DATA CENTERS

P&Z Commission Worksession

June 4, 2026

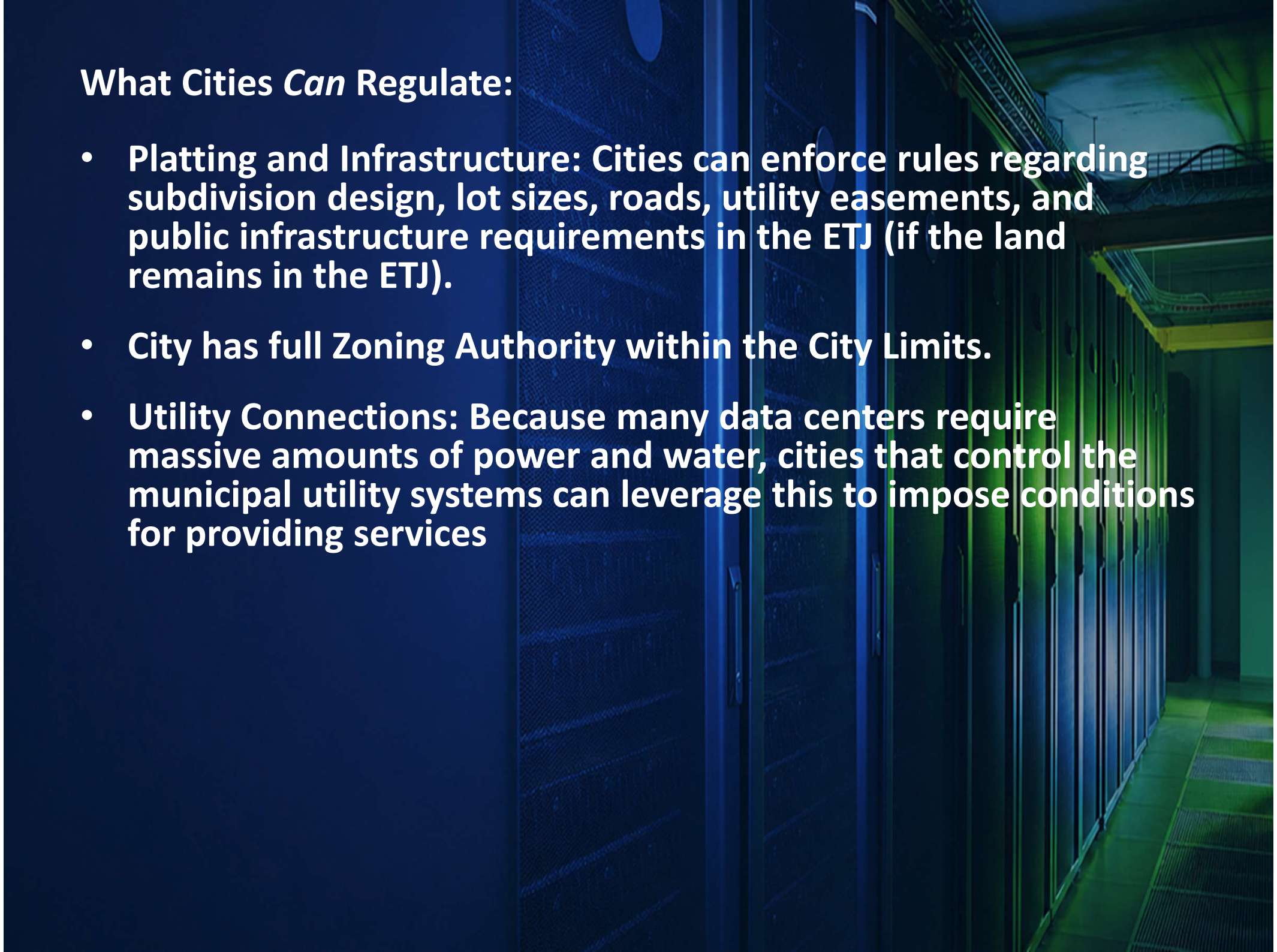
Worksession Outline

- Data Center Specific Use Permit (SUP)/PD District
- Key Planning & Regulatory Considerations
- Examples and Case Studies in Texas
- Balancing Economic Development, Infrastructure Capacity & Neighborhood Compatibility

Key Legislative Limitations:

No Zoning: Municipal zoning powers do not extend outside city limits. Counties in Texas also lack general zoning authority, leaving most ETJ areas with minimal land-use controls.

ETJ Opt-Out: Under Texas Senate Bill 2038, property owners can petition or hold an election to remove their land from a city's ETJ, wiping out even the city's limited platting authority



What Cities *Can* Regulate:

- **Platting and Infrastructure: Cities can enforce rules regarding subdivision design, lot sizes, roads, utility easements, and public infrastructure requirements in the ETJ (if the land remains in the ETJ).**
- **City has full Zoning Authority within the City Limits.**
- **Utility Connections: Because many data centers require massive amounts of power and water, cities that control the municipal utility systems can leverage this to impose conditions for providing services**

Jurisdiction	Status as of June 2026	Notes
Missouri City	*Actively regulating*	2026 zoning text amendment addressing data centers; public hearings and P&Z recommendations completed.
Alvin	*Actively discussing project impacts*	Resolution and public discussion regarding a proposed data center project.
Fort Worth	*Actively reviewing projects*	Multiple rezoning and incentive cases involving large data centers.
Granbury	*Actively regulating/project review*	Rezoning and ordinance discussions tied to hyperscale facilities.
Hillsboro	*Developing regulations*	P&Z discussions on zoning standards and supplemental conditions.
Athens	*Developing regulations*	Proposed supplemental regulations for data centers.
Pearland	*No known public ordinance discussion identified*	No specific 2026 data center agenda item located.
Manvel	*No known public ordinance discussion identified*	No specific 2026 data center agenda item located.
Angleton	*Evaluating regulatory options*	Workshop and policy discussions underway.

Why Use a Specific Use Permit (SUP)?

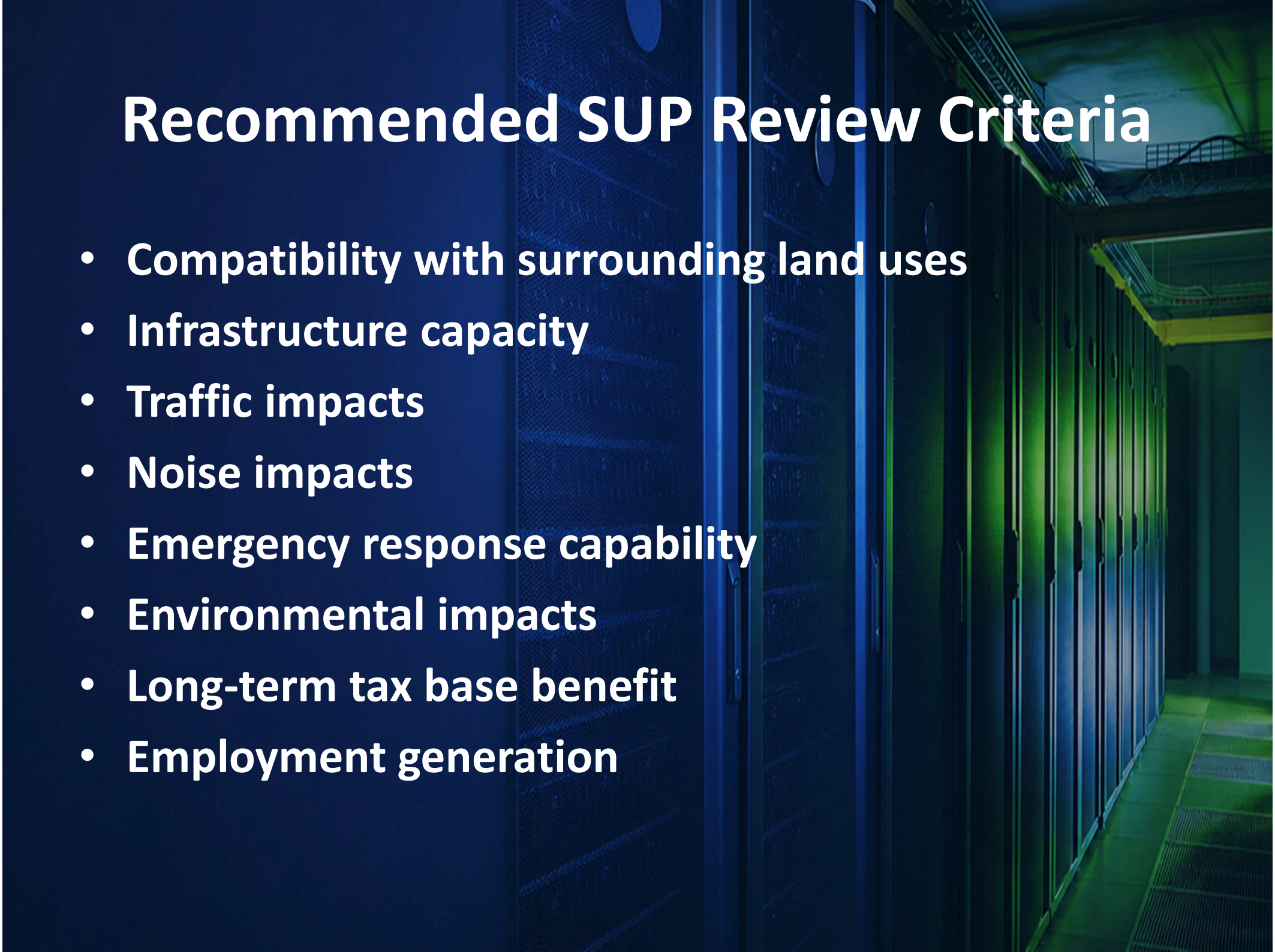
- Allows case-by-case evaluation
- Maintains flexibility for future technology changes
- Avoids overcommitting land through a permanent overlay district
- Enables tailored site-specific conditions
- Protects nearby neighborhoods
- Provides public hearing and community input opportunities

Key Questions for City Leadership

- Where should data centers be allowed?
- How close should they be to residential areas?
- What level of electrical demand is acceptable?
- How should noise be regulated?
- How should water consumption be addressed?
- What economic benefits should the City expect?

Recommended SUP Review Criteria

- Compatibility with surrounding land uses
- Infrastructure capacity
- Traffic impacts
- Noise impacts
- Emergency response capability
- Environmental impacts
- Long-term tax base benefit
- Employment generation



Recommended Location Criteria

- Preferred Locations: Industrial corridors, business parks, near transmission infrastructure
- Avoid: Low-density residential neighborhoods, schools, flood-prone areas, parks
- Near fiber backbone routes
- Areas with limited residential adjacency

Residential Separation Standards

- *Residential homes: 500–1,000 ft*
- *Schools: 1,000 ft*
- *Parks: 750 ft*
- *Hospitals: 1,000 ft*
- *Additional mitigation: sound walls, berms, landscaping*

Noise & Generator Concerns

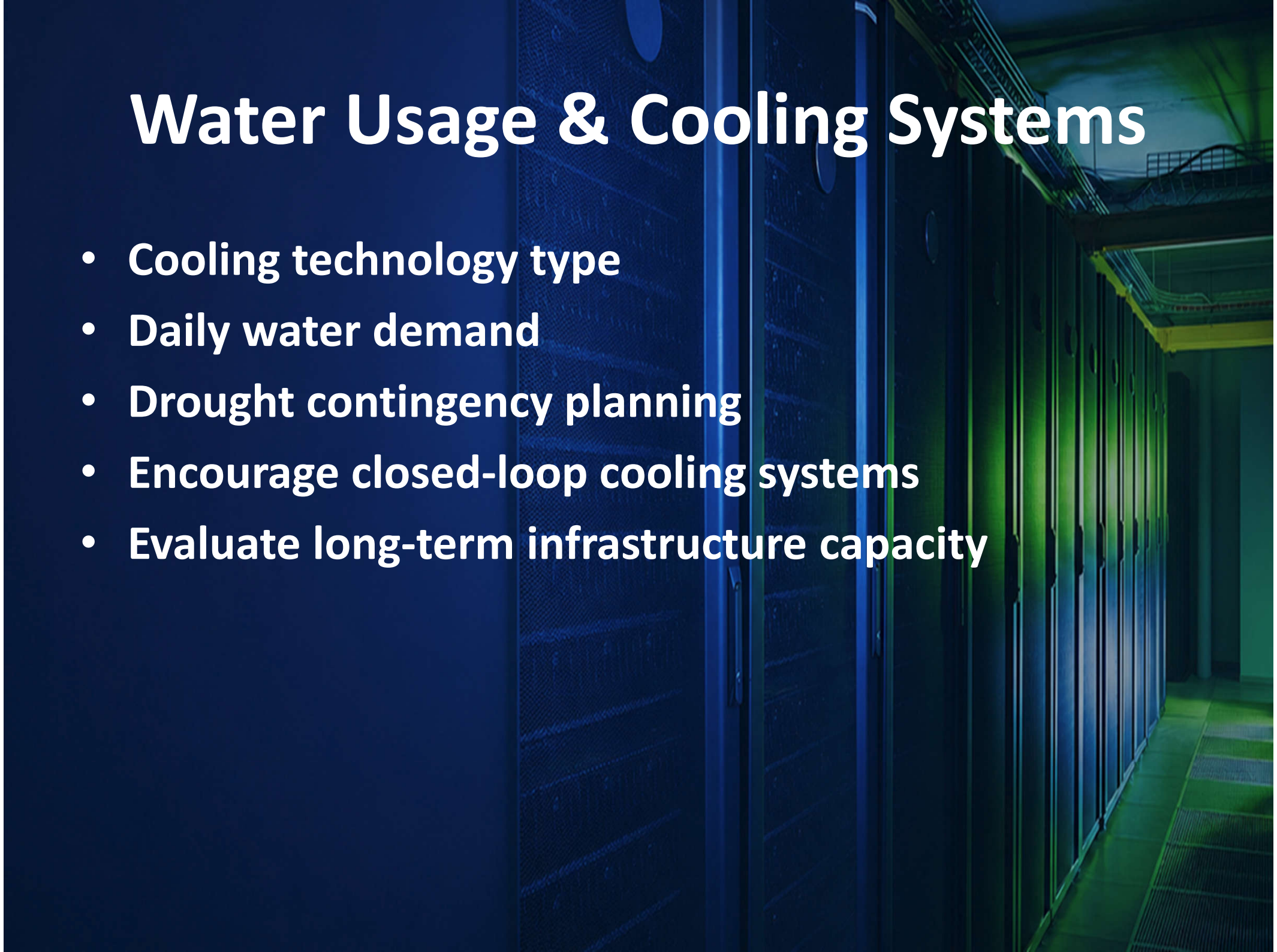
- Continuous cooling equipment noise
- Backup generator testing
- Low-frequency humming
- Recommended maximum 55 dBA daytime / 45 dBA nighttime
- Acoustical engineering study required

Electrical Infrastructure Impacts

- Can the existing grid support the load?
- Will upgrades be required?
- Will substations expand?
- Recommended utility impact studies
- Coordination with ERCOT and utility providers

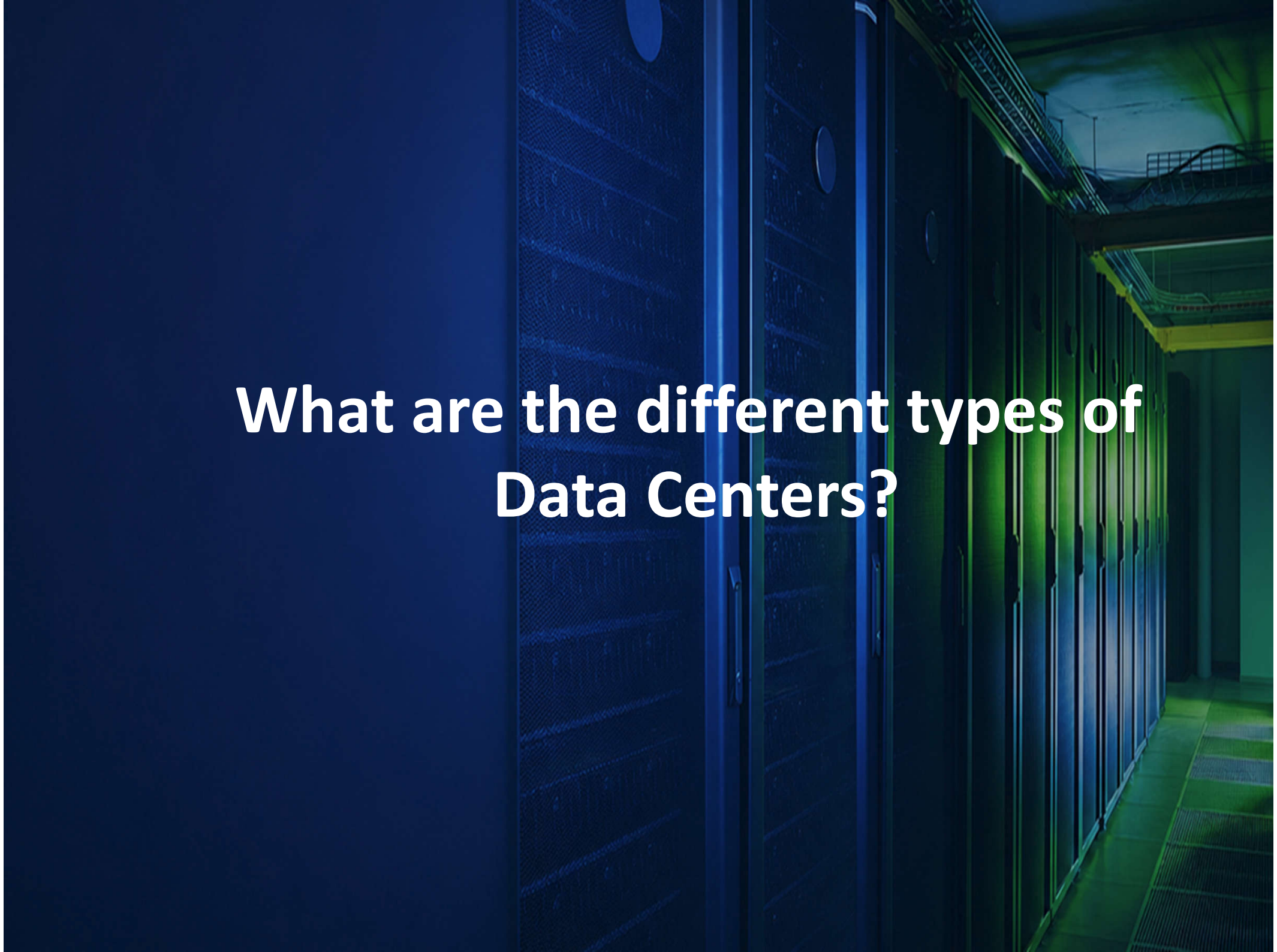
Water Usage & Cooling Systems

- Cooling technology type
- Daily water demand
- Drought contingency planning
- Encourage closed-loop cooling systems
- Evaluate long-term infrastructure capacity



Traffic & Construction Impacts

- Heavy truck traffic during construction
- Road wear and equipment deliveries
- Operational traffic usually low
- Require traffic impact analysis
- Construction management plan recommended


What are the different types of
Data Centers?

Enterprise Data Centers: Privately owned, built, and operated by a single organization, typically on their corporate campus. They offer maximum control and security but require high capital investment for construction and maintenance.

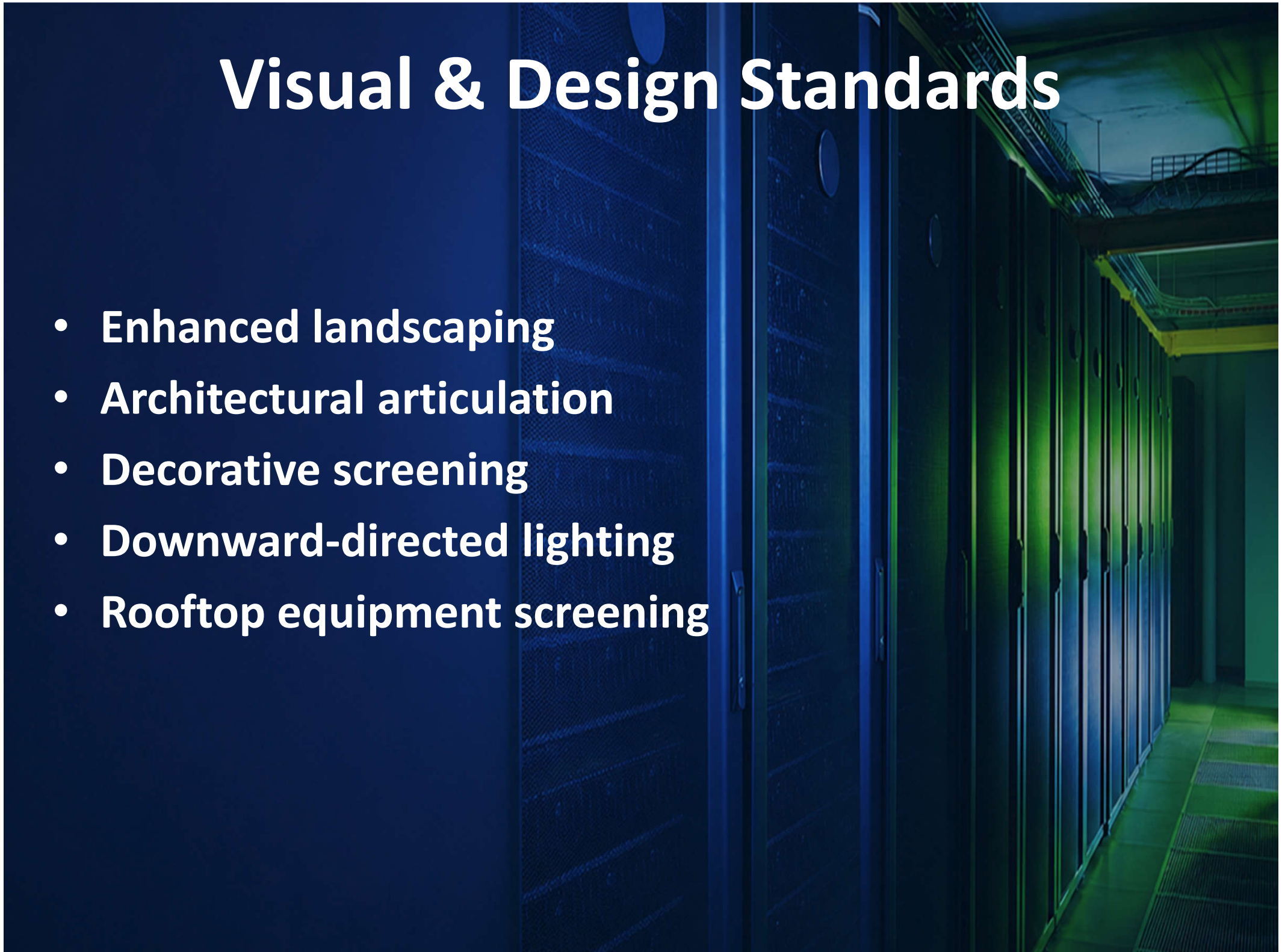
Colocation Data Centers ("Colos"): Facilities where multiple organizations rent space, power, and cooling to house their own servers and computing hardware. They provide robust infrastructure without the burden of building a dedicated facility.

Cloud Data Centers: Distributed, highly scalable facilities managed by third-party cloud providers like AWS, Microsoft Azure, or Google Cloud. Companies lease virtualized computing and storage over the internet instead of managing physical hardware.

Hyperscale Data Centers: Massive, highly efficient facilities (often spanning over 100 MW) designed specifically to handle cloud computing, big data, and AI workloads. These are primarily operated by tech giants to support massive, scalable operations.

Edge Data Centers: Smaller, localized facilities placed geographically close to end-users to reduce latency. They are ideal for real-time processing, IoT devices, and streaming services.

Visual & Design Standards



- Enhanced landscaping
- Architectural articulation
- Decorative screening
- Downward-directed lighting
- Rooftop equipment screening

The GW Ranch (a private-grid power generation campus under development by Pacifico Energy in Pecos County, Texas).

US East 1 in Ashburn, Virginia,

Modular Example

500 acres- Fort Worth

Emergency Services & Public Safety

- Electrical fire suppression
- Hazardous material storage
- Battery backup systems
- Emergency generator fuel storage
- Fire Department review recommended

Recommended SUP Conditions

- Maximum building size
- Maximum electrical load
- Landscape buffer requirements
- Noise limitations
- Generator testing restrictions
- Annual compliance verification

Suggested Approval Process

- 1. Pre-Application Meeting
- 2. Utility Coordination Review
- 3. Staff Technical Review
- 4. Neighborhood Notification
- 5. Planning Commission Public Hearing
- 6. City Council Public Hearing

Discussion & Policy Direction

- Appropriate locations
- Residential buffer distances
- Noise standards
- Water usage limitations
- Economic development expectations
- Long-term infrastructure impacts