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ENHANCING ENVIRONMENTS

IT Starts Here.

We design, build, operate and maintain mission-critical technology infrastructures to enable safer structures, neighborhoods, and a better quality of life for the communities of tomorrow, today.



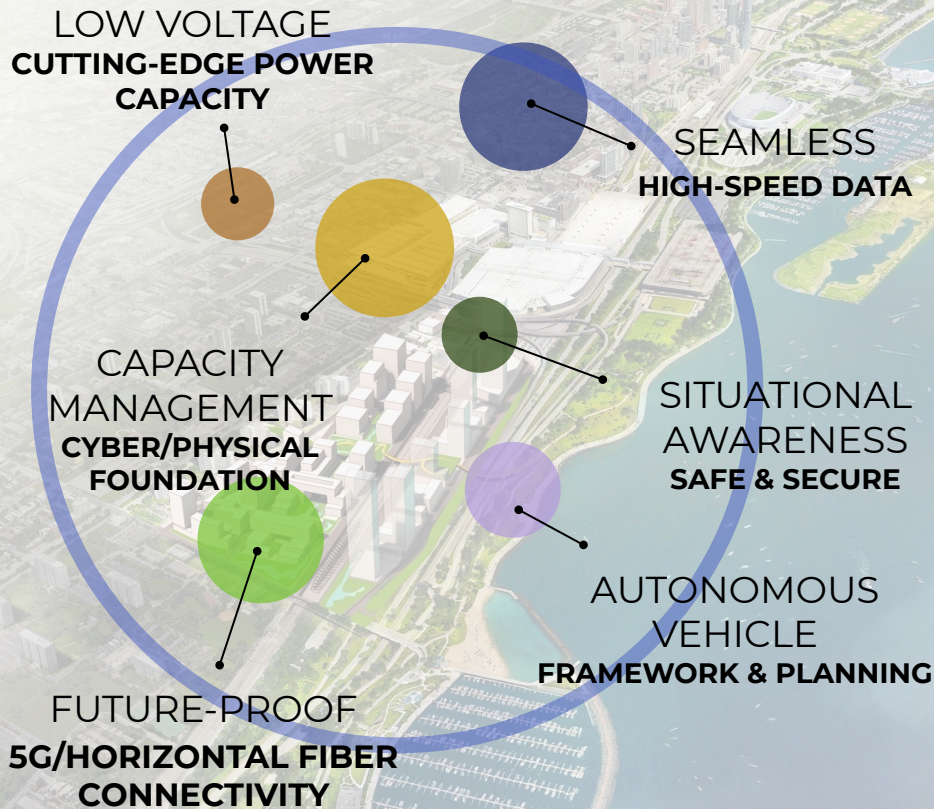
ONCE IN A GENERATION GROWTH

CHICAGO MEGA DEVELOPMENTS HAVE THE CAPACITY TO BECOME SMART CITIES BUILT IN GREENFIELD SPACE WITH REDIRECTED POWER, A NEW TYPE OF ENERGY FRAMEWORK IS REQUIRED.



SMART CITY

RESILLIANT ENERGY ELEMENTS



✓ OUR CHALLENGE:

A smart grid & micro grid infrastructure is needed to create sustainable, renewable energy to power communications & technology.

REGULATORY STANDARDS DO NOT EXIST FOR SMART & MICROGRID TECHNOLOGY.



THE OPPORTUNITY:

RENEWABLE ENERGY IS AN ESSENTIAL DIMENSION OF THE SMART CITY CONCEPT

APPROACHED CORRECTLY, IT CAN POWER THE SITE AND SERVE AS A RENEWABLE SOURCE BEYOND THE DEVELOPMENT.

CRITICAL POWER & COMMUNICATION FRAMEWORKS REQUIRE GUIDELINES:



Definition of Microgrid

Based on the building type (e.g., office building vs a lab)



Definition of Smart grid

Based on the size of subareas & building type within the development (e.g., sq ft for backup generators)



RENEWABLE
BEYOND THE SITE



THE BENEFITS & CONSEQUENCES:

RESILIENT & EQUITABLE ENERGY FOR SMART CITY DEVELOPMENTS REQUIRE RESILIENCE DESIGN GUIDELINES:

01

RISK FOR BUILDINGS IN THE DEVELOPMENT

UNDERPERFORMANCE AGAINST SAFETY NEEDS, CITY NEEDS, COUNTY NEEDS, STATE NEEDS

02

IMPACT ON THE SMART CITY MICRO ECONOMY

RISK TO TENANTS & RESIDENT COMMUNICATION
(BANKING, HEALTHCARE, LABS, COMMERCIAL BUSINESS, RESIDENTIAL)

03

EQUITABLE COMMUNITY IMPACT

THE DIGITAL DIVIDE IS PERPETUATED RATHER THAN SOLVED WITH EACH NEW SMART CITY



Regarding Critical Infrastructure and Resilience, to achieve Chicago's Carbon & Equity goals, a critical obstacle to overcome is:

WE NEED TO DEVELOP DESIGN STANDARDS, IN COLLABORATION WITH LOCAL UTILITY, TRANSMISSION & REGULATORY AGENCIES, THAT ENABLE RESILIENT CRITICAL POWER & COMMUNICATION FRAMEWORKS FOR MICROGRID AND SMART GRID TECHNOLOGY.