

THE FARM—COMPUTE COMPACT

A Partnership Between Agriculture and Artificial Intelligence, Executive Summary, Version 1.0

The Challenge

AI is driving the fastest computing buildout in history: U.S. data center power demand is projected to more than double from 31 GW (2025) to 66 GW (2027), and the U.S. Department of Energy, citing EPRI, projects data centers could reach 9% of national electricity generation by 2030 (a Berkeley Lab update puts the range as high as 9.5–15.3%). Much of this growth is sited in rural areas, including land currently or previously used for agriculture. Virginia's USDA-reported land in farms fell by roughly 488,000 acres between 2017 and 2022 alone. Farmers are routinely offered many multiples of agricultural land value to sell, which raises land-price and assessment pressure on neighbors who don't.

Why It Keeps Producing Conflict

- Site agreements are negotiated privately and presented to communities as effectively final.
- Water and electricity use is rarely disclosed at the site level: fewer than one-third of operators even track their own water consumption.
- Community benefits are typically one-time payments disconnected from agriculture, not sustained investment in farm viability.

A Third Position

Public debate has collapsed into welcome-it-for-the-revenue versus oppose-it-outright. The Farm—Compute Compact proposes a third path: technology infrastructure earns its place in agricultural communities by helping keep agriculture viable, through farmland avoidance, transparent resource use, enforceable commitments, and long-term reinvestment, not goodwill or one-time checks.

What the Compact Asks For

- Avoid productive farmland when industrial or brownfield sites are viable alternatives.
- Disclose site-level water and energy use publicly, on a recurring basis.
- Preserve farmland at a defined ratio wherever conversion is unavoidable.
- Fund locally governed agricultural resilience commitments for the operating life of the facility.
- Put farmers and rural residents on the governing body, not just at the announcement.

Status and Governance

This is a voluntary framework, not a certification program, and it does not speak for all farmers or all technology companies. No project is certified, endorsed, or scored today. Before any certification function launches, the Compact commits to public funding disclosure, majority farmer/rural representation on its standards body, and a published corrections process.

Get Involved

Farmers and rural residents, technology companies, local governments, utilities, and researchers are invited to review the draft standard, propose a pilot, or join a working group. A first pilot is proposed for Virginia, pairing a data-center project with a waste-heat-supported greenhouse, a farmland conservation easement, and a locally governed resilience fund.

Sources for all figures above (Gartner, U.S. DOE/EPRI, Lawrence Berkeley National Laboratory, JLARC, USDA Census of Agriculture) are cited in the full white paper.