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Data Centers

February 19, 2026

For Discussion

- The rapid growth in quantity and scale of Data Centers
- Site & Utility Requirements
- Cumberland County Existing Industrial Sites & Infrastructure
- Factors limiting the size & type of Data Centers that would consider Cumberland County
- Economic Benefits
- Operational Characteristics in comparison to other operations
- Concerns and potential impacts
- Items recommended for follow-up action

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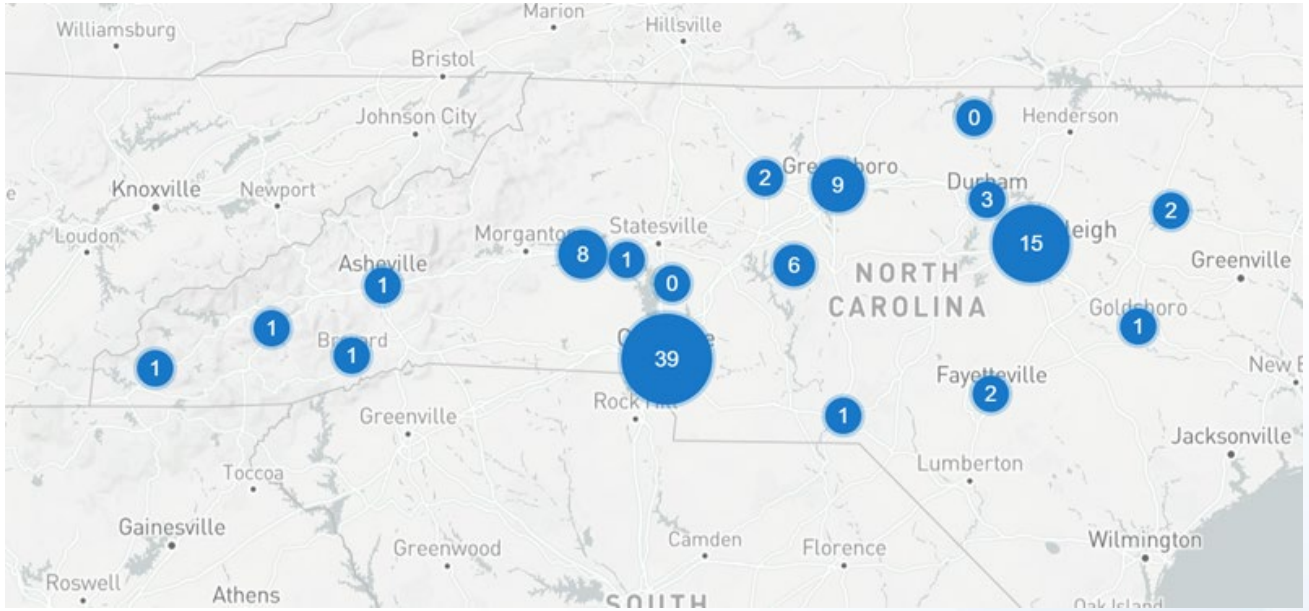
Comparison – Large Manufacturing = 30 MW



- Corporate – 10-30 MW
- Edge 20-40 MW
- Cloud – 100 MW
- Co-Location – Data Center developers 100-500 MW
- Cryptocurrency mining – ultra large calculators – 20-200 MW
- Hyperscalers – Dominated by Meta, Google, Microsoft, and Apple

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Data Centers – Evolution & Types

AIT – Downtown
Fayetteville, NC

Apple Campus –
Maiden, NC

Segra Data Chambers –
Kannapolis, NC

Site & Infrastructure Requirement

- For now – Searches start with electrical infrastructure and capacity – “large” centers start around 100 MW
- Size of desired site scales with capacity and availability
- Depending on cooling technology, water capacity is often the next question asked
- Back up generation can be provided by varying means
- Some are proposing on-site power generation, reducing grid reliance
- Cumberland County has existing industrially zoned properties, with adequate utilities that are attractive to Data Centers

Limiting factors

- Existing Infrastructure and available capacity cannot accommodate the largest of data centers
- Substantial increases in generation capacity, at a utility level, are many years out
- Smaller centers exist and are likely
- These issues are driving increased conversations around onsite generation and energy storage

Economic Benefits

- Projects range in investments from a hundreds of millions of dollars to multiple billions
- At the current tax rate, each $1B = $5million in property tax revenue
- Jobs pay very well, but would be on the order of dozens to 100+ per project
- Incentives are not required
- Provides needed IT infrastructure and can lead to growth in the technology sector

Operational Characteristics - Common

- Water Usage – similar to other large industrial operations that utilize water for equipment cooling
- Waste Water – also similar to other large industrial operations that utilize water for equipment cooling
- Equipment Noise – Cooling equipment can generate substantial and consistent noise, similar to large textile facilities or other industrial operations
- Air emissions – largely tied to onsite back up power generation

Operational Characteristics – Uncommon

- 24-7 operations without interruption
- Potential large amounts of fuel or battery storage and regular operation of back up generators
- Growing interest in self generation
- Exponential power demand

Recent policy changes regarding electric service NC

- Substantial upfront charge for system modeling studies
- Customer must own the land and have it zoned / entitled for Data Centers
- Project must fund transmission costs upfront (typically $30-100 MM)
- Customer must agree to interrupt service 100 hours / year
- NC Policy Discussions and Potential Legislative Action

Legitimate concerns raised from other places – but not necessarily transferable to Cumberland

- Evaporative Water Usage
- Immediate proximity to
- Uncontrolled discharge of cooling water
- Impact on ground water
- Direct costs to surrounding rate payers for infrastructure or electricity
- Brownouts / power availability

Primary Local Impacts

- Noise – from operations and when back generation occurs
- Emissions from backup generation
- Vibration and/or harmonic resonance
- Stress on the power grid
- Available capacity for other uses
- Impact on electrical rate payers – (policy issue)

Large Data Centers should be scrutinized as you would any other very large industrial process

- Adopt regulations to protect neighbors and surrounding property owners from potential negative impacts
- Add definitions that clearly define the different types of data centers and where the would be allowed
- If there is any proximity to residential use or zoned property – require noise modeling and verification of compliance
- Add use specific requirements regarding screening & buffering where they back up to other zoning districts
- Consider limiting non-utility power generation facilities to “special use” only (not back up)

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Questions?

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