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Architects and Developers Embrace Sustainable Design as ESG Mandates Loom

Multifamily developers and owners recognize that investing in sustainability and decarbonization today is an essential step towards reducing long-term operating costs, helping the environment, and improving quality of life for residents, says one director of sustainability.

By **Natalie Dolce** | October 13, 2023 at 04:00 AM

As the attention on Environmental, Social, and Governance has increased over the last several years in commercial real estate, more investors are using ESG factors as an asset risk management tool and demanding that they become more sustainable and adhere to environmentally responsible principles. So says Tony Liou, founder and president of Partner Energy, a division of Partner Engineering and Science.

Attention surrounding that topic is here to stay. With stricter energy codes on the horizon in cities nationwide, real estate leaders are more focused on sustainability and energy efficiency than ever before. In the past, apartment owners have leaned into anything and everything to help with energy efficiency—from green rooftops to energy reporting software—in order to meet aggressive ESG targets, but architects also are playing more of a role in ensuring that both new and renovated buildings will meet both upcoming mandates and their own green design goals.

According to Nate Thomas, AIA, CPHC, director of sustainability at The Architectural Team, a leading national planner and designer of multifamily and mixed-use communities, “Multifamily developers and owners recognize that investing in sustainability and decarbonization today is

an essential step towards reducing long-term operating costs, helping the environment, and improving quality of life for residents."

He explains that new codes and regulatory shifts are "simply creating an inflection point that will tip the balance in favor of acting quickly to reduce emissions and move towards regenerative architecture and development models."

Thomas also notes that previously niche design strategies focused on decarbonization and achieving high levels of energy efficiency are now on the verge of becoming mainstream. He also predicts that sometime within the next five years, more than half of new multifamily projects will use the "Passive House approach," which are design and construction principles, particularly in affordable housing developments where key incentive programs are increasingly tied to energy efficiency.

He notes that the approach lowers ongoing operating costs and improves the wellbeing of residents through better indoor air quality and enhanced noise attenuation. "Passive House is the most effective tool to date for producing measured reductions in a property's operating carbon footprint, which accounts for approximately 80% of building emissions," notes Thomas, "and occupants will also benefit from better air quality, less sound pollution, and related enhancements to their home environment – which makes these buildings more attractive to potential residents."

Deep energy retrofits are also becoming the norm for older buildings, he points out, as code compliance imperatives outweigh the high upfront cost of comprehensive envelope and building system upgrades, including full electrification. For those, he says that careful planning and cost analysis will be key to ensure appropriate budget allotments and project scheduling.

Thomas also points to an emerging overlap between deep energy retrofits and the asset repositioning renovations of 20- to 40-year-old properties that make up a large percentage of the country's affordable housing stock, noting that retrofitting now is the best way to future-proof these buildings for decades to come.

As an example, Thomas points to TAT's adaptive reuse of the historic Stone Mill complex in Lawrence, MA, where an all-electric, low-carbon design incorporates a high efficiency heating and cooling system, extensive insulation, and triple-glazed windows that reduce the 86-unit property's energy consumption and long-term carbon footprint. "In order to reduce carbon emissions to the levels local, state, and national leaders are targeting," he says, "it's essential to upgrade existing buildings. Simply improving the performance of new construction will not be enough."

The concept of counting carbon and being able to prove that you are either sequestering carbon or getting to Net Zero on your buildings is also quickly becoming a trend, he explains. "Owners and developers will need to have systems in place and be able to show data," Thomas explains.

Already, he says that many municipalities are requesting carbon analysis reports on new projects, with initiatives such as Boston's Building Emissions Reduction and Disclosure Ordinance (BERDO) establishing reduced greenhouse gas emissions parameters for large buildings, with the aim of achieving net zero by 2050. As a related benefit, he says that performance-based standards also allow for local and sustainable materials to be used, with building teams having the flexibility to specify better materials.