



# The Green Building Trend

## Impact on New Construction Efficiency Programs

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# Presentation outline

Benefits of LEED – Overlap with NCPs\*

Structuring Incentives – Proceed with Caution

Case Studies

Are LEED projects free riders?

Why pay LEED incentives?

\*NCP = New Construction Program



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# What are the benefits of LEED?

LEED encourages green building design, including energy efficiency.

Courtesy: Izabela Habur, iStock Photo



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# Energy Efficiency NCPs and LEED— *Where is the overlap?*

- Energy performance incentives
- Modeling technical assistance and incentives
- Commissioning technical assistance and incentives

Plus, LEED encourages:

- M&V
- Lighting and HVAC controls
- Outdoor air delivery monitoring
- Cool roofs, light pollution, daylighting
- Onsite renewable systems and green energy purchases
- Water use reduction



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# LEED-specific programs are rare

- Long Island Power Authority “Green Building Incentives”
  - Bonus incentives, plus more money for modeling and commissioning
- Avista Utilities, “LEED Certification”
  - Incentives by building size for certified buildings
- Silicon Valley Power
  - Bonuses for registration, certification, and by rating level.
- NYSERDA
  - Green building technical assistance, bonuses for energy performance
- Energy Trust of Oregon
  - Similar LEED and Custom financial incentives, LEED process is streamlined



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# LEED-specific programs are rare

- Austin Energy “Green Building Program”
  - Training and information for architects and builders
  - LEED certification incentive discontinued
- Seattle City Light
  - LEED certification incentive discontinued
- Puget Sound Energy
  - LEED certification incentive discontinued



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# How should we structure LEED incentives?



Courtesy: Achim Prill, iStock Photo

Keep in mind what you are trying to accomplish – get more NCP participants, get more builders to use LEED, or ensure LEED buildings are as energy efficient as possible?



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# Structuring LEED financial incentives

## *Proceed with caution*

- LEED covers more than just energy
  - Does it make sense for your utility to pay incentives for more than just energy-related improvements?
  - If you already pay incentives for energy-related improvements, why pay more for LEED?



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# Structuring LEED financial incentives

## *Proceed with caution*

- LEED points combine electric and natural gas performance
  - LEED-NC points cover electricity and natural gas consumption, measured as dollars saved
  - Don't link incentives to LEED EA-1 points if you want to focus on one fuel source
  - Check estimated savings in modeling documentation instead



# Structuring LEED financial incentives

## *Proceed with caution*

- Until June 2007, LEED buildings were not necessarily better than code.
  - LEED-NC and LEED-EB require 2 EA-1 “Optimize Energy Performance” points since June 2007.
  - That’s good news!
  - How does 14% better than ASHRAE 90.1(2004) compare to your local code?
  - How does it compare to your NCP incentives?



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# Structuring LEED financial incentives

## *Proceed with caution*

- LEED-NC EA-1 points are based on tiered improvements over ASHRAE 90.1(2004).
  - If you already pay incentives for improvements over code, should you pay more for LEED?
  - How do those tiers compare to tiers for your NCP incentives?
  - How does ASHRAE 90.1(2004) compare to the modeling baseline required under your local code?



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# Avista Utilities “LEED Certification Incentives”

- Achieve LEED certification on your next project and Avista Utilities will pay
  - \$1.25 per conditioned sq ft for LEED-NC and \$0.50 per conditioned sq ft for LEED-EB
  - Achieve a minimum of four points for Credit EA-1 “Optimize Energy Performance”
- Submit USGBC certification approval letter to Avista as evidence of meeting LEED requirements
- “Buildings where LEED Certification is a requirement are not eligible for incentives.”



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# LIPA “LEED Certification”

- Commit to meet LEED requirements, with energy efficiency goal of at least 20% over ASHRAE 90.1(2004), and LIPA will pay
  - 100% of the cost of energy modeling, up to \$50,000.
  - 100% of the cost for fundamental and additional commissioning of energy related systems, up to \$100,000.
  - Projects can qualify for up to \$25,000 for achieving LEED points that are related to the building’s energy performance.
  - The maximum new construction incentive will be increased from \$400,000 to \$500,000 for LEED Green Buildings.



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# Seattle City Light “LEED Incentive”

- For buildings that achieved LEED-NC certification, SCL paid:
  - \$15,000-\$25,000 for projects achieving LEED Silver, Gold, or Platinum.
  - Minimum energy, water, and materials points required for each rating level.
- BUT...SCL discontinued its LEED incentive program (2006).
  - No clear impact.
- City now eases permit restrictions on LEED buildings:
  - New LEED buildings in downtown Seattle are allowed to exceed standard height and density restrictions.
  - Builders love this!



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# Silicon Valley Power “LEED Rebate”

- SVP will pay:
  - \$3,000 for LEED registration,
  - \$7,500-\$34,500 for certification based on building size,
  - \$1,500-\$10,000 bonus based on LEED certification level.
- Plus, design team incentive (up to \$50,000) and performance-based capital incentives available for *all* new construction.



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# NYSERDA “New Construction Program”

- NYSERDA will pay a LEED certification bonus:
  - \$7,500-\$15,000 for certification based on building size.
- State code baseline modeling, or LEED baseline, or both
- Plus, whole-building incentives boosted
  - Up to 10% (as much as \$150,000 bonus) based on achieved EA-1 points
  - Incentive cap increased to 75% of incremental cost (from 60%)
  - Another 20% to offset cost of enhanced commissioning
- Plus, green building technical services
  - 50% of green building technical assistance cost
  - Additional technical assistance support for modeling and design for *all* new construction.



# Energy Trust of Oregon “LEED-NC Track”

- LEED whole-building track is similar to Custom Track:
  - Up to \$300,000 incentive for energy efficiency capital measures
    - Based on EA-1 points or
    - Based on estimated energy saved
- Savings estimate can be based on state code baseline *or* LEED model baseline
  - ETO waives individual measure cost-effectiveness requirement
- Plus, bonus incentives
  - Enhanced commissioning and M&V LEED points earn 10 cents per therm and 1.5 cents per kWh



# Are LEED projects free-riders?



Courtesy: Silvia Boratti, iStock Photo

LEED is still new for many builders, and requirements are increasingly stringent. Several efficiency programs pay incentives to LEED projects—including for energy performance prerequisites—even if local ordinances require LEED.



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# Why pay LEED incentives?



Courtesy: Ethan Myerson, iStock Photo

New construction programs tend to attract builders interested in life-cycle savings. Builders that intend to lease or sell the space after construction may be more interested in LEED points than energy savings.



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# What you can do

- Get familiar with LEED requirements
- Check for existing LEED incentives (taxes, permits)
- Get a staff person LEED certified
- Join the local USGBC chapter (or get one started)
- Host workshops, lunch-n-learns, teleconferences
- Explain how your incentives and technical assistance help builders earn LEED points
  - Offer technical assistance for modeling and commissioning
  - Offer financial incentives for modeling and commissioning
- Adapt modeling requirements and incentive tiers to match LEED
- Offer bonus incentives to impact leased and “spec” construction



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# For More Information

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