

## OVERVIEW

This document offers a simple roadmap to the financing mechanisms available for deep energy retrofits. In this primer we address some of the means of funding efficiency retrofits, and consider how to increase the likelihood of obtaining capital. The options available to each property owner are predicated on the current condition and proposed improvements to the building, available incentives, owner credit profile and tax position. This version of the financing primer has been developed for multi-tenant commercial office buildings, rented or leased to generate income, although many of the same financing mechanisms exist for other commercial space.

We've organized this document into three basic steps, followed by a summary of available funding programs and structures as shown below. We provide additional resources including state and utility incentives, and the Spark building renewal tool.

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This document addresses one of the most frequently-cited barriers to energy efficiency projects—the lack of budget or available funding. Whether upgrading a chiller, implementing building-wide lighting improvements, or pursuing a comprehensive deep energy retrofit, energy efficiency projects often require large upfront investments, many of which may not be included either in operating budgets or contemplated under existing capital expenditure projects. As a result, many don't move forward due to lack of available capital.

The Northwest Energy Efficiency Alliance (NEEA) and its utility partners developed the building renewal concept and tool, Spark, and supporting website. Spark is a business case tool that provides integrated strategic, technical and financial guidance for real estate investors, developers and design professionals who wish to revitalize commercial office buildings. Spark addresses the barrier of first-cost feasibility analysis by producing custom business case reports intended to help the market and utility account managers inform customer decisions, accelerating the adoption of deep energy retrofits in leased commercial office space.

# STEP 1: REVIEW AVAILABLE FINANCING MECHANISMS

The current reality is that few stand-alone options exist to finance energy efficiency, with the exception traditional mortgage debt or a line of credit. This is particularly true for smaller projects, or property owners with limited equity in the property and/or poor to moderate credit.

Traditional mortgage debt is often the easiest form of financing if sufficient borrowing capacity can be derived from the property. For new construction or an acquisition of an existing asset, the cost of energy-saving investments can often be folded into a new loan. Typically the efficiency upgrades are embedded in the acquisition or construction cost and easily rolled into the mortgage. Without that transfer of ownership however, existing owners who want to do major energy efficiency upgrades may have more limited options. The improvements are often best accomplished in conjunction with other planned capital events or a repositioning of the asset.

Some practicalities to consider:

- **Stand-alone energy efficiency loans are currently considered riskier than traditional mortgage debt.**<sup>1</sup> Consequently they are more likely to be unsecured or secured primarily through UCC filings as opposed to a mortgage. Without strong borrower credit quality, low leverage, or some other means of providing credit enhancement, this financing can be costly to procure.
- **Credit enhancement includes government or utility subsidies/incentives or guarantees.** These reduce the risk of the transaction by lowering the overall loan amount, dropping the interest rate, guaranteeing some portion of debt repayment, or allowing the property owner to make a highly credible commitment to repay the loan through other contractual means. These financing contracts might include Energy Services Agreements (ESA or Managed ESA) or Energy Performance Contracts (EPC). To provide further credibility, contracts that include a robust energy management system, one which is actively monitored and staffed with a responsive management/maintenance team, will be more easily funded.
- **One option is to refinance the existing mortgage adding the investment in energy-saving measures to the loan balance.** This is only practical in situations where there is no prepayment penalty associated with a loan payoff or if the lender is willing to extend or allow a second mortgage behind the first. This requires that the property appraisal reflect an increase in the property value equal to the cost of the energy efficiency measures, or the property be sufficiently under-levered the so it can qualify for a larger mortgage.
- **Funders and appraisers typically look to past operating history as a guide to how the building will perform in the future.** As an owner, you have to make a cogent case for how and why the energy efficiency measures will result in durable operational savings over time.
- **Some financing can be structured in the form of lease.** These generally remain “off balance sheet.” The financing party is often an ESCO or energy services provider that, through an ESA, funds the initial up-front capital cost and recoups its investment over time. This is most commonly found in situations where the property owner has strong credit to support the lease (often an owner/user, school or university or corporate owner).

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<sup>1</sup> This is not to suggest they are more risky – just that the perception exists that they are riskier. In fact, it could be argued the ability to manage the energy use in a building has greater reliability and control than the risks associated with general economic downturn or tenant failure.

- Structure the project such that the lease or debt payments on a monthly basis are less than estimated energy savings. This provides the twofold benefit of allowing the owner to reap some of the benefits of energy savings while making the lease or debt payments over time without having to tap their existing line of credit or other capital reserves.

The following table provides an overview of financing mechanisms and sources:

Financing Mechanism	Description	Considerations	Sources
<b>Mortgage Equity Line Line of Credit</b>	<ul style="list-style-type: none"> <li>• Lending to either the value of the asset (mortgage) or credit of the owner.</li> <li>• Dependent on Owner's credit profile.</li> <li>• Some equity required (cash down payment or asset value).</li> <li>• May coordinate with asset acquisition or with planned CapEx or refurbishment/re-positioning strategy.</li> <li>• Allows for flexible spending.</li> </ul>	<ul style="list-style-type: none"> <li>• Building owner owns the equipment outright.</li> <li>• All tax and depreciation benefits reside with the building owner.</li> </ul>	<ul style="list-style-type: none"> <li>• Contact your existing mortgage or business lender or other local financial institution.</li> <li>• Additional options may be found at the Database for Solar and Renewable Energy (DSIRE).</li> <li>• GreenStreet, collaboration between Energy Trust of Oregon and Umpqua Bank, offers a group of loan products targeting clean energy projects for consumers and small businesses.</li> <li>• Interest rates for commercial loans (from \$5,000-\$25,000) range from 5 - 18 percent over 7 and 15-year terms.</li> </ul>
<b>On-bill Financing (OBF) or On-bill Repayment (OBR)</b>	<ul style="list-style-type: none"> <li>• Utility, state or 3rd party funds efficiency project and collects repayment via utility bill.</li> <li>• Financing typically tied to the property (often through the meter) so that debt transfers across owners and tenants.</li> <li>• Because it leverages the utility's relationship with customers, bill payment history may be used instead of, or to complement, a full credit report.</li> </ul>	<ul style="list-style-type: none"> <li>• May be structured as a service charge that follows the meter. (Especially useful in multi-tenant, separately metered properties.)</li> <li>• Typically accounted for as an operating expense. (If structured as a loan as opposed to a service charge, the financing will be classified as debt.)</li> <li>• No on-bill programs are exactly alike. The programs vary in their sources of capital, financing, product design, target market, and implementation strategy.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean Energy Works, now Enhabit, has provided OBF to small commercial and residential properties. Financing is typically \$10,000 or less.</li> <li>• For other programs, go to the Database for Solar and Renewable Energy (DSIRE) to find on-bill financing programs in your region.</li> </ul>
<b>Operating Lease</b>	Building owner rents equipment; at end of lease the owner can renew/renegotiate the lease, or purchase or return the equipment	Payments are treated as operating expense. Off balance sheet financing.	Typically for discrete system or product (as opposed to a whole building solution). Talk with the product provider for options. (Discuss with your accountant to ensure appropriate balance sheet classification.)

Financing Mechanism	Description	Considerations	Sources
<b>Capital Lease</b>	Building owner rents equipment and ownership is almost always transferred at the end of the lease term; low or zero down payment.	Typically, structured over a term of 3-5 years, and a \$1 buyout provision at the end of the term.	Typically discrete system or product (as opposed to a whole building solution). Talk with the product provider for options. (Discuss with your accountant to ensure appropriate balance sheet classification.)
<b>Energy Performance Contract (EPC)</b>	<ul style="list-style-type: none"> <li>The building owner works with a private company, (typically an Energy Services Contractor (ESCO), to install efficient technologies, and then use the cost savings from reduced energy consumption to pay for the efficiency upgrades.</li> <li>Design, financing, installation and operation is fully managed by an ESCO. Once the energy efficiency renovations are in place, the energy savings are used to pay back the cost of the new technologies.</li> <li>The ESCO guarantees the energy-savings performance for 10-20 years via an Energy Performance Contract (EPC). Once the investment is paid back, the property owner gets all savings generated through the efficiency measures.</li> </ul>	<ul style="list-style-type: none"> <li>“Guaranteed Energy Savings” model.</li> <li>Risk and upside accrue to ESCO, which typically acts to manage building performance.</li> <li>Off balance sheet to property owner.</li> <li>Typically used when alternative funding may require government or voter approval.</li> <li>Less commonly used in commercial investment property.</li> </ul>	See the Building Owners and Managers Association (BOMA) and Clinton Climate Initiative toolkit.

Financing Mechanism	Description	Considerations	Sources
<b>Energy Services Agreement (ESA)</b>	<ul style="list-style-type: none"> <li>• Related to Energy Performance Contract (EPC), the Energy Services Agreement (ESA) provider provides both the financing and manages the ESCO or other efficiency contractor. There is no upfront cost to the property owner.</li> <li>• The provider retains ownership of all project-related assets for the duration of the ESA term and pays for maintenance. Performance is measured and verified.</li> <li>• The savings provide the basis for the ESA service charge.</li> </ul>	<ul style="list-style-type: none"> <li>• Similar to operating lease, but more likely to be a whole building solution.</li> <li>• Structured like an operating lease and meant to be off balance sheet.</li> </ul>	Contact ESA provider.
<b>Bonds</b>	Generally a public-sector organization issues a bond; approval time can be quite long but interest rates tend to be quite low.	Primarily focused on public entities.	Contact a lender, or seek out bond programs at DSIRE.
<b>Property Assessed Clean Energy (PACE)</b>	Local government issues bond to pay for efficiency project; bond is repaid by building owner via property tax; more information see PACENow.org.	The state of Oregon has enacted PACE enabling legislation and Multnomah County is approved a 2-year pilot program (beginning Q4 2015). PACE is unavailable in Washington, Idaho or Montana. There are 36 active or pending PACE programs in 31 states and the District of Columbia.	Both PACENow and DSIRE list programs around the country.
<b>Project Incentives</b>	Project incentives vary by regional location, utility focus and the specific project improvements. Incentives for building renewal projects may be available in the form of utility incentives <sup>2</sup> , tax benefits, or development agency incentives. They are often time-limited and evolve depending on desired outcomes.		See your local utility for regional and property specific incentives. See also <a href="#">DSIRE</a> website.

<sup>2</sup> An actively maintained list for all states may be found at: The Database of State Incentives for Renewables & Efficiency® - [www.dsireusa.org](http://www.dsireusa.org)

Other sources include:

The Oregon Department of Energy - <http://www.oregon.gov/energy/business/incentives/Pages/index.aspx>

## STEP 2: DEVELOP THE FINANCING PACKAGE

Whether you are looking for additional capital through a traditional financial institution, an energy services contractor, or an equity investor, it pays to put together a comprehensive package. Owners can maximize the likelihood of achieving funding by preparing a package that strives to answer the following questions:

- Which high-performance attributes and systems create a direct monetary benefit to the investor, owner and/or user including higher income (rent or increased leasable space) and/or lower operating expenses (utility or maintenance costs)?
- Which attributes or characteristics have an indirect monetary benefit to the owner, such as market positioning (or repositioning) or signal overall asset quality?
- Which attributes or characteristics may result in broader market recognition (publicity), enhanced branding (enterprise value) or organizational goodwill?
- How do the high-performance attributes help the building stack up against the competition? What is market standard?
- Is it possible the high-performance features can contribute to either faster lease up time or increased tenant retention?
- Will the high-performance attributes allow the property to achieve certain “green” certifications such as LEED or ENERGY STAR®, which may indicate enhanced rigor, and may also expand and enhance the prospective tenant pool?
- Do the high performance attributes reduce risk and exposure to energy price hikes or volatility?
- Do the high-performance attributes help to circumvent potential functional or external obsolescence, or do they get ahead of pending regulatory requirements? (e.g. energy use reporting or building labeling)

### 1. Gather the Documents

The evaluation will require the owner to provide a robust description of the improvements being made along with the expected results and supporting documentation. Prepare a list of the high performance attributes installed or to be installed in the building. Pull together all documents. Include descriptions of how the systems will operate and the expected savings. Include any contractual agreements with service providers that will help ensure the savings goals are met.

### 2. Provide the Rationale

Proposed energy savings as a result of planned improvements will be based on modeled energy consumption. The ability to provide examples of performance from systems in comparable buildings

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Energy Trust of Oregon - <http://energytrust.org/commercial/>

Seattle City Light - <http://www.seattle.gov/light/conserves/business/>

Washington State Energy Department - <http://www.commerce.wa.gov/Programs/Energy/Office/Pages/default.aspx>

Puget Sound Energy - <https://pse.com/savingsandenergycenter/Pages/default.aspx>

Snohomish PUD - <https://www.snopud.com/business/rebatesincentives.ashx?p=2051>

will aid lenders and investors in gaining comfort in the reliability of the modeled estimates. (Detailed specific data on high performance buildings may be acquired from the Green Building Information Gateway – GBIG.org. GBIG is an online tool that aggregates green building data from multiple sources and may help locate comparable buildings with similar ratings, use types and systems, particularly in active, large urban markets.)

- Prepare a complete list of attributes important to energy efficiency and energy management, including:
  - Building envelope
  - Insulation
  - Lighting strategies
  - Thermal comfort, climate and lighting control systems
  - HVAC
  - Energy management and monitoring systems
  - Any other specialized equipment (solar, wind, solar hot water, etc.)
- Note whether these systems have a track record or are cutting edge.
- Articulate, in your submission documents, how the attributes will contribute to improved property performance, reduced operating costs, increased resiliency, enhanced durability, etc.

### **3. Summarize Contractual Agreements**

Contractual agreements that impact building performance and/or cash flow should be specifically called out. These include Energy Performance Contracts, Service Agreements, Power Purchase Agreements, and incentives or rebates.

### **4. Outline Energy Benefiting Leases**

Lease structures that provide for shared savings or the ability for the owner to capture a greater share of savings, or recoup equipment upgrade investments, should be identified and characterized.

### **5. Provide Third-Party Reports**

Provide copies of relevant third-party reports that provide insight into the building's energy performance – both pre- and post-investment. These may include, but are not limited to, reports on lighting or HVAC design, blower door tests, building commissioning reports, energy audits, and LEED or ENERGY STAR® documentation.

### **6. Highlight Integrated Design Components**

It benefits the owner to summarize special building attributes, describing equipment upgrades and providing supporting documentation. Pay particular attention to highlighting the value derived from integrated design. For example, by combining strategies to achieve optimized energy savings, certain equipment may be downsized (reducing overall cost) and equipment footprint reduced (possibly increasing rentable or usable square footage). For example, efficient lighting systems reduce heating load, allowing for a smaller HVAC system that reduces both equipment capacity requirements and associated costs. The reduced cost can be reallocated to other efficiency measures such as thermal insulation. The value from integrated systems is often overlooked because most incentive programs are evaluated by the energy performance and simple payback of discrete systems, rather than the whole building performance of an integrated package of measures.

## STEP 3: EDUCATE AND COMMUNICATE

Funders need to understand why you believe this investment adds value to the property. Include as much information as possible to assist them in this process. It is important to be organized and provide full documentation and rationale. This would include your financial assumptions, such as operating cost savings, the potential for additional leasable space, possible rent gains from modernizing the asset, reduced vacancy periods, and/or tenant retention. Better building data obtained from the monitoring capabilities of energy management systems will help track energy savings and provide methods to measure and report performance, reducing the risk of lost benefits. When both the energy cost savings plus the asset value increase are considered (rather than just the simple ROI on the cost savings), the investment payback risk is impacted.

These might include:

- The impact of incentives/rebates that reduce project capital costs
- Reductions to the “first” costs of components, such as the size of HVAC systems
- Maintenance and depreciation expenses, when compared to traditional components, if the energy performance attributes have a longer life
- Data from energy audits comparing measured to expected performance
- Utility expense reductions over the long term
- Component life-cycle performance analysis, durability and costs
- High performance attributes that will affect “future proofing” or delayed obsolescence
- Other long running benefits that produce predictable and durable cash flows

To ensure an accurate evaluation of a high-performance building, communicate early and often with the funder (and the appraiser).

### Working with Traditional Financial Institutions

Banks and other financial institutions are subject to regulatory constraints in evaluating property performance and value. They may or may not have experience in valuing high-performance properties. Regardless of whether you are looking at new construction, an acquisition or a refurbishment of an existing property, you will find it useful to put together a comprehensive package detailing the energy efficiency measures and highlighting the expected savings and means of ensuring that savings are realized.

For investment property, there are four primary categories where asset value is impacted:

- Income
- Expense
- Vacancy
- Risk

It behooves the owner to provide as much information as possible early in the process to help financial institutions (appraisers) identify and evaluate the high-performance attributes that contribute to the productivity, competitiveness and utility of the property. Benefits that are realized by the “owner or user,” are monetary, and accrue directly to the property have a higher probability of influencing property value. The outputs from the Spark tool can provide a starting point to educate the lender on the potential value implications of the energy retrofit.

# PROGRAMS AND STRUCTURES

## STATE LOAN PROGRAMS

State	Program	Description
<p><b>Small Commercial:</b> A number of programs have been set up to address energy efficiency upgrades in the residential and small business market. These typically range from \$5,000 - \$25,000 and are limited in scope. Organizations offering these programs include Enhabit (formerly Clean Energy Works); MPower, GreenStreet (Umpqua Bank) and SELP.</p>		
Oregon	<a href="#"><u>Small Scale Energy Loan Program (SELP)</u></a>	SELP makes long-term, fixed-rate loans to governments, tribes, schools, non-profits, businesses and individuals to finance Oregon projects that conserve energy or use renewable resources.
Washington		Washington has no public-purpose-funded energy efficiency programs. However, the state's utilities budgeted over \$215 million in 2013 to promote increased energy efficiency in the state. Additional resources were allocated through the Northwest Energy Efficiency Alliance (NEEA), Bonneville Power Administration (BPA), and Northwest Power and Conservation Council (NWPPCC) regional organizations. <sup>3</sup>
Federal	<b>Fannie Mae Green Loan Program</b>	The Fannie Mae Green Initiative provides owners of multifamily properties (rental or cooperative properties with five or more units) with several financing programs including Green Rewards, Green Preservation Plus, and the Green Building Certification Pricing Break, all of which are eligible for a 10 basis points (0.1%) reduction in the all-in interest rate. Over the life of a 10-year \$10 million loan, that could result in a savings of \$95,000 or more in interest. All Fannie Mae green loans are securitized as Green Mortgage Backed Securities (Green MBS). <a href="http://programs.dsireusa.org/system/program/detail/5780">http://programs.dsireusa.org/system/program/detail/5780</a>

## OTHER NON-TRADITIONAL SOURCES OF FINANCING

### ON-BILL FINANCING AND ON-BILL REPAYMENT

On-bill financing can bring the benefits of energy efficiency, and renewable energy, to a broader range of utility customers by eliminating or significantly reducing up-front costs for efficiency improvements. Customer savings from increased efficiency often exceed loan payments, so customers see immediate benefits. On-bill financing builds on the relationship between utilities and their customers and on-bill financing programs can provide security to utilities and lenders by allowing a utility to disconnect power if the customer defaults on the loan. Utilities can bundle financing with other efficiency incentives, such as rebates or tax credits. With default rates below three percent, on-bill financing is relatively low risk relative to other loan default rates.

On-bill financing creates several challenges for state lawmakers, regulators and utilities. On-bill loans require adherence to state consumer lending laws, while on-bill tariffs may require regulatory approval. Utilities may not have the means or the desire to become lending institutions and may not be comfortable with the idea of acting as a lender. Business models and billing systems may need to be redesigned to implement the administrative components of programs. Using disconnection of service by utilities as a method of security payment may raise consumer protection issues.

On-bill repayment is an effective alternative. While on-bill financing refers to programs that utilize ratepayer,

<sup>3</sup> <http://energy.gov/eere/femp/energy-incentive-programs-washington>

utility shareholder, or public funds, on-bill repayment programs leverage private, third-party capital for financing. Banks, credit unions or financial institutions provide the loan capital and loan payments are displayed on utility bills. This approach allows third-party institutions to take care of administrative functions, while utilities only need to process payments. On-bill repayment obligations can utilize several different financing vehicles, including loans, leases and power purchase agreements (PPAs, which serve as agreements to buy and sell energy savings over time). On-bill repayment has been implemented in Oregon at the residential level.

## PROPERTY ASSESSED CLEAN ENERGY (PACE)

Property Assessed Clean Energy (PACE) is a mechanism to support the financing of energy efficiency and renewable energy upgrades on commercial buildings using a property tax lien. PACE leverages the security of the property tax system to support lenders in providing longer term financing, which helps better align savings from energy upgrades with the repayment of the energy investment. PACE's structure also allows the energy loan repayment obligation to remain with the building through ownership change.

PACE financing is available in Oregon, but not in Washington State. In 2009, the Oregon legislature authorized PACE for use in commercial properties. In September 2015, Multnomah County approved a 2-year, \$3 million pilot program that will finance energy efficiency and renewable energy upgrades on commercial buildings in up to 10 projects. The Portland Development Commission (PDC) will act as administrator. During the pilot period, the Commission will use dollars generated from the city's urban renewal districts to finance the loans of properties that lie within those boundaries. Eventually any lender in the county could provide the same type of financing.

Using the pilot program as a guide, the PACE financing will generally work as follows.

1. A commercial property owner will request an energy audit from the [Energy Trust of Oregon](#).
2. The Energy Trust will evaluate the property and draw up a list of efficiency upgrades. These could range from changing light bulbs or insulating windows to replacing the HVAC system, or implementing a deep energy retrofit.
3. The property owner will get bids for the work and submit both the audit and the bids to the PDC for approval.
4. Once PDC signs off, the owner will secure a loan through a private lender (or during the pilot program, through the PDC's internal approval process with funding from the urban renewal district funds).
5. PDC will file a benefit assessment lien with Multnomah County. If a property owner defaults, the county could collect funds through property taxes or even foreclosure. As a practical matter, property tax liens stand in priority to secured debt.

Some of the [key benefits](#) for commercial property owners include:

- Tax assessments qualify as an eligible pass thru expense under most triple net leases, allowing landlords to pass thru retrofit costs to tenants who also benefit from savings.
- Property assessments are treated as an operating expense, not capitalized on the balance sheet as a long-term liability.
- The obligation runs with the property and transfers with ownership turnover. Consequently, it does not limit payback period to owner's expected holding period or tenant's planned occupancy. Future owners take on payments and savings.

## ADDITIONAL RESOURCES

### UTILITY INCENTIVES FOR OREGON AND WASHINGTON

Contact Energy Trust of Oregon or your local utility for complete information on current energy efficiency programs and incentives, as programs often change. We list some current program for utilities in Oregon and Washington below, and will update as new opportunities become available. Integrated package measures often fall under customized incentives. For most individual installation projects, qualification is generally based on simple payback derived from modeled energy savings.

Utility	Description
Energy Trust of Oregon	<p>The Energy Trust of Oregon is a non-profit organization, offers a wide array of electric and natural gas efficiency programs to customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas. These include but are not limited to:</p> <ul style="list-style-type: none"> <li>• <b>New construction and major renovation incentives</b> for activities such as early design (up to \$2,500), energy modeling (up to \$25,000), and commissioning (up to \$40,000). Incentives and tools are also available for lighting, HVAC, and other energy efficient equipment.</li> <li>• <b>Services and financial incentives</b> for numerous industrial processes including water treatment facilities. Projects may include lighting upgrades, controls and sensors, heat pumps, motors, variable speed drives, and custom projects. Incentives offset up to 50% of project costs.</li> <li>• Incentives for any level of LEED certification (maximum \$499,999) based on total annual energy savings claimed on project submitted to the Green Building Certification Institute (GBCI).</li> </ul> <p>Oregon has established a public purpose fund for conservation, energy efficiency, and renewable energy programs. The programs are funded through a non-bypassable 3% “public purposes charge” on total revenues collected by the utilities. Customers with average demand greater than 1 MW may be eligible to self-direct some portion of their public purpose charges.</p>
Avista	<p><b>Natural Gas (only in Oregon)</b></p> <ul style="list-style-type: none"> <li>• <b>The Prescriptive Commercial Incentives</b> program provides prescriptive rebates (up to 50% of measure cost) to commercial customers (420 and 424 rates) towards the installation of natural gas efficiency measures. Covered products include commercial kitchen equipment, insulation (limited to gas-heated buildings up to three floors and 5,000 square feet), refrigeration night curtains, and forced air furnaces.</li> <li>• Site-specific incentives are also available for measures not covered under the prescriptive program, including heating equipment, controls and new construction measures that exceed energy codes.</li> </ul> <p><b>Electric and Natural Gas (only in Washington)</b></p> <ul style="list-style-type: none"> <li>• Site-specific (custom) incentives pay up to 50% of incremental cost for electric efficiency and fuel conversion projects not included under other programs. Remuneration levels are based on the simple payback period, with longer payback projects receiving higher incentives</li> <li>• The Commercial Natural Gas HVAC program offers incentives that range from \$6 - \$10 per thousand Btu/h depending on the system installed</li> </ul>

Utility	Description
Seattle City Light	<p>Seattle City Light offers a variety of energy efficiency programs to commercial and industrial customers through its Energy Smart Services initiative. Additionally:</p> <ul style="list-style-type: none"> <li>• Commercial customers receive <b>financial incentives</b>, based on annual kWh savings (up to 70% of project costs) for installing energy-efficient equipment, including lighting, HVAC, controls, glazing, insulation and custom measures, as well as industrial process improvements. Incentives are available for both retrofit and new construction projects;</li> <li>• For <b>new construction</b> projects, SCL offers funding to support design and installation of building system designs that generate energy-saving performance, and for energy-efficient equipment including lighting, HVAC and most custom measures that can save energy;</li> <li>• For small commercial customers, rebates for replacing inefficient lighting are available through the <b>Smart Business Program</b>.</li> </ul>
Puget Sound Energy	<p>PSE offers a variety of incentives and programs. These include but are not limited to:</p> <ul style="list-style-type: none"> <li>• <b>Commercial rebates</b> are available to help non-residential customers offset the costs of installing efficient equipment, including lighting and lighting controls, occupancy sensors, HVAC equipment, PC power management, commercial kitchen and refrigeration equipment;</li> <li>• Custom retrofit <b>grants</b> typically pay \$0.30/kWh and \$5/therm for first-year energy savings for most qualifying retrofit projects (maximum 70% of the installed cost). Payment is typically \$0.20/kWh for lighting up to 50% of the cost of qualifying upgrades for existing facilities, renovations, or new construction. Eligible efficiency measures include lighting retrofits, HVAC systems and controls, water heating, variable speed drives, compressed air systems, industrial processes and building commissioning. There's no limit to grant size as long as the funding meets eligibility requirements</li> <li>• PSE provides <b>funding and support</b> to owners of multiple buildings who are interested in hiring a resource conservation manager to develop and implement a plan to manage energy, water, and solid waste costs. Typically, PSE pays for a portion of the first-year salary, and also provides assistance in achieving savings that will exceed the individual's salary over a period of three years.</li> </ul>
Snohomish PUD	<ul style="list-style-type: none"> <li>• SnoPUD offers custom incentives for HVAC, lighting and other efficiency measures.</li> </ul>
Pacific Corp/ Pacific Power	<ul style="list-style-type: none"> <li>• Typical upgrades cover a wide array of projects from lighting to HVAC to green motor rewinds</li> <li>• Custom projects pay \$0.15 per first-year kWh savings (maximum 70% and one-year simple payback). If required, individual measure incentives will be adjusted downward pro-rata so the project has a simple payback after incentives of one year.</li> </ul>
Cowlitz PUD	<p>Any Commercial or Industrial customer is eligible for its <b><u>Commercial Energy Efficiency Program (CEEP)</u></b></p> <ul style="list-style-type: none"> <li>• Rebates are available for 'new construction' lighting and for retrofits to existing lighting systems.</li> <li>• The rebate incentive cannot exceed 70 percent of the total installed cost.</li> <li>• For retrofits, the estimated annual energy consumption in the affected area must be reduced by at least 25 percent.</li> <li>• Custom Incentives are also available to commercial customers for the development and installation of electrical energy saving (non-lighting) measures in their facilities.</li> <li>• CEEP can provide an incentive of up to \$0.20 per kilowatt-hour of verified annual energy savings or 70% of incremental project costs, whichever is less.</li> </ul>
Clark PUD	<p>The utility provides a range of <b><u>business conservation programs</u></b> including:</p> <ul style="list-style-type: none"> <li>• Lighting incentives for approved retrofit lighting upgrade projects.</li> <li>• Incentives are capped at the lower of 50% of the total project costs or the total of the BPA per unit.</li> <li>• New construction projects cap at \$0.18 per kWh up to 50% of incremental project costs.</li> <li>• Clark PUD can also provide custom financial incentives for the replacement or installation of new equipment that is energy efficient and above code minimum/standard practice.</li> <li>• Incentives are based on verified energy savings.</li> </ul>

## HOW BUILDINGRENEWAL.ORG AND SPARK HELP

- **Building Renewal Tool** – [www.buildingrenewal.org](http://www.buildingrenewal.org) Intended to educate and inspire implementation of deep energy retrofits, Northwest Energy Efficiency Alliance developed this website in consultation with regional utility partners. Including owner video case studies and robust best practices, the website is designed to support property teams to reposition existing commercial buildings to be more valuable and competitive through improved energy performance.
- **Spark** – <https://buildingrenewal.org/get-started/spark> Developed by NEEA through collaboration with regional experts and utilities, **Spark** is a unique, fast way to evaluate your building for a building renewal (deep energy retrofit) project. The tools will help you assess renewal potential for a specific building. And unlike others, these tools look at market and income potential in addition to energy savings potential. Spark provides an initial screen of the investment returns of a deep energy retrofit project. It is the starting place for you to evaluate whether or not a particular investment may make sense. It does not stand in place of your own analysis, but can provide a framework of the business case to present to a funding partner using your own specialized analysis tools.

Spark provides a summary of valuation calculations, measures, and metrics on the “Business Case – Key Indicators” page of its report, where the reader (funder) can find the following information for the user’s scenario.

- The project internal rate of return (IRR) and net present value (NPV) are presented at the top of the page for a quick indication of scenario investment potential.
- Estimates of the total project cost and the aggregate incentives assumed for the scenario are provided, along with the net project costs after incentives have been applied.
- Projected changes to annual net operating income, assuming stabilized vacancy, are indicated for years one and ten, indicating the impact upon income, derived from energy savings, O&M expense reduction, and the annual rent differential.
- A breakdown of the key value components are graphically shown to indicate how much value is derived from energy and O&M savings, how much from modernizing and repositioning the asset, and the resultant rent differential and overall asset appreciation

Spark’s Business Case – Key Indicators page lists the key assumptions used for the scenario’s discounted cash flow.

- The time horizon used for project analysis (10 years)
- The discount rate
- The current capitalization (CAP) rate which is used as the starting point to calculate the reversionary value resulting from the building renewal at the end of the project time horizon.

*Document developed for NEEA by Molly McCabe, President/Founder of HaydenTanner LLC*