



OPERATOR GUIDE

Hyperscale your workforce.

An operator guide to winning data center deployments.

A short read for operations, commissioning, and workforce leaders at data center operators and colocation providers. The capacity curve is already set. The workforce curve is the one that won't keep up. How to hire from a wider pool, train faster, and run everyday operations at scale, using the OEM content your suppliers already produce.

BILT.[®]



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01

Where the data center buildout stands in 2026

The scale isn't in dispute. JLL's 2026 Global Data Center Outlook projects roughly 97 gigawatts of new capacity between 2025 and 2030, which would about double global capacity in five years, and puts total investment as high as \$3 trillion by 2030. Goldman Sachs frames the wider wave at around \$7.6 trillion of AI-related capital spending from 2026 to 2031.

The money is moving on the same curve. The four largest hyperscalers have signaled roughly \$630 billion in capital spending for 2026, up about 62 percent from the prior year, with the large majority tied to AI infrastructure.

Cost per megawatt is climbing with the demand. JLL puts data center construction at about \$10.7 million per megawatt in 2025, up from \$7.7 million in 2020. More capacity, built faster, at a higher unit cost, on timelines the industry has never run before.

Capacity that steep only comes online if the workforce scales with it. You can commit capital in a quarter. A trained commissioning crew does not arrive on the same schedule. That gap is where the buildout is actually won or lost.

~97 GW

New capacity added
2025–2030 — roughly
doubling global capacity

\$3T

Total data center
investment by 2030 (JLL)

\$10.7M

Construction cost per MW
in 2025, up from \$7.7M in
2020

Capital scales. Your workforce doesn't.

The capital is committed. What it buys still has to be installed, energized, and run by people, and people are the one input that will not scale on the same curve as the spend.

The Information Technology and Innovation Foundation reported in January 2026 that the construction sector faces a shortage of roughly 439,000 workers, driven specifically by data center growth. The shortfall is not spread evenly. As JLL and CBRE both note, it concentrates in exactly the specialties your sites depend on: licensed electricians with mission-critical experience, mechanical and controls technicians, high-voltage crews, and commissioning agents who understand phased energization.

The demographics work against a quick fix. Industry reporting points to more than 300,000 additional electricians needed to meet AI-driven demand, against a workforce where close to a third of union electricians are between 50 and 70 and roughly 20,000 retire each year. The experienced bench you could once assume is thinning while your pipeline of new capacity grows.

The result is a simple asymmetry. You can add a megawatt of capacity faster than you can add a technician qualified to commission it. And every operator scaling into this buildout is hiring, training, and deploying against the same shrinking pool at the same time. Money is not the constraint on your growth. Ready people are.



439,000

Construction workers short
— a gap driven specifically by data
center growth (ITIF, Jan 2026)

Every unready crew is a line on your return.

When people are the constraint, the speed and correctness of your workforce shows up directly in the return.

\$14.2M

Lost revenue from a one-month commissioning slip on a 60 MW data center — about \$3.55M a week

Project IRR as delay compounds



The math is unforgiving. Industry analysis puts the cost of a one-month commissioning slip on a 60 megawatt data center at about \$14.2 million in lost revenue, roughly \$3.55 million a week. The same models show project IRR falling from 17.1 percent on time to 12.6 percent at three months of delay and to 8.8 percent at six, which in many institutional cases drops the project below the threshold it was underwritten against. CBRE notes that the old 12-to-18-month delivery norm for smaller facilities no longer reliably holds.

Build.inc, reading the same JLL and CBRE data, argues that labor availability now belongs in underwriting and site selection, and that sequencing risk rises whenever electrical, cooling, and commissioning crews compete for the same scarce specialists.

Underneath every one of those slips is the same variable: how fast a new hire becomes productive, and how reliably any crew gets each system right the first time. Time-to-productivity used to be an HR metric reviewed after the fact. On this buildout it sits on the critical path, and it moves your delivery date as surely as long-lead equipment does.

Hyperscale your workforce: hire wider, train faster, run better.

You can't grow the labor pool. You can change who counts as qualified for it, how fast they get there, and how well they perform once they do. That is the part of the workforce equation BILT scales.

BILT turns installation, commissioning, maintenance, and operating procedures into OEM-approved 3D interactive instructions, built from existing CAD and SOPs, that any technician can follow on any device. Instead of interpreting a PDF or a supplier portal that differs for every manufacturer, the technician rotates, zooms, and inspects the assembly before they touch it, working from the same guided source across your whole fleet. It works on the three fronts where your workforce actually bottlenecks.

HIRE WIDER. When the expertise lives in the guided instruction, the experience bar for a productive hire drops. You can bring people in from a broader pool and get them contributing sooner, rather than competing for the same shrinking set of veterans every other operator is chasing. BILT does not source your candidates; it changes who you can afford to hire and how quickly they carry their weight.

TRAIN FASTER. In a controlled 12-week electrical certification study, technicians working with BILT instructions completed core tasks faster than historical cohorts, including electrical box

mounting 73 percent faster, 11 minutes against a 40-minute norm. Knowledge retention rose from 30 percent to 90 percent. Whole categories of error were eliminated, including reverse polarity and sheathing mistakes that historically ran at 18 and 20 percent. New people reached proficiency faster and got the fundamentals right the first time.

RUN BETTER. Once crews are on site, the same guided layer drives first-time fix, fewer escalations, and consistent maintenance and operation across every system you run. In a deployment at a major shipyard, BILT instructions delivered 8.3 times the training efficiency, removed six weeks from the delivery timeline, and produced productivity gains equivalent to 67 full-time employees. A mission-critical environment, a mixed technical scope, and a workforce that had to come up to speed fast: the nearest analog in the field record to a commissioning floor.

Read those numbers against a schedule where a month is worth \$14.2 million. Scaling the workforce faster than the labor market allows is not a training nicety. It is the difference between a team that holds your schedule and one that consumes it. BILT runs this at proven scale: more than 14 million customers and 275,000 Intelligent Instructions created to date.

Measured effect - 12-week electrical certification study:

73%

faster electrical box mounting
— 11 min vs. a 40-min norm

30 → 90%

Knowledge retention rose three-fold

0

Reverse-polarity & sheathing errors
— from 18% and 20% historically

New capacity added 2025–2030 —
roughly doubling global capacity

~97 GW

Total data center investment by 2030
(JLL)

\$3T

Construction cost per MW in 2025,
up from \$7.7M in 2020

\$10.7M

The two levers that you hold.

An OEM can make one product easier to learn. Operators can scale the whole workforce across every system on your sites, and you have two levers for it.

The first is procurement. You decide what "deployable" means for equipment coming onto your sites. Making guided, OEM-approved 3D instruction a condition of the spec means every new system arrives ready to train against and ramp on, instead of arriving as one more thing your crews have to decode. It also moves the schedule risk onto the supply base, where the product knowledge lives.

The second is your own workforce layer. Procurement covers new equipment; it does not cover the installed base already in the ground, or the technicians you are hiring and training this year across all of it. A single guided layer across your OEM mix gives every crew, at every site, one way to learn and run every system, built from the manufacturers' own content rather than reinvented deployment by deployment. It is how a team scaling headcount into the thousands stops re-teaching the same systems from scratch every time.

Both levers point the same direction. The operators who treat workforce readiness as something they build and scale, rather than something they inherit one hire at a time, are the ones who will hold schedules as the buildout accelerates and the labor stays scarce.

"BILT really demystifies our assembly and installation processes to gain efficiency, reduce labor time, and get off the job site faster."

DAVID QUATELA Marketing Manager, Siemens

What this primer is and isn't

This is operational context for the leaders who own deployment, commissioning, and workforce readiness. It is not a procurement pitch. Specific results depend on your fleet, your crews, and your content.

BILT's view, stated plainly. In a buildout where trained people are the scarce input and capital is not, the operator who can hire from a wider pool, train them faster, and run every system reliably wins on the one axis you now have to underwrite: schedule. A guided 3D instruction layer, built from the engineering and service documentation your suppliers already produce, is the most direct way to scale that workforce across your whole footprint rather than one hire and one system at a time.

What that capacity to scale is worth inside your own commissioning numbers is the conversation worth having now, while the labor market is the constraint and not yet the crisis.



Ready to hyperscale your workforce?

Twenty minutes is enough to see how BILT delivers OEM-approved 3D installation, commissioning, and operating instructions across a mixed equipment fleet.

[Request sales demo](#)



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