London Economics International LLC

Fundamentals of Data Center Development (Panel II)

NEECE 2025

Falmouth, MA
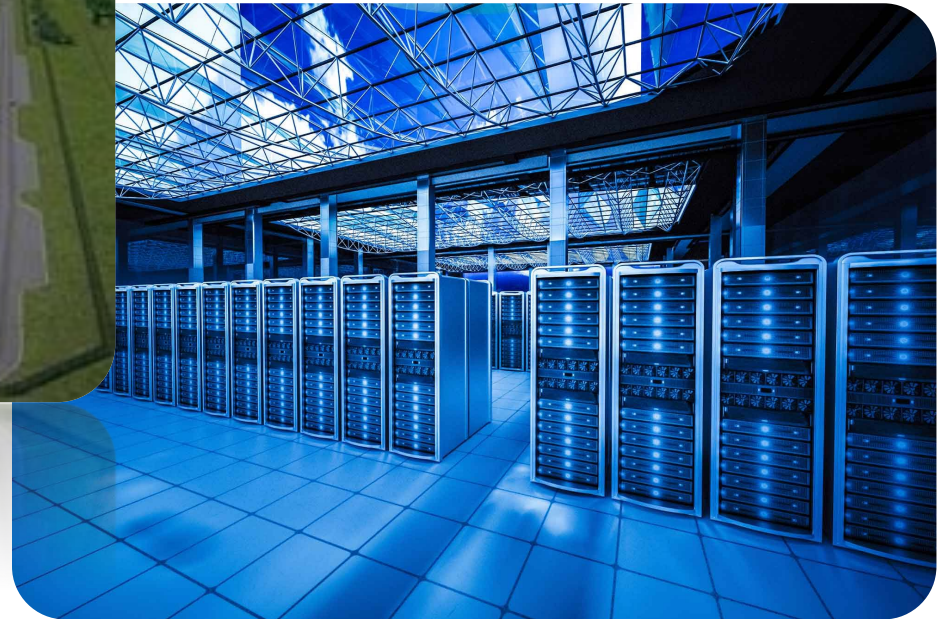
Julia Frayer
June 5, 2025
www.londoneconomics.com

At its most basic, a data center is a commercial space equipped with data storage and networking equipment
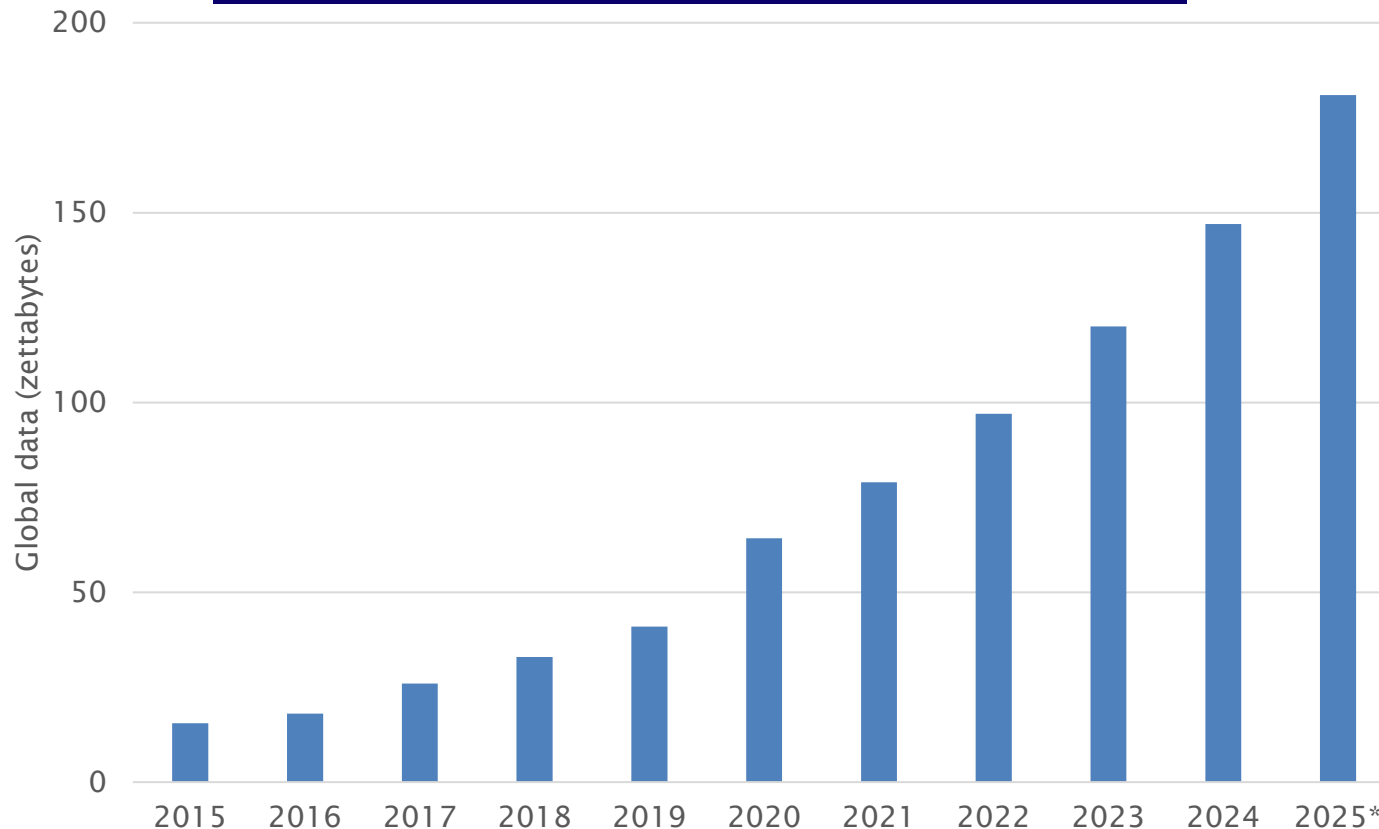
Outside

Inside

Data center growth is driven by extensive digitization of our everyday lives and commercial activities
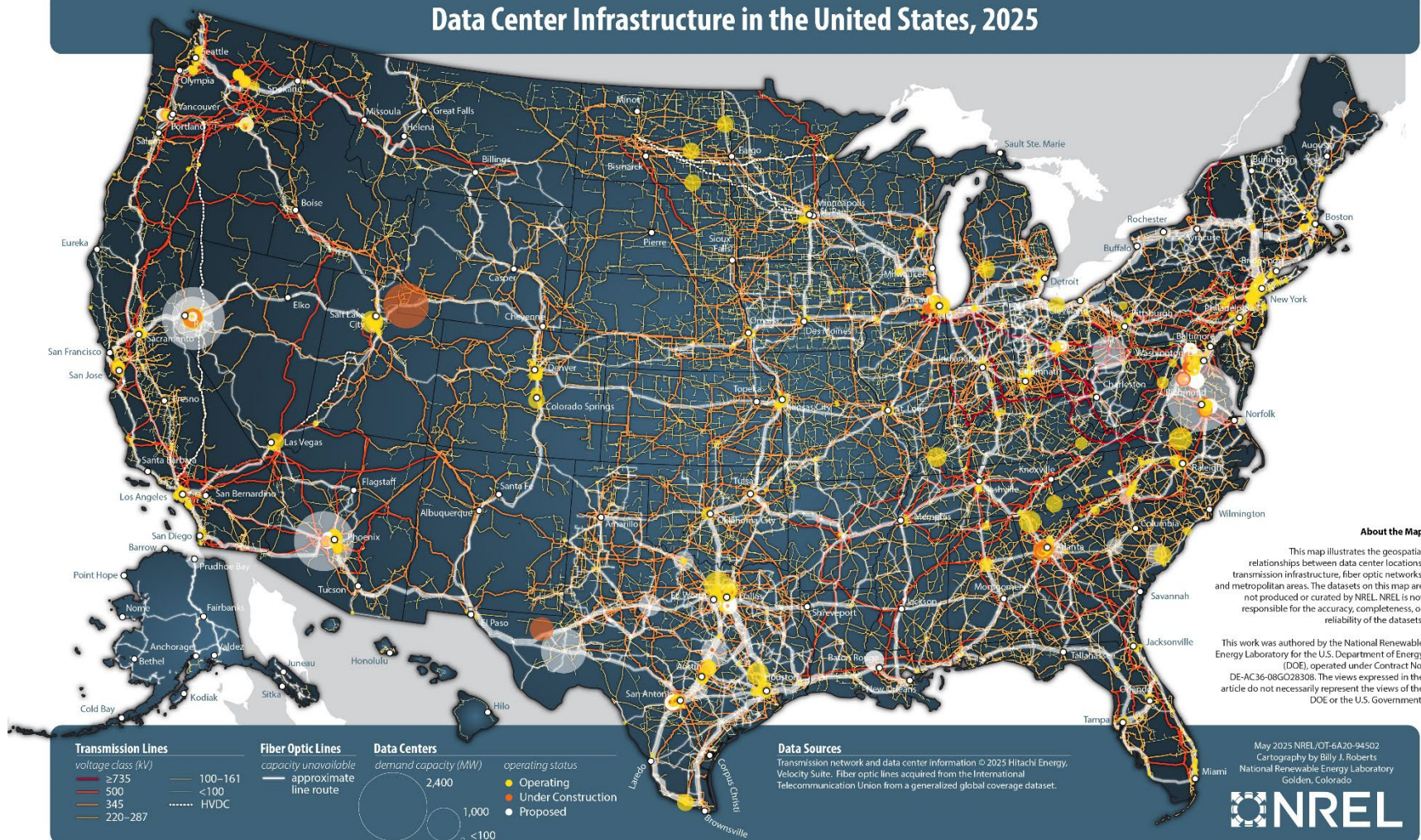
Growth in global created data (zettabytes)

1 ZB = 1,000,000,000,000 GB

*2025 values are estimated
Source: https://www.demandsage.com/big-data-statistics/, compiled from data published on Statista (November 2024)

Where do we currently have data centers? And where are we building new data centers?

Source: NREL; Roberts, B. (2025). Data Center Infrastructure in the United States.

Data centers require electricity to operate

EPRI's Projections of potential power consumption by U.S. data centers through 2030

SCENARIO	ANNUAL GROWTH RATE	% OF 2030 ELECTRICITY CONSUMPTION
Low growth	3.7%	4.6%
Moderate growth	5%	5.0%
High growth	10%	6.8%
Higher growth	15%	9.1%

% of 2030 electricity consumption projections assume that all other (non-data center) load increases at 1% annually.

Average historical data
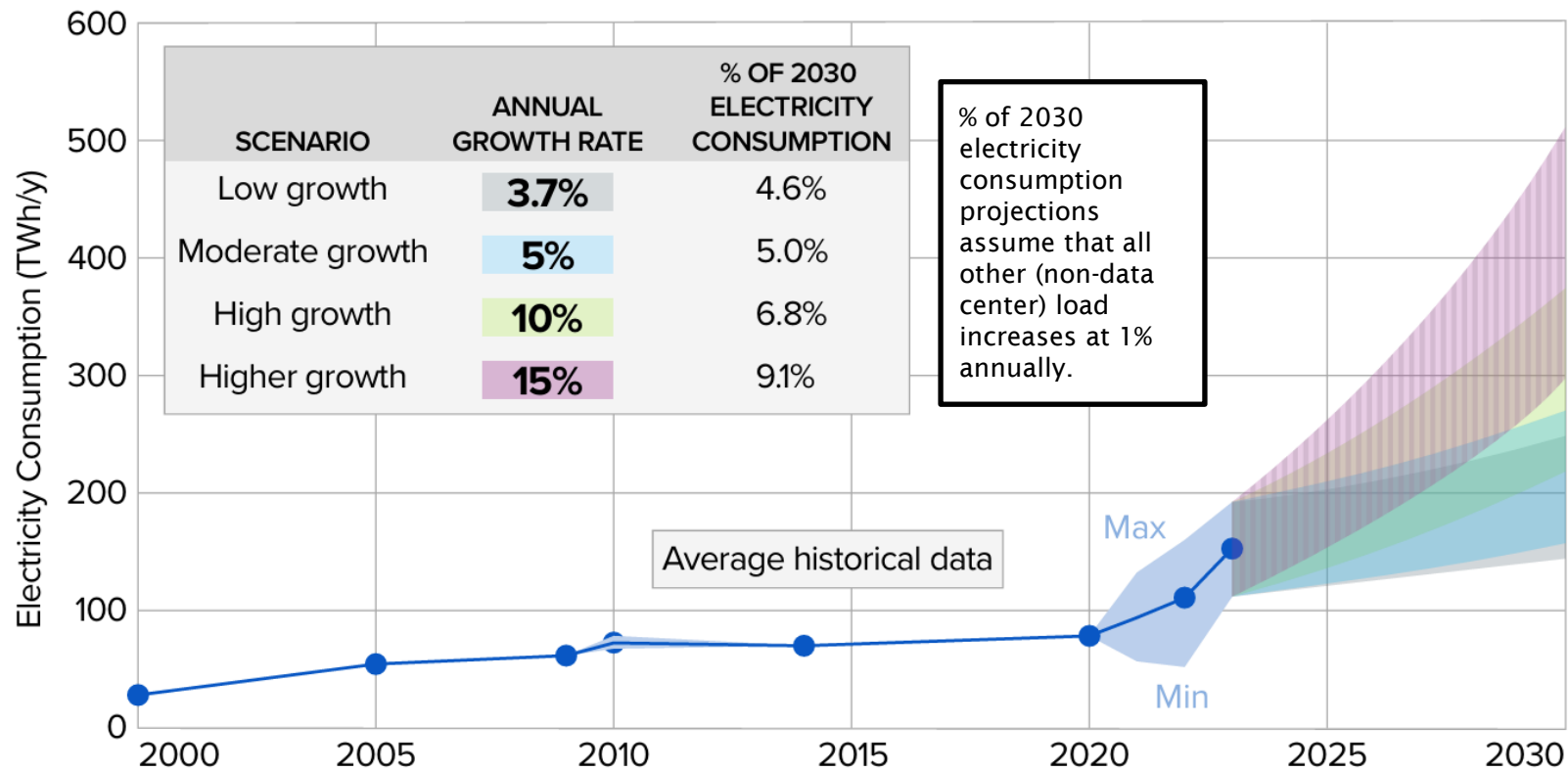
Source: EPRI. *Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption*. May 2024

Let's hear from our panel of subject matter experts

Lucas Fykes
Data Center Coalition

Mike Mattera
Akami Technologies

Jake Sparkman
BXP, Inc.