

Data centers -- the ones like Project Blue that are in the news -- are large warehouse-scale facilities, that are designed to hold massive collections of computer systems that power cloud computing and digital infrastructure. Our computers, our laptops and iPads, and our cell phones all use data centers. That is because when we say that our files (including our photos) are backed up on “the cloud,” the cloud is actually a data center or network of data centers. Today, however, there is a vastly increasing demand for data center computing power, fueled by artificial intelligence and cryptocurrency. And that demand is placing unprecedented strains on the energy grid, land, water resources, and health of local communities.

As the Sierra Club has noted (<https://www.sierraclub.org/issues/climate/data-centers>), utilities are being pushed to build new power plants, often fueled by fossil fuels, to serve these facilities’ around-the-clock electricity needs. Without strong safeguards, households and small businesses could be left paying for costly infrastructure while communities face worsening air pollution, water stress, and land-use conflicts.

- Those strains have been conspicuous in debates over proposed data centers in southern Arizona. The policy and political dimensions of the issue have been at the center (no pun intended) of Arizona Attorney General Mayes’ suit charging that the Arizona Corporation Commission has abdicated its responsibility to properly evaluate and approve utility rate agreements between TEP and developers behind Project Blue. (E.g. see [AG Mayes files appeal in challenge to TEP, Project Blue deal.](#)) [AG Mayes Sues ACC](#). Citizen opposition to the data center in Marana, AZ encountered a setback last week. [Marana rejects referendums against Project Blue data center rezoning.](#)

Data centers have become controversial for a variety of physical, economic, and sociological reasons. Physical attributes include their very high energy consumption (possibly amounting to as much as used by a medium-size city and often sustained by use of fossil fuels), high water consumption for cooling (an obvious problem for Tucson-area facilities), and use of multiple city blocks of space with attendant impact on property values and noise pollution. Economic factors include the risk of increasing utility rates for local residents and businesses, the fairness of tax breaks for high-tech companies, and the risk that community investment to support large data centers will become a burden if the current data center boom is not sustainable and collapses. Sociological concerns include ethical objections to widespread monitoring and surveillance of individuals’ browsing, reading, and buying activity and collection of other personal data.

Ultimately, citizens will have to recognize that data centers will remain needed in some form. The potential of mega-scale databases and computing is both daunting and exhilarating. What citizens need to insist upon is that government has an essential role in protecting citizens’ rights, promoting advances for the common good, and conducting responsible oversight of the process.