



PEER resilience strategies for DISCOMs

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GBCI[®]

PEER

COVID 19: Challenges Faced by Utilities

Electric utilities face serious risks such as:

- ➔ Increased uncertainty in demand projections;
- ➔ Vulnerability towards increased outages due to staff unavailability and deferred maintenance;
- ➔ Under frequency/ under-voltage due to shutdown of industries and commercial buildings;
- ➔ Reverse power flow through distributed energy resources (DERs) – may present unexpected hazards to grid;

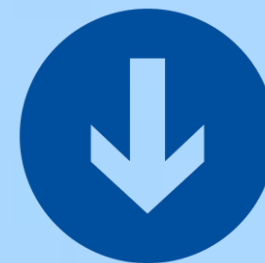


In April 2020, due to the ongoing pandemic, the U.S. **commercial electricity demand was about 11% lower** than the typical April value, and **industrial electricity demand was 9% lower**.

- U.S. Energy Information Administration (EIA)

Britain's power industry lost **1.1 billion pounds (\$1.4 billion)** from April to August due to reduced electricity demand (**up to 15% in April 2020**) and as wholesale prices cut revenues for suppliers, generators and grid companies.

- Bloomberg



Need for a
**HEALTHY, HYGIENIC
& SAFE**
environment



PEER (Performance Excellence in Electricity Renewal) was modeled after the LEED green building rating system and bills itself as the nation's first comprehensive, consumer-centric, data-driven system for evaluating power system performance.

- PEER strategies that promote grid resilience:
 - ✓ Power System Hardening,
 - ✓ Local renewables & energy storage,
 - ✓ Communication networks,
 - ✓ Advanced Metering Infrastructure, etc.



PEER Pilot Credits:

1. Safety First – Electrical System Operations, Management and Safety
2. Transit – Safety First – Electrical System Operations, Management and Safety
3. Safety First – Accelerate Digital Transformation

RESILIENCE MEASURES BY HOBOKEN

❑ 80% of the city under water and caused more than \$ 100 million in damage for Hoboken, New Jersey.

❑ 2.7 million customers were left without power for more than a week

❑ \$175 million project to upgrade and modernize Hoboken's power

Flood mitigation through large flood walls/barriers, flood pumps & flood gates

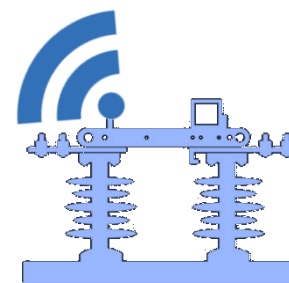
Energy resiliency through renewable & cogeneration based microgrid - supports 55 critical & essential buildings

Replacement of ailing power transmission lines which were 50 years old.

Setting Standard for Resilient DISCOM



Secured Interoperable
Fibre Optic Network



Smart Switches &
Auto Reclosers



Smart Meters For
Customers

Thank You
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