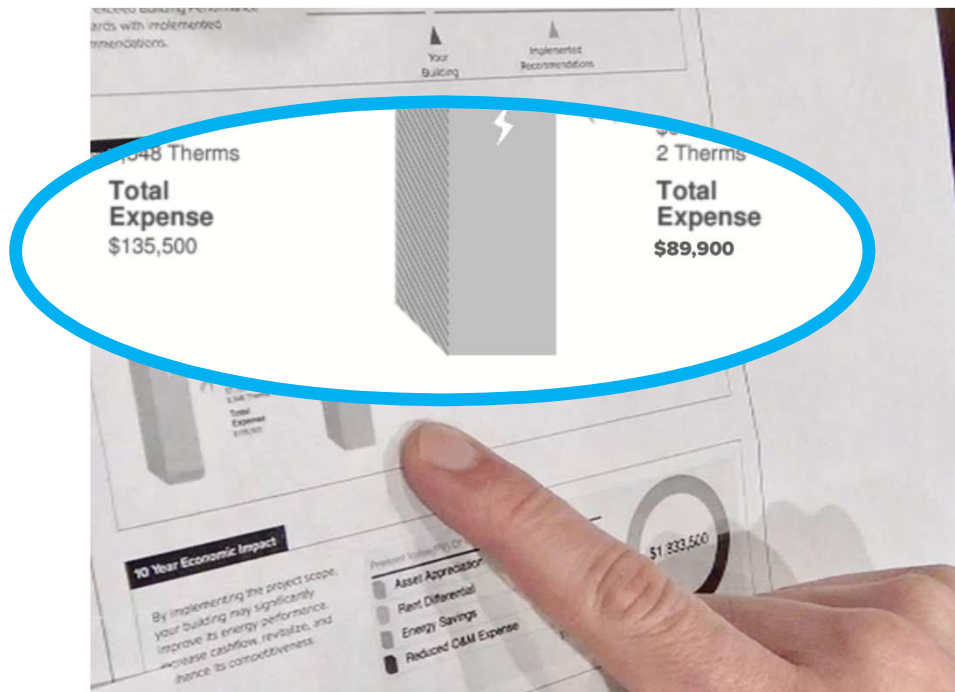
Participants suggested the following Improvements to the individual Retrofit Pathways concept:

- Amplify message about reducing operating expenses.
- Get to costs and incentives quickly.
- Show users how to find needed data items.
- Integrate with pre-existing tools (esp. EnergyStar Portfolio Manager).
- Ideally, offer data from actual retrofits.



# Retrofit Pathways Improvements

## 1. Amplify message about reducing operating expenses.



*“The most important thing on this page is something that right now you’re showing in size 6 font! (laughter) It’s the total expenses today and total expenses tomorrow, post-retrofit. The reduction in expenses from \$136,000 to \$89,000 should be the largest thing on this page. What is the overall cost to reduce those costs? So it’s an ROI and an NOI thing.... The headline to owners should be ‘How to increase your NOI in 2026.’*

*—Broker, Multi-family, Portland*



## ***Retrofit Pathways*** Improvements

### **2. Get to costs and available incentives quickly.**

Another broker also expected the concept to make the costs of the retrofit a primary focal point.

In addition, she also wanted to see any incentives, grants, or other resources for meeting those costs elevated to a primary position.

*“If I were to recommend this retrofit pathway to a regional landlord, one of the first questions would be: Okay, what is the cost of this retrofit? And are there any grants for it? Do we have any tax incentives to do this? What is the overall cost versus the benefit? Everybody is on board with energy efficiency, but (the challenge) is how do we afford it—today?”*

*—Broker, National Property Management Firm, Small to Large Medical Office, Portland*



## Retrofit Pathways Improvements

### 3. Show users how to find needed data items.

Retrofit Pathway requires a user to input various data items regarding building characteristics, energy use, and business, to generate a profile.

Difficulties finding such information were an early indicator of significant challenges ahead. Some information in the proposed concept, such as the gas and electricity bills, and conditioned area square footage, is already required for Washington's Clean Building Performance Standards Tier 1 and Tier 2 today and **will be required** for Washington and Oregon Building Performance Standards benchmarking.

Owners, who had an intimate personal knowledge of buildings, felt they could likely find this information. However, property Managers, thinking about the many buildings they managed for owner-clients, anticipated that **problems of data entry could quickly become unworkable at scale**. Especially for older buildings lacking up-to-date records.

*“If it's a newer building, a lot of things are recorded, but for my old 1970s buildings lots of the time these details aren't just like sitting in a file somewhere that you can easily reference them. You're going to have to build it from scratch almost. ... They've turned hands so many times, information gets lost with the old owner and the old property manager. Before the last 20 years, everything was a piece of paper and you only have to keep for real estate records for seven years so you lose a lot of history between ownership transitions.”*

*—Property Manager, Regional Property Management Firm,  
Medium to Large Office, Retail & Multi-Family, Portland*



## **Retrofit Pathways** Improvements

### **3. Show users how to find needed data items.**

Buildings for which the owner has no access to tenants' energy bills pose yet additional challenges, as suggested in by the property manager quoted at right.

Although she could in theory track down or calculate each of the items listed in the concept (e.g. occupancy percentages, utility consumption), she did not think the time expenditure would be worth the effort.

*“I can't envision it being efficient in the time that we would have to spend. Even for my small retail buildings. If I have to go and manually explain this process to four different tenants and get them to pull their last twelve months of invoices, it gets time intensive and they're busy running their businesses. ... Our tenants might not even keep their bill after they rip the stub off and pay it.”*

*—Property Manager, Regional Property Management Firm,  
Medium to Large Office, Retail & Light Industrial, Tacoma*



## **Retrofit Pathways Improvements**

### **4. Integrate with pre-existing Tools, especially EnergyStar Portfolio Manager.**

An engineer, a property manager, and an owner noted similarities between Retrofit Pathways and EnergyStar Portfolio Manager, EPA's energy usage benchmarking tool.

They questioned whether an additional resource was necessary, and how Retrofit Pathways was different.

The property manager, in particular, hoped that data already going to Portfolio Manager might be integrated into any Retrofit Pathways future concept.

*“I don't know what Energy Star already provides us versus what this would do differently. My biggest concern is if we already have the Puget Sound EnergyCAP website that we have to be functioning in, and then we also have Energy Star Portfolio Manager to be functioning in, and then there might be a now a third resource that we have to be in, It starts to add up. So my fear is it's just another place that we have to be tracking and paying attention to. So it should be integrated into something else we're already working in.”*

*—Property Manager, Regional Property Management Firm,  
Medium to Large Office, Retail & Light Industrial, Tacoma*



## **Retrofit Pathways** Improvements

### **5. Ideally, offer data from actual retrofits.**

One of the owners in Seattle said he would like to use Retrofit Pathways to see how his 1980s suburban office building compares to others in the same category. This would help him understand what "best in class" means for his specific type of building and motivate him to achieve that level.

An HVAC engineer made a similar point, arguing that offering the user real data from comparable retrofits could make financial projections more credible, and actionable.

*"I'd like to see how my building compares to my peers. How am I doing realistically, in comparison to other buildings of similar age, type, size, and design, zip code? Because if that guy is doing so much better, what did he do? That shows what is really attainable. That's what would really motivate me. I want to be the best that I can be for my building. I'm a suburban 80s building. And I want to be the best of any of those buildings."*

—Owner, Small-Medium Commercial Office, Bellevue

*"I strongly recommend that you inform a tool like this with actual job results, even if you could capture the data even anonymously, to say with confidence that a specific retrofit saves X dollar amount."*

—Contractor / ESCO Engineer, Seattle



# Retrofit Pathways Improvements

## Trusted authorities to offer retrofit pathways.

Participants mentioned the following entities they might trust to offer the Retrofit Pathways concept:

- Local electric or gas utility: 4
- Energy consultant: 3
- ENERGY STAR® Portfolio Manager: 3
- HVAC contractor: 2
- City government / Planning and Economic Development (PBOT): 2
- State government: 1
- Energy efficiency organization / e.g., NEEA: 1
- Large contractors (e.g., McKinstry, McDonald Miller) : 1
- General contractor: 1
- Architect: 1
- Property management company: 1
- UW Integrated Design Lab: 1
- BetterBricks: 1
- Pacific Northwest National Laboratory: 1
- Oregon Real Estate Agency (OREA) : 1
- Multifamily Housing Northwest: 1



# *Capital Planning Tool*

# Capital Planning Tool

*The Capital Planning tool was intended to help owners sequence major upgrades into a time-based budget roadmap.*

## A note about intended positioning.

The team created the Capital Planning Tool **to benefit small and-medium sized businesses specifically**, not large, national organizations.

The big players already have dedicated teams, established software, and formalized processes for capital planning.

As one property manager at one of these large national organizations said, recognizing this distinction, *“I already have it. But I could see how maybe a smaller company could need that, like ones in the outskirts, not in a CBD (Central Business District).”*

# Capital Planning Tool

*The Capital Planning tool helped owners sequence major upgrades into a time-based budget roadmap.*

## Strengths of the individual Capital Planning concept.

As an individual concept, the Capital Planning Tool was quite successful.

Several participants argued persuasively that this tool could make a difference on the crucial criterion of ***motivating individual owners to pursue a project for energy efficiency, where previously they might not have done so.***

Key strengths of the individual Capital Planning Tool concept were as follows:

- Could motivate owners to pursue an energy-efficiency project.
- Could drive pro-active planning, collaboration.
- Could increase value for a sale.
- Could help spot missed building needs.



# Capital Planning Tool

## Main Prototype Element

2026-2030 CAPITAL EXPENDITURE PLAN											
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Property #		740									
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2030 TOTAL COST:				\$137,800							



## Capital Planning Tool

### Could motivate owners to pursue an energy-efficiency project.

The strongest perceived benefit of the Capital Planning Tool was to motivate action. People working with owners to motivate them were among its strongest advocates.

Where Retrofit Pathways introduced energy efficiency benefits in a general way (participants used terms such as “the hook” or “big-picture understanding” or “dashboard”) the Capital Planning Tool translated those generalities into concrete dates and dollars.

That concreteness made a difference. One seasoned HVAC engineer and contractor said that he personally had observed how writing a project into a capital plan could push owners from sitting on the sidelines to actively pursuing a retrofit. Describing this catalyzing effect he said, **“It was like fairy dust!”**

*“This is a winner. It’s a forward-look for the owner as to what it’s going to cost to replace systems in their building, irrespective of whether that replacement is imminent. At my company (HVAC) we started doing this years ago. And 20% of the time, when we came in and presented a capital plan looking anywhere from one to ten years out, the owners immediately would start taking action. ‘Well, let’s do these this year, those next year, and these three the year after that.’ And an owner who previously would have waited for that system to fail before they made a decision was already being proactive. It was like fairy dust! It was amazing.”*

—Contractor / ESCO Engineer, Seattle



## Capital Planning Tool

### Could motivate owners to pursue an energy-efficiency project.

A broker, quoted at right, shared the HVAC engineer's sentiment. He felt the Capital Planning Tool clearly translated retrofit projects into tangible financial benefits that were relevant to owners. Lining up those dollar amounts could help owners choose "a course of action."

A regional property manager agreed. Although her firm already used custom capital plans for its owners, she liked the how the concept's color-coding scheme showed a clear prioritization. For instance, it highlighted in green the opportunities to pass-through costs, increase revenue, and apply for incentives.

*"I love this. I think this is really good. The tenant pass-through potential, the lower operating expenses, incentives available. Absolutely! Give me a link within here. When does this sunset? What's my next course of action? Who's my singular point of contact? ... This is what I was asking for."*

*—Broker, Multi-family, Portland*

*I really like how it lays out. This could be a really neat tool. ... I could see most of our clients saying, great, let's start with that project because it has all of these opportunities for us and then let's see what else we need to target from there. So I can definitely see this being a tool that helps them move forward on things differently.*

*—Property Manager, Regional Property Management Firm, Medium Mixed Office & Retail, Tacoma*



## Capital Planning Tool

### Could drive pro-active planning, collaboration.

One owner especially liked the Capital Planning because he knew from experience how reactive repairs could run up the costs of retrofits. He needed persuasive tools to use with other stakeholders, especially tenants.

He currently kept spreadsheet that contained information similar to what he saw in the Capital Planning Tool presented: remaining life of systems, expected costs, dates to complete.

But it was a “chicken-scratch” document that, he said, “only he could understand.” So he ran into trouble when trying to convince a tenant how much money they could save by replacing the roof and insulation at the same time as the HVAC.

*“I’m dealing with a mixed-use historic building. The tenants’ lease requires them to put a new HVAC unit on the roof. They also need a new roof. So I told them that if it were me spending money on a new HVAC unit, I would not want to pay for that and have someone mess up the roof again three months later. And while the roof is open, you should insulate, right? ...This tool could give you a little red flag: ‘If you don’t do this when this is opened, you run the risk of paying dramatically for it later.’ Because people are just gonna put a band-aid on something. Getting someone from being a band-aid person to understanding they should do things at the same time requires some massaging, and advocacy.”*

*—Owner, Small Mixed Office & Retail, Portland*



## Capital Planning Tool

### Could increase value for a sale.

One of the brokers argued that the Capital Planning tool could make it easier to make a strong, dollars-driven case to a seller for investing in energy efficiency upgrades while doing necessary deferred maintenance.

She had a specific seller in mind. She would have liked a tool that could generate estimates, both for a higher valuation and for some expected operating savings for the buyer.

*“This is resonating. I have an investment building that I'm just taking to market now, for a seller. Just had contractors out this week to look at the roof and windows. And I'm saying, ‘Hey, I think we'll get more value if some of these deferred maintenance items were addressed.’ And maybe while we're addressing those, we could also think about putting in energy efficient windows if we're sealing around some windows anyways. And maybe that brings the value of the building up. It would be helpful to quantify what that looks like. If you could make a case for how it's an investment versus an expense: you're going to get more for the building and the tenant's still going to occupy the building after its sale so they'll benefit from some energy efficiency too.”*

*—Broker, National Property Management Firm, Small to Large Medical Office, Portland*



## Capital Planning Tool

### Could help spot missed building needs.

Owners of smaller to-medium properties tended to feel they kept most of the relevant information about future capital needs “in their heads.”

But they recognized that a tool might help them be more thorough in their planning. It could help them spot some worthwhile upgrades they hadn’t thought of.

*“I feel my buildings are so simple, it's kinda in my head. But it doesn't mean that you shouldn't have it in a more formal approach... It might be like, ‘I didn't think of that one, it caught something.’ It could be that you use this to have an a-ha moment when you're looking at the jobs and the descriptions.”*

*—Owner, Small-Medium Commercial Office, Bellevue*



# *Capital Planning Tool*

## Improvements

### **IMPROVEMENTS TO CONSIDER**

Suggested improvements to the concept were to:

- Help users find the data to input.
- Provide assurance as to data privacy and security.



# Capital Planning Tool Improvements

## 1. Help users find the data to input.

As with Retrofit Pathways, a key drawback of the Capital Planning Tool was the need to locate and enter diverse data items to calculate project costs and outcomes.

The process of gathering information could become a significant barrier.

The tool will need to be easy to use, with clear guidance on where to find the required information.

One owner said he would appreciate seeing visual examples of specific documents and line-items where information could be found.

*"It could be a visual. 'Here's where you find the data and this is the line that we're looking for.' If you can make it easy for someone to say, 'Okay, this is where they want me to find this and this is what they want from me, then I can fill that in.'"*

*—Owner, Small-Medium Commercial Office, Bellevue*



# *Capital Planning Tool* Improvements

## **2. Provide assurance as to data privacy and security.**

A second challenge, which the Retrofit Pathways concept shared, was data security.

Both tools would require entering sensitive competitive information about business finances (e.g., rents, vacancy rates).

So owners will want strict assurances about data security and privacy and to understand which, if any, third party entities might have access to their information.



# Capital Planning Tool Improvements

## Trusted authorities to offer capital planning tool.

Participants mentioned the following entities they might trust to offer the Capital Planning tool:

- Local electric or gas utility: 3
- Energy consultant: 2
- Property management company: 2
- City: Bureau of Development Services (BDS)/ Planning and Economic Development (PBOT): 2
- State: Department of Commerce: 1
- HVAC contractor: 1
- Building engineer: 1
- Asset Manager: 1
- Property Management Software: 1
- Architect: 1
- General contractor: 1
- Earth Advantage: 1
- BetterBricks: 1
- Construction Contractors Board (CCB) : 1
- Energy Efficiency Organization / e.g., NEEA: 1
- Building Owners and Managers Association (BOMA) : 1
- Multifamily Northwest: 1

# *Advisor Training*

# Advisor Training

*The Advisor Training concept aimed to increase owners' compliance with performance standards, and to help them plan proactively for retrofits, by educating commercial real estate brokers about these topics.*

## Advisor Training needed clearer alignment to the broker's role but showed promise.

None of the participants selected Advisory Training as their #1 choice to be developed. On the surface, it seemed mis-aligned to sales transaction goals.

However, with time for reflection, **some saw its potential to reshape the ecosystem**. Three participants selected it as their #2 choice, including two property managers and one of the brokers.

Perceived strengths included the following:

- Helped to price BPS compliance into property value.
- Could promote trust, strengthen client relationships.



# Advisor Training

## Main prototype elements

betterbricks/

### Energy Smart Broker Advisory Training: Small Commercial & Multifamily

Gain a competitive edge by mastering energy efficiency and building performance standards (BPS).

#### Market Demands:

- Rising investor and tenant demand for energy-efficient, high-performing buildings.
- Adoption of Building Performance Standards in the Pacific Northwest—which mandate energy tracking, disclosure, and building improvements.
- Wide variety of incentives and financing for upgrades.
- Tenant emphasis on healthier, energy-efficient spaces that reduce living costs.

#### Training Benefits:

- Position yourself as a trusted advisor on high-performing buildings.
- Strengthen your credibility and capture market opportunities.
- Speak to the impact of energy efficiency on building operations and value.
- Advise confidently on compliance with performance standards.
- Help weight options on value-added features.
- Enhance client engagement in commercial real estate.



#### COURSE MODULES

The Energy Smart Broker Advisory Training provides the most relevant and practical knowledge for today's commercial and multifamily market. Modules include:

**Building Efficiency 101 and Building Performance Standards** (1 CEU)

**ROI of Smart Energy Investments** (1 CEU)

**Market Advantage and Risk** (1 CEU)

**Energy Smart Broker Resources for Commercial & Multifamily** (1 CEU)

- How to talk to your client
- Reaching new markets
- Marketing templates and guides

**Register Now**

Visit [brokertraining.com](http://brokertraining.com) to learn more.

## Sales Comparables

(S)

**SUBJECT APARTMENTS**  
4430 Dayton St, Portland, OR



Date Sold	-
Sale Price	\$3,210,000
Units	12
Price/Unit	\$267,500
CAP	6.1
GRM	10.45
SqFt	SqFt
\$ SqFt	\$357
<b>EUI</b>	<b>48</b>
<b>BPS Compliant</b>	<b>No</b>

(1)

4528 48th St, Portland, OR



Date Sold	-
Sale Price	\$4,037,000
Units	11
Price/Unit	\$367,000
CAP	5.2
GRM	11.75
SqFt	8,250
\$ SqFt	\$489
<b>EUI</b>	<b>31</b>
<b>BPS Compliant</b>	<b>Yes</b>

(2)

1344 Van Holland Ave, Portland, OR



Date Sold	-
Sale Price	\$3,430,000
Units	9
Price/Unit	\$381,000
CAP	4.9
GRM	12.74
SqFt	6,750
\$ SqFt	\$508
<b>EUI</b>	<b>26</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	-
Sale Price	\$2,430,000
Units	9
Price/Unit	\$270,000
CAP	4.81
GRM	12.74
SqFt	8,010
\$SqFt	\$303.37
<b>EUI</b>	<b>48</b>
<b>BPS Compliant</b>	<b>No</b>

Date Sold	05.04.17
Sale Price	\$1,015,000
Units	5
Price/Unit	\$203,000
CAP	4.3
GRM	14.6
SqFt	2,950
\$SqFt	\$344.07
<b>EUI</b>	<b>31</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	12.23.16
Sale Price	\$2,300,000
Units	8
Price/Unit	\$287,500
CAP	4.7
GRM	15
SqFt	5,616
\$SqFt	\$409.54
<b>EUI</b>	<b>26</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	-
Sale Price	\$3,430,000
Units	9
Price/Unit	\$381,000
CAP	4.9
GRM	12.74
SqFt	6,750
\$ SqFt	\$508
<b>EUI</b>	<b>26</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	-
Sale Price	\$4,037,000
Units	11
Price/Unit	\$367,000
CAP	5.2
GRM	11.75
SqFt	8,250
\$ SqFt	\$489
<b>EUI</b>	<b>31</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	-
Sale Price	\$3,210,000
Units	12
Price/Unit	\$267,500
CAP	6.1
GRM	10.45
SqFt	SqFt
\$ SqFt	\$357
<b>EUI</b>	<b>48</b>
<b>BPS Compliant</b>	<b>No</b>



## Advisor Training

### Helped to price BPS compliance into property value.

Brokers guide potential buyers through property purchases, but often lack critical information about Building Performance requirements. This appeared to be the case even in Seattle, where enforcement of compliance requirements, for the largest buildings, is imminent.

Closing that knowledge gap could help buyers price such compliance into their bids, encouraging greater compliance across the market.

According to a Tacoma property manager running a portfolio of over 60 properties in the region (and a self-taught expert on BPS), trained brokers could also help managers plan for upgrades quickly after a sale.

*“Educating brokers on BPS is a huge gap.... Two weeks into their ownership, someone on this tenant’s board asked, ‘Well, did anyone tell you about this Clean Buildings requirement thing?’ They’re a Tier 1 building running off a natural gas boiler, with a lot of inefficiencies. And they’re like, ‘Well, this wasn’t factored into any of our financial calculations for purchasing this building.’ So all of a sudden they’re looking at an unknown, potentially very impactful capital improvement requirement. ... So if the broker can come in and say, ‘Here’s what’s coming, here’s how we can make this a value add to your purchase,’ then we can come in after the sale and say, let’s put the pen to paper on these.”*

*—Property Manager, Regional Property Management Firm, Medium Mixed Office & Retail, Tacoma*



## Advisor Training

### Could promote trust, strengthen client relationships.

Brokers felt the training could make them generally more helpful to clients, which in a relationship business can translate to business growth for the brokerage.

One broker expected to leverage the training differently with owners, who pride themselves on their knowledge, as compared to tenants, who might need more support, contacts, and resources.

*“The more I know the better I can help my people. ... As their broker, I will tell the landlord, ‘I know you already know that this-and-this has to happen. I know some people that can help, I can provide you with some information.’ And when advocating for the tenant, I might say, ‘Here’s some things we should ask the landlord for in our LOI (Letter of Intent) because it’s going to need to happen, it’s going to help your business and save you money. The landlord probably will never go for this, but I can put you in touch with people to help you get it done at a decent price with some good reimbursements.’ Almost every broker I know would love these things.”*

*—Broker, Small Brokerage Firm, Commercial Warehouse/Office/Retail, Portland*



# *Advisor Training* Improvements

## **IMPROVEMENTS TO CONSIDER**

Suggested improvements to the Advisor Training concept were that it should:

- Consistently translate energy efficiencies into asset value.
- Target property managers, as well as brokers.
- Offer training in flexible formats.



## Advisor Training Improvements

### 1. Consistently translate energy efficiencies into asset value.

Brokers are focused on buying and selling. As are property managers to the extent they take on the broker role (many property managers are also licensed brokers).

Their advice was to focus squarely on whatever financial metrics resulting from efficiencies impacted building value, so that the proposed education could help them more effectively buy and sell properties.

*“What are my tools to get a new listing? .... I want to know: Your utilities are \$5K/year per unit. But this other property, even though it's a little more expensive, spends only \$200. What is the net delta between those two numbers as expressed in a cap rate (i.e., by how much does this increase the total property value)? That's a more interesting conversation I can have with owners, whether on the sell side or the buy side.... Shift it to ‘Advise on Repairs to Get ready for a Sale, or ‘Upgrades that Increase Net Operating Income (NOI).”*

*—Broker, Multi-family, Portland*

*“Brokers would want to know about impacts on bottom line lease rate, or price if they're purchasing the building. I don't need to understand what is involved in making the building efficient.”*

*—Broker, National Property Management Firm, Small to Large Medical Office, Portland*



## **Advisor Training Improvements**

### **1. Consistently translate energy efficiencies into asset value.**

According to at least two of the owners, the concept might focus on finding financial advantages for sellers, in particular.

One owner reported that he had seen this work effectively in a different context, when a knowledgeable broker saved a seller money on a roofing improvement (quoted at right).

*“The broker’s incentive is to sell the property to get the commission, right? So the value of this training would have to come in the terms of how are you monetizing the savings for one side or the other to make your client’s position stronger....For example, we were negotiating a cost credit with an owner to buy his building. His broker went out and found a roof system which doesn’t have a seismic trigger. That took \$70K out of our request. Great job making money for his client!”*

*—Owner, Small Mixed Office & Retail, Portland*



## **Advisor Training Improvements**

### **2. Target property managers, as well as brokers.**

While the original concept was targeted at brokers, an improvement might be to offer similar content to property managers.

Property managers are often licensed as brokers, too, but tend to have a broader and more continuous relationship with owners.

Two of the four property managers interviewed seemed quite interested in the training concept.

*“Property and facility managers would be well positioned to have education like this. And most third-party property managers would also have their broker's license, so you'd still be talking to brokers. ...Yes, I would sign up for this.*

*—Property Manager, Regional Management Firm, Medium-Large Office & Mixed Use, Portland*

*“I would love to send my property managers through something like this.”*

*—Property Manager, Regional Property Management Firm, Medium Mixed Office & Retail, Tacoma*



# *Advisor Training* Improvements

## **3. Offer training in flexible formats.**

Some preferred a “lunch and learn” format, where they might get continuing education credit and learn about some helpful resources, without “getting too much into the weeds.”

But longer, self-paced courses could make sense, too, depending on the complexity of material.

Entities thought to offer a credible Advisor Training for brokers included: IREM (Institute of Real Estate Management), BOMA (Building Owners and Managers Association), IFMA (International Facility Management Association), CCIM (Certified Commercial Investment Members), LoopNet and Crexi (online marketplaces), Vertical (message board), and RMLS (Regional Multiple Listing Service).



# *Services Finder*

# Services Finder

*The Services Finder tool aimed to help building owners identify pre-vetted contractors through a curated directory. It also offered potential discounts for the services offered by pooling demand with peers owning the same building type.*

**The Services Finder tool came across as a way to lower risk in a new relationship; it might also nudge vendors toward retrofit work.**

Like the Advisor Training concept, the Services Finder tool earned no selections for #1 choice, but three for #2. One owner, one broker, and a contractor ranked it as their #2 choice.

Most participants suggested the concept could be improved with significant changes.

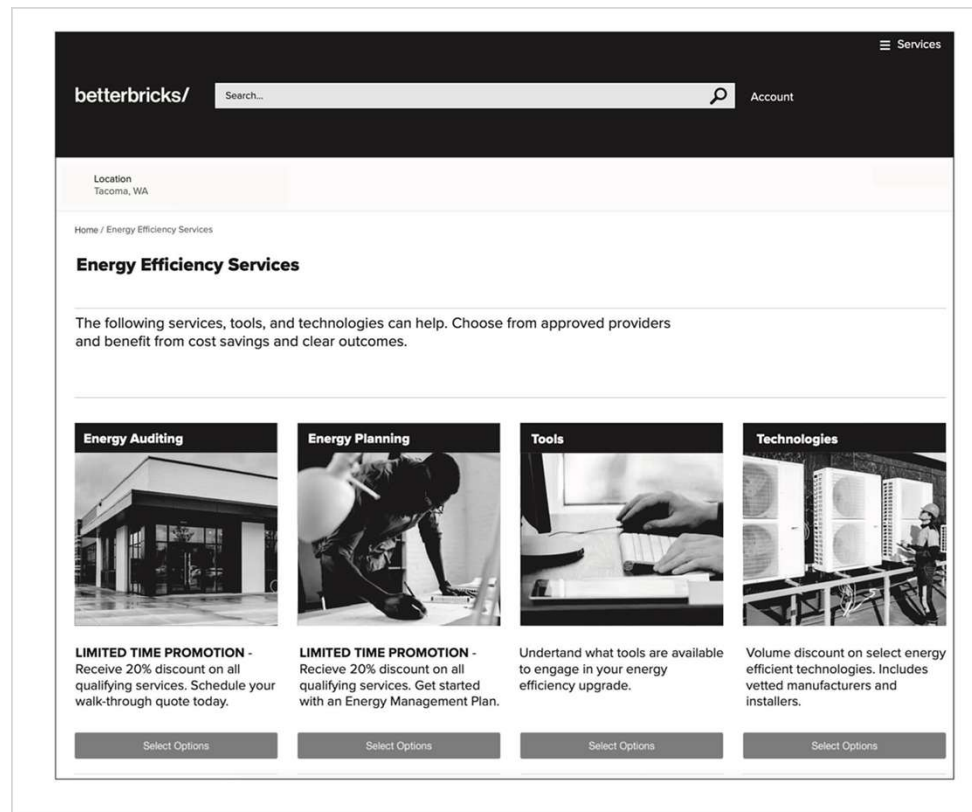
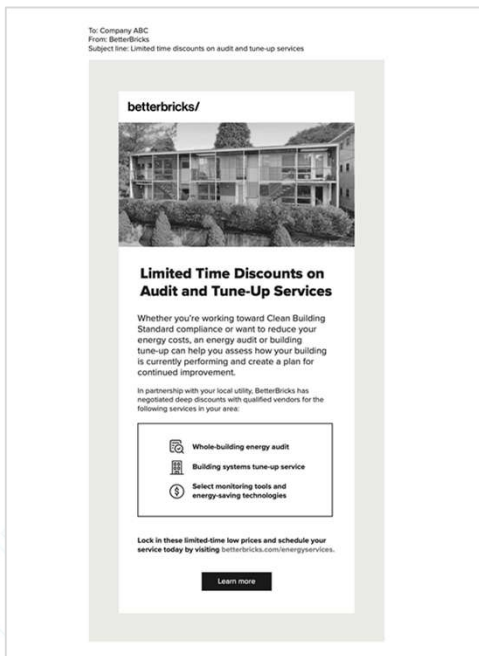
Perceived strengths:

- Helped reduce risk for owners seeking new vendors.
- Could help shift current vendors toward retrofit work.



# Services Finder

## Main prototype elements





## Services Finder

### Helped reduce risk for owners seeking new vendors.

The Contractor/Engineer consulted for the study offered the most enthusiastic endorsement of the Services Finder concept.

But he re-envisioned the concept entirely as a “match-making service,” rather than as a vetted list of vendors offering special rates for retrofits.

As he saw it, this tool could be a kind of exclusive Angie’s List. It would pair owners of small- and medium-sized properties with the right service providers who could meet their specific needs.

*“The challenge is finding vendors who are a match for what the owner is trying to accomplish. For a lot of building owners, especially those stepping into this retrofit idea for the first time, it’s like, ‘Where do I even start?’ Washington State has lists of vendors on their website that don’t even call you back. ... McKinstry could be a good match in technology, but a complete mismatch to the owner in business relationship. And from the vendor’s perspective that owner is ‘high maintenance’. ... This tool could match the owner with a firm by level of experience with that technology, that marketplace, and qualities the owner thinks are important, like price, or quality delivery, or follow-up, or customer service.”*

—Contractor/ESCO Engineer, Seattle



## Services Finder

### Could help shift current vendors toward retrofit work.

Many owners want to stay with trusted contractors or architects they've built relationships with over the years.

Rather than find new vendors, one owner said he would use Services Finder to verify that his established, trusted vendors were capable of completing the projects that qualified for the incentives and rebates offered.

If his vendors weren't on the list, or didn't want to get approved, then their non-participation could become a credible justification for working with somebody else.

But the existing relationships could be kept intact.

*"I could go to my vendor, 'Hey, you're not on the list. I'm looking at doing this retrofit. It's going to cost a couple hundred thousand dollars but if I go through this program, 80% of it's being paid by PSE. But your name's not on it. Here's the link to get vetted.' And if they don't get vetted, I'm going to ask them why not? It covers my butt if I have to make a painful choice of moving away from my guy that I value. Also he might be missing the boat on a whole bunch of work."*

—Owner, Small-Medium Commercial Office, Seattle

*"I would want my architect to offer this. They're going to help me jump through the legislative hurdles to even do my project. And then they're likely going to introduce me to the builder partners who are going to help me move this along."*

—Owner, Small Mixed Office & Retail, Portland



# *Services Finder*

## Improvements

### **IMPROVEMENTS TO CONSIDER**

#### **Suggested Improvements included:**

- De-emphasize discounts.
- Consider making the vendor list exclusive.
- Choose a vetting authority with no financial stake in the outcome.



# Services Finder Improvements

## 1. De-emphasize discounts.

One broker felt that messaging around discounts diminished the value of the services offered, “like an advertisement.” Instead, the real benefit was to find a partner with the right expertise.

The HVAC contractor interviewed (quoted at right) agreed that offering discounts was less appealing than other aspects of the concept. Particularly if vendors were on the hook to offer discounts out of their own margins, instead of through subsidies.

*“I think that the discounts are less valuable than matching an owner with the right providers. The really good providers don't want to discount, don't think they should have to, and in this market, they probably don't.”*

—Contractor / ESCO Engineer, Seattle



# Services Finder Improvements

## 2. Consider making the vendor list exclusive.

The same contractor/engineer advised that steps should be taken separate high-caliber vendors from “trunk-slammers,” or short-term, low-quality providers.

That way, all participants would perceive that qualifying for the list has real value.

*“The sophisticated vendor is going to say, ‘the harder it is to get on this list, the more I want to be on there.’ Because the trunk slammers, the people that are coming and going and the small shops, are not going to take the time. You might even put a cost to it. Make the vendors have to spend some money to get on the list, rather than discount service. It sort of separates the wheat from the chaff. You might consider it as a service rather than a one-time fee.”*

—Contractor / ESCO Engineer, Seattle



## **Services Finder** Improvements

### **3. Choose a vetting authority with no financial stake in the outcome.**

Users of the service would need assurance that the entity offering it was free from conflicts of interest, or “had no financial stake in the outcome,” as one owner put it.

He described his concern in the quote at right.

Participants suggested the following as potentially unbiased authorities who might be expected to vet the service providers: property management software companies (like Yardi, or MRI); property management companies; and BetterBricks, NEEA’s own branded information and solutions hub for commercial building owners.

*“First question is: Who does the vetting and how do they get on that list? It should be somebody that doesn't have a financial stake in that outcome. Somebody that has a non-biased approach. The CCB would be one (Construction Contractors Board). Or the Planning Departments (City of Portland).”*

*—Owner, Small Mixed Office & Retail, Portland*



# *Recommendations Summary*

# Summary of Recommendations for NEEA and Partners

## 1. Support the development of On-Bill Financing as a key priority for the region, with utilities taking the lead.

- Minimize administrative complexity.
- Explicitly clarify that the loan is unsecured, with no impact on mortgage lenders.
- Ensure that the obligation does not appear on property title, nor require payoff at sale.
- Underscore the ability to pass costs through to tenants as a key financial benefit.
- Provide clear guidance on how and where to disclose the pass-through.
- Offer flexibility in equipment choices to the extent possible.



## ***Summary of Recommendations for NEEA and Partners***

### **2. Develop Capital Planning Tool and Retrofit Pathways ideas together into a single platform that both visualizes data and delivers a time-based roadmap.**

- Amplify messaging about reducing operating expenses and cost savings.
- Provide links to funding resources (grants, tax incentives).
- Offer clear, visual guidance on where to find required data.
- Integrate with existing tools, particularly EnergyStar Portfolio Manager.
- If possible, incorporate real-world data from completed retrofits.
- Provide strong assurances on data privacy and security.



## ***Summary of Recommendations for NEEA and Partners***

### **3. Consider providing broker Advisory Training as a more distant priority.**

- Reframe training to focus on financial metrics (impact on property value, lease rates, and NOI).
- Include property managers, too.
- Offer flexible delivery formats.

### **4. If developing Services Finder, re- envision as a tool for building new business relationships.**

- De-emphasize the offering of discounts.
- Consider making the vendor list exclusive.
- Use a neutral, unbiased vetting authority.





# *Appendix: The Five Concepts*

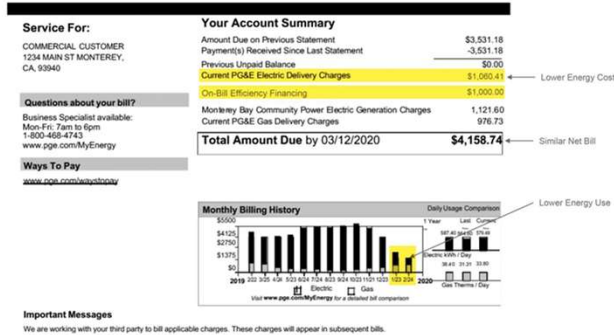
# On-Bill Financing

## Why:

Get low/no-interest funding for energy upgrades.  
Keep loan off the balance sheet.

## What It Is:

Loan paid through the utility bill—uses energy savings to cover repayments.  
For projects that lower energy bills or help meet Performance Standards.  
Utilities & banks offer.



betterbricks/

## Clean Building Standards Compliance “Easy Button” with On-Bill Funding

Helping Pacific Northwest Multi-Family Owners and Small-Medium Size Property Owners Fund Energy Efficiency Projects

Lower your energy bill and fund upgrades with low- or no-interest loans financed directly on your regular utility bill.



### What is On-Bill Funding?

On-bill funding allows utilities to help you pay for energy efficiency improvements that can help meet Building Performance Standards (BPS) – such as HVAC upgrades, heat pumps, insulation, lighting, or building controls – by recovering costs directly through the utility bill. The Utility (or third-party lenders) covers your upfront expenses, and you repay over time through bill charges. Funding can come from a combination of utility funds, federal and state programs, green banks, or private capital.

### See if Your Building Qualifies

Washington: Several utilities are exploring on-bill financing as part of their energy efficiency portfolios. The state’s Clean Energy Transformation Act (CETA) creates opportunities for incentives and customer financing linked to utility clean energy goals.

Oregon: The Energy Trust of Oregon has piloted on-bill repayment models with utilities, aligning with the state’s building performance and efficiency policies.

### How It Works

- A charge for the efficiency upgrades is added to your monthly utility bill. (It does not affect the mortgage.)
- Repayment is structured to be equivalent (or less than) estimated energy savings, thereby keeping your monthly expense similar or less than your current energy costs.
- Programs can serve both commercial and multi-family residential buildings greater than 5,000 GSF. This allows you to:
  - Roll multiple integrated building upgrades into one package
  - Choose a vendor/contractor from a pre-vetted list.

### Contact

Contact the BetterBricks to learn more about this exciting new program.

The complete “On-Bill Financing” concept.

# EASY BUTTON ON-BILL FUNDING TERM SHEET

## Energy Efficiency Building Retrofit Project

Gain a competitive edge by mastering energy efficiency and building performance standards (BPS).

### Borrower Information (example)

**Company Name:** Cascade Professionals Plaza, LLC  
**Business Type:** Commercial Real Estate (Medical Office Building)  
**Property:** 30,000 sq. ft. Professional Medical Office Building (eligible building sizes between 5,000-50,000 sq. ft.)

### Funding Details (example)

**Loan Amount:** \$850,000 (loan amounts available up to \$4MM)  
**Interest Rate:** 0.00% (zero percent financing)  
**Structure:** On-bill repayment through UTILITY bill (does not impact the mortgage)  
**Pre-approved contractor network + fast audit**

### Use of Proceeds (example)

**Primary Purpose:** Energy Efficiency Building Retrofit  
**Eligible Project Components:**

- HVAC system replacement with high-efficiency equipment: \$375,000
- LED lighting conversion (interior and exterior): \$200,000
- Building envelope improvements (insulation, windows): \$150,000
- Energy management and building automation system: \$80,000
- High-efficiency electric motors and pumps: \$45,000

**Total Project Cost (example):** \$850,000

### Terms

**Interest Rate:** 0.00% (no interest charges)  
**Term:** Based on estimated energy savings and equipment life  
**Estimated Term:** 10 +years, linked to projected payback period of upgrades  
**Payment Method:** Monthly charges added to UTILITY bill  
**Estimated Monthly Payment:** Cap at ~90% of estimated savings.  
**Security:** Unsecured. Utility collection procedures apply. (non-payment may result in utility disconnection)  
**Early Payoff:** Allowed without penalty  
**Transfer:** Loan transfers with property ownership

### Program Structure

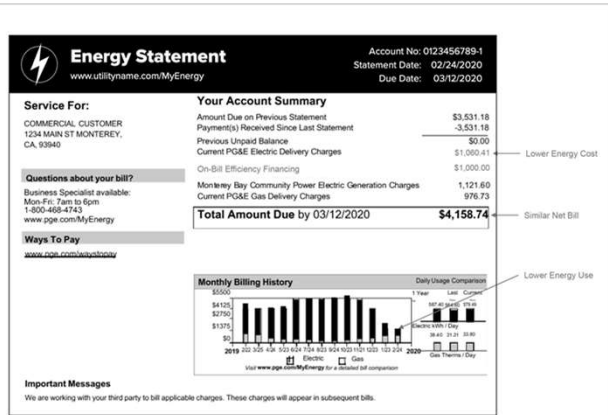
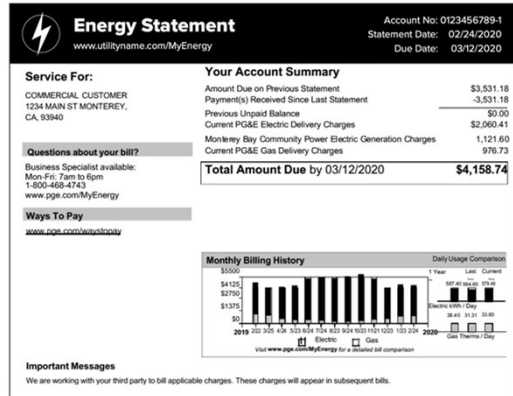
**Payments:** Monthly payment structured to not exceed estimated monthly energy savings.  
**Savings Guarantee:** UTILITY does not guarantee energy savings estimates.  
**Equipment Requirements:** All equipment must be energy-efficient replacements.  
 May be paired with other financing to facilitate a broader renovation of building.

### Eligible Project Costs

- Implementation and installation costs
- Contractor and technical review fees
- Building compliance costs
- Operations and maintenance setup
- Tax and labor costs
- Equipment and materials

### Projected Benefits (example)

**Monthly Energy Savings:** \$10,400  
**Estimated Monthly Payment:** \$9,400 (~90% of savings)  
**Net Monthly Cash Flow:** \$1,000 positive (monthly utility bill is equal to or lower than prior to retrofit)  
**Environmental Impact:** Estimated 38% reduction in energy consumption and 175 tons of CO2 annually



The complete “On-Bill Financing” concept.

# Retrofit Pathways

## Why:

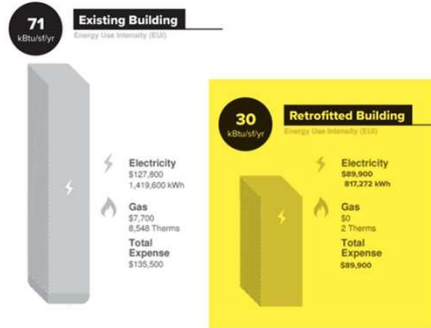
Compare different upgrades—save \$\$, save energy.  
Compare own building to Performance Standards.

## What It Is:

Website.

Input building parameters-> see different impacts on energy use & dollars.

## Energy Performance



Energy Use: **58%**  
Energy Cost: **30%**  
Annual Energy Savings: **\$45,600**

**Your Energy Retrofit Plan Business Case**

I'm retrofitting to:

- MEET BUILDING PERFORMANCE STANDARDS
- LOWER ENERGY COSTS

EDIT

DOWNLOAD THE REPORT

HOW TO READ MY PLAN | HOW THE DATA WORKS

**Building Performance Standards Impact**

Our modeling shows that your building DOES NOT meet BPS, and would exceed Building Performance Standards with implemented recommendations.

Does Not Meet BPS (Your Building) vs Target for BPS (Implemented Recommendations)

**Energy Impact**

Existing Building: 71 eBarity vs Retrofitted Building: 30 eBarity

Energy Use: 58%  
Energy Cost: 30%  
Annual Energy Savings: \$45,600

By implementing the project scope, your building may significantly improve its energy performance, increase carbon, reduce, and enhance its competitiveness.

**10 Year Economic Impact**

By implementing the project scope, your building may significantly improve its energy performance, increase carbon, reduce, and enhance its competitiveness.

Present Value(PV) Of Value Creation Components	
Asset Appreciation	\$1,142,600
Rent Differential	\$456,400
Energy Savings	\$204,900
Reduced O&M Expense	\$0
<b>Total</b>	<b>\$1,833,500</b>

**Implementation of Energy Efficiency Measures**

- ENVELOPE
- LIGHTING
- PLUG LOADS
- PLANT
- CONTROLS

**Scenario Explorer**

Modify your inputs to better understand the impacts of various levels of efficiency upgrades.

PARAMETER 1	BPS COMPLIANCE	CHARACTERISTIC 1
PARAMETER 2 <td>BPS JURISDICTION</td> <td>CHARACTERISTIC 2</td>	BPS JURISDICTION	CHARACTERISTIC 2
PARAMETER 3 <td>Energy Reduction Goal</td> <td>CHARACTERISTIC 3</td>	Energy Reduction Goal	CHARACTERISTIC 3

**Resources**

Find resources to help make your energy efficiency project a reality.

- FUND YOUR PROJECT
- SERVICE PROVIDERS
- TECHNICAL TOOLS

The complete "Retrofit Pathways" concept.

## CHECKLIST:

betterbricks/

### Here's What You'll Need to Complete Your Retrofit Pathway Report

Before you get started, please collect the following information about your building to complete your profile:

#### 1. Building size and occupancy

- Gross square footage
- Distinctions between spaces that are heated, cooled and ventilated, from others that are not conditioned
- Current and typical occupancy percentages

#### 2. Energy use data

- Annual electricity consumption
- Annual electricity expense data
- Building's primary heating fuel (if other than electricity)

#### 3. Physical building characteristics

- Building envelope
- Lighting
- Heating, ventilation and air conditioning systems, including estimated age of HVAC system

#### 4. Building business profile

- Rentable square footage
- Rents
- Vacancy percentages
- Tenant turnover expectations
- Capitalization rate

## Sample Output Report Pages

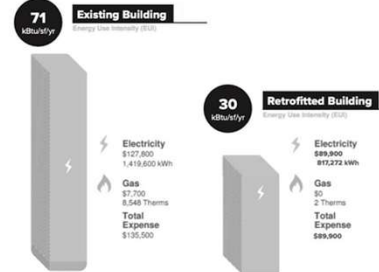
### Energy Performance and Savings

The package of energy efficiency measures described in this report are estimated to provide energy savings of approximately 30%. This assessment assumes that the entire package of energy efficiency measures is completed at the same time, as part of a comprehensive, integrated project scope. Such an integrated approach optimizes value creation and provides the basis for a building roadmap that can significantly improve energy and economic performance. From a practical perspective, the proposed package of measures may need to be phased as opportunities and tenant rollover permit, resulting in a project specific implementation sequence.

An integrated package of measures provides opportunities that may not be captured from isolated efficiency improvements. For example, reducing heating and cooling loads first—by implementing building envelope, lighting and internal load reduction measures—provides the opportunity to optimize HVAC system sizing. This allows buildings to utilize smaller systems, which cost less, use less energy and perform better.

As described in the Next Steps section of this report, an investigation with the depth of a Level 1 ASHRAE Energy Audit, including in-person meetings, building tours, and site audits will be required to begin to refine energy performance analysis and measure implementation cost estimates.

### Energy Performance



Energy Use: **58%**  
Energy Cost: **30%**  
Annual Energy Savings: **\$45,600**

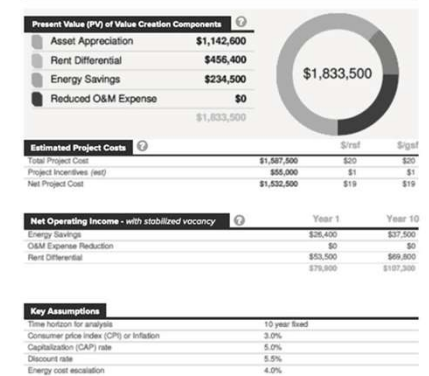
### Business Case The Value Creation Opportunity

By implementing the project scope described in this report, WA Show Building may significantly improve its energy performance, increase cashflow, revitalize and enhance its competitive market position and boost asset value. The combination of operations and maintenance (O&M) and energy expense savings, increased rents, and asset appreciation drive value creation. Key assumptions and resultant opinions of project cost and investment returns are summarized below.

#### Key Indicators

Internal Rate Of Return (IRR): **8%**  
Net Present Value (NPV): **\$245,900**

Click to learn more about how values are calculated



# Capital Planning Tool

## Why:

SEQUENCE & COMBINE upgrades—save \$\$, save energy.  
Plan how to meet Performance Standards over time.

## What It Is:

Capital plan—with strategic upgrades.  
Input times-to-replace -> shows systems to upgrade TOGETHER for biggest energy impact.  
See ROI of multiple systems vs. 1-1 replacements.

2026-2030 CAPITAL EXPENDITURE PLAN											
Property No WBI Industries Leased Office Spaces											
Property # 740											
OPS Tracking #	Year	Month to be Paid	Job Name and Description	Budgeted Amount	Life Span	Lower Operating Expenses (Y/N)	Tenant Pass-Through Potential (Y/N)	Increase Revenue (Y/N)	Incentives Available (Y/N)	Risk Level	IRR
012345-01	2026	JAN	New Keypad Access System	\$5,000	10	N	N	N	N	L	N/A
012345-02	2026	MAR	Energy Audit and Report (1)	\$12,000	N/A	N	N	N	Y	L	N/A
012345-03	2026	AUG	Ti+ New Lighting Suite 100	\$230,000	15	Y	Y	Y	Y	L	6%
012345-04	2026	FEB	Heat Pump Water Heater	\$22,000	15	Y	N	N	Y	H	11%
2026 TOTAL COST:				\$269,000							
012345-05	2027	FEB	New Fire Suppression Pump	\$4,520	10	N	N	N	N	H	N/A
012345-06	2027	MAR	Elevator service	\$8,000	5	N	N	N	N	M	N/A
012345-07	2027	MAY	Window Replacement (2)	\$190,000.00	30	Y	N	Y	Y	M	2%
012345-08	2027	AUG	Replace Mini Blinds Phase 1	\$6,520		N	Y	N	N	L	N
012345-09	2027	OCT	Paint and patch lobby	\$4,500	10	N	N	N	N	L	N
2027 TOTAL COST:				\$213,540							
012345-10	2028	MAR	Roof Replacement	\$120,000	25	N	N	N	N	H	N/A
012345-11	2028	MAR	Increase Roof Insulation (3)	\$12,000	25	Y	N	N	Y	L	9%
012345-12	2028	SEPT	Retail Sign Replacement	\$30,500	7	N	Y	N	N	L	N/A
012345-13	2028	NOV	Electrical Service Capacity Upgrade (4)	\$105,000	50	N	N	N	N	M	-3%
2028 TOTAL COST:				\$267,500							
012345-14	2029	JAN	Installation of Low Flow	\$100,000	10	Y	Y	N		L	22%
012345-15	2029	AUG	Ti+ New Lighting Suite 200 and 300 (5)	\$430,000	15	Y	Y	Y	N	M	7%
012345-16	2029	SEPT	New DOAS and duct reconfiguration (6)	Incl. in TI	25	Y	Y	N	Y	M	4%
2029 TOTAL COST:				\$530,000							
012345-17	2030	JAN	Compactor Replacement	\$9,800	15	N	N	N	N	M	N/A
012345-18	2030	MAR	Replace Boiler with HP (7)	\$128,000	20	Y	N	N	Y	H	18%
2030 TOTAL COST:				\$137,800							

2026-2030 CAPITAL EXPENDITURE PLAN											
Property No WBI Industries Leased Office Spaces											
Property # 740											
OPS Tracking #	Year	Month to be Paid	Job Name and Description	Budgeted Amount	Life Span	Lower Operating Expenses (Y/N)	Tenant Pass-Through Potential (Y/N)	Increase Revenue (Y/N)	Incentives Available (Y/N)	Risk Level	IRR
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012345-04	2026	FEB	Heat Pump Water Heater	\$22,000	15	Y	N	N	Y	H	11%
2026 TOTAL COST:				\$269,000							
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012345-18	2030	MAR	Replace Boiler with HP (7)	\$128,000	20	Y	N	N	Y	H	18%
2030 TOTAL COST:				\$137,800							

The complete “Capital Planning Tool” concept.

# Advisor Training

## Why:

Brokers help owners -> save \$\$, improve buildings, meet Performance Standards. Strengthens broker/owner relationship.

## What It Is:

Classes & certification.  
Ready-to-use tools (scripts, content).



**betterbricks/**

## Energy Smart Broker Advisory Training: Small Commercial & Multifamily



**Gain a competitive edge by mastering energy efficiency and building performance standards (BPS).**

### Market Demand:

- Rising investor and tenant demand for energy-efficient, high-performing buildings.
- Adoption of Building Performance Standards in the Pacific Northwest—which mandate energy tracking, disclosure, and building improvements.
- Wide variety of incentives and financing for upgrades.
- Tenant emphasis on healthier, energy-efficient spaces that reduce living costs.

### Training Benefits:

- Position yourself as a trusted advisor on high-performing buildings.
- Strengthen your credibility and capture market opportunities.
- Speak to the impact of energy efficiency on building operations and value.
- Advise confidently on compliance with performance standards.
- Help weight options on value-added features.
- Enhance client engagement in commercial real estate.

### COURSE MODULES

The Energy Smart Broker Advisory Training provides the most relevant and practical knowledge for today's commercial and multifamily market. Modules include:

**Building Efficiency 101 and Building Performance Standards (1 CEU)**

**ROI of Smart Energy Investments (1 CEU)**

**Market Advantage and Risk (1 CEU)**

**Energy Smart Broker Resources for Commercial & Multifamily (1 CEU)**

- How to talk to your client
- Reaching new markets
- Marketing templates and guides

**Register Now**

Visit [brokertraining.com](http://brokertraining.com) to learn more.

The complete "Advisor Training" concept.

## Call Script

### Building Performance Standards & Property Value

#### Introduction

Hi [Owner's Name], this is [Your Name] with [Your Brokerage/Company]. I'm reaching out because many owners in our region are beginning to feel the impacts of new Building Performance Standards, and I wanted to make sure you have the latest information on how these regulations may affect your property and long-term value.

#### Establishing Relevance

These standards set minimum energy performance requirements for commercial and multifamily buildings. For owners like you, they can influence not just operating costs, but also how competitive your property is in the market. Investors and tenants are increasingly prioritizing efficiency, and properties that fall behind may face both compliance costs and reduced attractiveness compared to higher-performing buildings.

#### Highlighting Value

The good news is that proactive planning can turn this into an opportunity. Properties that demonstrate strong performance often see:

- Higher tenant retention and satisfaction.
- Lower utility and maintenance costs.
- Increased appeal to buyers and investors who are looking for future-proof assets.

#### Offer Support

I'm helping clients like you understand what these standards mean, what timelines to expect, and how upgrades or strategic planning can actually protect—and in many cases increase—the long-term value of your property.

#### Call to Action

Would you be open to setting up a short meeting where I can share a quick overview of your building's exposure under these rules and outline some options that may strengthen your position in the market?

#### Closing

I'd be happy to send over a summary first so you can review before we talk. Does [suggest a time/date] work for you to connect?

## Sales Comparables

S

**SUBJECT APARTMENTS**  
4430 Dayton St, Portland, OR



Date Sold	-
Sale Price	\$3,210,000
Units	12
Price/Unit	\$267,500
CAP	6.1
GRM	10.45
SqFt	SqFt
\$ SqFt	\$357
<b>EUI</b>	<b>48</b>
<b>BPS Compliant</b>	<b>No</b>

Date Sold	-
Sale Price	\$2,430,000
Units	9
Price/Unit	\$270,000
CAP	4.81
GRM	12.74
SqFt	8,010
\$SqFt	\$303.37
<b>EUI</b>	<b>48</b>
<b>BPS Compliant</b>	<b>No</b>

Date Sold	-
Sale Price	\$3,430,000
Units	9
Price/Unit	\$381,000
CAP	4.9
GRM	12.74
SqFt	6,750
\$ SqFt	\$508
<b>EUI</b>	<b>26</b>
<b>BPS Compliant</b>	<b>Yes</b>

1

4528 48th St, Portland, OR



Date Sold	-
Sale Price	\$4,037,000
Units	11
Price/Unit	\$367,000
CAP	5.2
GRM	11.75
SqFt	8,250
\$ SqFt	\$489
<b>EUI</b>	<b>31</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	05.04.17
Sale Price	\$1,015,000
Units	5
Price/Unit	\$203,000
CAP	4.3
GRM	14.6
SqFt	2,950
\$SqFt	\$344.07
<b>EUI</b>	<b>31</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	-
Sale Price	\$4,037,000
Units	11
Price/Unit	\$367,000
CAP	5.2
GRM	11.75
SqFt	8,250
\$ SqFt	\$489
<b>EUI</b>	<b>31</b>
<b>BPS Compliant</b>	<b>Yes</b>

2

1344 Van Holland Ave, Portland, OR



Date Sold	-
Sale Price	\$3,430,000
Units	9
Price/Unit	\$381,000
CAP	4.9
GRM	12.74
SqFt	6,750
\$ SqFt	\$508
<b>EUI</b>	<b>26</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	12.23.16
Sale Price	\$2,300,000
Units	8
Price/Unit	\$287,500
CAP	4.7
GRM	15
SqFt	5,616
\$SqFt	\$409.54
<b>EUI</b>	<b>26</b>
<b>BPS Compliant</b>	<b>Yes</b>

Date Sold	-
Sale Price	\$3,210,000
Units	12
Price/Unit	\$267,500
CAP	6.1
GRM	10.45
SqFt	SqFt
\$ SqFt	\$357
<b>EUI</b>	<b>48</b>
<b>BPS Compliant</b>	<b>No</b>

The complete "Advisor Training" concept.



The complete "Advisor Training" concept.



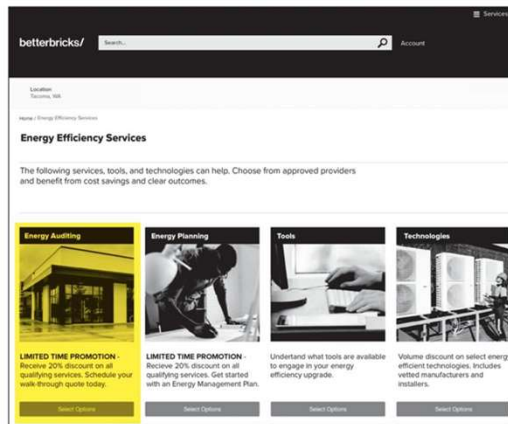
# Services Finder

## Why:

Save money through group discounts.  
Easily find & choose energy upgrade services.

## What It Is:

A website.  
Pre-vetted, high-quality service deals (e.g., audits, controls engineering).  
Equipment deals (e.g., HVAC).  
Shows prices.



To: Company ABC  
From: BetterBricks  
Subject line: Limited time discounts on audit and tune-up services




betterbricks/



## Limited Time Discounts on Audit and Tune-Up Services

Whether you're working toward Clean Building Standard compliance or want to reduce your energy costs, an energy audit or building tune-up can help you assess how your building is currently performing and create a plan for continued improvement.

In partnership with your local utility, BetterBricks has negotiated deep discounts with qualified vendors for the following services in your area:

-  Whole-building energy audit
-  Building systems tune-up service
-  Select monitoring tools and energy-saving technologies

Lock in these limited-time low prices and schedule your service today by visiting [betterbricks.com/energyservices](https://betterbricks.com/energyservices).

Learn more

The complete "Services Finder" concept.

☰ Services
betterbricks/

🔍
Account


Location  
Tacoma, WA

Home / Energy Efficiency Services

## Energy Efficiency Services

The following services, tools, and technologies can help. Choose from approved providers and benefit from cost savings and clear outcomes.


Energy Auditing



LIMITED TIME PROMOTION -  
Receive 20% discount on all qualifying services. Schedule your walk-through quote today.

Select Options


Energy Planning



LIMITED TIME PROMOTION -  
Recieve 20% discount on all qualifying services. Get started with an Energy Management Plan.

Select Options

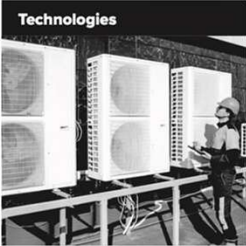
Tools



Undertand what tools are available to engage in your energy efficiency upgrade.

Select Options

Technologies



Volume discount on select energy efficient technologies. Includes vetted manufacturers and installers.

Select Options

The complete “Services Finder” concept.

**Thank  
You!**



**Commercial Whole Building  
Special Project**

**FOR QUESTIONS & FEEDBACK:**

Debbie Driscoll  
[DDriscoll@neea.org](mailto:DDriscoll@neea.org)

Kirstin Moreno  
[KMoreno@neea.org](mailto:KMoreno@neea.org)

