

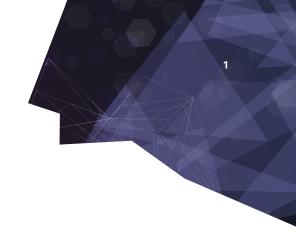


FT-SIEMENS FUTURE CITIES BRIEFING NEW YORK CITY

New York rallies its SMEs to work towards net zero



SIEMENS



NEW YORK CITY

New York rallies its SMEs to work towards net zero

New York City is trying to set the standard for urban sustainability in the US with a commitment to carbon-free electricity by 2040 and a carbon neutral economy by 2050¹. In 2019 it took a bold step with its Climate Mobilization Act², a pioneering package of bills that stated it was the largest climate solution proposed by any city in the world.

The Act's centerpiece is a mandate for energy-efficient retrofits in buildings of more than 25,000 square feet, which are a major source of the city's carbon emissions. Overall, buildings are responsible for 71% of New York City's annual emissions³.

But none of these goals will be met without the support of the city's small and medium-sized enterprises (SMEs) - the healthcare facilities, transportation companies, restaurants, and manufacturers that represent New York City's famous entrepreneurial spirit. SMEs represent almost half of the private sector workforce⁴, form the backbone of the local economy, and are set to play a critical role in its decarbonization strategy.

NO SUSTAINABILITY WITHOUT SMES

SMEs in OECD countries are responsible for about 60–70% of industrial pollution⁵ and large amounts of scope 3 emissions in the supply chain. They have a long way to go to reduce their carbon footprint, but too many are struggling to adopt an effective ESG strategy. In a survey of our corporate borrowers, 75% of large cap customers had started to implement a sustainability plan – the same proportion of SMEs had no plan at all, says Anthony Casciano, President and CEO of Siemens Financial Services, Inc.

¹ https://onenyc.cityofnewyork.us/strategies/onenyc-2050/

² https://www1.nyc.gov/site/sustainability/legislation/climate-mobilization-act-2019.page

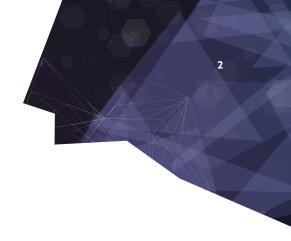
³ https://atlas.dc.siemens.com/en/cities/new-york/sustainability/insights

⁴ https://cdn.advocacy.sba.gov/wp-content/uploads/2020/06/04144139/2020-Small-Business-Economic-Profile-NY.pdf

⁵ https://www.brookings.edu/research/small-business-green-recovery-fund-to-power-us-climate-transition/



SIEMENS





When 75% say they don't have a sustainability story, you have to ask why."

Anthony Casciano, President and CEO of Siemens Financial Services, Inc.

"It's incongruous. You can't decarbonize the industry if SMEs don't travel with you," Casciano says.

For Casciano, there are three main answers to that question: a lack of imperative, a lack of know-how, and a lack of financing. Many small and medium-sized businesses do not see sustainability as an immediate priority, while others simply don't know where to start. For those with narrow profit margins it can be hard to demonstrate a fast payback, and a large number do not have the capital to invest in renewable generation systems or other sustainable changes.

Siemens Financial Services aims to support this change with its \$100 million Kickstarter Capital Campaign to finance the transition to net-zero emissions for SMEs in the US. This will help businesses to stay competitive while they become more sustainable, and crucially will build momentum toward decarbonization in the sector. This funding boost is particularly necessary in New York City, where many SMEs may feel left behind by the sustainability movement.

"New York State and New York City have the most aggressive targets in the country for the conversion to renewables and to the decarbonization of buildings," says Kathryn Wylde, President and CEO of Partnership for New York City. "But we will not have a green city if the SMEs are not part of that solution. Unfortunately, it's almost the opposite: they're very late to the party and often resistant."



We will not have a green city if the SMEs are not part of that solution."

Kathryn Wylde, President and CEO of Partnership for New York City

⁶ https://new.siemens.com/us/en/company/about/businesses/financial-services/smes-kickstarter-capital.html









There's a need for incubators to help everyone come together, network, share best practices and learn about financing opportunities

Stephanie Margolis, Executive Director of NYC Climate Action Alliance

SMES FACE CHALLENGES ON THE GROUND

To understand why there is that resistance, Wylde considers the reality for New York's SMEs. Most are tenants at the mercy of rent increases, who fear they will have to pay directly or indirectly for renewable energy conversions and building retrofits. They have already been hit by a congestion pricing program, a ban on single-use plastic foodware, and new bike and bus lanes that reduce their customers' parking spaces.

"Who did all those things come down hard on? Our small businesses," Wylde says. "It's just one thing after another. They feel under siege, and most lack access to capital to be able to make major investments."

COVID-19 posed further challenges, but it also prompted SMEs to come up with innovative solutions to the slowdown in business. When Governor Andrew Cuomo declared a state of emergency in March 2020, the city's restaurants sprang into action to help those in need.

With bureaucratic hurdles temporarily removed, many businesses found they could easily access procurement contracts and federal support, allowing them to provide services during lockdowns such as deliver food in the fastest, most efficient way possible.

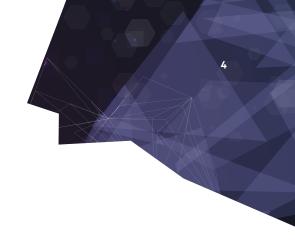
PARTNERSHIPS PROMOTE PROGRESS

For Wylde, the lesson is clear. "We are in a climate emergency, and we've got to move to an emergency mentality," she says. Partnerships between the public and private sector proved invaluable during the pandemic, and this is something that can and should be taken forward to help SMEs meet sustainability goals.

A great example of this in action is the Brooklyn-based non-profit Sustainable United Neighborhoods (SUN), which was established during the pandemic to support local communities and advance the green economy. SUN has since applied for federal funding to sponsor a set of



SIEMENS



microgrids providing renewable energy to neighborhood business districts, helping SMEs to gain access to renewable energy. Partnerships such as these have enormous potential and can play a big role in providing the seed funding they need to get off the ground.

"There's a need for incubators to help everyone come together, network, share best practices and learn about financing opportunities," explains Stephanie Margolis, Executive Director of NYC Climate Action Alliance. "Another big challenge that we're hearing is the ability to apply for financing. It's very onerous and paperwork intensive, and in many situations you need upfront capital before you get reimbursed on the back end. So there are some challenges, but the idea of forming these coalitions and incubators will really provide support to help SMEs through."

AND TECHNOLOGY OPENS DOORS

The pandemic also showed SMEs the value of technology. Of the businesses that were not already online, those that were prepared to enter the digital economy at speed were best able to adapt to the changes. Technology may provide the bridge SMEs need to adapt to a more sustainable world.

"Technology, education, financial assets – all those elements will create synergies that are required for SMEs to access the resources they need," says Carlo Lipizzi, Professor and Program Lead for New Jersey's Stevens Institute of Technology and winning team member of the Financing a Sustainable Future challenge, part of Siemens' Tech for Sustainability Campaign.

Siemens' Tech for Sustainability Campaign is an initiative for students, researchers, start-ups, and innovative individuals to leverage technology to solve real-world sustainability challenges.



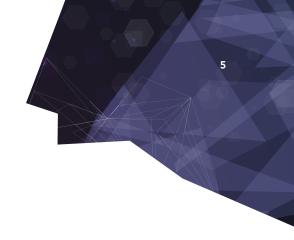
Technology, education, financial assets – all those elements will create synergies that are required for SMEs to access the resources they need."

Carlo Lipizzi, Professor and Program Lead for New Jersey's Stevens Institute of Technology

"Technology is playing an important role. We are still talking about digital transformation in a world that is already digital. The reality is that businesses that are not in the digital environment are left behind."







Building-management systems are becoming much more sophisticated thanks to advances in AI and machine learning, which could be critical in helping SMEs understand their energy consumption. "This is where they can use different technologies, hooking them into sensors and controls to get a baseline understanding of how they're consuming energy," says Margolis.

What this revealed during the pandemic was eyeopening. In major US cities, demand by commercial customers went down because of people working from home – but daily electricity consumption only dropped by 13%. Identifying the sources of energy-drain painted a clear picture of the problem, encouraging people to actively reduce their energy consumption. "Allowing people to tie their actions into outputs helps them to shift the narrative and change their behaviors to enact the type of systems we want to see," says Margolis. Applied correctly, technology can make complex goals simple, whether it is a high-level building management system or a smart energy monitor.

TIME FOR A FRAMEWORK THAT EMPOWERS SUSTAINABLE SMES

As we move through what the UN calls "The Decade of Action" for climate change, the pressure on SMEs to become sustainable will only grow stronger. Supporting their decarbonization efforts will be essential to meeting future climate goals – in New York City and beyond – and will have much-needed economic benefits for local businesses as they emerge from the pandemic.

Setting this in motion will require government, investors, and technology providers to build a framework that empowers sustainability initiatives at a local level.

Kathryn Wylde explains what that looks like. "You have to create a dedicated infrastructure with public and private funding components, and then folks on the ground," she says. "That's how we rebuilt the city in the 70s and 80s after the great urban crisis – it was by creating that not-for-profit, public and private partnership infrastructure that brought us to where we are today."



Allowing people to tie their actions into outputs helps them to shift the narrative and change their behaviors to enact the type of systems we want to see."

Stephanie Margolis, Executive Director of NYC Climate Action Alliance

⁷ https://www.eia.gov/todayinenergy/detail.php?id=43635