

# Energy-as-a-Service:

A new way forward or  
latest industry buzzword?

**Mike Storch**

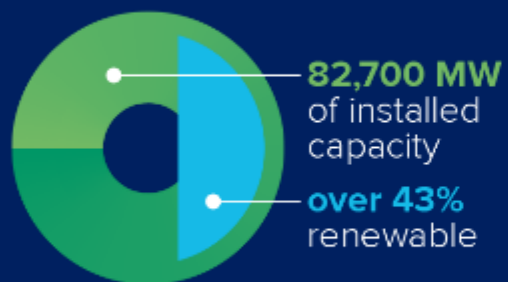
President and CEO of EnerNOC,  
an Enel Group Company

**Enel X and Enel Green Power combine the capabilities of our global organization with the opportunities of a new, open and connected world.**

**We join forces and partnerships to integrate the best energy solutions, helping businesses to manage their energy assets more smartly and profitable.**

**Enel X was born to create the new power economy, transforming energy into power for everyone.**

# About Enel



REVENUES  
**70.6 BILLION EUROS**



NET FINANCIAL DEBT  
**37.6 BILLION EUROS**



EBITDA  
**15.3 BILLION EUROS**

**1,875,000 KM**  
OF ELECTRICITY LINES

MORE THAN 4 TIMES THE DISTANCE BETWEEN THE EARTH AND THE MOON



**Around 90% of the data in the world today  
was created over the past two years**



The background of the image is a close-up, slightly blurred view of a spreadsheet. It features a grid of cells containing various numerical values. Some of the visible numbers include 10.96, 115.38, 261.34, 25.77, 29.88, 21.13, 24.79, 30.83, 18.91, 17.38, 17.30, 2.37, 4.64, 39.30, 23.30, 4.67, 5.40, 104.30, 129.93, 62.55, 6.13, 143.55, 89.00, 9.20, 146.96, 575.00, 7.94, 160.18, 514.40, and 35. The text is overlaid on a solid blue horizontal band that spans the width of the image.

**But only 5% of companies use software  
to track and analyze energy data**



**60% of Fortune 100 companies have made public commitments to reduce energy**





**Energy is one of the largest drivers of sustainability performance**



**Costs of lithium-ion batteries have dropped 22% in the last year and are expected to drop another 73% by 2030**





**Rapidly  
evolving  
technology  
choices**

**Changing  
regulation**

**Volatile  
Prices**

**Complex  
tariff  
structure**

**The energy marketplace is increasingly complex...**

**Payback  
hurdles**

**Lack of  
financing**

**Unreliable  
Supply**

**Fragmented  
suppliers**

# Energy-as-a-Service (EaaS) Reduces Complexity



“ The management of a customer’s energy portfolio needs—such as portfolio strategy, program management, energy supply, energy use and asset management—by applying new products, services, technology solutions, and both project and enterprise wide financing instruments that avoid customer capital expenditures while reducing energy use, spend, and risk.”

—*Navigant Research*

# Traditional Model vs. Energy-as-a-Service



Traditional Model	Energy-as-a-Service
<b>Resource Procurement</b> Energy as a commodity is purchased over a centralized one-way power system from a single supplier	<b>Resource Procurement</b> Customized offerings support a comprehensive energy strategy
<b>Resource Management</b> Resource complexity is managed internally and companies rely on internal expertise to evaluate and implement load management risk in supply, contract, technologies, and regulations	<b>Resource Management</b> Resource complexity is managed by partner and companies leverage partner expertise for enterprise-wide strategy to integrate and optimize supply, demand, regulation, sustainability, and risk decision
<b>Asset Ownership</b> Primarily utility or customer-owned	<b>Asset Ownership</b> Primarily third-party owned and managed
<b>Payment Terms/Financing</b> Tariff-based payment schedule and high capital-intensive investments based on simple payback; highly variable cash flow	<b>Payment Terms/Financing</b> Contracted payment for services agreement and operating expense, with predictability
<b>Flexibility/Scalability</b> Standardized, limited flexibility energy as a commodity model	<b>Flexibility/Scalability</b> Customized, scalable, flexible designs and solutions



# What do C&I customers hope to achieve?



## Customers' Desired Outcomes

### Earn Revenue

Monetize flexibility of existing assets in electricity markets

### Manage Risk

Address compliance issues, manage market exposure and budget certainty

### Reduce Cost

Use less energy, get the best price for energy, and lower demand charges

### Simplified Operations

Streamline facility-and management-levels operations and reporting

### Improve Resiliency

Protect against operational disruptions and power quality issues

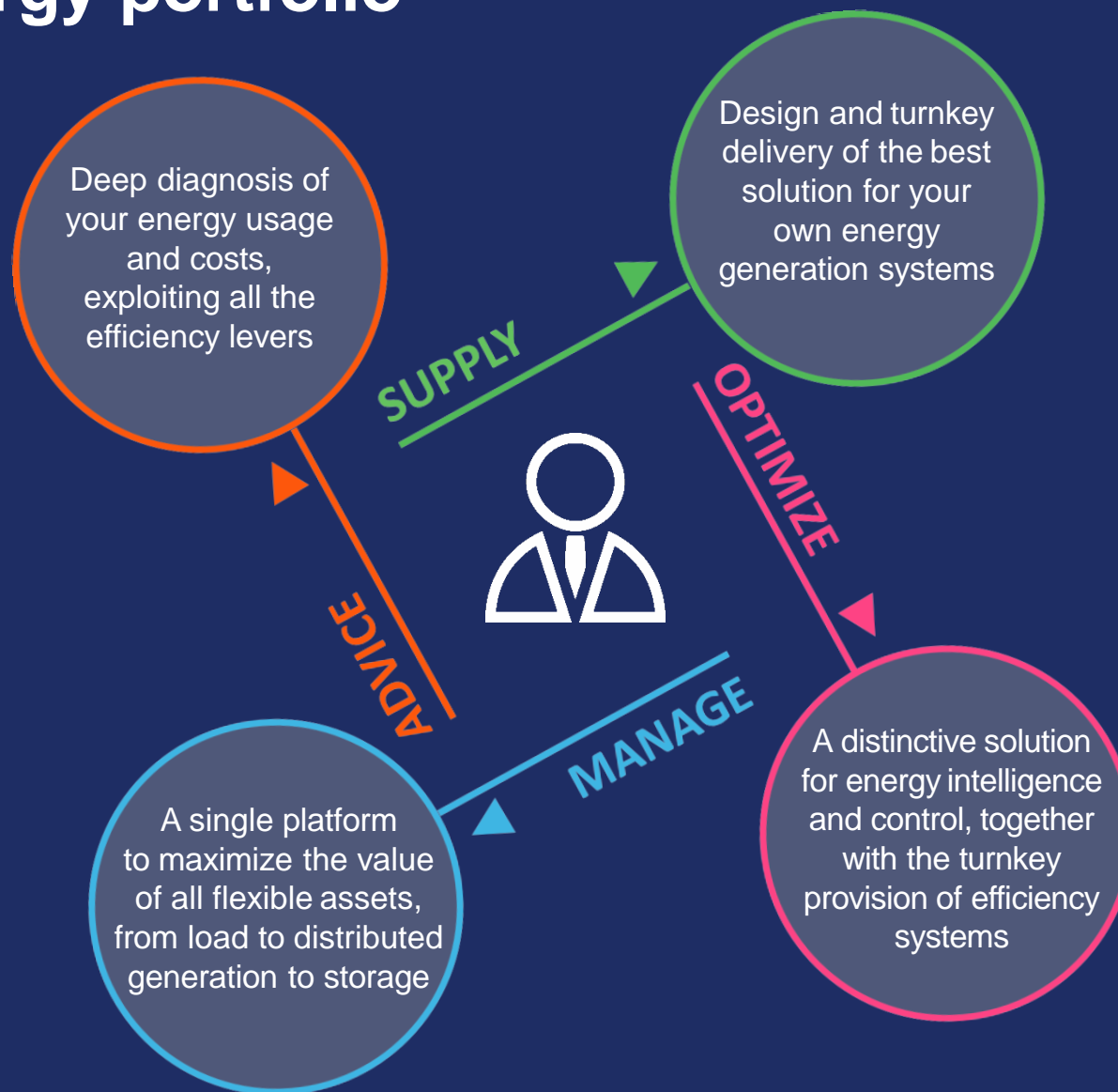
### Increase Transparency

Increase visibility into how energy usage impacts all of the above

### Improve Sustainability

Reduce green house gas emissions and waste; meet renewable energy goals

# Delivered through an end-to-end approach to the customers energy portfolio



# EaaS Solutions Maturity Landscape



Source: Navigant Consulting, Inc.



## Findings

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So far, the EaaS market is mostly led by a disparate set of vendors deploying fragmented technical, financing or procurement solutions.

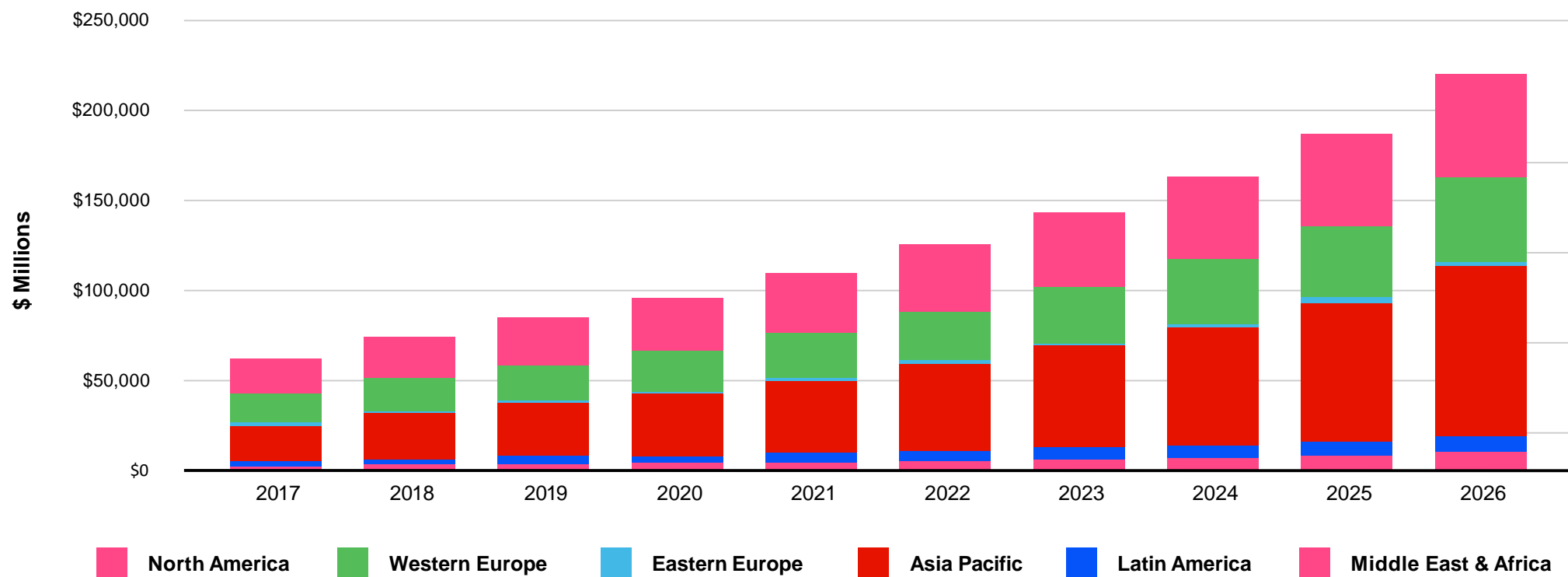
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As the EaaS market matures, it will give rise to a market more dominated by turnkey global vendors equipped with a comprehensive set of technical and financing options.

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The market will evolve from many vendors providing fragmented services to few players able to deliver turnkey and integrated solutions.

# Key Market Forecast—Geographic Projections



## Key Points

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EaaS will be delivered across several deployment models that will be designed to best address the customer needs without deployment of capital.

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The move away from centralized generation toward more distributed energy resources, coupled with technology and business model innovation, is giving C&I energy users new options to meet these needs.

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A comprehensive set of EaaS solutions from a turnkey vendor can address the full spectrum of C&I energy user needs.

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Many C&I energy users want guaranteed energy savings, with green options, without upfront CAPEX spending.

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Financing innovation sits at the heart of EaaS as a key enabling factor for the delivery of new C&I customer needs.

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Business model and financing innovation is now driving green power procurement from offsite renewable energy projects.



**Thank You!**

**Mike Storch**

President and CEO of EnerNOC,  
an Enel Group Company