New York Smart City

Modernizing the World's Oldest Energy System

Ragnvald Nærø

Simon Sylvester-Chaudhuri

Joe Silver

SMART ENERGY NETWORK

CIV:LAB
COMMUNITY:SOCIETY:TECHNOLOGY:HUMANITY

URBAN FUTURE LAB

NYU TANDON

NEW YORK SMART CITY
Modernizing the World´s Oldest Energy System

URBAN FUTURE LAB

CONTACT

🔗 ufl.nyc

✉ Joe Silver, jssilver@nyu.edu

NYU | TANDON SCHOOL OF ENGINEERING

UNDERGROUND MAINS
The Edison Electric Illuminating Co., of N.Y.

NORTH RIVER

EAST RIVER

BROOKLYN
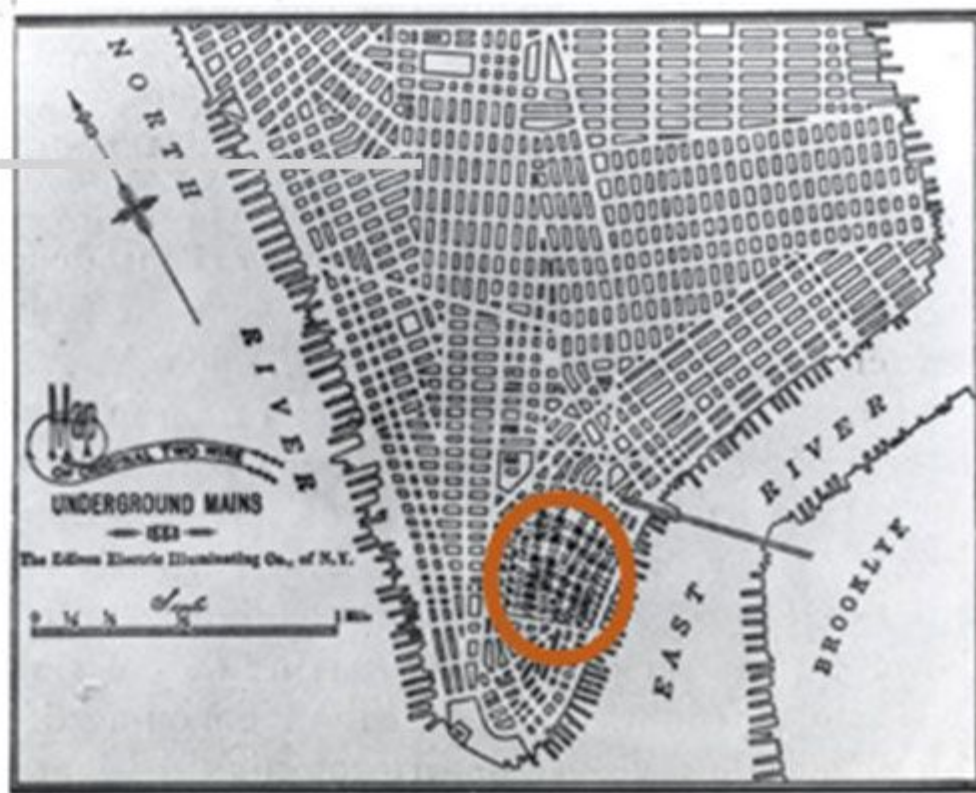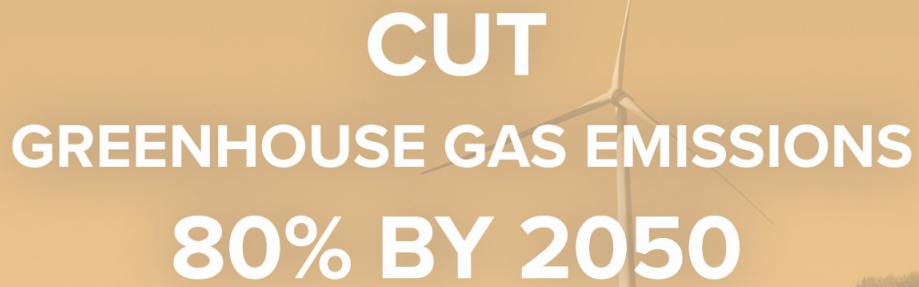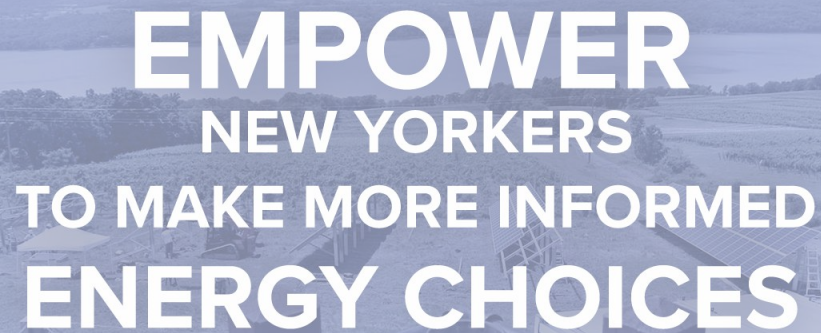
NYC Electric Grid is built for 7 hours of the year

Load Range (MW)		Number of Hours
4,447	5,000	664
5,001	6,000	1,596
6,001	7,000	2,102
7,001	8,000	2,587
8,001	9,000	883
9,001	10,000	517
10,001	11,000	255
11,001	12,000	120
12,001	13,000	29
13,001	13,189	7
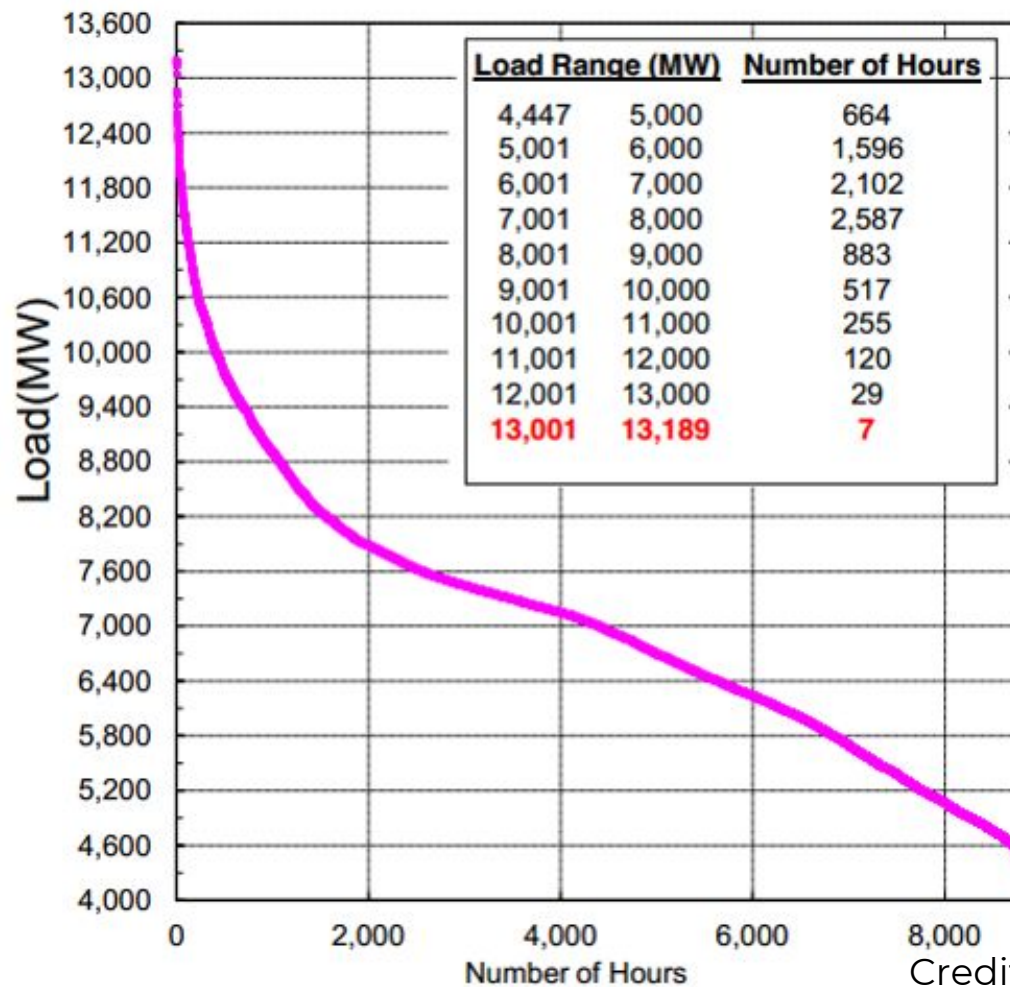
Credit: ConEd

CUT
GREENHOUSE GAS EMISSIONS
80% BY 2050

EMPOWER
NEW YORKERS
TO MAKE MORE INFORMED
ENERGY CHOICES

New York's
Reforming the Energy Vision

BUILD A
MORE RESILIENT
ENERGY SYSTEM

GROW
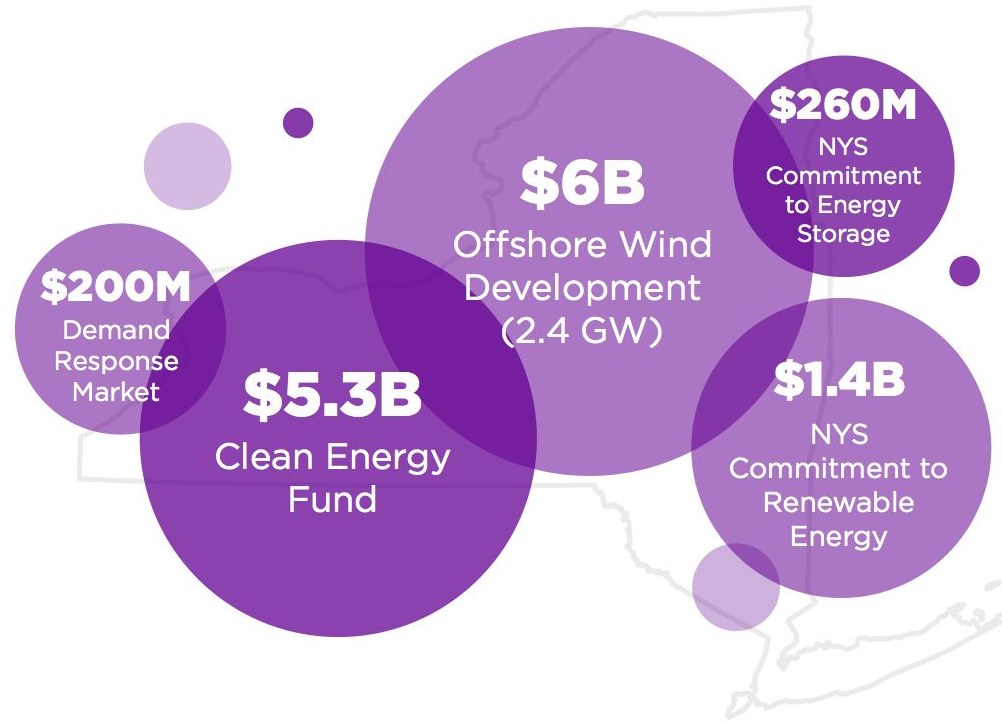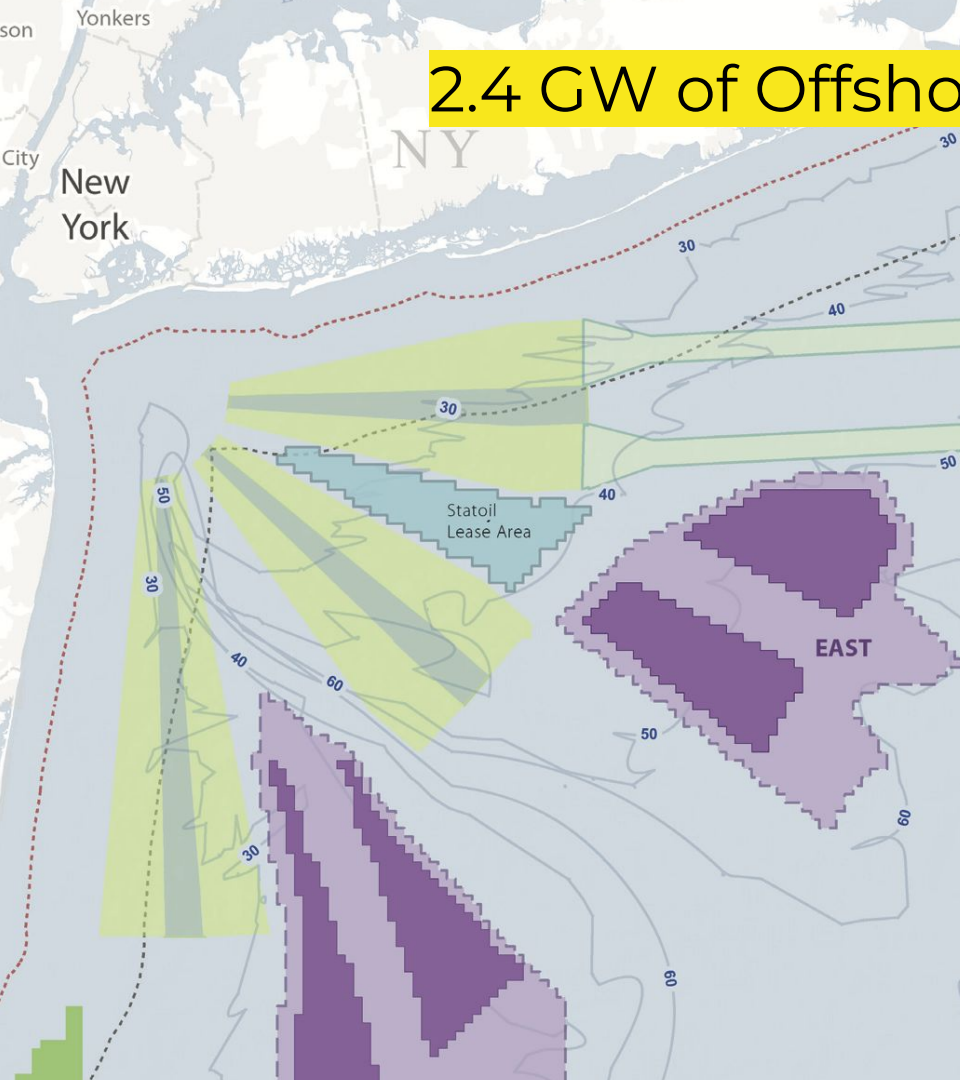NEW YORK'S
ENERGY EFFICIENCY

Credit: NYSERDA

NEW YORK **MARKET OPPORTUNITY**

Clean energy regulatory tailwinds and market incentives are building up at a rapid pace. [4,5,6,7]

$260M
NYS Commitment to Energy Storage

$6B
Offshore Wind Development (2.4 GW)

$200M
Demand Response Market

$5.3B
Clean Energy Fund

$1.4B
NYS Commitment to Renewable Energy

2.4 GW of Offshore Wind by 2030

BRIGHT POWER

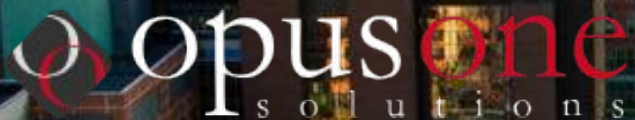Microgrid on Affordable Housing in Brooklyn

Credit: Bright Power

Blockchain based Transactive Energy in Brooklyn

Credit: LO3

Distributed System Platform Demonstration in Buffalo
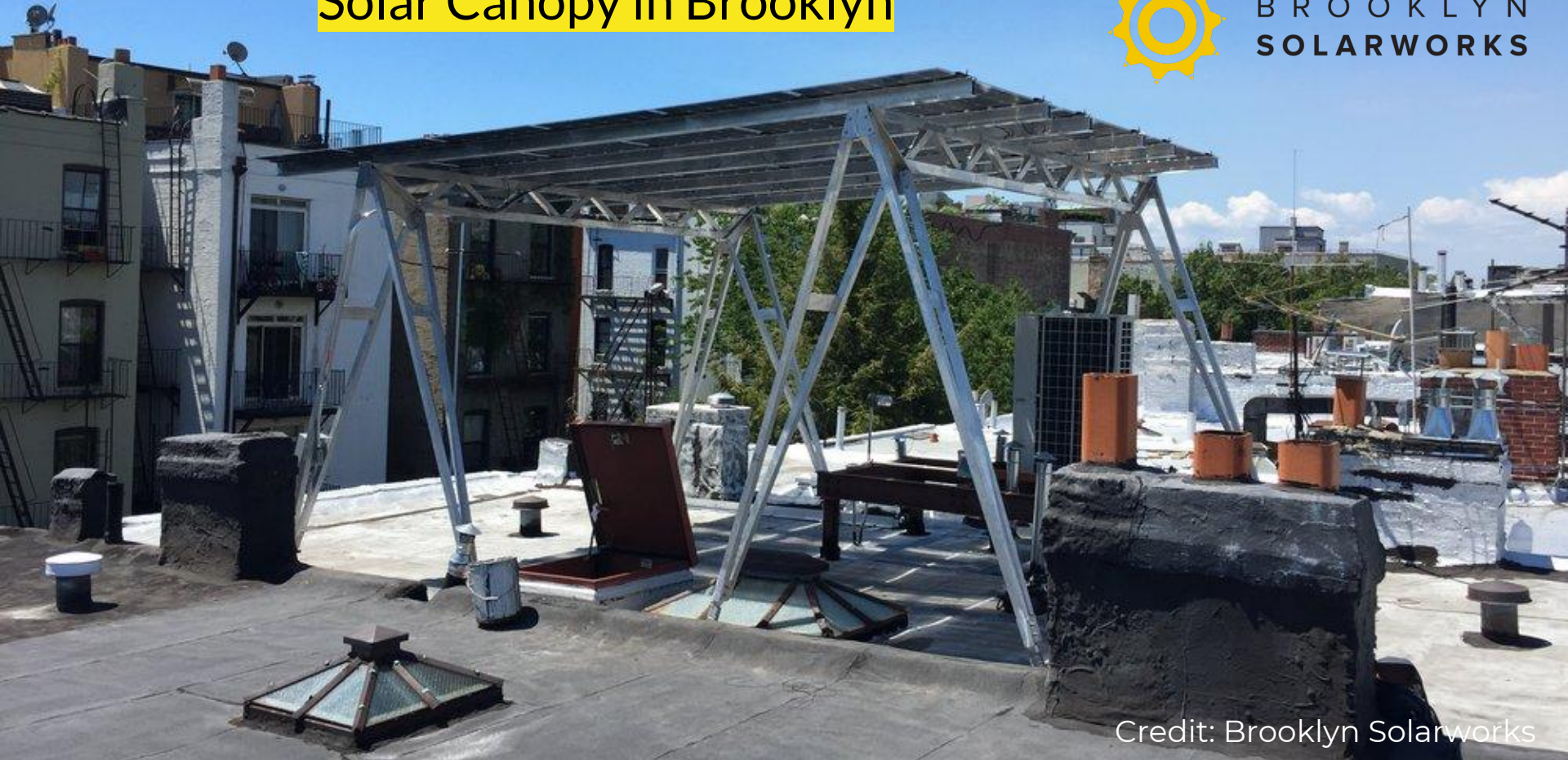
Community Solar in the Bronx

POWERMARKET

Credit: PowerMarket

Solar Canopy in Brooklyn

BROOKLYN SOLARWORKS

Credit: Brooklyn Solarworks

Anaerobic Digesters in Brooklyn

Photo Credit: Steve Soblick

CURRENT "URBANTECH NYC" ECOSYSTEM

COMMERCIALIZATION TIMELINE

Connecting the urban innovation ecosystem from ideas to scale

Resource and Capital Support

Incubator Support

Incubator Alumni Support

Accelerator Support

Pilots and Demonstrations

Ideation and R&D | Tech | Product | Seed Funding | Series A Funding | Series B Funding | Series C Funding | Series D Funding | Exit

- ❑ Academia
- ❑ Research Institutions
- ❑ Government

- ❑ Angels
- ❑ Universities
- ❑ Research Institutions
- ❑ Government

- ❑ Venture Capital
- ❑ Universities
- ❑ Government
- ❑ Developers
- ❑ Utilities

- ❑ Venture Capital
- ❑ Institutional Investment
- ❑ Developers
- ❑ Utilities

FUTURE OF NYC URBAN TECH ECOSYSTEM
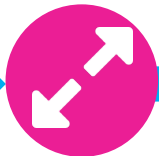
NETWORK PROGRAMS & ACTIVITIES

A Partner Network and programming focused on R&D, Growth, and Demonstrations of local urban technologies to scale innovative solutions and improve communities

R&D: Urban data, problem and solution analysis. Equipment, hardware and commercialization support for software, hardware and business model innovations and solutions. Based on NYC Media Lab model.

Community: Incubators, accelerators and affordable innovation spaces with multi-stakeholder support scaling solutions and growing NYC's workforce and communities.

Pilots and Scale: Facilitation of PPPs and strategic tech partnerships with corporations and direct connections to government agencies. Proof of concept and demonstration opportunities on public private infrastructure.

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NYU | TANDON SCHOOL OF ENGINEERING

"**Urban Future Lab** is the center of cleantech innovation in New York. We are leading the way to a more sustainable world by connecting **people**, **capital**, and **purpose** to advance market-ready solutions to address climate change."

OUR
MISSION

URBAN FUTURE LAB
NYU TANDON

OUR
HISTORY

Urban Future Lab (UFL) is home to the **ACRE incubator**, the longest running cleantech startup incubator in New York City.

2009	2014	Today

ACRE was founded as the 'New York City Accelerator for a Clean and Resilient Economy (NYC ACRE)' –an incubator program supporting cleantech startups. ACRE was formed in a partnership between NYU and NYSERDA.

NYU received a grant from the NYCEDC to establish the **Urban Future Lab** – an expanded center located in Brooklyn to serve as the hub for all cleantech initiatives.

Urban Future Lab is home to ACRE and a number of major cleantech programs such as **PowerBridgeNY** and **Clean Start**.

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ORGANIZATIONAL
HIERARCHY

URBAN FUTURE LAB

ACRE is a business incubator that advises and provides business resources to cleantech startups.

PowerBridgeNY is a NYSERDA-funded, early-stage technology research and proof-of-concept program.

Clean Start is an NYU Advanced Diploma program for mid-career professionals transitioning to cleantech.

ACRE PORTFOLIO

SMART CITIES (BUILDINGS AND RESOURCE PRODUCTIVITY)

High Performance Building Supply · agrilyst · Anellotech · BlocPower · DG Energy Partners · EcoLogic Solutions · ecological Solutions from PPG

Encycle · enertiv · fentrend · Honest Buildings · KEEN home · maalka · MeteoViva

MJBeck Consulting, LLC · Radiator Labs · SEALED · sistine solar · simuwatt · WAVELENGTH

SMART ENERGY (GRID, RENEWABLES, AND STORAGE)

Brenmiller Energy · Certain Energy · Dandelion · Ecogy Energy · ENERKNOL · Go Electric · Highview Power

lumiode light engines · opus one solutions · Origin Solar · POWERMARKET · rentricity · Resonant Energy · Sollega

smarter grid solutions · tagup · thinkeco · UNITEDWIND · voltaiq

SMART MOBILITY (TRANSPORTATION AND EVs)

Bandwagon · dollaride · EVBOX · HEVO POWER

URBAN FUTURE LAB
NYU TANDON

OUR CLEAN
ECONOMY IMPACT

48
companies
incubated

$380M+
raised in corporate
equity and project
financing

340+
jobs
created
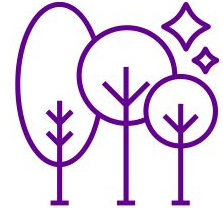
90%
company
survival rate

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ACRE PORTFOLIO OF
CLEANTECH INNOVATION

Our companies have gone to market with ground-breaking technology & business models.

Sealed – raised first securitized fund for home energy efficiency in partnership with the NY Green Bank.

Opus One Solutions – led the implementation of a $12.4M transnational microgrid project, the first of its kind.

Dandelion Energy – first to offer affordable home geothermal installations for the U.S. market.

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URBAN FUTURE LAB

URBAN FUTURE COMPETITION

Tomorrow's world-changing startups, grown in NYC

ufl.nyc/competition

Applications open soon

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