

# The building electrification train is leaving the station...can we get our clients onboard?

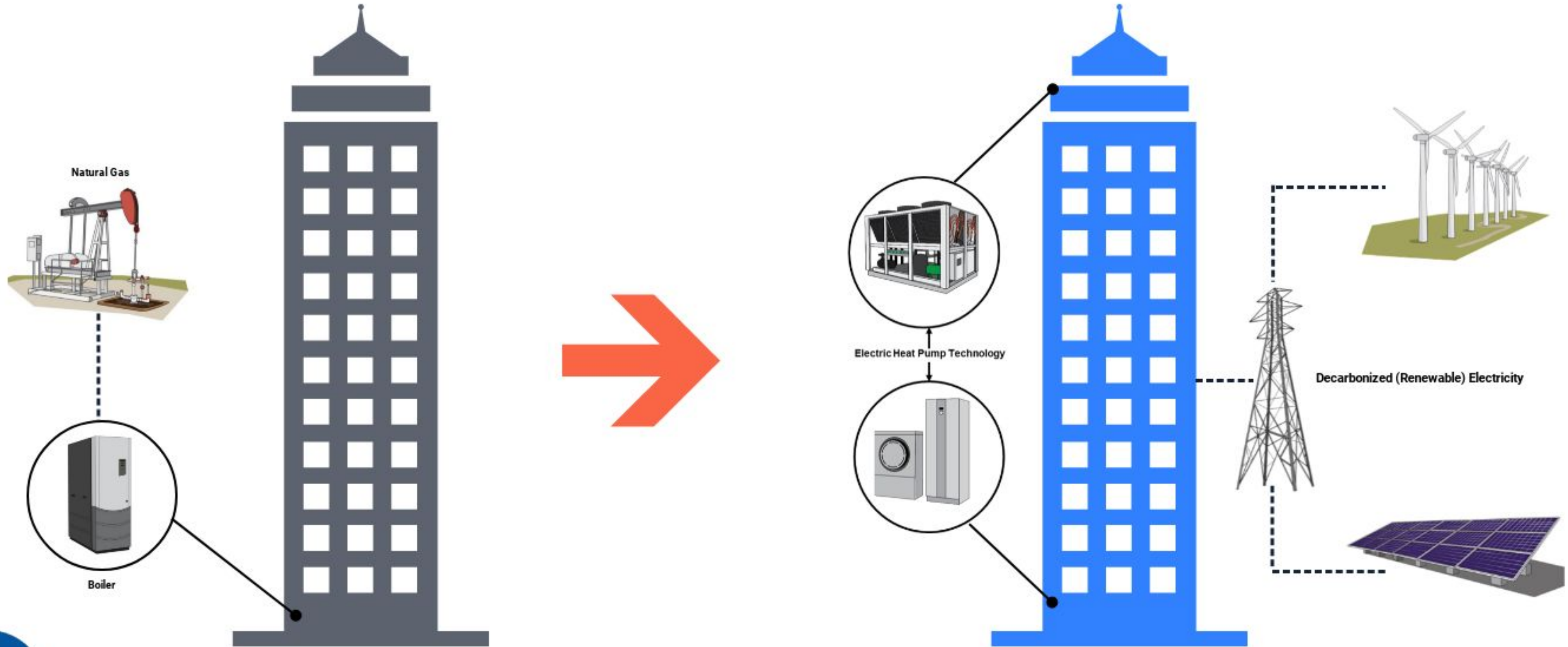
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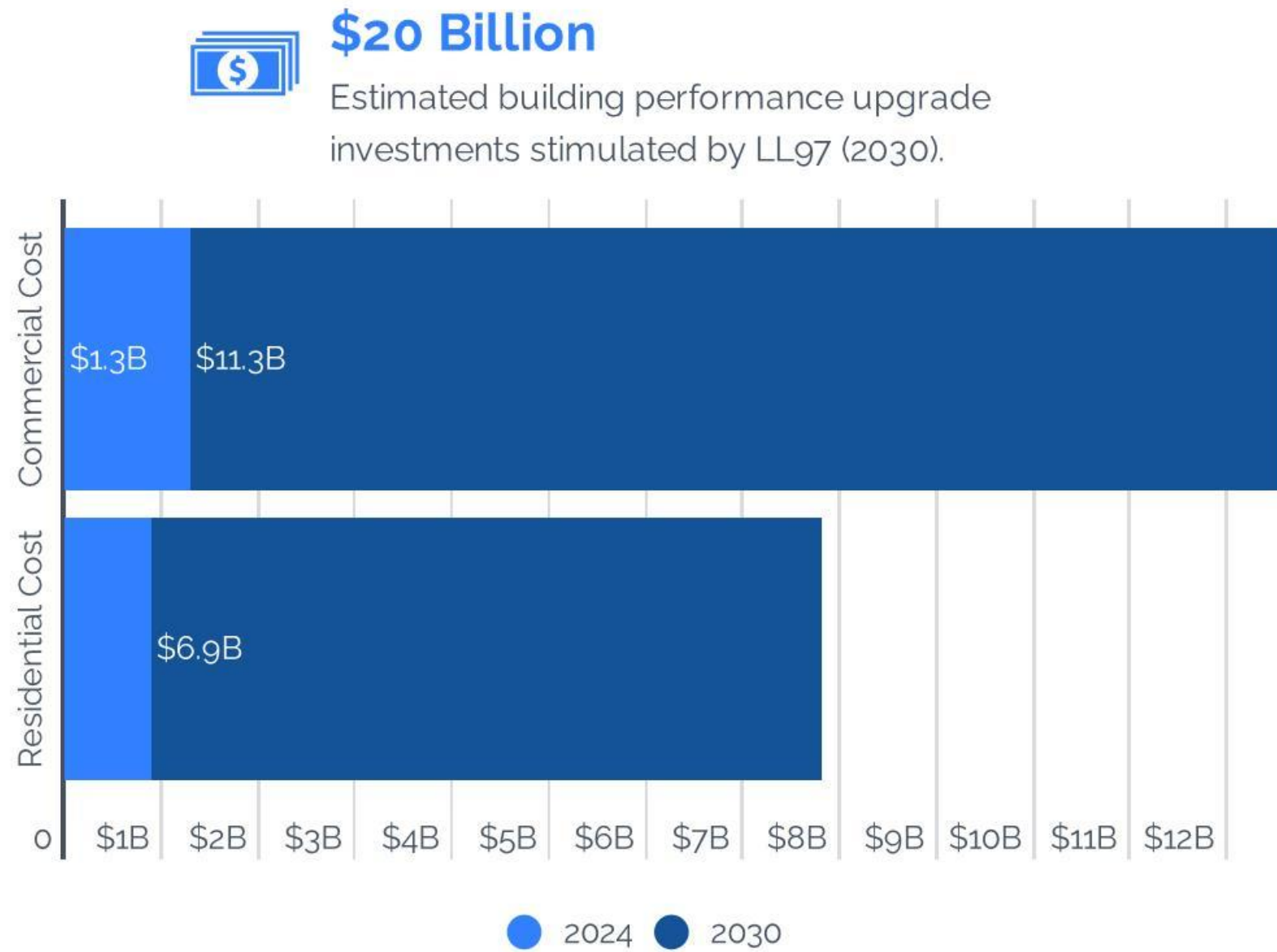
04/21/2021

# Deep decarbonization in buildings revolves around a core concept: electrification



As **MEP Engineers**, we are responsible for selecting and designing building systems

# But building electrification is **disruptive** and the industry landscape is **uncertain...**



Infographic recreated from the Urban Green Report, "Retrofit Market Analysis"

- “ But what about the electrical grid? ”
- “ Can the available technology even do this? ”
- “ How much is this going to cost me upfront? ”
- “ Does this mean my utility bills are going to increase? ”
- “ Wait, the laws are still being developed...? ”



# And when there is **uncertainty**, it's easier to stick with what you know



”

Everyone knows that uncertainty is stressful. But what's not so obvious is that **uncertainty is more stressful than predictable negative consequences.**

de Berker, A., Rutledge, R., Mathys, C. et al. Computations of uncertainty mediate acute stress responses in humans, 2016 as cited in Lewis why we're Hardwired to hate uncertainty, 2016



Research shows that stress responses spike with different types of **uncertainty**

# But sticking with "business-as-usual" will have consequences for both the planet and our clients

San Francisco Becomes the Latest City to Ban Natural Gas in New Buildings, Citing Climate Effects

Seattle City Council passes measure to end most natural gas use in commercial buildings and some apartments

Berkeley first city in California to ban natural gas in new buildings

The city of Berkeley will no longer allow natural gas pipes in many new buildings starting Jan. 1, 2020. It's the first city in California to pass such a law, officials said.



De Blasio moves to ban natural gas hookups: 'Literally' our 'only choice is renewable energy'



## DEVELOPING CARBON TARGETS FOR EXISTING LARGE BUILDINGS

The City of Boston is developing a new policy to make existing large buildings healthy and climate-friendly. Large buildings in Boston are the biggest emitters of carbon pollution. Developing a carbon standard for these buildings is one of the [2019 Climate Action Plan Update](#) strategies.

If we wait to move toward electrification, we will miss our 80 x 50 goals and our clients will be at risk for future policy action



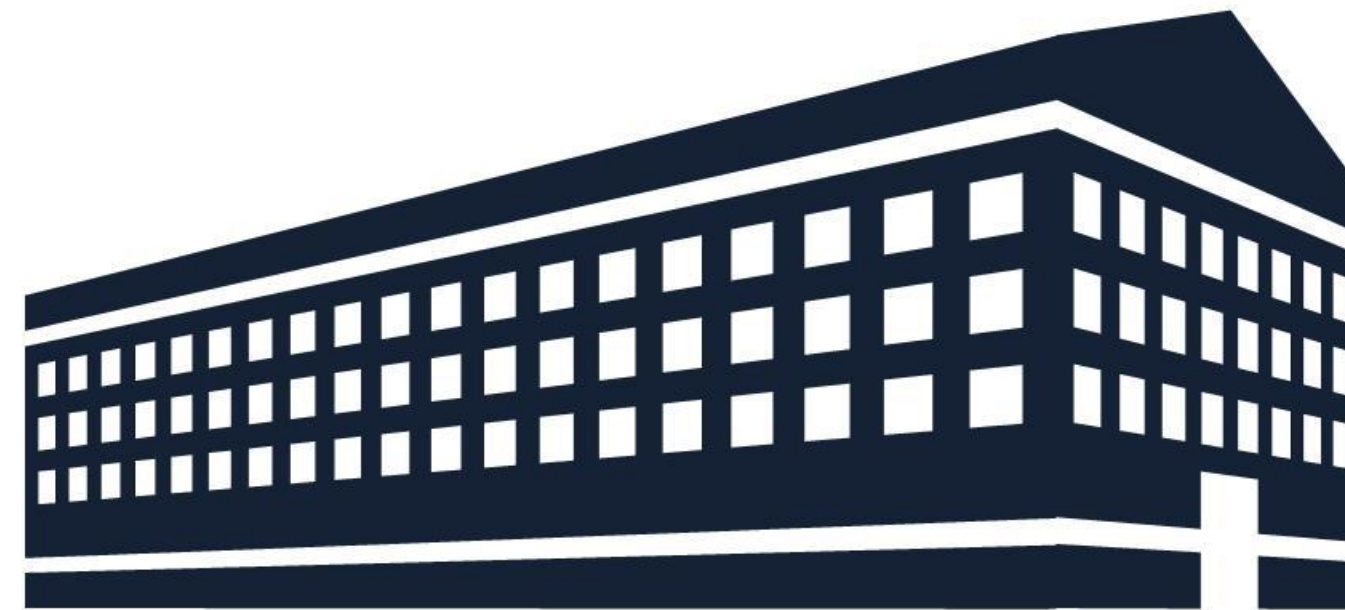
We need a way to **reduce uncertainty** and shift the conversation from the challenges to **solutions** so our clients can get comfortable with *moving forward*

Individual Building Projects



- Factors in tenants
- Addresses logistics and investment cycles
- **Very little room for failure**

A Dedicated "Living Laboratory"

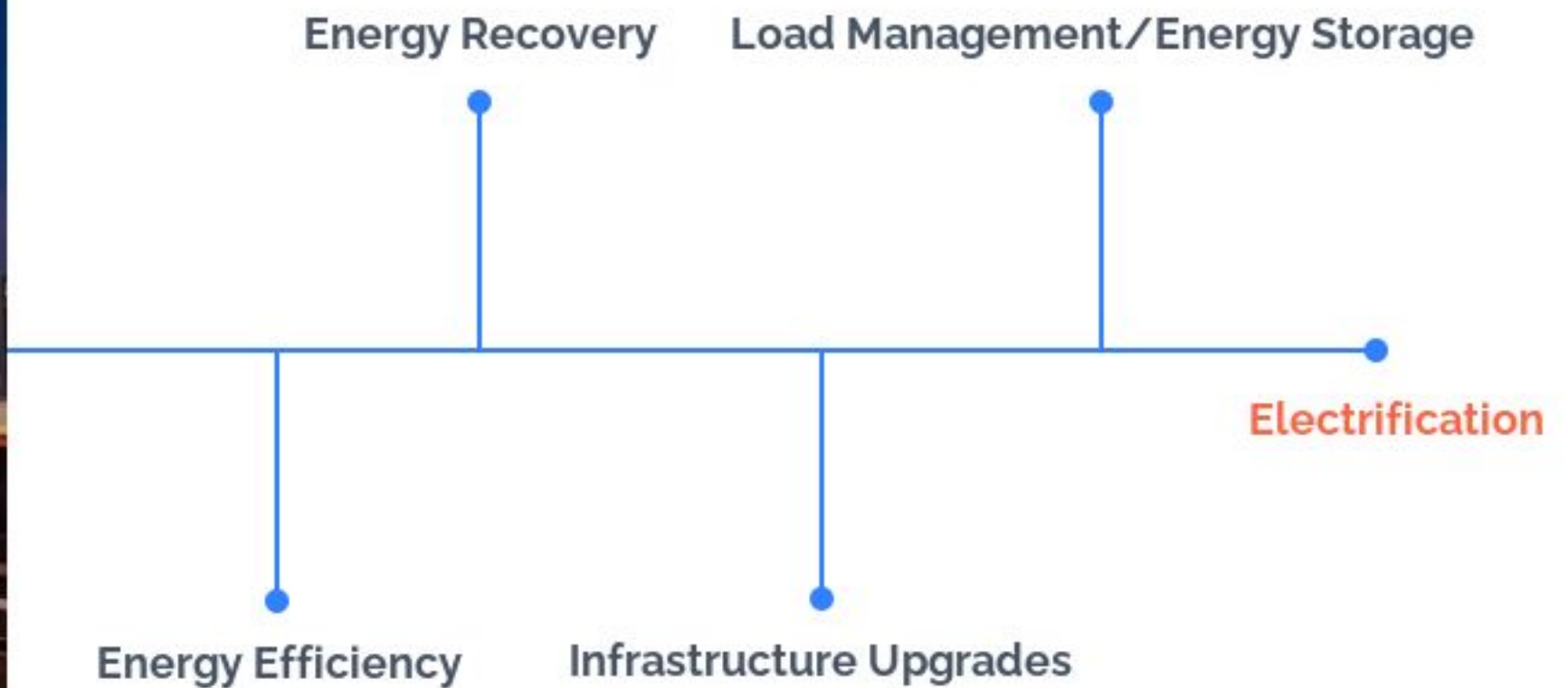


- Allows for public/private partnerships
- Accelerated innovation
- **Allows for failure and lessons learned**



Regarding Buildings & Construction, to achieve NY's 2050 Carbon & Equity goals, the most critical obstacle JB&B has to overcome is...

...a lack of **demonstration projects** that would **reduce uncertainty** by showcasing practical electrification solutions.



The train is leaving the station...we have a **responsibility** to get our clients onboard.