

ZNE for Lenders, Appraisers & Investors

A ZNE building produces as much energy as it consumes over the course of a year

Why ZNE?

Investors once saw Zero Net Energy (ZNE) buildings as risky because they were more expensive and incorporated innovative strategies and technologies that were unfamiliar to lenders, appraisers, and investors. Now, with more and more well-known companies pursuing ZNE designs, investors who question the value of ZNE buildings risk being left out of an increasingly profitable sector of the real estate market. ZNE buildings are, in fact, of greater value and need to be appraised accordingly. Here are a few of the reasons why:

- In response to California climate goals and mandates, state agencies and cities are enacting policies that are driving increasing levels of energy efficiency on a path to zero net energy in the building sector.
- It is possible to develop ZNE buildings in most building types and climate zones, for private sector, institutional, and public buildings.
- The right investment portfolio strategy can enable investors to meet financial objectives that strike the right balance between achieving ZNE goals, and risk/return expectations.
- ZNE buildings secure pricing advantage through lower operations and maintenance costs, reduced equipment replacement costs, and reduced cost of vacancy.
- ZNE performance is higher than standard building performance, can increase net operating income, and add asset value for new buildings and major renovations. This can lead to a greater return on investment.
- ZNE performance helps reduce risk by insulating owners and tenants from energy price volatility, lowering vacancy rates, and reducing regulatory risks, while attracting and retaining tenants and employees.
- Lenders and insurers are recognizing the need for, and value of, high-performance and ZNE buildings and are beginning to offer Green Financing options and reduced insurance rates. Lenders like Fannie Mae reward borrowers for investing in smart energy and water-saving improvements. There are also rewards for green building certified properties at refinance, acquisition, or supplemental financing.¹

What benefits can I expect when investing in ZNE?

ZNE buildings provide substantive business advantages to developers and owners including reduced risk exposure by ensuring that an asset is more resilient, has higher tenant and employee retention, and enjoys higher rents. ZNE buildings also have demonstrated reduced operating, maintenance and equipment replacement costs, which can improve the bottom line, while providing valuable brand recognition for commercial real estate professionals in a competitive building market.

The insurance industry has also become aware of the risks associated with climate change, and is identifying the

connection between energy efficient buildings powered with renewables and lower risk.

How are ZNE policies affecting market adoption?

Advances in energy codes and policies, as well as shifts in stakeholder and market demand, is prompting building developers and owners to provide a new level of sustainability.

The ZNE market is still small, but as lenders begin to adopt ZNE policies, the financing options should begin to dramatically increase. According to Navigant Research, ZNE buildings are the fastest growing sector of the real estate market².

For example: Fannie Mae and Freddie Mac announced in 2016 up to a 27 basis-point reduction in loan interest rates

and higher loan-to-value limits for multifamily housing projects with sustainability certifications or a borrower commitment to lower annual energy or water use by 15%¹.

Rating Agencies, like Moody's, have incorporated off-balance sheet metrics such as ESG (Environmental, Social and Governance) to determine the qualitative and quantitative creditworthiness of an entity³. Buildings built to ZNE offer a competitive advantage to those looking to secure loans via a Collateralized Loan Obligation (CLO) or other investment strategy.

The Global Real Estate Sustainability Benchmark (GRESB) is a benchmarking program used by institutional investors to monitor and manage the sustainability risks of real estate investments. In 2015, 6% of GRESB participants with new construction activities reported that they had net-zero energy policies for development projects. Today, ZNE commitments are increasing and show the next level of performance for commercial buildings that demonstrate leadership in environmental performance.

The Appraisal Institute also has a number of resources centered around the valuation of sustainable properties.

Resources:

- California Title 24 Standards and Long-Term Strategic Plan: www.cpuc.ca.gov/General.aspx?id=4125
- Savings by Design Incentives: savingsbydesign.com/zero-net-energy-zne-resources
- J.P. Morgan: Decoding the Elements of Sustainable Investing: am.jpmorgan.com/blob-pbstudio/1383335319956/83456/sustainable-investing-2016.pdf
- Morgan Stanley Institute for Sustainable Investing: morganstanley.com/what-we-do/institute-for-sustainable-investing
- Sustainable Real Estate Investment | Implementing the Paris Climate Agreement: An Action Framework: [iigcc.org/files/publication-files/Sustainable Real Estate Investment Framework_website.compressed.pdf](http://iigcc.org/files/publication-files/Sustainable_Real_Estate_Investment_Framework_website.compressed.pdf)
- The Global Real Estate Sustainability Benchmark (GRESB): api.gresb.com/debt2015/assessment
- NBI's 2016 List of ZNE Buildings: newbuildings.org/2016-zne-list/
- ZNE Communications Toolkit: newbuildings.org/resource/zero-net-energy-communications-toolkit/
- Green Building Resources from the Appraisal Institute: appraisalinstitute.org/education/education-resources/green-building-resources/
- Value Beyond Cost Savings: How to Underwrite Sustainable Properties by Scott R. Muldavin. Green Building finance Consortium, 2010. gbcusa.org.za/wp-content/uploads/2013/06/Scott-Muldavin-Report-Value-Beyond-Cost-Savings-How-to-Underwrite-Sustainable-Properties-2010.pdf

Is ZNE feasible for all building types?

ZNE is feasible in multifamily buildings, schools, small and low-rise office buildings, libraries and other public assembly-type buildings. Built by a variety of design teams and developers, numerous examples of these and other building types are currently operating across the country.

Is the cost of ZNE buildings in line with the cost of conventional buildings?

The commercial sector covers a broad array of building types, and information on ZNE cost is based on a limited number of buildings. However, some commercial buildings have achieved ZNE within typical construction costs for their building type. Achieving ZNE is based on a careful integrated design process focused on a clear energy performance goal. Most reported examples range from 0% to 10% in additional costs, including the costs of photovoltaic panels.

1 https://www.fanniemae.com/content/fact_sheet/competitive-advantage-green-financing.pdf
2 Zero Energy Buildings, Energy Efficient Products and Services for Net Zero Energy and Nearly Zero Energy Commercial and Residential Buildings: Global Market Analysis and Forecasts, Navigant Research, 2012: <https://www.navigantresearch.com/research/zero-energy-buildings>
3 <http://www.ceres.org/investor-network/resolutions/moodys-incorporate-esg-into-ratings>