

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MEMPHIS, TENNESSEE, AMENDING ORDINANCE NO. 5367, KNOWN AS THE MEMPHIS AND SHELBY COUNTY UNIFIED DEVELOPMENT CODE, TO ESTABLISH REGULATIONS FOR THE SITING, INITIAL DEVELOPMENT, CONSTRUCTION, EXPANSION, ALTERATION, AND OPERATION OF LARGE-SCALE DATA CENTERS; ESTABLISHING DATA CENTER DEVELOPMENT STANDARDS; PROHIBITING ROUTINE EVAPORATIVE AND ONCE-THROUGH COOLING; REQUIRING CLOSED-LOOP WATER-CIRCULATION SYSTEMS; PROHIBITING MAJOR WITHDRAWALS OF LOCAL WATER RESOURCES FOR DATA CENTER COOLING; REQUIRING WATER CONSERVATION AND MONITORING; REQUIRING PROGRESSIVE USE OF RENEWABLE AND NON-CARBON ELECTRICITY; ESTABLISHING A SCHEDULE FOR THE PHASE-OUT OF CARBON-BASED ELECTRICITY; ESTABLISHING REQUIREMENTS FOR EXPANSION OF EXISTING DATA CENTERS; PROVIDING FOR PUBLIC DISCLOSURE, REPORTING, ENFORCEMENT, PENALTIES, AND OTHER MATTERS RELATED THERETO.

WHEREAS, the City Council of Memphis recognizes that large-scale data centers can require substantial amounts of electricity, water, land, electrical infrastructure, cooling infrastructure, and other public resources; and

WHEREAS, the City Council recognizes its responsibility to protect the health, safety, welfare, environmental quality, water resources, neighborhoods, infrastructure, and long-term economic interests of the residents of Memphis; and

WHEREAS, the Tennessee Department of Environment and Conservation recognizes that local governments may address data center siting, zoning, land-use compatibility, noise, and local infrastructure matters through local governmental processes; and

WHEREAS, the City of Memphis possesses authority to regulate land uses and zoning within the City pursuant to applicable Tennessee law and the Memphis and Shelby County Unified Development Code; and

WHEREAS, the Memphis and Shelby County Unified Development Code was adopted by Ordinance No. 5367 and has been amended from time to time by the City Council; and

WHEREAS, the Memphis City Council has determined that data center development should be subject to standards appropriate to the scale and intensity of the use; and

WHEREAS, the City Council finds that the protection of water resources is a legitimate public purpose and that cooling technologies that continuously circulate water in closed systems can substantially reduce water consumption; and

WHEREAS, the City Council finds that routine evaporative cooling can result in continuing consumption of water through evaporation and can place unnecessary demands upon municipal and regional water resources; and

WHEREAS, the City Council finds that data center electricity demand can be substantial and that increasing reliance upon renewable and non-carbon energy sources is in the public interest; and

WHEREAS, the City Council further finds that the costs of electrical infrastructure required solely or primarily because of data center development should not be shifted to residential customers or unrelated commercial customers to the extent prohibited or regulated by Tennessee law; and

WHEREAS, the City Council enacted Ordinance No. 5982 establishing a temporary moratorium on certain data center permits in order to provide time for the City to study and establish appropriate permanent development standards; and

WHEREAS, the City Council now determines that permanent standards governing water, energy, environmental sustainability, development, expansion, and infrastructure are necessary;

NOW, THEREFORE,

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF MEMPHIS, TENNESSEE:

SECTION 1.

DATA CENTER DEFINED.

The Memphis and Shelby County Unified Development Code shall be amended to establish the following definition:

“DATA CENTER” means a building, structure, campus, or collection of buildings and associated infrastructure principally used for the housing, operation, storage, processing, management, transmission, or distribution of digital information through electronic computing equipment, including servers, computer systems, artificial-intelligence computing equipment, telecommunications equipment, network equipment, data-storage equipment, environmental control systems, electrical systems, substations, backup power systems, cooling systems, and related infrastructure.

A facility shall be considered a Data Center regardless of whether its computing equipment is operated by the owner of the real property, a tenant, contractor, affiliate, subsidiary, or other entity.

SECTION 2.

LARGE DATA CENTER.

A “LARGE DATA CENTER” means a Data Center that:

A. has a projected electrical demand of twenty (20) megawatts or greater; or

B. is designed or intended to increase electrical demand to twenty (20) megawatts or greater within ten (10) years of initial occupancy.

The City Council may establish a lower threshold by subsequent amendment to the Unified Development Code.

SECTION 3.

APPLICABILITY.

The requirements of this Ordinance shall apply to:

- A. every new Large Data Center;
- B. every new Data Center proposed after the effective date of this Ordinance;
- C. every expansion of an existing Data Center that increases electrical demand, computing capacity, building area, cooling capacity, or water demand;
- D. every conversion of an existing building or property to Data Center use;
- E. every new Data Center campus or expansion of an existing Data Center campus; and
- F. any phased development where multiple buildings or facilities are operated under common ownership, control, management, or utility service.

SECTION 4.

DATA CENTER DEVELOPMENT APPROVAL REQUIRED.

No person shall establish, construct, expand, enlarge, or materially modify a Data Center unless the applicant has obtained all applicable zoning, land-use, site-plan, building, utility, environmental, and other approvals required by the City and applicable law.

No Data Center development shall be approved unless the applicant demonstrates compliance with this Ordinance.

SECTION 5.

DISCLOSURE OF ULTIMATE DEVELOPMENT.

Every application for a new Data Center shall disclose the maximum reasonably anticipated development of the property, including:

- A. ultimate building area;
- B. ultimate electrical demand;
- C. anticipated computing capacity;
- D. number and capacity of cooling systems;
- E. maximum anticipated water demand;
- F. proposed water sources;
- G. proposed wastewater discharge;
- H. backup-generation capacity;
- I. battery-storage capacity;

- J. renewable-energy generation or procurement;
- K. anticipated carbon-based electricity consumption; and
- L. all known phases of future development.

No applicant shall avoid the requirements of this Ordinance by dividing a single Data Center campus into separate buildings, ownership entities, applications, phases, or permits.

SECTION 6.

CLOSED-LOOP COOLING REQUIRED.

- A. All new Data Centers shall use closed-loop cooling systems.
- B. Cooling water shall be continuously circulated and reused within the cooling system.
- C. The cooling system shall be designed so that water is not routinely consumed through evaporation.
- D. Once-through cooling systems are prohibited.
- E. Open-loop cooling systems are prohibited.
- F. Routine evaporative cooling towers are prohibited.
- G. Routine cooling-water blowdown, bleed-off, or discharge is prohibited except where specifically approved by the City Engineer as necessary for system safety or maintenance and where the discharge complies with all applicable law.
- H. Acceptable cooling technologies may include:
 - 1. air cooling;
 - 2. dry cooling;
 - 3. direct-to-chip cooling;
 - 4. rear-door heat exchangers;
 - 5. immersion cooling;
 - 6. closed-circuit cooling;
 - 7. other non-evaporative technologies approved by the City Engineer.

SECTION 7.

PROHIBITION ON MAJOR LOCAL WATER WITHDRAWALS.

A. No Data Center shall use groundwater, surface water, municipal drinking water, aquifer water, river water, lake water, reservoir water, or other Local Water Resources for routine cooling operations if the withdrawal constitutes a Major Water Withdrawal.

B. No new private well shall be constructed for the primary purpose of supplying routine Data Center cooling.

C. No Data Center shall divert water from the Mississippi River, Wolf River, Nonconnah Creek, groundwater aquifers, reservoirs, lakes, or other local water resources for routine cooling operations unless expressly authorized by applicable law and separately approved by the City following a public review.

D. The City shall favor reclaimed, recycled, captured, non-potable, or otherwise non-freshwater sources where water is permitted for an authorized use.

E. No approval shall be granted where the proposed cooling-water demand would materially impair the City's ability to provide water for residential, public health, fire protection, environmental, agricultural, or other essential purposes.

SECTION 8. POTABLE WATER.

Routine Data Center cooling shall not use treated potable drinking water supplied through the City's public water system except for:

A. initial filling of an approved closed-loop cooling system;

B. replacement of unavoidable system losses;

C. emergency conditions;

D. maintenance necessary to protect equipment or public safety; or

E. another use expressly approved by the City.

No potable water shall be used for intentional evaporative cooling.

SECTION 9. INITIAL COOLING SYSTEM FILL.

The applicant shall disclose the volume of water required to initially fill the cooling system.

The City Engineer shall determine whether the proposed initial fill can be supplied without adversely affecting public water supply, fire protection capacity, wastewater capacity, or other essential municipal services.

The City may require phased filling or alternative water sources when necessary to protect municipal water capacity.

SECTION 10.

WATER CONSERVATION PLAN.

Every applicant shall submit a Water Conservation and Resource Protection Plan containing:

- A. cooling-system specifications;
- B. initial water-fill requirements;
- C. anticipated annual water consumption;
- D. anticipated maximum daily water consumption;
- E. water-source identification;
- F. anticipated makeup-water requirements;
- G. procedures preventing evaporation;
- H. procedures preventing routine discharge;
- I. leak-detection procedures;
- J. water-metering procedures;
- K. water-recycling procedures;
- L. emergency-water procedures;
- M. wastewater-management procedures; and
- N. certification by a Tennessee-licensed professional engineer.

SECTION 11.

SEPARATE WATER METERING.

Every Data Center shall install meters capable of separately measuring:

- A. total water entering the facility;
- B. cooling-system water;
- C. makeup water;
- D. water used for non-cooling purposes; and
- E. wastewater discharge where technically feasible.

The City shall have the right to inspect and verify such meters.

SECTION 12.

WATER REPORTING.

Every Data Center shall submit an annual report to the City containing:

- A. total water consumption;
- B. total cooling-water consumption;
- C. makeup-water consumption;
- D. water source;
- E. initial cooling-system fill;
- F. water lost through leakage;
- G. any authorized discharge;
- H. any emergency withdrawal; and
- I. certification by the facility owner or authorized representative.

The City may make such information available to the public subject to applicable trade-secret and public-records law.

SECTION 13.

RENEWABLE ENERGY REQUIREMENT.

Every new Data Center shall obtain electricity from qualifying renewable or other non-carbon energy resources according to the following schedule:

- A. Beginning upon commencement of commercial operation:

Not less than sixty percent (60%) of annual electricity consumption shall be matched by qualifying renewable or non-carbon electricity.

- B. Beginning three (3) years after commencement of commercial operation:

Not less than seventy-five percent (75%) shall be matched by qualifying renewable or non-carbon electricity.

- C. Beginning six (6) years after commencement of commercial operation:

Not less than ninety percent (90%) shall be matched by qualifying renewable or non-carbon electricity.

- D. Beginning ten (10) years after commencement of commercial operation:

One hundred percent (100%) shall be matched by qualifying renewable or non-carbon electricity.

SECTION 14.

QUALIFYING RENEWABLE ENERGY.

Qualifying renewable electricity may include electricity generated from:

- A. solar;
- B. wind;
- C. geothermal;
- D. qualifying hydroelectric resources;
- E. onsite renewable generation;
- F. qualifying utility renewable-energy programs;
- G. long-term renewable power-purchase agreements;
- H. community renewable-energy programs; or
- I. other renewable-energy procurement mechanisms approved by the City Attorney.

Renewable Energy Certificates may be used for compliance only where legally recognized and where the certificates are retired for the benefit of the Data Center.

SECTION 15.

CARBON-BASED ELECTRICITY PHASE-OUT.

A. Routine electricity consumption from coal, petroleum, natural gas, diesel, gasoline, fuel oil, or other fossil-fuel generation shall be progressively reduced.

B. No new Data Center shall exceed the following annual carbon-based electricity limits:

- 1.
Years 1-3: forty percent (40%);
- 2.
Years 4-6: twenty-five percent (25%);
- 3.
Years 7-9: ten percent (10%);
- 4.
Year 10 and thereafter: zero percent (0%).

C. Carbon-based backup generators shall not be considered routine electricity sources when operated solely for emergency response, legally required testing, maintenance, or grid emergency purposes.

SECTION 16.

FOSSIL-FUEL BACKUP GENERATORS.

A. New Data Centers shall minimize reliance upon fossil-fuel emergency generation.

B. Fossil-fuel generators may operate only:

1.
during electrical outages;
2.
during declared emergencies;
3.
during required testing;
4.
during maintenance;
5.
to protect life or critical equipment; or
6.
when required by the applicable electric utility or governmental emergency authority.

C. No fossil-fuel generator may serve as the routine primary electrical supply for a Data Center.

D. New Data Centers shall evaluate battery storage and renewable backup generation as alternatives to fossil-fuel generation.

SECTION 17.

EXPANSION OF EXISTING DATA CENTERS.

A. No expansion may proceed without demonstrating compliance with this Ordinance.

B. An expansion that increases the facility's electrical demand by twenty percent (20%) or more shall be reviewed as a new Large Data Center.

C. An expansion that increases water demand shall demonstrate that the increased demand complies with Sections 6 through 12.

D. Replacement of cooling equipment shall comply with the closed-loop, non-evaporative requirements of this Ordinance.

E. A facility shall not avoid these requirements through phased expansion.

SECTION 18.

EXISTING DATA CENTERS.

Existing Data Centers lawfully operating before the effective date of this Ordinance may continue their lawful operations, subject to applicable existing law.

However, existing Data Centers shall submit to the City, within twelve (12) months of the effective date of this Ordinance:

- A. a water-use report;
- B. a cooling-system description;

- C. electrical consumption data;
- D. renewable-energy procurement information;
- E. fossil-fuel generator information;
- F. maximum electrical demand;
- G. maximum water demand; and
- H. an expansion plan, if applicable.

No major expansion shall be approved unless the facility complies with this Ordinance.

SECTION 19.

ELECTRICAL INFRASTRUCTURE COSTS.

Nothing in this Ordinance shall authorize the City or any municipal utility to violate Tennessee law.

To the extent permitted by law, a Data Center applicant shall identify and be responsible for incremental electrical infrastructure costs attributable to its proposed development.

The City shall not voluntarily absorb Data Center-specific infrastructure costs where such absorption is prohibited by Tennessee law.

The applicant shall provide documentation demonstrating the anticipated electrical infrastructure requirements associated with the project.

SECTION 20.

GRID AND ENERGY IMPACT STATEMENT.

Before approval of a Large Data Center, the applicant shall provide:

- A. projected electrical demand;
- B. expected annual electricity consumption;
- C. expected peak demand;
- D. anticipated interconnection requirements;
- E. proposed renewable-energy procurement;
- F. proposed energy-storage capacity;
- G. expected carbon-based electricity consumption;
- H. anticipated electrical infrastructure requirements; and

I. documentation from the serving electric utility concerning available service and anticipated infrastructure requirements, to the extent such documentation may lawfully be obtained.

SECTION 21.

PUBLIC DISCLOSURE.

Except for information protected by applicable trade-secret law, proprietary information law, cybersecurity requirements, or other applicable law, the City shall maintain a publicly accessible Data Center Development Register containing:

- A. approved Data Centers;
- B. pending applications;
- C. electrical demand;
- D. projected water demand;
- E. water-source information;
- F. cooling technology;
- G. renewable-energy percentage;
- H. carbon-based electricity percentage;
- I. backup-generation capacity;
- J. major expansion applications; and
- K. annual compliance reports.

SECTION 22.

ANNUAL COMPLIANCE CERTIFICATION.

Each Data Center shall annually certify compliance with this Ordinance.

The certification shall be signed by an authorized officer, manager, or responsible engineer of the facility.

Knowingly submitting false information shall constitute a violation of the Memphis Code of Ordinances.

SECTION 23.

ENFORCEMENT.

The City may enforce this Ordinance through all remedies available under the Memphis Code of Ordinances and applicable Tennessee law.

Available remedies may include:

- A. notices of violation;
- B. civil penalties;
- C. suspension of permits;
- D. denial of expansion applications;
- E. revocation of approvals where legally authorized;
- F. injunctive relief;
- G. recovery of enforcement costs where authorized by law; and
- H. any other remedy authorized by law.

Each day of continuing violation may constitute a separate violation where permitted by law.

SECTION 24. PERMIT CONDITION.

Compliance with this Ordinance shall be a condition of:

- A. zoning approval;
- B. site-plan approval;
- C. special-use approval;
- D. building-permit approval;
- E. certificate of occupancy;
- F. approval of a material expansion; and
- G. other applicable development approvals.

SECTION 25. NO PREEMPTION OF STATE OR FEDERAL AUTHORITY.

Nothing in this Ordinance shall be construed to regulate matters exclusively reserved to the State of Tennessee, the Tennessee Valley Authority, the Tennessee Public Utility Commission, the Federal Energy Regulatory Commission, or the federal government.

Where state or federal law regulates electricity generation, transmission, utility rates, or environmental permitting, this Ordinance shall operate through the City's lawful zoning, land-use, development, building, water, infrastructure, and permitting authority.

SECTION 26.

IMPLEMENTATION THROUGH THE UNIFIED DEVELOPMENT CODE.

The Memphis and Shelby County Unified Development Code, Ordinance No. 5367, shall be amended as necessary to incorporate the provisions of this Ordinance into the applicable use, development, site-plan, special-use, performance-standard, and permitting sections of the Code.

The Division of Planning and Development, in consultation with the City Attorney, Memphis Light, Gas and Water Division, Memphis Department of Public Works, Memphis Department of Engineering, and other appropriate agencies, shall prepare conforming amendments necessary to implement this Ordinance.

SECTION 27. ADMINISTRATIVE RULES.

The Director of Planning and Development, City Engineer, Water Services Director, Sustainability Officer, or their designees may promulgate reasonable administrative rules necessary to administer this Ordinance.

Such rules shall not exceed the authority granted by this Ordinance or applicable law.

SECTION 28. REVIEW OF ORDINANCE.

The City Council shall receive an annual report concerning Data Center compliance, including:

- A. water consumption;
- B. water-source impacts;
- C. electrical demand;
- D. renewable-energy use;
- E. carbon-based electricity use;
- F. infrastructure costs;
- G. emergency-generator operation;
- H. violations;
- I. enforcement actions; and
- J. recommended amendments.

SECTION 29. SEVERABILITY.

If any section, subsection, paragraph, sentence, clause, phrase, or provision of this Ordinance is determined to be invalid or unconstitutional, such determination shall not affect the validity of the remaining portions.

**SECTION 30.
EFFECTIVE DATE.**

This Ordinance shall take effect upon passage according to the procedures prescribed by the Charter of the City of Memphis and applicable Tennessee law.

**SECTION 31.
CODIFICATION.**

The City Clerk is directed to cause this Ordinance to be incorporated into the Code of Ordinances of the City of Memphis and the applicable portions of the Memphis and Shelby County Unified Development Code.

PASSED AND ADOPTED this ____ day of _____, 2026.

**CHAIRWOMAN / CHAIRMAN
MEMPHIS CITY COUNCIL**

ATTEST:

CITY COMPTROLLER / CITY CLERK

APPROVED:

**MAYOR
CITY OF MEMPHIS**