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IN FOCUS

Congressional Authority to Regulate Data Centers

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Data centers are facilities that house computer systems for managing and transmitting digital information. They are integral components in the development and use of artificial intelligence (AI), and large-scale investment in AI has led to rapid buildout of "hyperscale" data centers that consume large amounts of electricity and water. Concerns about those resource impacts, and related financial impacts on ratepayers, have sparked opposition to data center development and prompted calls for increased regulation, including state-level moratoriums on new data centers.

Construction and operation of data centers and their associated infrastructure can trigger requirements under existing federal environmental laws, such as the Clean Air Act and Clean Water Act. However, "[r]egulation of land and water use lies at the core of traditional state authority," and private development on nonfederal land is primarily regulated by state and local governments. Retail water and electricity rates are also established through state and local proceedings. Thus, at present, debates about data center development and mitigating impacts of that development largely implicate nonfederal legal regimes.

If desired, Congress could assert a greater federal role in regulating data centers' environmental and economic impacts by acting pursuant to its constitutional powers under Article I, Section 8's Commerce, Taxing, and Spending Clauses. This In Focus briefly summarizes those powers and illustrates their application using examples of proposed data-center-related legislation introduced in the 119th Congress.

The Commerce Power

The Commerce Clause authorizes Congress to "regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes." According to the Supreme Court, this grant of authority gives Congress power over (1) "channels of interstate commerce," (2) "instrumentalities of interstate commerce, or persons or things in interstate commerce," and (3) activities that "substantially affect interstate commerce."

While no court has directly addressed the issue, case law strongly suggests that data centers would fall within all three categories. Lower courts have widely held that the internet is both "an instrumentality" and a "channel" of interstate commerce because it "enables information to be quickly, conveniently, and inexpensively disseminated to hundreds of millions of individuals worldwide." The same is arguably true of data centers, which perform vital functions in the "international network of interconnected computers" that comprise the internet.

Even if data centers are not themselves channels or instrumentalities of commerce, their construction and operation are major drivers of national economic growth, and thus substantially affect interstate commerce. Based on current precedent, a court would likely find that data centers are likely regulable under the Commerce Clause for that reason alone.

Acting under its Commerce power, Congress could directly regulate data center design, siting, construction, and operation. Proposed bills in the 119th Congress would do this by, among other things, barring new construction of AI-related data centers, requiring data centers to obtain electricity from off-grid sources, and requiring data centers to obtain water from sources other than their local utilities.

The Taxing Power

Commerce Clause aside, Congress could shape data center development through its authority to "lay and collect . . . Duties, Imposts and Excises." This power allows Congress to impose "indirect taxes" on activities, transactions, and income. Such taxes must be uniform, but unlike direct taxes on real property, they need not be apportioned among the states based on population.

The Supreme Court has declared Congress's authority to regulate private conduct through taxation to be "beyond serious question." Thus, Congress could impose indirect taxes that "discourage[], or even definitely deter[]" data center developers from engaging in certain practices—so long as those taxes "operate[d] with the same force and effect in every place where the subject of [the taxes] is found," and so long they were not, in effect, penalties on conduct that Congress could not otherwise regulate under another enumerated power. Conversely, Congress could create incentives in the form of tax credits or deductions to encourage data center developers to take certain actions.

Bills introduced in the 119th Congress employ all these approaches. For instance, proposed bills would create tax credits for facilities (including data centers) that invest in water reuse projects, tax electricity that data centers consume, and eliminate existing tax benefits for AI data centers that do not meet specified environmental criteria or do not enter into legally binding community benefit agreements.

The Spending Power

Congress could also shape data center buildout through its authority to spend federal funds. For instance, Congress can subsidize favored forms of regulation or development, as in one proposed bill in the 119th Congress that would provide grants to assist state regulators in developing new electric utility rate structures that allocate certain costs to data centers.

Congress can also encourage or discourage certain actions by attaching conditions to federal funding that require recipients to comply with statutory directives. To do so, Congress must provide "unambiguously" clear notice of any funding conditions, and those conditions must generally relate to the purpose of the relevant spending, must advance the "general Welfare," and cannot themselves violate the Constitution or induce unconstitutional action.

Subject to constitutional constraints discussed below, Congress can, and frequently does, use funding conditions to induce state and local governments that receive federal funds to behave in certain ways. For instance, Congress has made certain federal highway funds contingent on states' adoption of a 21-year minimum drinking age and has barred federal funding recipients from (among other things) adopting land-use regulations that "substantially burden" religious exercise. In a similar vein, one proposed bill in the 119th Congress would require state regulators to certify, as a condition for receiving certain Department of Energy grant funds, that their electricity rates for residential and small business customers do not reflect costs of meeting data centers' electricity demand.

Considerations for Congress

The Anti-Coercion and Anti-Commandeering Doctrines

While Congress can use federal funding conditions to influence state and local government behavior, the Supreme Court has held that those conditions cannot be unduly "coercive" and must leave states with a legitimate option of forgoing funding rather than acceding to funding conditions.

The Court has justified this "anti-coercion" doctrine as a necessary tool to safeguard the constitutional system of dual federal-state sovereignty, which generally withholds from Congress the power to directly regulate states and reserves to states certain powers not specifically granted to Congress.

Similar concerns about the federal-state balance of power animate the Court's "anti-commandeering" doctrine, which forbids Congress from ordering state legislators or executive branch officials to act or refrain from acting in certain ways. That said, under the Court's precedents, Congress can require state and local governments to "consider" within a given time frame whether to adopt specified policies in order to continue regulating in an area. Several proposed bills in the 119th Congress would use this approach to direct state regulators to consider revising rate structures to ensure that large electricity consumers, such as data centers, bear the costs of meeting their electricity demand.

Preemption and Cooperative Federalism

Because the Constitution makes federal law supreme, federal law can override (i.e., "preempt") state laws. While courts generally presume that federal statutes coexist with, rather than preempt, overlapping state and local laws, Congress can rebut that presumption through statute. Thus, Congress can not only decide what role the federal government will play in data center regulation, but also what role, if any, state and local authorities can play.

Congress has exercised its preemptive power in various ways. For instance, Congress sometimes broadly preempts state regulatory action that is "related to" a given subject, as in the Airline Deregulation Act, which the Supreme Court described as "confer[ring] on private entities (*i.e.*, covered carriers) a federal right to engage in certain conduct subject only to certain (federal) constraints" on "rates, routes, or services." Congress could employ a similarly broad preemption clause if it wished to remove state and local constraints on data center build-out and operations.

In other statutes, Congress has more narrowly preempted state and local laws, barring them only to the extent that they are "in addition to, or different than" federal statutes. As interpreted by the Supreme Court, this language permits state and local requirements that are substantially similar to, but not necessarily identical to, federal requirements.

Rather than preclude state action, Congress sometimes promotes joint federal-state implementation of national policies. The Clean Air Act and Clean Water Act exemplify this "cooperative federalism" approach. Those laws authorize states to implement federal policies through federally approved state air and water programs. They also set minimum federal requirements but expressly preserve states' authority to adopt air and water regulations that go beyond the federal requirements.

Takings Clause Implications

The Fifth Amendment's Takings Clause requires the federal government to provide "just compensation" if it takes "private property for public use." Regulation of data center development may implicate the Takings Clause, depending on the nature and extent of federal intervention.

According to the Supreme Court, a taking occurs when the government physically appropriates property "for itself or someone else," such as when it acquires land through its power of eminent domain. The Court has also held that a taking occurs even absent physical appropriation if a government restriction on property use "goes too far."

How far is too far? The Court has given two answers. First, when a regulation deprives "an owner of 'all economically beneficial us[e]' of her property," the Court has held that the "eliminat[ion] of value" effects a "per se" taking. Second, when a regulation diminishes, but does not eliminate, a property's economic value, the Court has looked to the "the economic impact of the regulation, its interference with reasonable investment-backed expectations, and the character of the government action" to determine whether a diminution of value effects a taking. This fact-bound inquiry entails "careful examination and weighing of all the relevant circumstances."

Diminution-in-value takings cases are, in the words of one jurist, "among the most litigated . . . in current law," and strict federal restrictions on data center development—particularly construction moratoriums—would likely lead to takings suits. Success in those suits would entitle litigants to payment but would not invalidate the restrictions giving rise to the claims. As the Supreme Court has explained, the Takings Clause "does not prohibit the taking of private property, but instead places a condition on the exercise of that power." Thus, the ordinary remedy for a Takings Clause violation is compensation, not an injunction.

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