



MICROGRID
KNOWLEDGE

Virtual Conference

The Value of Microgrids During Societal Disruption

Agenda

Moderator: Elisa Wood (Microgrid Knowledge)
Editor-in-Chief

Speakers:

1. Erik Svanholm (S&C Electric) Vice President of Non-Wires Alternatives
2. Mark Feasel (Schneider Electric) President, Smart Grid
3. Ravi Pradhan (Siemens Digital Grid) Vice President of Technical Solutions

Resources:

- Speaker Bios
- Ask the Experts: Q&A at End
- Microgrid Resources Library

COVID-19 and Grid Evolution: Early Indicators

Erik Svanholm, VP Non-Wires Alternatives, S&C Electric Company



Observations and Realizations

The
unexpected
comes at you
fast

Only *agile*
resiliency
is *adequate*
resiliency

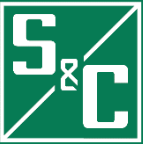
Your supply
chain runs on
people and
power

Shrink it,
automate it,
back it up

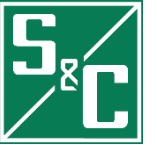
Working
from home
works

Loads and
reliability
needs
will shift

Resiliency responses on both sides of the meter



Microgrid outlook under COVID-19



TAILWINDS

1. Federal recovery stimulus
2. Behind-the-meter resiliency
3. Regulatory reform

HEADWINDS

1. Value of Investment Tax Credits (ITCs)
2. Financial focus on force majeure
3. Basics eclipsing new capabilities

Energy in an Unpredictable World



Mark Feasel
President, Smartgrid
Schneider Electric
North America

In our connected and urbanizing world, the ramifications of energy disruptions are much different than a decade ago



Our approach to critical infrastructure must pivot to a new reality in which lower energy-intensity loads must be addressed (shopping centers, elder care, food processing, banks etc.)

- Cellphone towers lost during California Public Safety Shutoffs impede ability of safety workers to collaborate
- The transition of healthcare to the home left many vulnerable during recent outages
- Food supply chains are threatened giving rise to indoor agriculture

- The custom engineered, highly bespoke solutions to hardening energy infrastructure of the past will not work
- Capital-intense solutions will not work for these types of consumers

Solutions for the New Energy Landscape

Technological complexity abstracted to the manufacturing facility and the cloud



- Energy Control Center – a modular, flexible microgrid built in an assembly plant in Salisbury, NC that requires very little customization onsite
- EcoStruxure Microgrid Controls – an edge to cloud based solution that simplifies onsite controls while providing sophisticated energy orchestration



Camuy Coopertiva, a credit union in Puerto Rico

Business models that remove capital constraints and transfer regulatory and technical risks

Energy as a Service

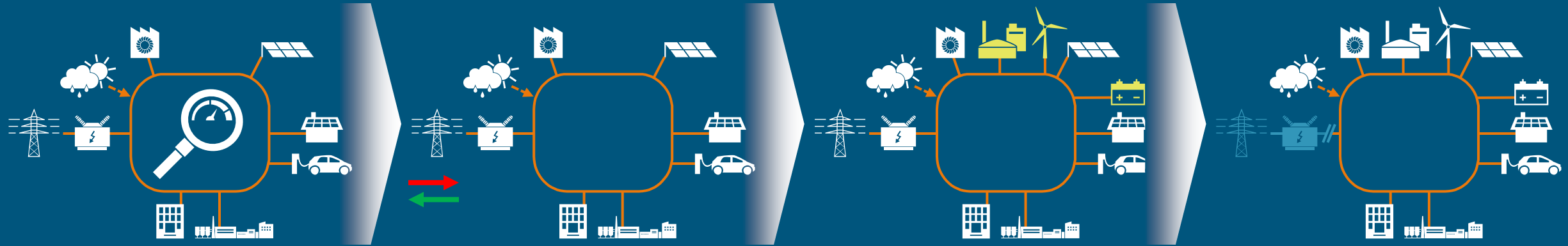
Schneider and Scale Microgrid Solutions design, build and finance a distributed energy solution for indoor farming company Fifth Season



The COVID-19 crisis has shown us that distributed systems can function as long as there is the power to keep them running

Microgrids

Grid Independence with improved reliability and resilience



Grid Independence

- Improve reliability and resilience by ensuring grid independence
- Improve sustainability

Visibility

- Collection of generation and consumption profiles
- Analysis of generation and consumption profiles
- Analysis of value streams

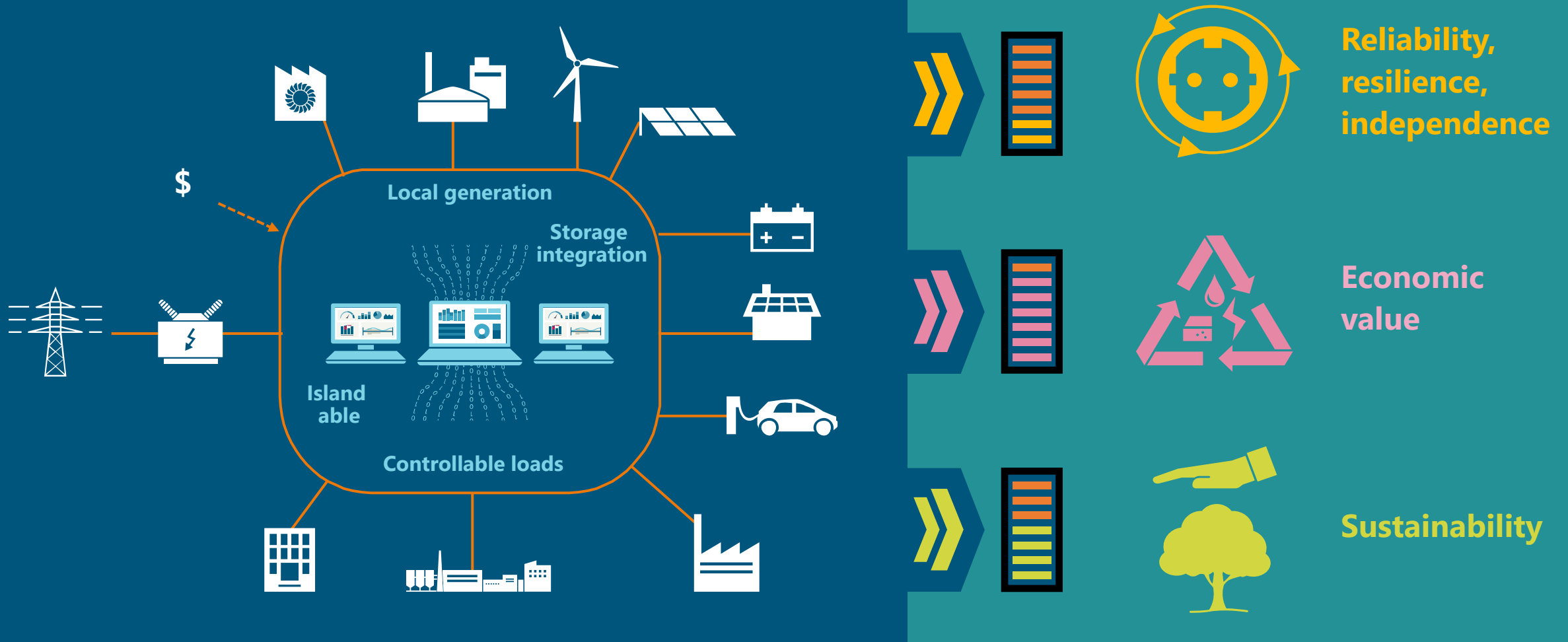
Optimized Energy Mix

- Improve and optimize the microgrid generation mix to minimize energy cost or reduce emissions
- Improve sustainability

Optimized Value Streams

- Optimize generation, load profiles and energy purchase
- Improve sustainability

Microgrids with their management systems have value propositions that will be valuable as part of the recovery





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Ask the Experts: Q&A Session

Type your questions in to the Q&A box

#MicrogridVirtual

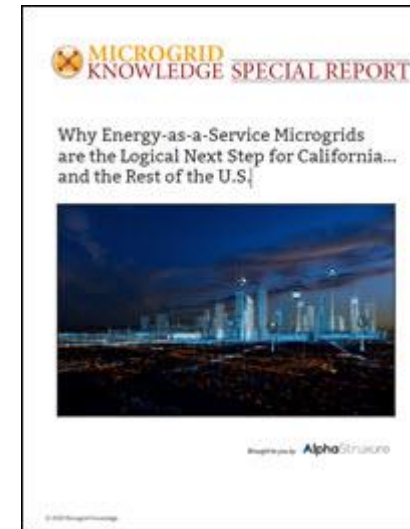
Microgrid Knowledge Virtual Conference Resource Library

Recommended Resources

Microgrid Resource Library

- www.ThinkMicrogrid.com

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Newsletter***



Save the Date : Microgrid 2020 Conference Nov. 18-20 - Philadelphia, PA

Finance Session: *Microgrids Have Leapt 'the Chasm.' What's on the Other Side?*

- Plus 90 speakers in 30+ sessions on best practices
- 35 exhibitors
- Networking opportunities





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Thank You!

*Next Session: Healthcare & Microgrids: Ensuring Power
When the Value of Resiliency is Immeasurable @ 2 PM
Eastern*

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