

Pittsburgh

A new kind of energy

This city has made headlines recently as one that's transitioning from an old to a new economy. It used to be an industrial engine built on extracting and refining natural resources – and some parts of the metro still sputter along like this. But much of the city proper has moved on. There are now multiple neighborhoods where eds, meds and technology, not large factories, are the main job drivers, and high-skilled employees the residents.

A recent major development called the Energy Innovation Center (EIC) embodies this transformation. Recently I toured the facility, and found that it was a compendium of everything Pittsburgh aims to become.

EIC is 200,000 square feet, and located on a 6.6-square-acre campus in the Lower Hill District, a traditionally-underserved community sitting just uphill from the central business district. The purpose of the facility, according to its Facebook page, is to “co-locate collaborative university-industry projects, proof-of-concept energy technology demonstration laboratories, an early-stage business incubator and targeted workforce training programs. Corporate partners will showcase new products and deploy advanced energy management systems.”

EIC occupies the former Connelley Trade School, which opened in 1931 as a high school for Pittsburgh students hoping to work in heavy industry. The front of the school was used for classrooms, cafeterias, auditoriums, etc., while the rear was a model workshop where students learned skills, before graduating to go work in Pittsburgh's many factories. At its peak, Connelley had 1,800 students, and its massive imprint up on the hill still makes it part of Pittsburgh's skyline.

But in 2004, Connelley, like other old Pittsburgh public schools, shuttered, a victim of this declining Rust Belt economy. The city considered redeveloping it as senior homes, but Bob Meeder had different ideas. He grew up in Pittsburgh viewing the school from his house; Meeder's father even went there. At the time the school closed, Meeder had decades of experience in fundraising and economic development, and several years before had founded Pittsburgh Gateways Corporation (PGC), a nonprofit dedicated to redeveloping distressed parts of Pennsylvania. PGC purchased the school, and after several years, retrofitted it as this EIC tech hub. In 2015, PGC began leasing the space, and there are now 14 tenants within the building.

EIC's financing structure includes 34 contributors, lenders and investors, making it, “one of the nation's most complex development projects,” says Meeder, during a sit-down interview. Twenty-three percent of the financing has come from tax credits, including New Markets Credits, Federal and State Historic Credits and conservation easement credits. Significant funding has also come through donations, as Pittsburgh has one of America's largest metro-level philanthropic asset bases. Philanthropy accounts for \$14 million of EIC's funding, including \$8 million from the Richard King Mellon Foundation. Different levels of government—including the U.S. Department of Energy—have also gotten involved. Finally, much of the rest comes from business transactions, which gets to the heart of EIC's purpose.

The facility leases much of its space, with the largest client being the University of Pittsburgh Medical Center (UPMC), which trains doctors here. The advantage of different companies locating in EIC—whether they're geared around health, energy, tech or something else—is having proximity to other companies doing similar things. EIC is thus an incubator for pooling ideas and developing products. Because it is relatively new, not all the space has been leased, but Meeder says that, “When 65 percent of this place is rented, it will meet all of its facility operating expenses.”

Another revenue-generating tool is workforce development. EIC teaches young people skills for different tech and clean energy trades, bringing the facility full-circle from its early days as an industrial training mill. The building overwhelmingly helps minority students from the Hill District, which is mostly black. Outside companies then pay EIC for access to these skilled workers.

Lastly, companies—mostly within the energy utility field—pay or donate to have their equipment displayed in EIC's facilities. This helps them, since EIC conducts frequent trade shows where students and experts can view the technology. Among the partnering companies, include Eaton, an electrical power management firm,



Scott Beyer

and Duquesne Light Company.

These revenue models mean that EIC, which could have a \$100 million final cost, will hopefully one day be able to support itself, in case government subsidies or donations dry up.

“We never approach the corporations as if they’re making a community donation for a social cause,” says Meeder. “We really want it to be a business transaction so they stay with it long-term.”

This whole collection of enterprises has made for an impressive display throughout the building. In fact, it seems like almost every corner of the place has something unique happening. The UPMC nurse and doctor training facility on the top floor has built-in medical testing rooms. The roof has solar panels and a garden. The parking lot has concrete specially designed to collect rainwater, helping mitigate Pittsburgh’s long-time flooding problems. There is, across the campus, a wind turbine, a power station and a built-in smart energy grid. Every HVAC function—pipes, water heaters, ventilation—has been intentionally exposed for research purposes.

Perhaps the most interesting aspect of EIC is the “ice farm” that was built in the basement, inside the old school swimming pool. During the summer, the cold air from the farm gets circulated throughout the building via fans and piping, helping the building save on AC costs. Different energy utility companies are now touring the farm, to see how it could be adapted to other old buildings. In the future, Meeder and staff hope that the entire EIC facility becomes this sort of destination, attracting pioneers in tech, health, clean energy and other trades who want to learn about best practices.

If EIC becomes this, it will fit nicely into Pittsburgh’s innovation ecosystem. Because right now, much of the scene is occurring in neighborhoods downhill from this one – such as Oakland, The Strip District, The Golden Triangle and East Liberty. The Hill District used to be a thriving black neighborhood that the government decimated through urban renewal. Ever since, it’s been an under-developed scar in the middle of the city. Having a functioning tech scene there would help reconnect these fragmented parts of the city; and nothing will accomplish this faster than a multi-story behemoth, like the Energy Innovation Center. **TCA**

STORY CONTACT:

Bob Meeder
President & CEO, Pittsburgh Gateways Corporation
rmeeder@pghgateways.org



Creative solutions, tailored to fit your financial needs.

RED is committed to serving the multifamily industry as a direct lender – offering a full menu of lending programs for affordable, workforce, market-rate, green, and small balance financing.



Fannie Mae DUS®
FHA MAP
Bridge Financing
Bond Financing*
Freddie Mac
Small Balance

redcapital
group

redcapitalgroup.com

*Services provided by Red Capital Markets, LLC (Member FINRA/SIPC) and its registered representatives. DUS® is a registered trademark of Fannie Mae.