
CASE STUDY

Energy, the Environment & AI: Data Centers Come to West Texas

Assume that you are a county commissioner of Rural County, Texas, a sparsely populated county in West Texas. A new tech start-up, Data Centers of Amarillo (DCA) has applied for permission to construct a hyperscale data center in your county that will service the needs of the largest AI companies. DCA promises that many construction jobs will come your county's way while the data center is being built and some permanent jobs will be created as well for people who will monitor and maintain the data center after its completed.

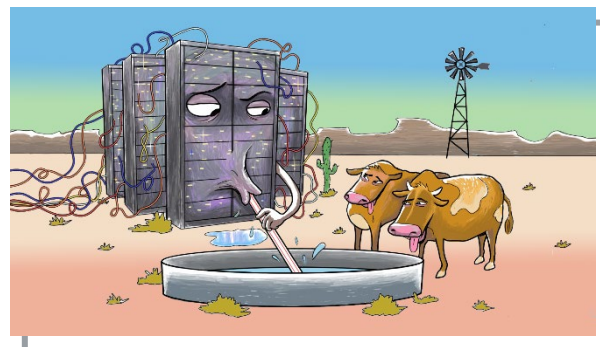
You know that the latest Texas poll shows that 62% of residents in agrarian areas like Rural County oppose the construction of data centers in their community, while only 22% support such construction. Despite this opposition, many companies choose to locate their centers in rural counties where the land is cheap, there are fewer people to muster opposition, the residents lean toward conservative political views, and where local politicians such as yourself have fewer regulatory tools than do larger cities.

You need to prepare for a public hearing on the matter. DCA's representatives will

argue that you should grant their permit application because of the jobs it will create and the firm's ability to minimize adverse impacts on the county and its residents.

On the other hand, many county residents as well as representatives of various environmental groups have signed up to speak at the hearing. You know that many of them will urge you and your fellow commissioners to deny the requested permit due to environmental concerns encompassing such important issues to residents such as energy shortages, water depletion, environmental pollution, and noise pollution.

Both state and national media are covering the controversy. This may be the most important decision of your public service career. Ultimately, you will have to decide whether to vote to greenlight the proposal,



CASE STUDY

try to block it altogether, or something in between. What will you do?

Case study written by:

Robert Prentice, J.D.

Department of Business, Government and Society
McCombs School of Business
The University of Texas at Austin



Discussion Questions

[Note: the facts on the ground change quickly in the world of AI. You should do your own independent, updated research in answering these questions.]

1. Several of your citizens make it clear at the hearing that they are worried that the data center will use massive amounts of electricity, drive up electricity costs as a simple matter of supply and demand, and perhaps overload the grid. Steady energy supply is especially important for residents' health and well-being given the soaring summer temperatures that your county is now experiencing. From your research, do you believe that these are reasonable concerns that county commissioners should pay close attention to? Why or why not? Support your argument with evidence.
2. What response to these claims regarding energy might you expect from DCA? Can DCA lodge a credible response? If so, explain and support with evidence.
3. If DCA's main response is to say that the firm intends to seek power from new sources not currently available in Rural County, how persuasive do you think that you'll find DCA's response and why?
4. Like many Texas counties, Rural County is short on water. It draws its water for drinking, agricultural irrigation, lawn watering, and other purposes from the Longhorn Aquifer, which has been substantially depleted in recent years due to ongoing drought and is now worrisomely low. Most local residents, especially farmers and ranchers, are seriously concerned about shrinking water supplies. One citizen notes in the public hearing that large data centers like DCA's can consume up to 5 million gallons of water a day, which is pretty much what a town of 10,000 to 50,000 people might consume. This kind of water consumption would match the entire population of Rural County. Is this cause for concern? Or is this just a conspiracy theory? What does your research tell you?

CASE STUDY

5. Can DCA make a plausible response to this water argument that would ease your mind and make it easy to vote to support its application? What if one of its responses is that it hopes to replace water cooling with air cooling? Is that a practical response in Rural County? Why or why not?
6. Should you simply reject this proposal and tell DCA to go seek permission to build in another area? Is this a feasible alternative for DCA? Is it the best choice for Rural County?
7. Assume a DCA spokesperson says in response to citizens' worries about the data center's carbon footprint the same thing that a speaker in the video short tells her daughter about IBM: "...we're looking at how do we lessen the impact on the environment?" Does that response satisfy you on the issue? If so, why? If not, what answer would you like to see from DCA?
8. Another environmental impact from data centers arises from the round-the-clock noise that they emit. If some of your constituents are worried about this because they live close to where DCA wishes to build its data center. You do not. Will you take this potential noise pollution seriously or is this merely an urban legend? What does your research tell you?
9. Are all these citizen and environmental complaints simply "not in my backyard" NIMBYism in action that a responsible political official would ignore? Explain.
10. In 2026, the Virginia legislature considered imposing a tax on data centers that would raise \$600 million a year in tax revenue. If Rural County imposed a tax on DCA's data center, might it raise enough money to realistically solve some of the environmental challenges that the data center might inflict on county residents? If so, how? What would those environmental remedies look like? Would this additional revenue stream for your county induce you vote to approve the permit request? Why or why not?

CASE STUDY

 Sources

Bipartisan Policy Center, What's Complicating the Delivery of Reliable and Resilient Power?, May 24, 2024, at <https://bipartisanpolicy.org/article/whats-complicating-the-delivery-of-reliable-and-resilient-power/>

Paul Cobler, "Data Centers Not Welcome: New Poll Shows Most Texans Oppose Them in Their Communities," Texas Tribune, June 23, 2026, at https://www.texastribune.org/2026/06/23/texans-oppose-data-centers-poll/?utm_source=thetexastribune.beehiiv.com&utm_medium=newsletter&utm_campaign=the-brief-june-24-2026&_bhlid=caef87597afoa72392e1f7a86d618e8b1b37b246.

Department of Energy, Clean Energy Resources to Meet Data Center Electricity Demand (2024), at <https://www.energy.gov/oe/clean-energy-resources-meet-data-center-electricity-demand>.

Ina Fried, "How Data Centers in Space Could Become a Reality," Axios, June 12, 2026, at <https://www.axios.com/2026/06/12/spacex-space-data-centers-blue-origin-google>.

Adeel Hassan, "The Cloud Has Sound: The Unrelenting and Unseen Cost of A.I. Data Centers," New York Times, June 17, 2026, at <https://www.nytimes.com/2026/06/17/us/data-centers-noise-pollution.html>.

Brandon Jarvis, "General Assembly Budget Proposal Expected to Generate \$600 Million a Year in Revenue from Data Centers," Virginia Scope, June 19, 2026, at <https://www.virginiaskope.com/general-assembly-budget-proposal-expected-to-generate-600-million-a-year-in-revenue-from-data-centers/>.

Ella Nilsen & Hadas Gold, "There Are Fixes for AI's Toll on the Power Grid. Here's Why They're Not Happening," CNN, Apr. 23, 2026, at <https://www.cnn.com/2026/04/23/business/ai-compute-power-electricity-grid>.

Tony Pan, "The Hype is Real for Space-Based Data Centres. So Are the Challenges," World Economic Forum, June 2, 2026, at <https://www.weforum.org/stories/2026/06/space-data-centres-cooling/>.

Sabrina Tavernise, "Something Liberals and Conservatives Agree On: Hatred of Data Centers," New York Times, May 1, 2026, at <https://www.nytimes.com/2026/05/01/us/politics/liberals-conservatives-data-centers.html>.

CASE STUDY

Miguel Yanez-Barnuevo, [Data Centers and Water Consumption](https://www.eesi.org/articles/view/data-centers-and-water-consumption), June 25, 2025, at <https://www.eesi.org/articles/view/data-centers-and-water-consumption>.