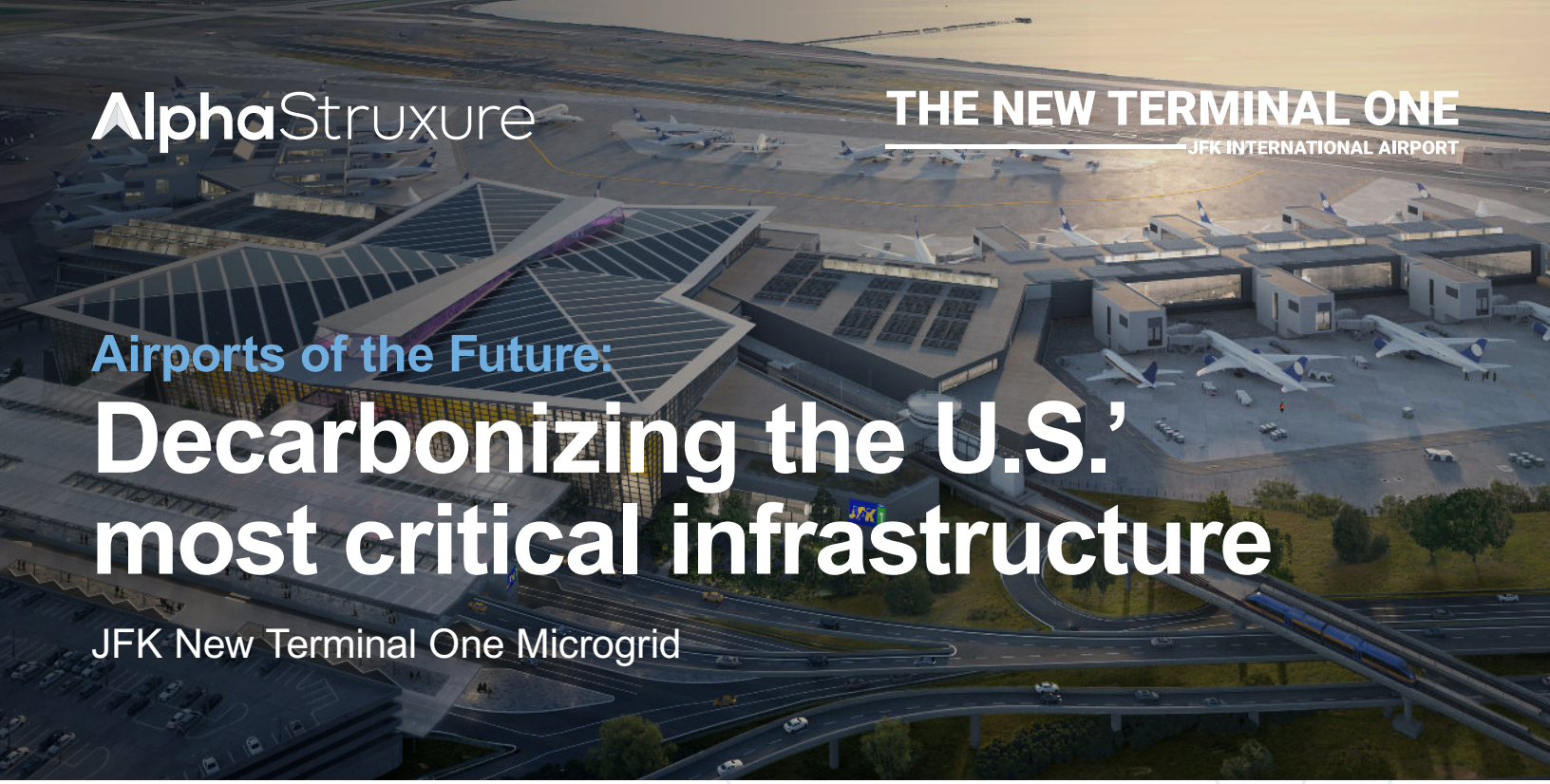
AlphaStruxure

THE NEW TERMINAL ONE
JFK INTERNATIONAL AIRPORT



Airports of the Future:

Decarbonizing the U.S.' most critical infrastructure

JFK New Terminal One Microgrid

AlphaStruxure will transform JFK's New Terminal One into a smart, resilient, and sustainable terminal of the future

About The New Terminal One (NTO):

- A consortium of labor, operating, and financial partners including Ferrovial, Carlyle, JLC Infrastructure, and Ullico will build a **2.4 million square foot, 23-gate, state-of-the-art international terminal** at John F. Kennedy International Airport
- Valued at $9.5 billion, the first phase of the New Terminal One development is the **largest single-asset project financing in U.S. history**
- The New Terminal One will be the **largest international terminal at JFK**

Challenge:

- Transform the New Terminal One at JFK into a fully resilient airport that can **function off-grid** during power disruptions
- **Deliver on aggressive** New York State, City, and Port Authority of New York and New Jersey (PANYNJ) **sustainability mandates**
- Deliver **energy reliability and resilience** with guaranteed system-level uptime
- Produce lower carbon intensity, more efficient, **locally generated energy**
- **Stabilize energy costs** over the long-term

Solution:

AlphaStruxure will serve as NTO's comprehensive partner to finance, design, build, and operate an on-site microgrid

- The **11.34 megawatt microgrid** is comprised of 7.66 MW rooftop solar, 3.68 MW fuel cells, 2 MW/4MWh battery energy storage, and will utilize re-claimed heat to generate chilled water and heating hot water
- Consists of **four power islands: each an integrated energy system** with sources of generation, storage, and automation and control connected to the grid but able to function independently
- The **AlphaStruxure Integrate digital platform** manages the microgrid performance and operations in a cyber-secure environment

Integrate™ by AlphaStruxure

- **24/7 operators** predict and respond to the system in real-time through the AlphaStruxure Network Operations Center
- The **Energy as a Service business model** provides NTO with long-term, **predictable operating costs** and **guaranteed performance without upfront capital expenditures**

Results

THE NEW TERMINAL ONE
JFK INTERNATIONAL AIRPORT

Reliable, resilient, and cost-predictable power

38% decrease in greenhouse gas emission reductions over grid-sourced energy

100% airport operations maintained during power disruptions

Strives to deliver on ambitious New York State, City, and PANYNJ **sustainability mandates**

Cleaner air for the surrounding communities by eliminating the emission of criteria pollutants

Microgrid Highlights

First resilient, **grid-independent airport transit hub** in the New York region

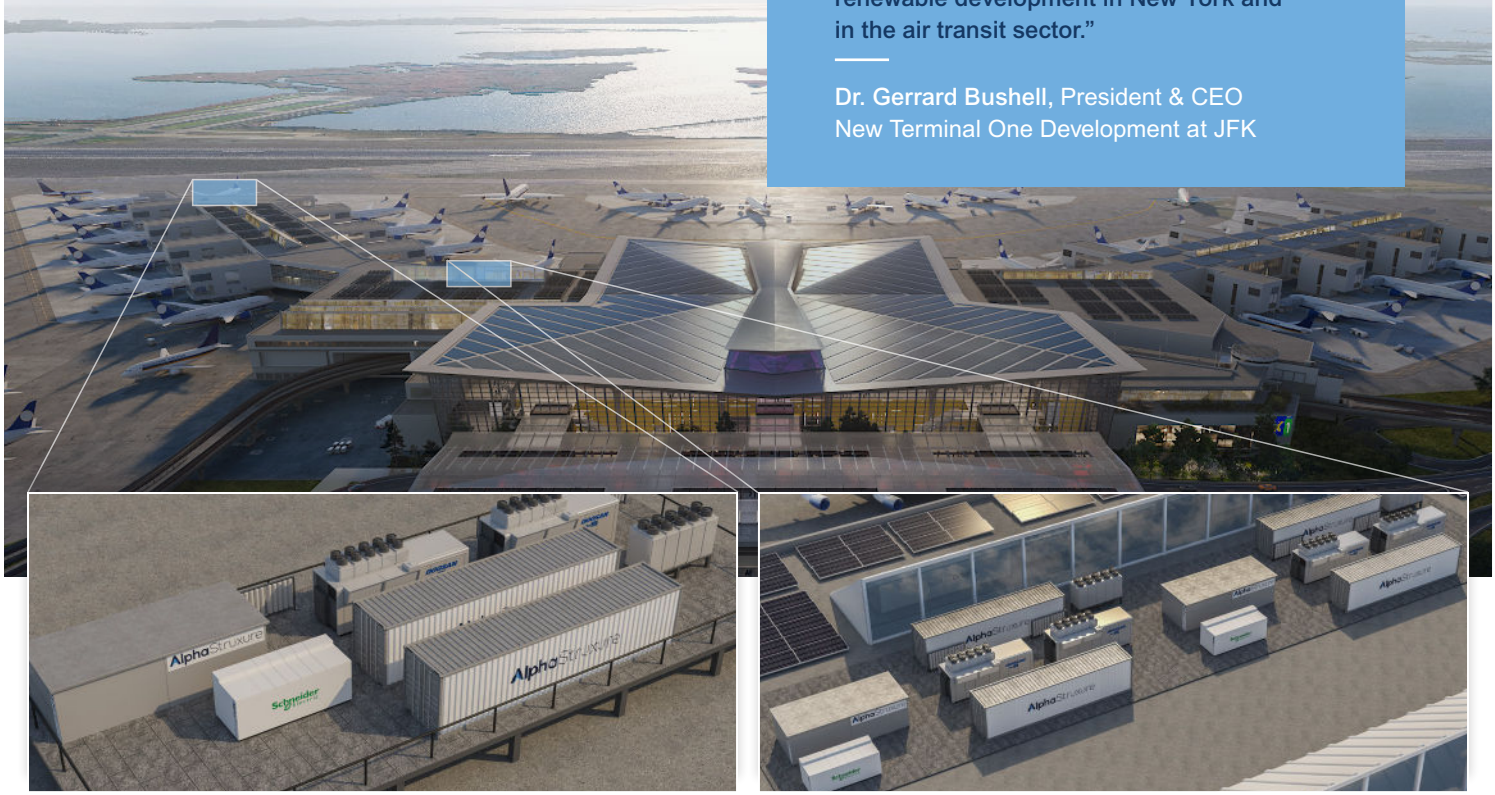
13,000+
rooftop PV system

Largest rooftop solar array in New York City
and on any airport terminal in the U.S.

Electricity generated is enough to **power 3,570 average U.S. homes** for one year

> "This microgrid project illuminates a new pathway to decarbonizing the air transportation sector."
>
> **Juan Macias,** CEO, AlphaStruxure

> "This is future-focused infrastructure that will facilitate the transition away from fossil fuels and sets a new standard for large-scale renewable development in New York and in the air transit sector."
>
> **Dr. Gerrard Bushell,** President & CEO
> New Terminal One Development at JFK



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