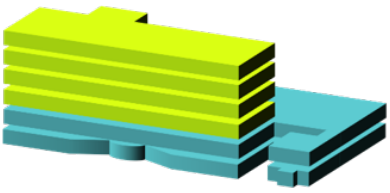
Prototype Building: GE's iconic "building 37" in Schenectady NY. This is the building with the large "GE" monogram on the top. Google Earth: link

More details about the building: This is a 6-floor building. The lower floor is a conference center (think auditorium, conference rooms). The upper floors are employee spaces such as cubes and other offices.

The original Building 37 was built in 1924. The "Annex" was put on the back of the original building 37 in 1970's. There were other renovations in 1989-1991.

Floor 1-2 = 44, 352 sq ft, Floor 3-6 = 22,728 sq ft



What we're providing:

1. Drawings of the building so that you can understand the dimensions, etc. This also includes electrical schematics and plumbing if it's helpful.
2. Conference center meeting and attendance so that you can see the traffic in that floor.
3. Assumed employees who working in the building. (~300 employees and their typical badge swipe in/out)
4. Estimated Electricity, Natural Gas, Water consumption.
5. Common building standards

Feel free to make estimations as needed for prototype building.

Ideas to get started:

1. Should there be solar panels on the roof? (but this is kinda boring!)
2. What AI solutions could be implemented? (ohh…. That could be interesting)
3. …. Be creative, think outside of the box! (yes! Tell me more!)

Record video - MIT hackathon-20251029_155221-Meeting Recording

Hello everyone.
I'm Jonathan Banahan, GE Vernova's Wind Sustainability Leader and Course 16 alum.
I'm here at our Greenville facility to help inspire your challenge today.
Every year, facilities like the one behind me, electrify the world to thrive and decarbonize.
In my business, emissions from buildings like this one represent the second largest Scope 1 emissions category.
I'm here to ask for your help in this challenge.
I want you to take these buildings into the sustainability future they deserve.
Help eliminate the emissions and waste and water impacts from facilities like this one, and help us reduce the impacts across the world.
I'm going to leave you with Jessica and Jennifer for further details, but I look forward to seeing what you can come up with.
Thank you.
Have a great day.

Thanks, Jonathan.
I'm Jennifer Topinka, MIT Course 2 alum and a manager at GE Vernova's Advanced Research Center.
I'm here today with Jessica Lough, who leads sustainability strategy across the entire GE Vernova Company.
Jessica, tell us about this challenge.

Well, thanks so much for the introduction, Jennifer, and thanks to all of you for taking on this challenge.
While GE Vernova powers over 30% of the world's electricity, our own buildings, like the one Jonathan showed, are one of our top five environmental impacts.
We're calling this Mission Impossible: Building Transformation.
We need your breakthrough thinking to transform our existing buildings into regenerative hubs, addressing energy, water, waste and resilience.
And all within a two year implementation window.

That sounds like an exciting challenge. What will the students receive to work with?

Well, we'll be giving everybody an actual GE Vernova building as their prototype case, complete with energy data, floor plans and current performance metrics, plus frameworks like lead certification and our own sustainability standards.

But don't worry, they don't need to be building experts.
We provide the building knowledge, they bring the fresh thinking.
Think of it as a sandbox with real world rules.

That sounds fun. I want to play too.
What makes a winning solution?

Well, there are five things that we're looking for.
The first is innovation, looking for brand new approaches, Think really outside of the box, new technology.
The second is a business case.
We're looking for a clear return on investment for the entire building.
We're also looking for scalability solutions that work across different facilities and completeness, a solution set that addresses multiple sustainability aspects, and finally, judge's choice.
This is where the teams can really surprise us with that wow factor that we never saw coming.

Awesome.
And will these solutions actually be implemented?

That's an amazing question, and it's the best part.
We're planning our 2026 building transformation initiatives right now.
Winning solutions will have a real potential to influence what we actually do here at GE Vernova.
And as the person executing our sustainability strategy, I can promise these ideas will not sit on the shelf.
They'll be reviewed by my team for real projects with real budgets.

Any final message for the students?

I just want to let everybody know that this isn't just a hackathon.
It's your opportunity to accelerate real climate action.
So the question isn't whether transforming our buildings is possible.
The question is, will you be the one to prove it?

Thank you, Jessica, and good luck everyone.