AEG
Stakeholder Challenge
5/19/21

bxp Boston Properties

Introduction

- Buildings, and emissions associated with the operation and construction of the built environment, are often described as part of the problem – as large contributors to the climate crisis.

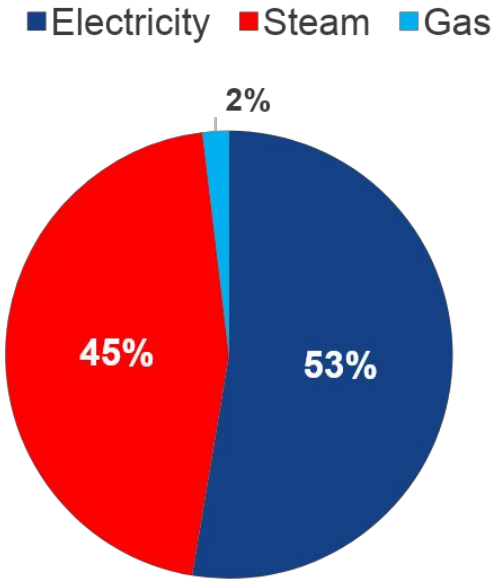
- With the right programs, technologies, and incentives to stimulate investment, buildings can advance climate action, not as a part of the problem, but a key part of the solution set.

- BXP has cut emissions over 70% (pre-covid), has established a 1.5 degree C science-based target, and has committed to achieving carbon neutral operations by 2025.

- Large buildings in the urban core lack access to affordable, renewable power, and there are not presently viable solutions for electrifying onsite thermal heating systems, including district steam.

Root of the Problem

- Largest 10 in-service properties by energy absolute energy consumption total 14.6 million square feet (4 towers in Boston, 5 towers in New York and 1 tower in San Francisco)
- Total location-based emissions from operations = 90,000 MTCDE/yr (around 20,000 or 22% of the total is then offset with renewable supply agreements)
- Onsite addressable PV will produce less than 1% of total energy requirements at these assets. Other 'additionality' options aren't feasible.
- District steam is quickly becoming our #1 emissions source in these towers.



What is the key obstacle?

There is no viable solution for procurement of local renewable energy and the electrification of steam. Decarbonizing steam at the generation source is likely the best approach for all stakeholders. Plans to decarbonize steam are highly conceptual, and potentially decades away. We need to act more quickly.

What role would BXP play?

BXP is a steam consumer with a short-term goal of decarbonizing operations. Our role will be to consider electrification, demand GHG-free steam, and if necessary, offset emissions associated with the generation of district steam.

Benefits and Consequences

- Benefits will include lower carbon operations, climate change mitigation and better air quality.
- Benefits may also include attracting tenants with more sustainable ‘net-zero’ product and avoidance of fines under forthcoming building carbon performance regulation and/or carbon taxes.
- Other potential negative consequences could include large capital requirements for electrification and higher operating expenses.
- There may also be an unintended negative consequence of adding more peak load to the grid (as a result of electrification). Without investments in resilience at the grid-scale, electrification of heating systems could result in grid capacity shortages during the heating season.

Final Statement

Regarding buildings & construction, to achieve Boston's Carbon & Equity goals, the most critical obstacle for BXP to overcome is sourcing affordable, renewable power that qualifies as ‘additionality,’ and electrifying onsite thermal heating systems, including district steam."