JIM DESMOND
SUPERVISOR, FIFTH DISTRICT
SAN DIEGO COUNTY BOARD OF SUPERVISORS

AGENDA ITEM

DATE: **January 14, 2026** **04**

TO: Board of Supervisors

SUBJECT
PROTECTING SAN DIEGANS FROM THE IMPACTS ASSOCIATED WITH LARGE ARTIFICIAL INTELLIGENCE (AI) DATA CENTERS (DISTRICTS: ALL)

OVERVIEW
Large artificial intelligence (AI) data centers are being developed across the country at a rapid pace. They typically range in size from hundreds of thousands to millions of square feet and are quite literally powering the emerging and unprecedented societal shift toward AI. These facilities house and interconnect thousands of advanced computer chips, particularly graphics processing units (GPUs), which are essential for data and power-intensive tasks designed to train large language models, machine learning networks, and other data-heavy processes that are driving the development of AI technologies like OpenAI's ChatGPT and xAI's Grok, among many others.

AI data centers require incredible amounts of electricity and water to operate and can significantly strain local infrastructure and grid capacity. For example, consider that a single moderately-sized facility – in terms of power - of 100 megawatts (MW) consumes as much as 100,000 households' worth of electricity annually, according to the International Energy Agency (IEA). And that's just the beginning. A single 100 MW project, as large as it is, pales in comparison to facilities currently being proposed or constructed approaching or exceeding 1,000 MW in size, which would be capable of consuming an amount of electricity equivalent to over a *million* households. OpenAI's Stargate Project alone, for instance, plans to develop 10 gigawatts (10,000 MW) of AI data center capacity by 2029.

To meet the ever-growing power demand of emerging AI systems, across the country large data centers are quickly becoming one of the fastest-growing electricity users, with power demand set to possibly double over the next decade. Large technology companies are seeking available land with proximity to existing and/or planned utility infrastructure to develop additional data centers. Given the availability of land and utility infrastructure in the unincorporated County, we should expect similar project proposals to begin being submitted in our region soon. However, much like we saw with the growing demand for batter energy storage system (BESS) projects, current County regulations do not specifically address the size, scale, specific impacts, or utility demands of AI data centers. Without proper safeguards in-place, this level of power demand could result in significant increases in electricity rates for residents and small businesses already grappling with an electricity affordability crisis.

Not wanting to recreate the situation we encountered with BESS projects – that they can be processed and approved without specific regulations tailored to their unique impacts (thermal runaway, toxic plumes, etc.) - the County should be proactive and begin looking at policy solutions *now*, before an influx of AI data center project proposals flood our region, leaving residents more vulnerable to their impacts. Without specific regulations, these projects will likely default to a standard permitting process which won't necessarily protect ratepayers from spikes in electricity rates and significant impacts on our water supplies and other critical infrastructure.

It's in the spirit of protecting San Diegans from the impacts of emerging AI that today's item directs the Chief Administrative Officer (CAO) to evaluate the potential local impacts of AI data centers and return to the Board with relevant information and potential policy options to help protect residents, small businesses, and critical infrastructure, while still allowing reasonable development to move forward.

RECOMMENDATION(S)
SUPERVISOR JIM DESMOND

1. Direct the Chief Administrative Officer (CAO) to prepare a report addressed to the Board within 180 days that evaluates the potential development of large AI data centers in the unincorporated County, and that specifically answers the following questions:

    a. How many AI data centers are currently constructed in San Diego County?
    b. How many AI data centers are currently proposed or have submitted plans for permit review?
    c. Under existing zoning and regulations, where could large AI data centers be developed, including proximity to sensitive receptors? For instance – could they be permitted in residential zones? What about commercial, industrial, etc.?
    d. Under the current permitting process, what opportunities exist for public notice, community engagement, and input should an AI data center be proposed?
    e. What impacts could large AI data centers have on electricity rates, water usage, local infrastructure, air quality, noise, fire risk, and emergency response?
    f. What potential impacts could an increasing use and/or reliance of AI have on the local workforce, including job displacement or changes in employment sectors?
    g. What actions, if any, is the County currently taking to prepare for or manage the accelerating growth in AI data center development?
    h. Any other relevant information the Board should take into consideration?

2. Direct the CAO to include in the same 180-day report potential policy options that the Board may consider to reduce impacts from large AI data centers. These options may include, but are not limited to:
    a. Ratepayer and water protection measures, such as:

        i. Community benefit requirements consistent with project size, such as contributions to ratepayer assistance programs.

      ii. Set limits on water usage and/or requirements for on-site water recycling.
    iii. Requirements for projects to cover the cost of new or upgraded utility infrastructure needed to serve the project.
    iv. Incentives or requirements for on-site energy generation.

  b. Siting and development standards, such as:

      i. Restrictions on locating large AI data centers near residential areas or sensitive receptors such as schools, day care and senior care centers, and hospitals.
    ii. Incentives to locate facilities within appropriate commercial or industrial zones.
    iii. Standards related to setbacks, building height, lighting, landscaping, and overall site design.

EQUITY IMPACT STATEMENT
Lower-income, rural and other disadvantaged communities are likely more vulnerable to the impacts of large AI data centers. Higher utility rates will exacerbate financial pressures on all of us, but households struggling the most with the rising cost of living will be hit the hardest. Communities near proposed facilities may also experience localized impacts, including noise and visual impacts. Establishing clear standards and protections before projects are proposed ensures the impacts are not disproportionately borne by more vulnerable populations.

SUSTAINABILITY IMPACT STATEMENT
Large AI data centers require enormous amounts of electricity and water. Without appropriate safety measures in place, future projects could significantly impact the electrical grid and increase demand for limited local water resources. Projects must minimize their impact on existing infrastructure, incorporate on-site energy generation where feasible, and contribute appropriately to help make our region a place where people can thrive.

FISCAL IMPACT
Funds for this request are included in the Fiscal Year 2025-26 Operational Plan in the Planning & Development Services (PDS) and the Land Use and Environment Group, Office of Sustainability and Environmental Justice (OSEJ) departments. The staff currently working on unincorporated area regulations for privately initiated Battery Energy Storage Systems could concurrently complete this report back by leveraging project similarities, with updated project timelines for BESS. Staff are currently supported by existing General Purpose Revenue and $35,000 in estimated program revenue, which would need to be replaced if work were redirected towards the AI efforts. In addition to staff time, it is estimated that $115,000 would be needed to support one-time consultant costs related to the evaluation of the potential development of large AI data centers in the unincorporated County with potential policy options for the Board to consider.

The total estimated GPR need of $150,000 ($35,000 program revenue backfill for existing staff and $115,000 for consultant costs) would be funded by reallocating $135,000 within PDS and $15,000 within OSEJ. Within PDS, $135,000 is available from funds previously allocated for the

Battery Energy Storage System (BESS) project due to a better understanding of the environmental analysis, scope and outreach, resulting in lower anticipated costs. Within OSEJ, $15,000 is available from projected operational savings. There will be no change in net General Fund costs and no additional staff years. There may be future fiscal impacts of the recommendations which will be presented to the Board for consideration and approval.

BUSINESS IMPACT STATEMENT
N/A

ADVISORY BOARD STATEMENT
N/A

BACKGROUND
AI data centers are very large facilities that house thousands of advanced and power-intensive computer chips used to run and train highly advanced artificial intelligence (AI) systems. These facilities operate around the clock and require significant amounts of electricity and water in order to operate. Unlike traditional data centers designed to handle general tasks like web hosting, AI data centers are being built to support much more intensive computational needs. They are specifically designed to train large language models, machine learning networks, and other data-heavy processes that are driving the development of AI technologies like OpenAI's ChatGPT and xAI's Grok, among many others.

These AI models can perform highly complex tasks, often with greater speed and accuracy than humans. Some examples include generating realistic images and videos, writing computer code, solving mathematical problems, conducting scientific research, and performing "deep thinking" using reasoning and logic to contemplate and answer sophisticated questions. Running and continuously improving these models requires vast amounts of computational power to support their learning and growth, enabling them to reach higher levels of intelligence and capability.

To meet the ever-growing power demand of emerging AI systems, across the country large AI data centers are quickly becoming one of the fastest-growing electricity users, with power demand set to possibly triple over the next decade. Large corporations such as Microsoft, Amazon, Google, and OpenAI are seeking available land with proximity to existing and/or planned utility infrastructure to develop additional data centers. San Diego County's available land and built-out utility infrastructure make our region a potential candidate for this type of development. However, current County regulations were not developed with projects of this scale or utility demand in mind. As recently seen with battery energy storage system (BESS) projects, new technologies can move forward faster than local policies are able to adapt, leaving residents prone to negative, potentially life-threatening impacts. At the very least we can expect - absent proper safeguards - that this level of power demand could result in significant increases in electricity rates for residents and small businesses already grappling with an electricity affordability crisis. Lastly, given the likelihood that AI will automate many existing jobs, particularly for entry-level work, we should remain attentive to the needs of our local workforce (especially recent college graduates and

younger generations) and work to mitigate the impacts from potential mass job displacement due to AI.

By evaluating the current AI landscape in our region, along with its potential impacts, and developing policy options now – ahead of time - the County will be better positioned to understand the risks and benefits of AI data center development before projects are proposed at scale.

LINKAGE TO THE COUNTY OF SAN DIEGO STRATEGIC PLAN
Today's proposed actions support the *Sustainability*: *Climate*; *Equity*: *Health*; and *Community*: *Engagement*, *Safety*, and *Quality of Life* Strategic Initiatives in the County of San Diego's 2025-2030 Strategic Plan.

Respectfully submitted,

JIM DESMOND
Supervisor, Fifth District

ATTACHMENT(S)
N/A