

DATA CENTERS IN THE CHARLOTTE REGION

Executive Summary for Public Officials (rev. 6/15/2026)
Prepared by CREDA Charlotte | Informed by the April 2026 Industry Panel | Full Report Available at www.credaCLT.org

Data center development is moving faster than the public conversation. The term itself spans facilities as different as a 30,000-square-foot edge installation inside an office building and a hyperscale AI campus drawing 1,000+ MW. Sound policy starts with that distinction. This summary distills the fiscal, environmental, and infrastructure realities most relevant to local decision-makers.

\$24B Capital investment from 48 NC projects advanced through Duke Energy in 2025	10x Tax assessment of a data center vs. an e-commerce warehouse on the same parcel	43.3% Share of US private office construction that was data centers (12 months ending July 2025)
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Sources: Duke Energy Large-Load Briefing 2026 | CREDA Charlotte Panel, April 24, 2026 | CREDA 2026 Economic Impact Report

THE CORE INSIGHT

Not all data centers are the same. A framework that treats a 30,000-square-foot edge facility the same as a gigawatt-scale AI campus will either over-restrict small projects or under-regulate large ones.

- **Edge:** 50 kW to 5 MW. Small footprint, often inside existing buildings.
- **Colocation:** up to 100 MW. Multi-tenant, often serving banking and enterprise clients.
- **Hyperscale / AI:** 100 MW and above. Hundreds of acres, hundreds of megawatts, billions in capital. The category that warrants distinct regulatory treatment.

FISCAL REALITY

- Highest tax yield per acre of any land use, with minimal demand on schools, roads, or emergency services.
- **Maiden, NC:** \$6B+ in Apple investment dropped the town tax rate from \$0.40 to \$0.38 over 15 years, while funding a new fire station, police HQ, town hall, and community center.
- **Loudoun County, VA:** Reported a \$200M unprojected budget surplus driven by data centers coming online faster than fiscal models anticipated.
- **Opportunity cost:** \$64B+ in projects delayed or canceled nationally between May 2024 and March 2025 due to organized opposition. Jurisdictions that plan proactively capture investment.

JOBS AND ECONOMIC IMPACT

- **Construction:** Wages roughly 60% above local median. Every \$1 of construction spending generates \$2.46 in total output, with \$2.28 retained in-state.
- **Permanent:** Fewer than manufacturing, but high-wage and durable. Apple's Maiden campus employs ~400 plus 15 years of continuous local contractor work.
- **Indirect:** Data centers are the backbone of regional healthcare, banking, and education. Virtual care, financial trading, and online learning all sit inside these facilities.

POWER: THE DECISIVE FACTOR

- **Demand:** Duke Energy received 300+ leads in 2025. 48 advanced, representing \$24B in capital and 40,000 jobs.
- **Timelines:** A new substation alone takes 2 to 3 years. Generator and UPS lead times exceed 42 weeks. Gas turbines face 5-year backlogs.
- **Cost shift:** Data center users now pay for substation upgrades and may post refundable capital upfront, protecting residential ratepayers from speculative-project costs.
- **Rate impact:** NC is a regulated utility state. Generation costs distribute across the rate base, not onto neighborhoods next to sites. Local bill spikes are a myth.

ENVIRONMENTAL FOOTPRINT

- **Scale:** ~1% of global energy-related greenhouse gas emissions, comparable to global aviation.
- **Water:** Closed-loop and zero-water-evaporated designs are becoming standard. Microsoft's newest AI campuses are designed for zero cooling water.
- **Trajectory:** Cornell research in Nature Sustainability (2025) finds advanced cooling can cut emissions up to 73% and water use up to 86%.

RECOMMENDED APPROACH FOR LOCAL OFFICIALS

- **Differentiate by type.** Use scaled thresholds in code. Edge and colocation projects do not warrant the same review as hyperscale campuses.
- **Engage Duke Energy early.** The \$100,000 non-refundable study fee, multi-year interconnection timeline, and capital posting requirements should be understood before site commitments.
- **Distinguish concerns from campaigns.** Some opposition is locally grounded and deserves substantive answers. Some is nationally coordinated. Evaluate each project on its actual profile.
- **Lead with transparency.** Address tax base, water and power, sustainability standards, and local hiring expectations openly and early.