

# NON-WIRES ALTERNATIVES

## A 21<sup>ST</sup> CENTURY APPROACH TO MODERN POWER ISSUES

With numerous innovations emerging to address power-delivery challenges, it is critical to carefully evaluate all options before implementing capital programs. **Non-wires alternatives (NWA)**s are nontraditional measures aimed at improving systems through modern solutions, ultimately deferring or eliminating the need for traditional utility transmission and distribution investments. ① **Here are a few example scenarios:**

### PROBLEM

Critical infrastructure is jeopardized even from short outages.

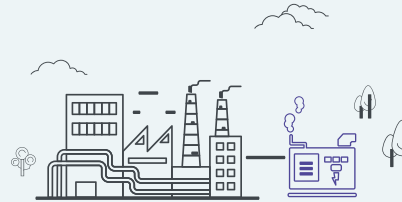


### CONVENTIONAL RESPONSE

Install backup power systems, such as diesel generators.

#### The Downside:

Massive operational expenses, security risks, and opportunity costs from short or extended outages due to generator ramp-up delays or failure.

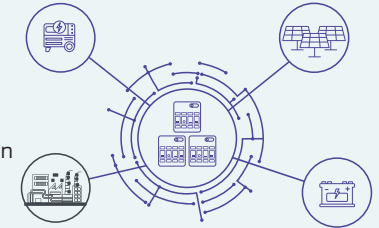


### NON-WIRES ALTERNATIVE

Design a microgrid for your unique needs.

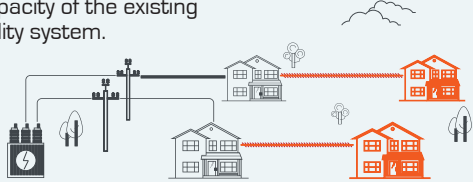
#### Why It's Better:

It can seamlessly transition to reliable power, protect against cyberattacks, and open opportunities to realize additional economic benefits.



### PROBLEM

Load growth at the end of a feeder exceeds the capacity of the existing utility system.

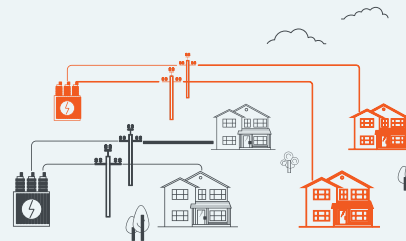


### CONVENTIONAL RESPONSE

Upgrade the feeder or build a new substation to accommodate the increased load.

#### The Downside:

Expensive distribution-infrastructure upgrades in densely populated areas take years to complete.

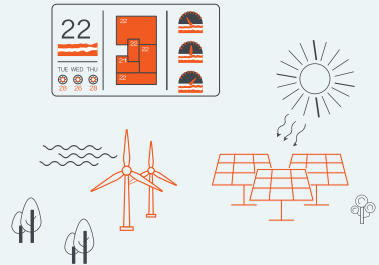


### NON-WIRES ALTERNATIVE

Create demand-response + energy-efficiency programs coupled with existing distributed energy resources (DERs).

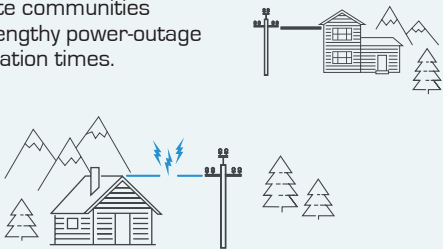
#### Why It's Better:

Manages peak demand to accommodate load growth.



### PROBLEM

Remote communities have lengthy power-outage restoration times.

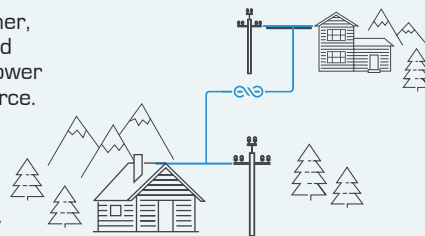


### CONVENTIONAL RESPONSE

Tie two feeders together, adding redundancy and an ability to reroute power from an alternate source.

#### The Downside:

Feeder ties can be expensive and logistically challenging.

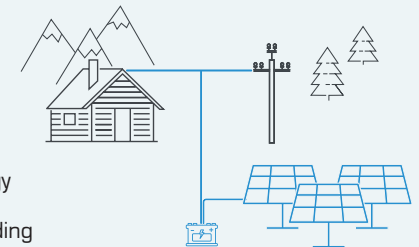


### NON-WIRES ALTERNATIVE

Add DERs, including energy storage.

#### Why It's Better:

Utility-managed energy storage is often less expensive than extending wires, and power-purchase agreements can circumvent high capital costs.



## What's the best option for your unique situation?

Contact us to evaluate your power-related challenges so we can recommend a complete, custom solution.

① GreenTech Media Research, "A Snapshot of Key US Non-Wires Alternatives Projects, From Brooklyn to Booth Bay and Beyond," November 21, 2018.

### LEARN MORE

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