CHARLOTTE DATA CENTER POLICY REPORT

Protecting Residents, Ratepayers, and Neighborhoods from High-Impact Infrastructure

I. Introduction

Charlotte is experiencing a surge of interest from data center developers. While these facilities are often marketed as “innovation infrastructure,” the reality is far more complex. Data centers consume massive amounts of electricity and water, create very few permanent jobs, and shift infrastructure costs onto residents unless strong protections are in place.

This report provides a comprehensive overview of:

- Charlotte’s existing data center landscape
- The risks posed by large-scale and small-scale (home-based) data centers
- The statewide legislative response now underway in the NC General Assembly
- The different types of data centers and the regulatory needs for each
- Policy recommendations for Charlotte City Council

Charlotte must adopt a clear, community-centered framework to evaluate data center proposals, ensure transparency, and prevent unintended harm to neighborhoods, ratepayers, and the environment.

II. Why Data Centers Require Strong Local Oversight

Data centers are not traditional economic-development projects. They bring:

- Enormous electricity demand (tens to hundreds of megawatts per site)
- High water consumption, especially during extreme heat
- Minimal job creation (often fewer than 20 permanent jobs)
- Noise impacts from industrial cooling systems
- Large public-infrastructure costs that can be shifted onto residents
- Little transparency in siting, cooling methods, or utility impacts

Residents and advocates have raised concerns about:

- Rising energy bills
- Water usage during drought and heat emergencies
- Environmental and noise impacts
- Corporate incentives with no community benefit
- Lack of public engagement
- Absence of environmental or equity reviews

These concerns are now validated at the state level, where lawmakers are moving to regulate data centers for the first time.

III. Charlotte's Existing Data Center Landscape (Mecklenburg County Only)

Charlotte already hosts a significant number of data centers — far more than most residents realize.

According to DataCenterMap.com, Charlotte currently has 43 active data centers operating within Mecklenburg County.

Source: https://www.datacentermap.com/usa/north-carolina/charlotte/

This makes Charlotte the largest data-center hub in North Carolina and one of the largest in the Southeast.

These 43 facilities include:

- Public colocation centers
- Private enterprise data centers

- Telecom carrier hotels
- Cloud on-ramps
- Financial-sector data centers
- Utility-owned data centers
- Undisclosed corporate facilities

The scale and diversity of these facilities underscore the need for strong local oversight.

IV. Statewide Momentum: North Carolina Moves to Regulate Data Centers

The NC General Assembly is advancing multiple major bills aimed at regulating data centers statewide. This is the strongest signal yet that the concerns raised by Charlotte residents are legitimate, urgent, and shared across the state.

V. New 2026 Data Center Legislation in the NC General Assembly

1. SB 844 – Affordable Energy Omnibus

Targets data centers with peak demand above 50 MW and requires:

- Large-load tariffs
- Environmental and noise impact reviews
- On-site power generation
- Local referendums
- Transparent utility billing

2. HB 1063 – Ratepayer and Resource Protection Act

Applies to data centers using 40 MW or more and would:

- Eliminate sales-tax exemptions
- Require higher utility rates

- Mandate annual reporting on electricity and water use
- Require on-site clean energy

3. SB 730 – Ratepayer Protection Act (Senate Version)

Would:

- Require data centers to pay full infrastructure costs
- Tighten rules on water use and siting
- Prevent cost-shifting to residents
- Add nuclear and permitting provisions

4. SB 730 (House Version) – Additional Restrictions

Adds:

- Mandatory closed-loop cooling for 100+ MW centers
- Noise and environmental assessments
- Ban on local incentives
- Ban on foreign ownership (China, Russia, Iran, North Korea)
- 15-year utility contracts

5. Additional Proposals

Would:

- Increase electricity rates for 50+ MW facilities
- Require environmental studies
- Allow local referendums

6. HB 1189 – Data Center Tax Exemption Modification Act

(Newly added)

HB 1189 modifies North Carolina's existing sales-tax exemption for data centers. The bill:

- Narrows eligibility for the data-center sales-tax exemption
- Tightens definitions of "data center support equipment"
- Requires additional documentation and compliance reporting
- Reduces the ability of large data-center operators to claim broad tax exemptions
- Ensures that only qualifying facilities receive state-level tax benefits

Why it matters for Charlotte:

HB 1189 directly addresses the long-standing issue of corporate tax giveaways to data centers that create very few jobs. By tightening the exemption, the bill reduces the incentive for speculative or low-benefit data-center development and aligns with Charlotte's need to prevent cost-shifting to residents.

VI. Types of Data Centers and the Regulatory Problems Associated with Each

Not all data centers are the same. Different types pose different risks, require different levels of oversight, and impact communities in different ways. Charlotte's regulatory framework must recognize these distinctions.

1. Hyperscale Data Centers (Large Corporate / Cloud Providers)

Examples: AWS, Google, Meta, Microsoft

Size: 50–200+ MW

Jobs: 10–40

Problems

- Massive grid strain
- High water consumption
- Noise from cooling towers
- Diesel generator emissions
- Minimal job creation
- Large land footprints

- Environmental justice risks

Regulation Needed

- Environmental impact reviews
- Water-use caps
- Large-load tariffs
- Noise standards
- Public hearings
- Generator limits
- Local referendums

2. Colocation Data Centers (Multi-Tenant Facilities)

Examples: Flexential, TierPoint

Size: 5–20 MW

Jobs: 15–50

Problems

- Cumulative grid impacts
- Noise from rooftop chillers
- Opaque tenant operations
- Rapid expansion
- Traffic from equipment deliveries

Regulation Needed

- MW disclosure
- Noise limits
- Cooling transparency
- Annual reporting
- Zoning limits
- Generator emissions standards

3. Enterprise / Corporate Data Centers

Examples: Bank of America, Wells Fargo, Duke Energy

Size: 5–30 MW

Jobs: 20–100

Problems

- High urban energy use
- Secrecy limiting oversight
- Diesel emissions
- Heat island effects
- Proximity to neighborhoods

Regulation Needed

- Urban siting standards
- Emissions controls
- Efficiency requirements
- MW disclosure
- Cooling-system reporting

4. Edge Data Centers (Small Distributed Facilities)

Examples: 5G hubs, telecom nodes

Size: 0.5–5 MW

Problems

- Proliferation across neighborhoods
- Noise
- Placement near homes
- Lack of transparency
- Cumulative grid impacts

Regulation Needed

- Zoning rules
- Noise limits
- MW disclosure
- Cooling standards
- Expansion permits

5. Home-Based / Residential Data Centers

Examples: Crypto rigs, AI servers

Size: 5–30 kW

Problems

- Fire hazards
- Transformer failures
- Noise
- Heat output
- Unregulated commercial activity
- Neighborhood blackouts

Regulation Needed

- Permits
- Prohibition of commercial-scale operations
- Fire-safety inspections
- Noise/heat limits
- Duke Energy coordination
- Fines for violations

VII. Policy Recommendations for Charlotte

1. Enact a 150-Day Moratorium
2. Create a New Scoring System
3. Require Full Transparency
4. Regulate Home-Based Data Centers
5. Align Local Policy with State Legislation

VIII. Conclusion

Data centers are high-impact industrial facilities. Without strong oversight, they can strain the grid, raise utility bills, consume massive amounts of water, and burden neighborhoods with noise and environmental impacts.

Charlotte has an opportunity to lead by adopting a clear, community-centered framework that protects residents and ensures that corporate development does not come at the expense of public well-being.