

A woman with long dark hair, wearing a light blue jacket, stands in the foreground looking at a tablet. The background is a blurred city skyline at night with many lights.

Electricity 4.0

How electrification and digitization will transform U.S. infrastructure

Aamir Paul

President, North America
Schneider Electric

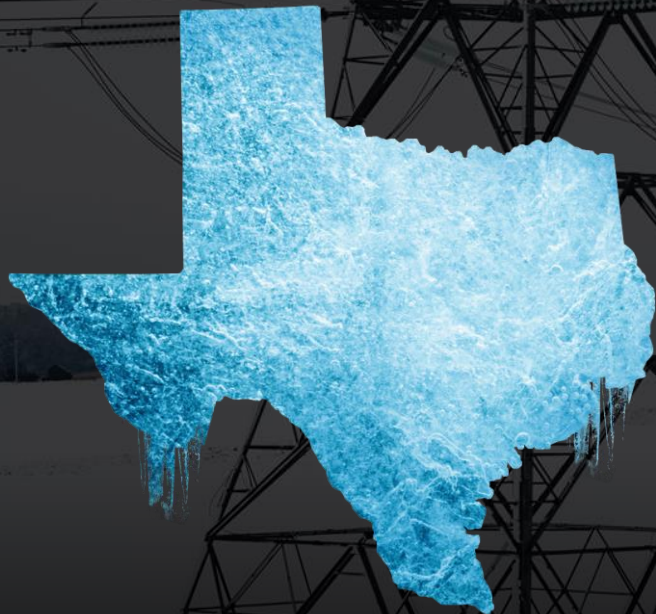
Life Is On

Schneider
Electric



Our mission is to be
your digital partner for sustainability and efficiency

Resilience matters more than ever



10M lost power
(**69%** of Texans)

38 gas plants shut down

42 hours average outage

\$195B in damage

63% of Texans had difficulty obtaining water

Electric and Digital is the recipe
for a more **sustainable** and **resilient** world

Electric

Makes energy **Green**



Digital

Builds a **Smart** future

Electricity is the most **efficient energy** and the
best vector of **decarbonization**



Digital makes the invisible visible, eliminating
waste and driving **efficiency**

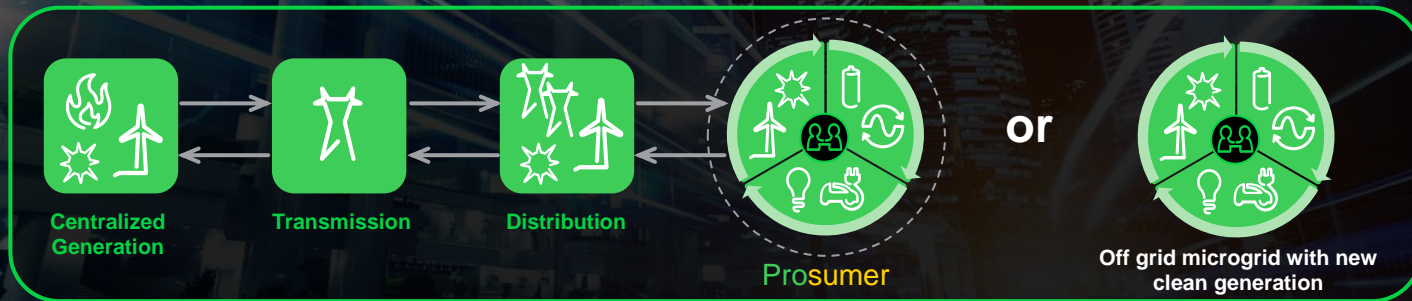
The New Energy Landscape

Historical Energy Value Chain



VS.

The New Value Chain

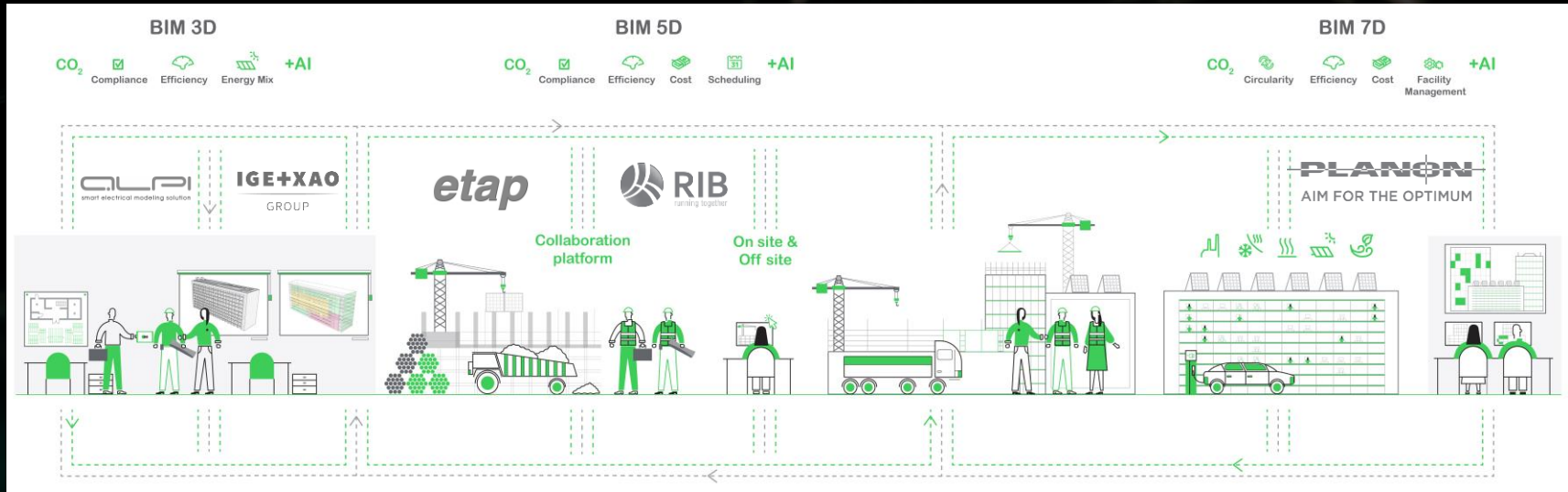


Optimizing infrastructure to deliver unprecedented efficiency from end to end

Design

Build

Operate and maintain



There's great potential decarbonize buildings (and communities)

Potential for Distributed Generation:

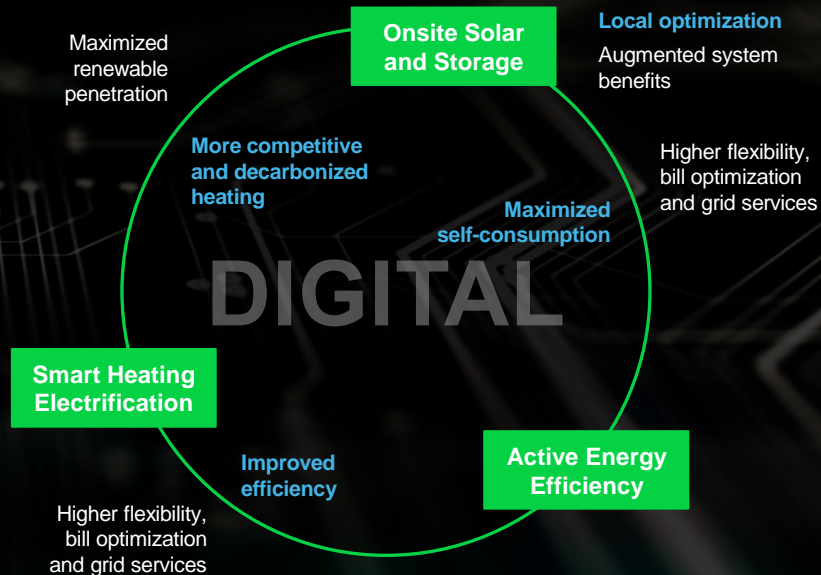
1,750TWh potential today,
2.5x by 2050 (>40% of total
current electricity demand,
across all sectors)

Potential for electrification:

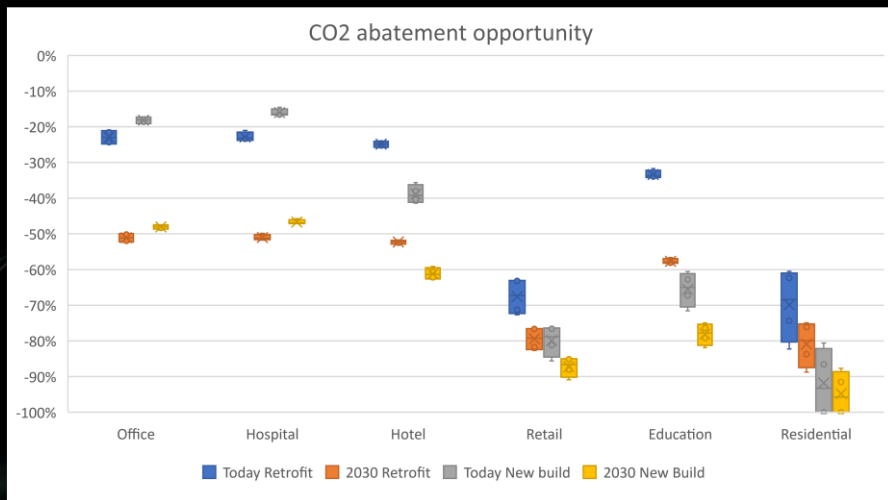
~**30%** of natural gas supply

Potential for Energy Efficiency:

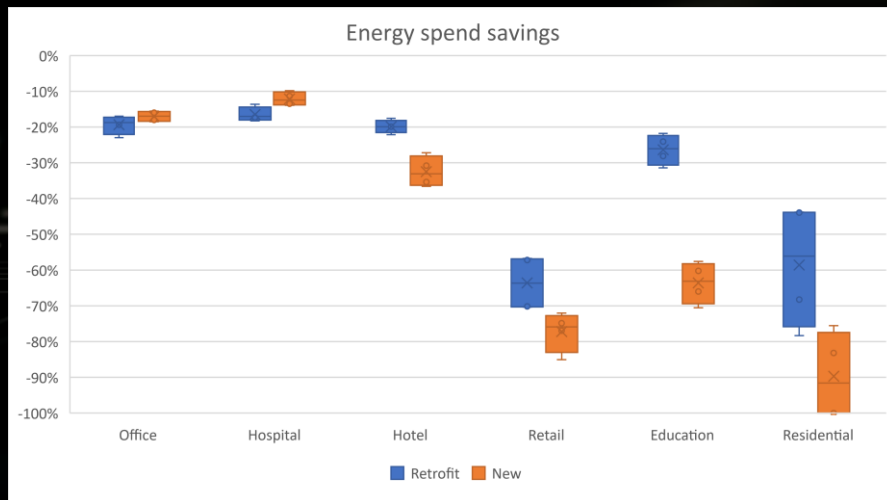
Service buildings ~250kWh/m²/y
Residential buildings ~120kWh/m²/y



Decarbonization is good for the environment and your budget



Clean electrification main route to zero-carbon



A diverse perspective on energy spend savings across the stock

Get your **grades** with AI

Station A brings cutting-edge technology and a simple grading system to drive your decarbonization decisions.



STATION A

Station A's engine uses AI to analyze your buildings and find your top clean energy savers

We collect and synthesize geospatial, environmental, and financial data for your buildings automatically, so you don't have to. Get a full portfolio analysis with just a list of addresses and leave the data scavenger hunt to us.



Lexington, KY: Seeing ROI on digital, electric solutions

62-year-old manufacturing plant — recognized as one of the **world's most advanced factories** by the World Economic Forum

26% energy reduction

20% reduction in mean time to repair

<6 months ROI



Brookville Bus Depot

Montgomery County, Maryland



**Sustainable, efficient,
reliable bus charging
via microgrids**

62% fewer CO₂ emissions

Phoenix Wastewater Reclamation Facility

Phoenix, Arizona



**Modernized and
digitized wastewater
treatment equipment**

1.7M customers with
improved service

Port of Long Beach

Long Beach, California



**Energy security and zero
emissions via microgrids
and battery storage**

100% resilient energy

Life Is On

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Electric



Partnerships
of the **future**

It is our collective
duty to **massively deploy**
Electricity 4.0

as the fastest route to a
zero-carbon future

Schneider Electric Sustainability Research Institute

A research center focused on **consumer side energy** and **sustainability transformations**

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Schneider Electric Sustainability Research Institute

Explore a collection of Schneider Electric's primary research on energy and sustainability trends, issues and opportunities.

Keeping 1.5°C Alive: Closing the Gap in the 2020s

September 2021

7 days ago

Mind the Gap: How Carbon Dioxide Removals Must...

In its new report the Energy Transitions Commission outlines the role of Carbon Dioxide Removals in meeting global climate objectives.

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BEYOND THE SCOPE Sustainability Podcast

24 days ago

The unexpected disruption: distributed generation

[Read Document](#)

Back to 2050

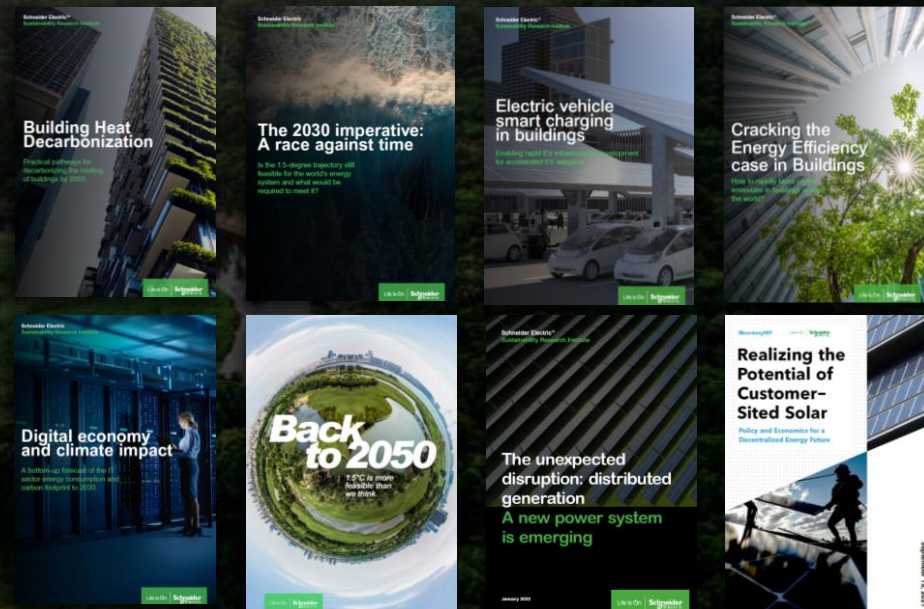
5 months ago

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Back to 2050 Executive Summary

2 months ago

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Few examples...

Learn more about
Sustainability

