



December 17, 2025

VIA EMAIL ONLY

Chairman, Rudy Schaffner
Vice Chairman, Carson Kalin
Russell Roben
Tony Gallegos
Sergio Cabanas
Katheryn Cynthia Dunn
Ernesto Medina
Scott Wright
Jose Hinojosa
Planning Commission
801 Main Street
El Centro, CA 92243
ICPDSComentLetters@co.imperial.ca.us

Subject: December 18, 2025 Planning Commission Meeting; Agenda Item 2, Consideration of Lot Merger No. 00191

Dear Chairman Schaffner, Vice Chairman Kalin, and Honorable Members of the Planning Commission:

This firm represents the City of Imperial with regards to the Data Center Project. The Planning Commission is scheduled to consider a request by the applicant Imperial Valley Computer Manufacturing, LLC (“IVCM”) to merge five parcels and Leimgruber Road (the “Property”). The City urges the Planning Commission to deny the proposed lot merger for the reasons set forth in this letter, or in the alternative, send the application back to the Planning Department to be properly analyzed and processed in accordance with the State Subdivision Map Act, the California Environmental Quality Act (“CEQA”), State Planning and Zoning laws, and the Municipal Code. Among other items, the current proposal before the Planning Commission is based upon false information and violates the law:

- IVCM falsely certified in the lot merger application that it owns the entire Property. (Exhibit 1 [applications].) According to the County Accessor’s Office, IVCM does not. State law prohibits the filing of a map with the County that does not have written consent of all parties that have any record title interest. (Exhibit 2 [Gov. Code, § 66430].) This is a serious issue. A violation of the Subdivision Map Act is considered a misdemeanor. (Exhibit 3 [Gov. Code, § 66499.31].)

- The Subdivision Map Act only authorizes the merger of contiguous parcels that are ***under common ownership***. (Exhibit 4 [Gov. Code, § 66499.20.3].) The Planning Commission would be violating State law if it approved the lot merger.
- Leimgruber Road is a public roadway owned in fee by the County. The Subdivision Map Act does not authorize merging this Road with the other parcels because only “contiguous parcels under common ownership” can be merged and the Road is not owned by the adjacent property owners. Before the Road can be merged, the Board of Supervisors would have to vacate the Road and convey the ownership of the Road to a private entity that owns the contiguous parcels. The Planning Commission lacks authority and jurisdiction to merge the Road with the other parcels and to presume and act for the Board of Supervisors on the Road vacation.
- Municipal Code, section 90501.01 (Exhibit 5) does not permit the Planning Commission to rezone the Property M-1-U as part of the lot merger. Such an interpretation violates well-established State Planning and Zoning laws that designate rezones as a discretionary action that must be reviewed by the Planning Commission and **approved by the Board of Supervisors following a noticed public hearing**. (Exhibit 6 [Gov. Code, § 65856].) The Planning Commission would be violating State law if it rezoned the parcels as part of the lot merger.
- The lot merger does not qualify for an exemption under the CEQA Guidelines, section 15305, Class 5 (Minor Alternations in Land Use Limitations). The CEQA Guidelines (14 CCR § 15378, subd. (a)-(c)) requires that the entire Project including all of the components be considered together when making a CEQA determination and the construction of a million square foot data center is hardly a minor alteration to the Property.

It is difficult to imagine that the Planning Commission would want to normalize and establish a precedence of ignoring the Subdivision Map Act, CEQA, State Planning and Zoning laws, and the County Municipal Code by approving this lot merger.

1. The Lot Merger Application is Faulty and Inaccurate.

According to the lot merger application, the applicant attested that it was the sole legal owner of the Property. (Exhibit 1.) This is not accurate, and the County knows it is not. The certification of ownership on the lot merger application directly contradicts the application to the County for the grading permit that was accompanied by owner’s affidavits from three different landowners none of whom were IVCN. The City confirmed with the County Assessor that IVCN is not the owner of any of the parcels. Further, there would be no need for the County to condition the lot merger upon proof of single ownership after the lot merger is approved if the County were not aware that the lot merger application was inaccurate.

State law prohibits the filing of a map with the County that does not have written consent of all parties that have any record title interest. (Exhibit 7 [Gov. Code, § 66430].) The County Municipal Code follows State law requiring that a lot merger may only be initiated by the record property owner. (ICMC, § 90808.) Applications for land use permits are required to include the signature of the applicant and if the applicant is not the property owner, then the signature of the

owner or an owner's affidavit. (ICMC, § 90104.00(A).) There were no property owner affidavits submitted with the lot merger application; instead IVCM claimed to be the property owner when it is not. Every application must include a site plan that includes all proposed structures below and above ground. (ICMC, § 90104.00(B).) Applications under the Subdivision Map Act must include a preliminary title report and details of all parties with a legal interest in the property. (ICMC, § 90104.00(C).) This requirement was bypassed by the filing of an application in which the applicant falsely portrayed itself to be the owner of the parcels. Because the map cannot even be filed without this written consent, compliance with State law and the Municipal Code cannot be circumvented by imposing a condition requiring single ownership after the merger is approved.

The application should have been rejected. The County Municipal Code, section 90808.03 is clear that "[u]nder no conditions shall the Department accept an incomplete application and commence processing it, unless and until all necessary information and supporting documentation is provided." Instead of rejecting the application, the County is asking the Planning Commission to approve a lot merger based on a false certification and one that lacks all property owner approval and consent.

2. The Lot Merger is Not Authorized by the State Subdivision Map Act and the County Municipal Code Because the Parcels are Not Under Common Ownership.

Contiguous parcels may be merged either by a legislative body or by a property owner petition. The applicant elected to proceed with a property owner petition. The Subdivision Map Act specifically authorizes a property owner to request the County merge parcels; **but, all of the parcels must be under common ownership.** (Exhibit 4 [Gov. Code, § 66499.20.3].) This prohibition serves multiple constitutional and policy purposes including protecting property rights by preventing involuntary takings, ensuring due process, and preventing property owners from manipulating ownership structures after merger proceedings begin. The County Municipal Code, section 90801.04(41) confirms that a lot merger means "the joining of two or more contiguous parcels of land under one ownership into one parcel." Thus, the lot merger does not conform to State law and County Ordinance because the parcels to be merged are not under common ownership.

The County Municipal Code cannot be interpreted to permit the lot merger because the State Subdivision Map Act prohibits local ordinances that are not consistent with State law or conflict with the provisions of the Subdivision Map Act. (Gov. Code, §§ 66421, 66498.6 [local agencies do not have the option to disregard any state or federal laws, regulations, or policies].) Imposing a condition that requires all the parcels to be deeded under the same ownership after the Planning Commission's approval and before the final map is recorded does not comply with the law. The parcels must be under single ownership **before** the lot merger is approved. Because the parcels are not under single ownership, a merger would be in violation of the State Subdivision Map Act and the County Municipal Code.

3. The Lots Cannot Be Merger Because Leimgruber Road is Required to be Vacated by the Board of Supervisors First.

Leimgruber Road bisects the proposed lot merger; the parcels to be merged are not contiguous. Leimgruber Road is a public roadway owned in fee by the County. Government Code section 66499.20.3 only authorizes the merger of *contiguous* parcels *under common ownership*. The Municipal Code aligns with the Subdivision Map Act by prohibiting parcels that are separated or affected by an easement right-of-way, road, alley or canal (including public utility easements) from being merged. (ICMC, §§ 90808.00, 90808.03.) The County is also a landowner whose consent is required before the Road can be merged with the other parcels. (Gov. Code, § 66430.) For the County to approve merging Leimgruber Road with adjacent parcels, the Board of Supervisors must first authorize a road vacation and transfer the parcel to the private owner of the neighboring land so that all the parcels to be merged are contiguous and under common ownership. The Subdivision Map Act does not allow for the merger of public roads with private property under section 66499.20.3.

The staff report confirms that the lot merger is not consistent with the Subdivision Map Act and Municipal Code until after the Imperial County Board of Supervisors approves a road abandonment application for Leimgruber Road. Compliance with the law is required *before* the merger is approved. According to the conditions of approval, it appears that the applicant has not even applied for the road vacation. Not only would approval of the lot merger be in violation of the law, but there is no certainty that the Road will be vacated because the Board's action is discretionary and resident support is required. Specifically, the Board must determine that the road is not needed now or in the future, but no evidence supports this conclusion. (St & Hwy Code § 8324.) Residents would need to join the application to vacate the road, and there is no indication that there are sufficient numbers of residents willing to do so. (St & Hwy Code § 8321.) The Planning Commission lacks authority and jurisdiction to presume the Board of Supervisors will approve the Road vacation at some undefined time in the future or to act on its behalf.

Further, the lot merger is also affected by several other easements. The County is requiring the dedication of right-of-way for the future development of Clark Road.¹ There is a Date Canel that runs along Clark Road. There are a number of other easements recorded upon the different parcels. The Municipal Code is clear that the Planning Commission cannot even consider a merger where the lots are separated by "separated by or affected by an easement, right-of-way, road, alley or canal (including public utility easements)." (ICMC, §§ 90808.00.)

4. The Lot Merger is Not Consistent with Applicable Zoning Codes Because the Data Center Project is Not a Permitted Use.

The Property has several different zoning designations under the County Municipal Code, specifically A-2U [General Agricultural within Urban Boundaries], M2-U [Medium Industrial within Urban Boundaries], and M-1-N-U [Light Industrial, No Residential within Urban Boundaries]. The Property is overlaid with the "U" zone designating it as an urban area. The Data Center Project is proposed to be located on this multi-zoned Property. (ICMC, § 90501.08.)

¹ It is unclear whether the County is requiring the dedication of an easement or land in fee.

The purpose of requiring all applications include a site plan is to ensure that the proposed use is allowed.

Municipal Code, section 90508.1 identifies the particular uses that are permitted in the A-2 zone. A data center is not listed as a permitted use in A-2. No building or structure may be erected or use established that is not permitted in the zone. (ICMC, § 90501.06(A).) Municipal Code, section 90508.02 provides that a BESS is permitted in the A-2 zone with a CUP only if it is connected to an existing electrical power generation plant, which is not the case. Municipal Code, section 90508.03 states that “[a]ll other uses not expressly permitted by Section 90508.01 or 90508.02 are prohibited. Therefore, the Data Center Project including the BESS are not permitted uses on those portions of the Property zoned A-2.

Municipal Code, section 90515-01 identifies a data center within an enclosed building as a permitted use in M-1. However, a BESS, electrical power generation plant, transmission interconnection, substation, and data center yard require a CUP in the M-1 zone. Municipal Code, section 90516-01 identifies a data center within an enclosed building as a permitted use in the M-2 zone. However, a BESS, electrical power generation plant, transmission interconnection, and substation require a CUP in M-2. The Planning Commission cannot approve a lot merger for unpermitted uses.

5. A Formal Rezoning Approval is Required Before the Lot Merger Can be Approved.

The applicant asserts that Municipal Code, section 90501.01 (Exhibit 5) permits the Planning Commission to rezone the Property M-1-U as part of the lot merger. This is an inaccurate interpretation of the law. Municipal Code, section 90501.01 actually prohibits the Planning Commission from taking the action the applicant requests. Section requires that every parcel shall only be classified in only one base zone. It is not a permissive ordinance that establishes the process for rezoning; it is a prohibitive ordinance. The only exception to the prohibition on parcels having more than one zoning designation is for parcels greater than 40 acres that are zoned A-2/A-3 Traffic Corridor. None of the parcels have this zoning designation. This exception is not a grant of approval to the Planning Commission to rezone property.

The rezoning process is well-established. California Planning and Zoning laws require the legislative entity to approve a zone change. Government Code sections 65853-65857 establish a mandatory two-stage approval process for zoning amendments that change property from one zone to another. This process requires: (1) a planning commission hearing and written recommendation, followed by (2) a legislative body hearing where the board of supervisors must approve, modify, or disapprove the zoning amendment. California courts have consistently held that zoning amendments are legislative acts requiring legislative body approval, and that this approval is discretionary rather than ministerial.

The Municipal Code is consistent with State law providing that rezoning is a discretionary action that must be reviewed by the Planning Commission and **approved by the Board of**

Supervisors following a noticed public hearing.² (ICMC, §§ 90204.05-07.) The Planning Commission cannot approve a rezoning via a lot merger and supersede the authority and jurisdiction of the Board of Supervisors. Further, even if the Planning Commission could approve the rezone, which it cannot, the proper notices were not provided 20 days before the hearing. (Gov. Code, § 65854(b).)

6. The Lot Merger is Inconsistent with the General Plan.

The Subdivision Map Act, Government Code, section 66473.5 and the Municipal Code, section 90801.05 prohibits the creation of a subdivision that is inconsistent with the General Plan. Further, every request for a change of zone must be found to be consistent with the County's General Plan. (ICMC, § 90204.02.) The rule of general plan consistency is established by adopted California Planning and Zoning Laws and requires projects to be compatible with the objectives and policies of the adopted County General Plan. A project is inconsistent if it conflicts with a general plan policy that is fundamental, mandatory, and clear. (*Families Unafraid to Uphold Rural Etc. County v. Board of Supervisors* (1998) 62 Cal.App.4th 1332, 1341-42.) The most fundamental policies pertain to Land Use. The Data Center Project is not consistent with the General Plan:

a. The Data Center Project is inconsistent with the six basic concepts adopted by the Board of Supervisors in support of the General Plan: quality of life; safety for people and property; wide selection of social and economic opportunities; efficient use of natural; human and financial resources; clean air, water and land; and quiet, beautiful communities and rural areas.

b. The Data Center Project is inconsistent with Land Use Element, objective 3.1, protecting property and the public health, safety and welfare; objective 4.3, maintaining and requiring compatible land uses within the existing communities; and objective 4.4, limiting the establishment of non-residential uses in predominantly residential neighborhoods.

c. The General Plan prohibits the removal of land from agricultural categories unless for a renewable energy purpose, a mapping error occurred or "where a clear long term economic benefit to the County can be demonstrated through the planning and environmental review process."

(See also No. 8.s. below.)

The Municipal Code, section 90501.08 includes special provisions for "U" zoned parcels. The Municipal Code states that "[w]ith regard to urban areas around incorporated cities, it is the intent of the county of Imperial to adhere to the standards, rules, regulations and ordinances of said urban jurisdiction. To that end, the board of supervisors directs staff to work with their respective counterparts in the urban area and to use to the extent feasible and possible the urban area regulations in implementing any proposed land use action." The County General Plan states that

² A zone change was not clearly noticed for approval by the Planning Commission and would likely violate the Brown Act.

for urbanizing areas surrounding incorporated cities it is intended to include zoning reclassifications based on the adopted land use plans of the cities.

The Property is designated by the City in the General Plan as Rail Served Industrial. This designation provides for industrial/agricultural uses that require rail access. The Data Center Project as currently proposed is not compatible with the General Plan designation. Data centers and BESS are not listed as permitted uses in this zone. Therefore, rezoning the Property contrary to the uses permitted by the City would be contrary to Imperial County Municipal Code, section 90501.08 and the General Plan.

7. The Lot Merger is Not Exempt from CEQA.

The County claims that the lot merger is exempt under CEQA Guidelines, section 15305, Class 5 (Minor Alternations in Land Use Limitations). Such an exemption would violate CEQA.

Imperial County adopted CEQA regulations. (see [chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://www.icpds.com/assets/planning/california-environmental-quality-act/ceqa-rules-final-board-approved-update-04-04-2017-pdf.pdf](https://www.icpds.com/assets/planning/california-environmental-quality-act/ceqa-rules-final-board-approved-update-04-04-2017-pdf.pdf).) Section 7 of the County's CEQA regulations requires preparation of an initial study. If there is an initial study, it should have been made available to the public. If there is no initial study, then the County has violated its CEQA regulations by not preparing the document.

The proposed Class 5 exemption violates CEQA for the following reasons:

First, the County is required to consider the entire project in making a CEQA determination. "Project" means the whole of an action which has a potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment." (14 CCR § 15378, subd. (a).) CEQA requires the entire project to be reviewed as a single action even if project components are subject to individual approvals. (14 CCR § 15378, subd.(a)-(c).) Agencies are not permitted to avoid environmental review by chopping up a project into small pieces. (*Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 284.) The lot merger is only one part of the Data Center Project.

The merged parcels are for the Data Center Project which includes: a 950,000 square foot data center building, one story and 35 feet high with 180 parking spaces; a large-scale battery energy storage system ("BESS") composed of Tesla Megapacks supplying 862 megawatt hour ("MWh"); electrical substation for 250-500 MW; cooling towers; 100 natural gas powered backup emergency generators connected to Southern California Gas Company's high pressure gas line located on Aten Road for continuous fuel supply to provide 330 MW of emergency power; retention basin; four 500,000 gallon storage tanks for water; on-site wastewater treatment center to treat some of the wastewater generated on the site and construction of a new line to convey untreated wastewater to Imperial Irrigation District's ("IID") central drain; dedicated conveyance system for reclaimed water that may require new plant upgrades; transmission interconnection to IID's 230kV "S" Line between IID's El Central switching station and San Diego Gas & Electric's Imperial Valley substation; and transmission interconnect to IID's 92 kV "R" Line.

None of these Project components have independent utility, including this lot merger. The serial approval of Project components as the County is doing violates CEQA.

Second, a CEQA exemption cannot be applied to only one portion of a project. (*Association for a Cleaner Environment v. Yosemite Community College Dist.* (2004) 116 Cal.App.4th 629, 640.) The County previously approved a grading permit claiming it was exempt from CEQA because it was a ministerial approval. Now, the County is taking the position that the lot merger is exempt because it does not involve any alterations in land. These positions are legally inapposite. The grading permit involves significant alterations of land and the lot merger proves the Project approvals are discretionary. Thus, the Project does not qualify for CEQA exemptions as a Class 5 minor alteration of land or ministerial approval.

Third, the City is a responsible agency. Under CEQA lead agencies have mandatory obligations to consult with responsible agencies before deciding whether a project is exempt from CEQA. (Pub. Res. Code, § 21080.3(a).) The required consultation did not occur. Had the County consulted with the City, the City would have objected to the County's decision that lot merger was exempt from CEQA, and instead would advise that an environmental impact report ("EIR") is required for the entire Data Center Project. The Subdivision Map Act likewise requires the Planning Commission consider the City's recommendations and concerns. (Gov. Code, § 66453(c).)

Fourth, the lot merger does not qualify for a Class 5 exemption. The Class 5 exemption applies to minor alterations in land use limitations that "do not result in any changes in land use or density" such as minor encroachment permits, lot line adjustments, reversions to acreage, etc. The examples in each Class can be relied upon to understand the scope of the exemption. (*California Farm Bureau Federation v. California Wildlife Conservation Bd.* (2006) 143 Cal.App.4th 173 189.) The scope of the Data Center Project is significant including a 950,000 square foot data center building, a BESS, electrical substation 100 gas powered backup emergency generators, etc. These are not the types of minor alterations identified as examples in the exemption.

Fifth, CEQA Guidelines, section 15300.2(c) qualifies exemptions by declaring certain exemptions inapplicable in some circumstances. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances. As discussed below, there is evidence that the data center will have a significant effect on the environment. Therefore, the Class 5 exemption does not apply.

Sixth, CEQA requires the County prepare an EIR if there is substantial evidence in light of the 'whole record' that there is a fair argument that the project may have a significant effect on the environment (Pub. Res. Code, § 21080(d)). The record demonstrates that, among other things, the Data Center Project has the potential to cause significant impacts, including but not limited to:

a. Safety hazards (due to its propensity to deflagrate and release toxic gases) to nearby residences resulting from fires, explosions, and toxic and hazardous emissions from electrical failures, equipment overheating, etc. There is a potential risk of upset to the nearby tank farm.

These fires can be difficult to extinguish and can cause evacuations and impacts to emergency response capabilities.

b. A Project of this size on 74 acres will involve moving massive amounts of dirt (excavation and fill) for foundations, utility trenches, leveling, etc. The specific quantities for grading and excavation, including cubic yards moved, have not been made public. The Property appears from the County GIS maps to be more than 50 feet below sea level. To put the potential amount of excavation that might be required in perspective, moving just six inches of soil on this site equates to roughly 59,500 cubic yards, requiring about 5,000 truckloads (at 12 yards each) for removal or vice versa if six inches of soil are transported to the Property. In addition, there will be off-site construction and trenching for power lines, water lines, stormwater, street improvements, etc.

c. Air toxic and criteria pollutant emissions resulting from the operation of **100 gas powered backup emergency generators** and diesel fuel combustion associated with construction. The Imperial County Air Pollution Control District (“Air District”) has already determined that a health risk assessment (“HRA”) is required because the data center has a preliminary prioritization score higher than 10 in a million cancer risk, per a screening assessment performed by the Air District as part of the AB2588 “Hot Spots” program analysis. According to the Air District’s CEQA Air Quality Handbook project impacts are considered significant if the project has the potential to emit toxic or hazardous air pollutants even at a very low level of emissions because of the increased cancer risk to nearby populations. According to the Air District, this is also true of development projects which have the potential to emit toxic or hazardous air pollutants when located in close proximity to sensitive receptors, which is the case for this Data Center Project. (<chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://apcd.imperialcounty.org/wp-content/uploads/2020/01/CEQAHandbk.pdf>) The HRA needs to be completed to determine whether there will be an increased cancer or hazard risk at any of the nearby residences as a result of the Project. The HRA needs to be available for public review and comment before any aspect of this Project is approved.

d. Imperial County is a nonattainment area for multiple National Ambient Air Quality Standards (“NAAQS”), specifically for ozone, PM10, and PM2.5. Both the construction and operation of the project will cause emissions that are precursors to ozone and fine particulates. Sources such as the natural gas engines, vehicles, and construction equipment emit pollutants like nitrogen oxides, carbon monoxide, carbon dioxide, volatile organic compounds, and methane. The Air District’s CEQA Air Quality Handbook sets forth thresholds of significance. The developer reports the engines alone would emit 133.8 lb/day NOx, 267.5 lb/day CO, and 93.5 lb/day VOC. Vehicle trips could conservatively add 12.6 lb/day Nox.³ These two sources alone would exceed

³ According to the screening table, the vehicle trips alone from a warehouse that is 660,000 square feet would exceed the thresholds of significance. The Data Center is much larger. Warehouses are estimated to have 4.9 vehicle trips per parking space per day, which would be 882 estimated vehicle trips based on 180 parking spaces. The 6-county Southern California Association of Governments (“SCAG”) region average weekday vehicle trip length is 17.2 miles, which would be 15,170 miles per day.

the Air District's thresholds of significance NOx. The CEQA Air Quality Handbook also requires that the standard mitigation measures for construction equipment and fugitive PM10 must be implemented at all construction sites and the implementation of discretionary mitigation measures, as listed in Section 7.1, apply to those construction sites which are 5 acres or more for non-residential developments. These measures have not been imposed as conditions on the lot merger.

d. Increase in greenhouse gas emissions and the data center complex's carbon footprint. Data centers contribute significantly to global greenhouse gas ("GHG") emissions, estimated around 1-2% of the world's total, primarily from massive electricity use for servers and cooling, often sourced from fossil fuels, generators, and vehicles.

e. Noise and vibration from cooling systems and backup generators, and humming from power systems. Data center noise comes from massive cooling fans, HVAC systems, and backup generators, creating loud, persistent sounds (75-99+ dBA) that challenge nearby communities and affect workers, often characterized by bothersome low-frequency hums that standard measurements miss, leading to health concerns. (See; <https://www.youtube.com/watch?v=t-8TDOFqkQA>)

f. Traffic impacts and changes to traffic circulation. The intersection and roadways at Aten and Clark are designated to be major county arterials but are currently two-lane roads. Clark Road is the primary north/south route that connects the City of Imperial with the City of El Centro and surrounding areas. Aten Road serves as a vital transport link within the City of Imperial. Traffic congestion is already a concern at this intersection. The Data Center will increase vehicle trips and vehicle miles travelled associated with the facility's construction and operation that affects local roads, access points, and potential congestion that requires detailed studies of intersections, roadway capacity, truck turning, and security gate logistics. Requiring full roadway dedications will not resolve the major traffic issues generated by the data center, which the County will permit to operate before needed road improvements are completed. Further, the Imperial County Department of Public Works requires for new development projects that applicants submit a Preliminary Environmental Review to assess potential traffic impacts. (<chrome-extension://efaidnbmninnibpcajpcgclclefindmkaj/https://publicworks.imperialcounty.org/wp-content/uploads/2019/12/TrafficStudyReportPolicy.pdf>) The applicant should be required to comply with the County's Traffic Study Administrative Procedures before the Project is approved.

g. Storage and handling of hazardous and toxic materials. Data centers store hazardous materials like diesel, batteries (lead-acid, lithium), and cooling system chemicals (ammonia), requiring strict handling for safety. Emergency response plans need to be developed and practiced that include spill control and evacuation plans.

h. Visual and aesthetic impact of large windowless structures, cooling towers, substation, BESS, and transmission equipment. There needs to be an evaluation of how the data center's size, shape, and color affect views from nearby roads, homes, and parks as well as light and glare from the potential light pollution from building lights or backup generators impacting night skies or nearby residents.

i. Potential negative effects on property values. Data centers can negatively affect nearby property values primarily through noise (generators, cooling), visual blight (large concrete buildings), light pollution, increased traffic, heavy water/power usage impacting resources, and potential emissions, making homes less desirable.

j. Use of public funds for large infrastructure investment and the risk of stranded assets. The applicants have not entered into any agreements, nor are agreements required for the applicants to pay for all public improvements that need to be improved to serve the Data Center. The public and rate payers should not pay for these improvements. Further, the use of public funds for large infrastructure, such as power grids to support data centers, creates a significant risk of stranded assets if the projected data center demand does not materialize or if the facilities quickly become technologically obsolete. This could result in utilities and taxpayers shouldering the costs for unneeded capacity or outdated facilities

k. The Data Center's energy demand could lead to higher energy costs for residents and reliability issues. High energy demand from sources like data centers is a major factor in higher energy costs for residents and a cause of electricity grid reliability issues for consumers. The strain on the grid means a higher risk of system instability, including potential capacity shortages, voltage spikes and dips (which can damage appliances), and even forced blackouts if demand consistently outpaces supply.

l. Energy demand from equipment; strain on local power grids, potential increase in reliance on fossil fuels. In May 2025, IID Transmission Planning Department prepared a feasibility study for the Data Center Project ("Feasibility Study"). (See Exhibit 8 [Feasibility Study].) The Feasibility Study was prepared in response to a request from IVCN for the interconnection of the Data Center Project to the IID System at the 230kV 'S' line between the ECSS and SDG&E Imperial Valley substation. The Feasibility Study concluded that at a 500 MW load thermal and voltage violations were found under the following outage: "P1: Loss of 230kV 'S' One between 2320 kV Imperial Valley Substation and 230 kV IVCN Substation." In July 2025, IID Transmission Planning Department prepared a system impact study for the Data Center Project ("System Impact Study"). (See Exhibit 9 [System Impact Study].) The System Impact Study was prepared in response to a request from IVCN for the interconnection of the Data Center Project to the IID System at the 230kV 'S' line between IID's ECSS and SDG&E's Imperial Valley substation. As part of this System Impact Study, the IID evaluated the interconnection of 250 MW of load to assess potential system impacts and infrastructure requirements. IID deemed the Data Center Project feasible under the System Impact Study. However, IID assumed for both the Feasibility Study and System Impact Study that the majority of the power required to serve the load demanded by the Data Center Project would be imported because IID concluded that it did not have the capability to reliably support a large-scale load requiring continuous 24-hour service with existing resources. IID did not commit to serve the requested load. The applicants also requested IID conduct a System Impact Study for the transmission interconnect to IID's 92 kV 'R' Line. It is not known whether this study was conducted or a feasibility study, and if so, the results. This project should not be approved until IID can ensure capacity to serve the data center, that there will be no reliability issues associated with the service, and the ratepayers are protected from increased prices and stranded impacts.

m. Heat island effects. Data centers significantly contribute to the urban heat island (“UHI”) effect by releasing vast amounts of waste heat into city environments, raising local temperatures, worsening air quality, and increasing energy demand for cooling in nearby buildings. This heat, a byproduct of intense server operations, creates localized hot spots in an area that already experiences extreme heat. (See e.g., <https://eolios.eu/data-center/urban-heat-island-impact-study-for-data-centers/>.)

n. Data centers require massive amounts of water daily for cooling as well as generate significant wastewater. (See Exhibit 10 [EESI water consumption]; Exhibit 11 [Lincoln Institute].) IVCN asserts the data center will be supplied with reclaimed water from a municipality. But, to date no municipality has agreed to provide reclaimed water to the site for the data center. (See Exhibit 12 [El Centro Water Statement].) The Colorado River is operating under drought conditions, and IID is operating under a System Conservation Implementation Agreement and Deficit Irrigation Program that calls for further conservation. (See Exhibit 13 [IID Deficit Irrigation Program].) The data center’s water and wastewater requirements must be specified, with sources and availability identified, and off-site treatment capability confirmed.

o. The development of 74 acres will increase water runoff from more impervious surfaces and lead to the potential pollution of the on-site canal. Runoff picks up pollutants such as sediment, oil, grease, and chemicals from paved surfaces and can carry them untreated into local canal harming aquatic habitats and agricultural resources.

p. Disposal of electronic components that contain hazardous materials during decommissioning and maintenance raise the issue of whether there are sufficient recyclers to avoid disposal in landfills.

q. Habitat disruption. Vacant (fallowed or idle) agricultural land in Imperial County can potentially provide valuable habitat for special-status and critical species, particularly birds. Imperial Valley supports over 60% of California’s burrowing owls, making it a critical refuge, but habitat loss is a major concern. The property is within the Burrowing Owl Species Distribution Model according to the County General Plan. Two of California’s three flat-tailed horned lizard populations are in Imperial County, living in desert flats and washes, and are designated as a Species of Special Concern. Peirson’s Milkvetch is an endangered plant found in the Imperial Valley. The Crissal Thrasher and Yellow-breasted Chat are California Species of Special Concern found in the Valley’s riparian areas. The Desert Pupfish uses agricultural drains and canals; there is a canal on the property. Detailed biological surveys are required to identify species and occupied habitats.

r. Loss of agricultural land. Agriculture has been and is the single most important economic activity of Imperial County. The County’s General Plan calls for the primary use of any parcel designated “Agriculture” on the Land Use Plan to be maintained for agricultural production. Further, where a development permit is sought adjacent to agricultural land use, as here, the agricultural operations are required to be protected with an appropriate buffer zones, not merged out of existence.

s. Failure to comply with the Municipal Code and General Plan goals and policies that were adopted to mitigate environmental impacts. These include the following:

- Conservation/Open Space Element: Objective 1.4: Ensure the conservation and management of the County's natural and cultural resources.
- Conservation/Open Space Element: Objective 2.4: Use the CEQA and NEPA process to identify, conserve and restore sensitive vegetation and wildlife resources.
- Conservation Element/Open Space: Objective 6.1: Ensure the use and protection of all the rivers, waterways, and groundwater sources in the County for use by future generations.
- Conservation/Open Space Element: Objective 6.2: Ensure proper drainage and provide accommodation for storm runoff from urban and other developed areas in manners compatible with requirements to provide necessary agricultural drainage.
- Conservation/Open Space Element: Objective 6.7: Prohibit the inappropriate siting of solid or hazardous waste facilities next to water bodies or over sources of potable groundwater or recharge basins.
- Conservation/Open Space Element: Objective 7.1: Ensure that all project and facilities comply with current Federal, State, and local requirements for attainment of air quality objectives.
- Agricultural Element: Objective 1.8: Allow conversion of agricultural land to non-agricultural uses including renewable energy only where a clear and immediate need can be demonstrated, based on economic benefits, population projections and lack of other available land (including land within incorporated cities) for such nonagricultural uses.
- Agricultural Element: Objective 3.1: The primary use of any parcel designated "Agriculture" on the Land Use Plan shall be agricultural production.
- Agricultural Element: Objective 3.6: Where a development permit is sought adjacent to agricultural land use, protect agricultural operations by requiring appropriate buffer zones between agricultural land and new developments, and then keep these zones aesthetically pleasing and free of pests by cleaning them of all garbage and noxious vegetation. Vegetation for the purpose of dust control shall be planted and maintained in an attractive manner. The buffer shall occur on the parcel for which the development permit is sought and shall favor protection of the maximum amount of farmland.
- Agricultural Element: Objective 4.1: The County must favor efforts to ensure adequate irrigation water for agricultural areas.
- Circulation Element: Objective 1.2: Require a traffic analysis for any new development which may have a significant impact on County roads.
- Circulation Element: Objective 1.3: Ensure safe and coordinated traffic patterns, contiguous growth, and promote a planned and consistent development around city/township areas. Require that coordination with other jurisdictions, including the cities and CALTRANS results in a coordinated system that is consistent in classification, RoW and improvement standards. This is intended to provide

“throughways” that allow for the flow of traffic at LOS “C” or better throughout the system, both in cities as well as the County.

- Circulation Element: Objective 1.11: Improve County circulation system roadways in concert with land development to ensure sufficient levels of service.
- Circulation Element: Objective 1.13: Work with adjacent jurisdictions and transportation agencies to identify necessary improvements to the regional roadway system to ensure adequate interregional and intraregional access throughout the County.
- Circulation Element: Objective 2.4: Develop and improve aviation facilities. Reduce aviation-related hazards, including hazards to aircraft and hazards posed by aircraft.
- Circulation Element: Objective 2.5: Ensure consistency of the General Plan with the provisions of the Airport Land Use Plan.
- Circulation Element: Objective 3.8: Attempt to reduce motor vehicle air pollution. Require all major projects to perform an air quality analysis to determine the amount of pollution, as well as the alternative reduction options.
- Circulation Element: Objective 5.3: The County shall cooperate with the adjacent communities and agencies such as Imperial to provide the maximum compatibility of adopted circulation elements and regional facility plans.
- Noise Element: Objective 1.1: Adopt noise standards which protect sensitive noise receptors from adverse impact.
- Noise Element: Objective 1.3: Control noise levels at the source where feasible.
- Noise Element: Objective 1.5: Identify sensitive receptors with noise environments which are less than acceptable, and evaluate measures to improve the noise environment.
- Noise Element: Objective 2.3: Work with project proponents to utilize site planning, architectural design, construction, and noise barriers to reduce noise impacts as projects are proposed.
- Water Element: Objective 1.2: Cooperation between the Cities and County for the need to maintain, upgrade, and expand domestic water and sewage treatment facilities of the communities within the County, the need for the implementation of appropriate development fees, and the raising of service fees to off-set limited public financial resources.
- Water Element: Objective 1.3: The efficient regulation of land uses that economizes on water consumption, enhances equivalent dwelling unit demand for domestic water resources, and that makes available affordable resources for continued urban growth and development.

(See also No. 7 above.)

Accordingly, the County is obligated to prepare an EIR to address the significant environmental effects of the “whole” Data Center Project and consider alternatives (such as a different and safer location) and mitigation measures to reduce these significant effects.

8. The County Airport Land Use Commission is Required to Review the Project for Consistency.

The Data Center Project is located within an area covered by an Airport Land Use Compatibility Plan (“ALUCP”) , Zone C. (ICMC, § 90601.08.) The ALUCP seeks to protect the public from the adverse effects of airport noise, ensure people and facilities are not concentrated in areas susceptible to aircraft accidents, and ensure no structures or activities encroach upon or adversely affect the use of navigable airspace. Under the ALUCP the County Airport Land Use Commission is required to review building permit applications for projects having a valuation greater than \$500,000.00 to determine whether the project is compatible, not compatible or compatible with restrictions with the criteria identified in the ALUCP. All projects shall be referred to the Commission at the earliest reasonable point in time so that the Commission’s review can be duly considered by the local jurisdiction prior to formalizing its action. It is believed that this Data Center Project has a valuation in excess of \$500,000.00 and therefore, County Airport Land Use Commission review and consistency finding is required. This review should occur before the Planning Commission exercises its discretion on this lot merger application.

According to the ALUCP for the Imperial County Airport, the uses that are acceptable in Zone C are agricultural uses, warehouses, truck terminals and low-intensity manufacturing. Data centers, BESS, water tanks and cooling towers are not land uses that were analyzed in the ALUCP. Power lines and electrical substations are identified as uses which could be potentially compatible with restrictions. Chapter 2 provides some guidance on determining compatibility. Specifically, the ALUCP states that land uses which may produce hazards to aircraft in flight shall not be permitted within any airport’s planning area including: (1) glare or distracting lights which could be mistaken for airport lights; (2) sources of dust, steam, or smoke that may impair pilot visibility; (3) sources of electrical interference with aircraft communications or navigation; and (4) any use which may attract large flocks of birds. Data centers implicate three of these four criteria. Data centers produce significant light and glare due to their 24/7 operations and the intense, constant illumination for operations, security and maintenance. This can lead to light pollution, skyglow especially in rural areas, and potential glare for workers and nearby residents. Cooling systems can produce significant amounts of water vapor/steam. Data centers can be significant sources of electrical interference known as electromagnetic interference (“EMI”) or "electrical noise" which is a natural byproduct of their high power consumption and the operation of numerous electronic devices.

Conclusion

The City is not opposed to responsible development of data centers in Imperial County that includes a robust public process. However, this particular Project violates numerous zoning and subdivision laws and should not be approved.

The Municipal Code, section 90808.03 requires the Planning Commission⁴ make these specific findings:

- A. All the lots or parcels are contiguous.
- B. Whether the lot merger conforms to State law and County Ordinance.
- C. The lot merger is between lots or parcels that were created by a parcel or tract map consistent with the Subdivision Map Act and County Ordinance in effect at the time they were created.
- D. The lots or parcels are not separated or affected by any easement, right-of-way, road, alley or canal (including public utility easements).
- E. The parcel as merged will not be deprived access as a result of the merger.
- F. Access to the adjoining parcels will not be restricted by the merger.
- G. The parcel as merged will not conflict with the location of any existing structures on the property.
- H. No new lot or lots are created through the merger.

As explained fully in this letter, the Planning Commission cannot make these findings. The parcels are not contiguous and under common ownership at the time of the merger. A road separates the parcels, and the property has multiple zoning designations. The Data Center is not a permitted use and is not consistent with the General Plan. The lot merger is not exempt under CEQA as a minor alteration of land.

Please include this letter, all of the attachments and the information from the referenced websites in the administrative record for this Project.

Sincerely,



Alene Taber
Attorneys for City of Imperial

cc: Dennis Morita, City Manager (dmorita@imperial.ca.gov)
Katherine Turner, Esq., City Attorney (kturner@cityofimperial.org)
Jim Minnick, Planning & Development Services Director (jimminnick@co.imperial.ca.us)
Gerardo Quero, Planner II (Gerardoquero@co.imperial.ca.us)
Geoffrey Holbrook, Esq., County Counsel (countycounsel@co.imperial.ca.us)
Nathan George, Esq., Remy Moose Manley, LLP (NGeorge@rmmenvirolaw.com)

⁴ The Planning Commission is required to make these findings as it is the first level of government to act on the lot merger application.

EXHIBIT 1

LOT MERGER

I.C. PLANNING & DEVELOPMENT SERVICES DEPT
801 Main Street, El Centro, CA 92243 (442) 265-1736

- APPLICANT MUST COMPLETE ALL NUMBERED (black) SPACES - Please type or print -

1. PROPERTY OWNER'S NAME Imperial Valley Computer Manufacturing, LLC	EMAIL ADDRESS Sebastian Rucci, Managing Member	
2. MAILING ADDRESS 16400 Pacific Coast Highway, Suite 212	ZIP CODE 92649	PHONE NUMBER (562)901-1099
3. ENGINEER'S NAME Maurico Lam	CAL. LICENSE NO. LS 8440	EMAIL ADDRESS mauriciolam@lcec-inc.com
4. MAILING ADDRESS 1065 State Street, El Centro, CA 92243	ZIP CODE 92243	PHONE NUMBER (760) 353-8110
5. PROPERTY "A" (site) ADDRESS 291 West Aten Road	LOCATION Intersection of Clark & Aten Road, Imperial County	
6. PROPERTY "A" ASSESSOR'S PARCEL NO.(s) 044-220-042	SIZE OF PROPERTY (in acres or square foot) 3.94 AC	
7. EXISTING USE Vacant Industrial Property	CURRENT ZONE M2-U	
8. PROPERTY "A" LEGAL DESCRIPTION (attach separate sheet if necessary) Please see attached legal description		
9. PROPERTY "B" (site) ADDRESS Please see additional Lot Merger Applications Provided	LOCATION Intersection of Clark & Aten Road, Imperial County	
10. PROPERTY "B" ASSESSOR'S PARCEL NO.(s) Please see additional Lot Merger Applications Provided	SIZE OF PROPERTY (in acres or square foot)	
11. EXISTING USE Please see additional Lot Merger Applications	CURRENT ZONE	
12. PROPERTY "B" LEGAL DESCRIPTION (attach separate sheet if necessary) Please see additional page total of 5 merged parcel.		
13. EXPLAIN PURPOSE/REASON FOR LOT MERGER To accomodate land to construct a Data Center and accessory uses such as a substation, battery back-up, and generater back up. Please see site plan for reference.		
14. PROPOSED MERGED PARCEL SIZE Total 5 parcels merged 71.14 AC	PROPOSED USE Please see additional Lot Merger Applications	

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

15. DESCRIBE PROPOSED SEWER SYSTEM(s)	On site treatment
16. DESCRIBE PROPOSED WATER SYSTEM	HD - North Gate Canal, Gate NDA 44, on-site treatment, reclaimed water <i>SEE PROJECT DESCRIPTION 2</i>
17. DESCRIBE PROPOSED ACCESS TO MERGED PARCEL	Existing Access points Aten Road and Labruenerie Road <i>Labruenerie Rd.</i>
18. IS THIS PARCEL PLANNED TO BE ANNEXED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	IF YES, TO WHAT CITY or DISTRICT?

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.
Sebastian Rucci, Managing Member
of Imperial Valley Computer Manufacturing LLC 10.3.25

Print Name (owner) _____ Date _____
Signature (owner) _____

Print Name (Agent) _____ Date _____
Signature (Agent) _____
An owners notarized affidavit is required if application is signed by Agent.

REQUIRED SUPPORT DOCUMENTS

- A. SITE PLAN
- B. PROPOSED LEGAL DESCRIPTION
- C. PRELIMINARY TITLE REPORT (6 months or newer)
- D. FEE _____
- E. OTHER _____

APPLICATION RECEIVED BY: _____
 APPLICATION DEEMED COMPLETE BY: _____
 APPLICATION REJECTED BY: _____
 TENTATIVE HEARING BY: _____
 FINAL ACTION: APPROVED DENIED

DATE _____
 DATE _____
 DATE _____
 DATE _____

REVIEW / APPROVAL BY
OTHER DEPT'S required.
 P. W.
 E. H. S.
 A. P. C. D.
 O. E. S.

MERG#
00191

LOT MERGER

I.C. PLANNING & DEVELOPMENT SERVICES DEPT
801 Main Street, El Centro, CA 92243 (442) 265-1736

- APPLICANT MUST COMPLETE ALL NUMBERED (black) SPACES - Please type or print -

1. PROPERTY OWNER'S NAME Imperial Valley Computer Manufacturing, LLC	EMAIL ADDRESS sebastian@ruccilaw.com/ tom@dubosedesigngroup.com	
2. MAILING ADDRESS 16400 Pacific Coast Highway, Suite 212	ZIP CODE 92649	PHONE NUMBER (562) 901-0199
3. ENGINEER'S NAME Maurico Lam	CAL. LICENSE NO. LS 8440	EMAIL ADDRESS mauriciolam@lcec-inc.com
4. MAILING ADDRESS 1065 West State Street	ZIP CODE 92243	PHONE NUMBER (760) 353-8110
5. PROPERTY "A" (site) ADDRESS N/A See Legal Description	LOCATION Intersection of Clark & Aten Road, Imperial County	
6. PROPERTY "A" ASSESSOR'S PARCEL NO.(s) 044-220-044	SIZE OF PROPERTY (in acres or square foot) 9.77	
7. EXISTING USE Vacant Industrial Property	CURRENT ZONE M2-U	
8. PROPERTY "A" LEGAL DESCRIPTION (attach separate sheet if necessary) See attached		
9. PROPERTY "B" (site) ADDRESS N/A See Legal Description	LOCATION Intersection of Clark & Aten Road, Imperial County	
10. PROPERTY "B" ASSESSOR'S PARCEL NO.(s) 044-220-045	SIZE OF PROPERTY (in acres or square foot) 10.01	
11. EXISTING USE Vacant Industrial Property	CURRENT ZONE M2-U	
12. PROPERTY "B" LEGAL DESCRIPTION (attach separate sheet if necessary) See attached		
13. EXPLAIN PURPOSE/REASON FOR LOT MERGER to accomodate land to construct a data center and accessory uses such as a substation, battery back-up, and generater back up. Please see site plan for reference.		
14. PROPOSED MERGED PARCEL SIZE Total 5 parcels merged 71.14 AC	PROPOSED USE Data Center and Complimentary Uses	

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

15. DESCRIBE PROPOSED SEWER SYSTEM(s)	On site treatment
16. DESCRIBE PROPOSED WATER SYSTEM	IID - North Gate Canal, Gate NDA 44, onsite treatment & reclaimed water <i>see project description 20</i>
17. DESCRIBE PROPOSED ACCESS TO MERGED PARCEL	Existing Access points Aten Road and Labouchere Road <i>Clark St</i>
18. IS THIS PARCEL PLANNED TO BE ANNEXED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	IF YES, TO WHAT CITY or DISTRICT?

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT

Sebastian Rucci, Managing Member 10.3.25

Print Name (owner) Date

Signature (owner)

Print Name (Agent) Date

Signature (Agent)

An owners notarized affidavit is required if application is signed by Agent.

REQUIRED SUPPORT DOCUMENTS

- A. SITE PLAN
- B. PROPOSED LEGAL DESCRIPTION
- C. PRELIMINARY TITLE REPORT (6 months or newer)
- D. FEE _____
- E. OTHER _____

APPLICATION RECEIVED BY: _____ DATE _____

APPLICATION DEEMED COMPLETE BY: _____ DATE _____

APPLICATION REJECTED BY: _____ DATE _____

TENTATIVE HEARING BY: _____ DATE _____

FINAL ACTION: APPROVED DENIED

REVIEW / APPROVAL BY

OTHER DEPT'S required.

P. W.

E. H. S.

A. P. C. D.

O. E. S.

MERG#

00191

LOT MERGER

I.C. PLANNING & DEVELOPMENT SERVICES DEPT
801 Main Street, El Centro, CA 92243 (442) 265-1736

- APPLICANT MUST COMPLETE ALL NUMBERED (black) SPACES - Please type or print -

1. PROPERTY OWNER'S NAME Imperial Valley Computer Manufacturing, LLC	EMAIL ADDRESS sebastian@ruccilaw.com/ tom@dubosedesigngroup.com	
2. MAILING ADDRESS 16400 Pacific Coast Highway, Suite 212	ZIP CODE 92649	PHONE NUMBER (562) 901-0199
3. ENGINEER'S NAME Maurico Lam	CAL. LICENSE NO. LS 8440	EMAIL ADDRESS mauriciolam@lcec-inc.com
4. MAILING ADDRESS 1065 West State Street	ZIP CODE 92243	PHONE NUMBER (760) 353-8110
5. PROPERTY "A" (site) ADDRESS 2304 Clark Road, Imperial CA - 92251	LOCATION Intersection of Clark & Aten Road, Imperial County	
6. PROPERTY "A" ASSESSOR'S PARCEL NO.(s) 044-220-007	SIZE OF PROPERTY (in acres or square foot) 5 AC	
7. EXISTING USE Currently designated A-2 U, not in agricultural production	CURRENT ZONE A-2 U	
8. PROPERTY "A" LEGAL DESCRIPTION (attach separate sheet if necessary) Please see attached.		
9. PROPERTY "B" (site) ADDRESS N/A- See Legal Description	LOCATION Intersection of Clark & Aten Road, Imperial County	
10. PROPERTY "B" ASSESSOR'S PARCEL NO.(s) 044-022-046 <i>944-044-220-044</i>	SIZE OF PROPERTY (in acres or square foot) 42.3 AC	
11. EXISTING USE Vacant Industrial Property	CURRENT ZONE M-1 N U	
12. PROPERTY "B" LEGAL DESCRIPTION (attach separate sheet if necessary) See attached		
13. EXPLAIN PURPOSE/REASON FOR LOT MERGER To accomodate land to construct a Data Center and accessory uses such as a substation, battery back-up, and generater back up. Please see site plan for reference.		
14. PROPOSED MERGED PARCEL SIZE Total 5 parcels merged 71.14 AC	PROPOSED USE Data Center and Complimentary Uses	

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

15. DESCRIBE PROPOSED SEWER SYSTEM(s)	On site treatment <i>SEE PROJECT DESCRIPTION</i>
16. DESCRIBE PROPOSED WATER SYSTEM	IID North Gate Canal, Gate NDA 44, on-site treatment & reclaimed water.
17. DESCRIBE PROPOSED ACCESS TO MERGED PARCEL	Proposed access through existing Clark Road & existing access Aten & Labruche Road <i>Clark Rd</i>
18. IS THIS PARCEL PLANNED TO BE ANNEXED?	IF YES, TO WHAT CITY or DISTRICT?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

Sebastian Rucci, Managing Member of Imperial Valley Computer Manufacturing LLC 10.3.25
Print Name (owner) Date

[Signature]
Signature (owner)

Print Name (Agent) Date

Signature (Agent) An owners notarized affidavit is required if application is signed by Agent.

REQUIRED SUPPORT DOCUMENTS

- A. SITE PLAN
- B. PROPOSED LEGAL DESCRIPTION
- C. PRELIMINARY TITLE REPORT (6 months or newer)
- D. FEE _____
- E. OTHER _____

APPLICATION RECEIVED BY: _____	DATE _____	REVIEW / APPROVAL BY OTHER DEPT'S required.
APPLICATION DEEMED COMPLETE BY: _____	DATE _____	<input type="checkbox"/> P. W.
APPLICATION REJECTED BY: _____	DATE _____	<input type="checkbox"/> E. H. S.
TENTATIVE HEARING BY: _____	DATE _____	<input type="checkbox"/> A. P. C. D.
FINAL ACTION: <input type="checkbox"/> APPROVED <input type="checkbox"/> DENIED	DATE _____	<input type="checkbox"/> O. E. S.
	DATE _____	<input type="checkbox"/> _____
	DATE _____	<input type="checkbox"/> _____

MERG#
00191

EXHIBIT 2

West's Annotated California Codes
Government Code (Refs & Annos)
Title 7. Planning and Land Use (Refs & Annos)
Division 2. Subdivisions (Refs & Annos)
Chapter 2. Maps (Refs & Annos)
Article 1. General Provisions (Refs & Annos)

West's Ann.Cal.Gov.Code § 66430

§ 66430. Consent to filing

[Currentness](#)

No final map or parcel map required by this chapter or local ordinance which creates a subdivision shall be filed with the local agency without the written consent of all parties having any record title interest in the real property proposed to be subdivided, except as otherwise provided in this division.

Credits

(Added by Stats.1974, c. 1536, p. 3468, § 4, operative March 1, 1975.)

[Notes of Decisions \(5\)](#)

West's Ann. Cal. Gov. Code § 66430, CA GOVT § 66430

Current with all laws through Ch. 790 of 2025 Reg.Sess., and Governor's Reorganization Plan No. 1 of 2025.

End of Document

© 2025 Thomson Reuters. No claim to original U.S. Government Works.

EXHIBIT 3

West's Annotated California Codes
Government Code (Refs & Annos)
Title 7. Planning and Land Use (Refs & Annos)
Division 2. Subdivisions (Refs & Annos)
Chapter 7. Enforcement and Judicial Review (Refs & Annos)
Article 1. Prohibition and Penalty (Refs & Annos)

West's Ann.Cal.Gov.Code § 66499.31

§ 66499.31. Violations; punishment

[Currentness](#)

Each violation of this division by a person who is the subdivider or an owner of record, at the time of the violation, of property involved in the violation shall be punishable by imprisonment in the county jail not exceeding one year or in the state prison, by a fine not exceeding ten thousand dollars (\$10,000), or by both that fine and imprisonment. Every other violation of this division is a misdemeanor.

Credits

(Added by [Stats.1987, c. 799, § 3.](#))

[Notes of Decisions \(1\)](#)

West's Ann. Cal. Gov. Code § 66499.31, CA GOVT § 66499.31

Current with all laws through Ch. 790 of 2025 Reg.Sess., and Governor's Reorganization Plan No. 1 of 2025.

End of Document

© 2025 Thomson Reuters. No claim to original U.S. Government Works.

EXHIBIT 4

[West's Annotated California Codes](#)

[Government Code \(Refs & Annos\)](#)

[Title 7. Planning and Land Use \(Refs & Annos\)](#)

[Division 2. Subdivisions \(Refs & Annos\)](#)

[Chapter 6. Reversions and Exclusions \(Refs & Annos\)](#)

[Article 1. Reversion to Acreage \(Refs & Annos\)](#)

West's Ann.Cal.Gov.Code § 66499.20.3
Formerly cited as CA GOVT § 66499.20 3/4

§ 66499.20.3. Merger of contiguous parcels under common ownership; ordinance

Effective: January 1, 2013

[Currentness](#)

A city or county may, by ordinance, authorize the merger of contiguous parcels under common ownership without reverting to acreage. The ordinance shall require the recordation of an instrument evidencing the merger.

Credits

(Formerly § 66499.20 ¾, added by Stats.1982, c. 87, § 27, eff. March 1, 1982. Renumbered § 66499.20.3 and amended by Stats.2012, c. 162 (S.B.1171), § 78.)

[Notes of Decisions \(1\)](#)

West's Ann. Cal. Gov. Code § 66499.20.3, CA GOVT § 66499.20.3

Current with all laws through Ch. 790 of 2025 Reg.Sess., and Governor's Reorganization Plan No. 1 of 2025.

EXHIBIT 5

90501.01 - Single base zoning area.

Every lot or parcel of land or portion thereof within the unincorporated areas of the county of Imperial shall be classified in only one of the base zoning areas established in this section.

EXCEPTION:

Parcels greater than forty (40) acres in net area may be divided by zoning district boundaries (A-2/A-3 Traffic corridor). Parcels less than forty (40) acres net and currently divided by a zoning boundary shall have the larger of the current designation apply to the entire parcel. Where a zoning map shows two zones on the same parcel the parcel shall have the larger of the two zones applicable to the entire parcel regardless of the map depiction. Unless identified by a community/urban or specific plan area.

(Ord. No. 1565, §§ 3, 4, 12-15-20)

EXHIBIT 6

West's Annotated California Codes
Government Code (Refs & Annos)
Title 7. Planning and Land Use (Refs & Annos)
Division 1. Planning and Zoning (Refs & Annos)
Chapter 4. Zoning Regulations (Refs & Annos)
Article 2. Adoption of Regulations (Refs & Annos)

West's Ann.Cal.Gov.Code § 65856

§ 65856. Public hearing; exceptions

[Currentness](#)

(a) Upon receipt of the recommendation of the planning commission, the legislative body shall hold a public hearing. However, if the matter under consideration is an amendment to a zoning ordinance to change property from one zone to another, and the planning commission has recommended against the adoption of such amendment, the legislative body shall not be required to take any further action on the amendment unless otherwise provided by ordinance or unless an interested party requests a hearing by filing a written request with the clerk of the legislative body within five days after the planning commission files its recommendations with the legislative body.

(b) Notice of the hearing shall be given pursuant to [Section 65090](#).

Credits

(Added by Stats.1965, c. 1880, p. 4348, § 6. Amended by Stats.1984, c. 1009, § 23.)

[Notes of Decisions \(5\)](#)

West's Ann. Cal. Gov. Code § 65856, CA GOVT § 65856

Current with all laws through Ch. 790 of 2025 Reg.Sess., and Governor's Reorganization Plan No. 1 of 2025.

EXHIBIT 7

VERSION: DRAFT

MAY 22, 2025



IMPERIAL VALLEY COMPUTER MANUFACTURING LLC, (DATA CENTER #1) FEASIBILITY STUDY

TRANSMISSION PLANNING



EXECUTIVE SUMMARY

The Imperial Irrigation District (IID) received a request from Imperial Valley Computer Manufacturing LLC (Customer) for the interconnection of their Imperial Data Center Campus (Project) in the Imperial Valley. The facility's proposed Point of Interconnection (POI) to the IID System is at the 230kV 'S' line between IID's El Centro switching station (ECSS) and SDG&E's Imperial Valley substation. As part of this feasibility study, IID evaluated the interconnection of different load scenarios at 150 MW, 200 MW, 250 MW, and 500 MW to assess potential system impacts and infrastructure requirements. Commercial Operation Date (COD) is planned to be in service by January 2027.

IID's Transmission Planning Department performed a high-level feasibility study to evaluate the potential impact of integrating this Project into the IID transmission system. The study included power flow (steady-state) analysis to identify any thermal violations caused solely by the addition of this load.

Note: IID assumed that the majority of the power required to serve this load would be imported. IID currently does not have the capability to reliably support a large-scale load requiring continuous 24-hour service. As such, this report does not represent a commitment by IID to serve the requested load.

PROJECT DESCRIPTION

The proposed Project consists of a large-scale data center campus, upwards of 500MW, that is to be placed in a land parcel near the 230kV 'S' line between IID's El Centro switching station and SDG&E's Imperial Valley substation, which will serve as the POI for the Project. The Project had an assumed power factor of 0.95. The Figures 1, 2, & 3 below indicate the single line diagram, geographical location, and site plan of the Project.

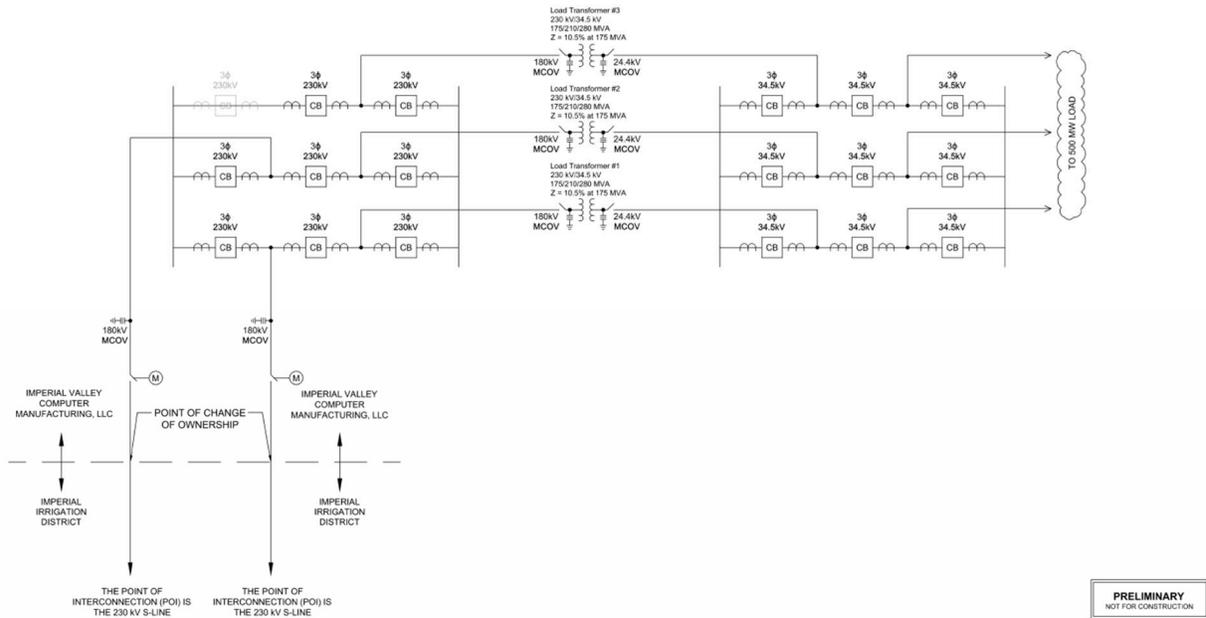


FIGURE 1: PROJECT SINGLE LINE DIAGRAM

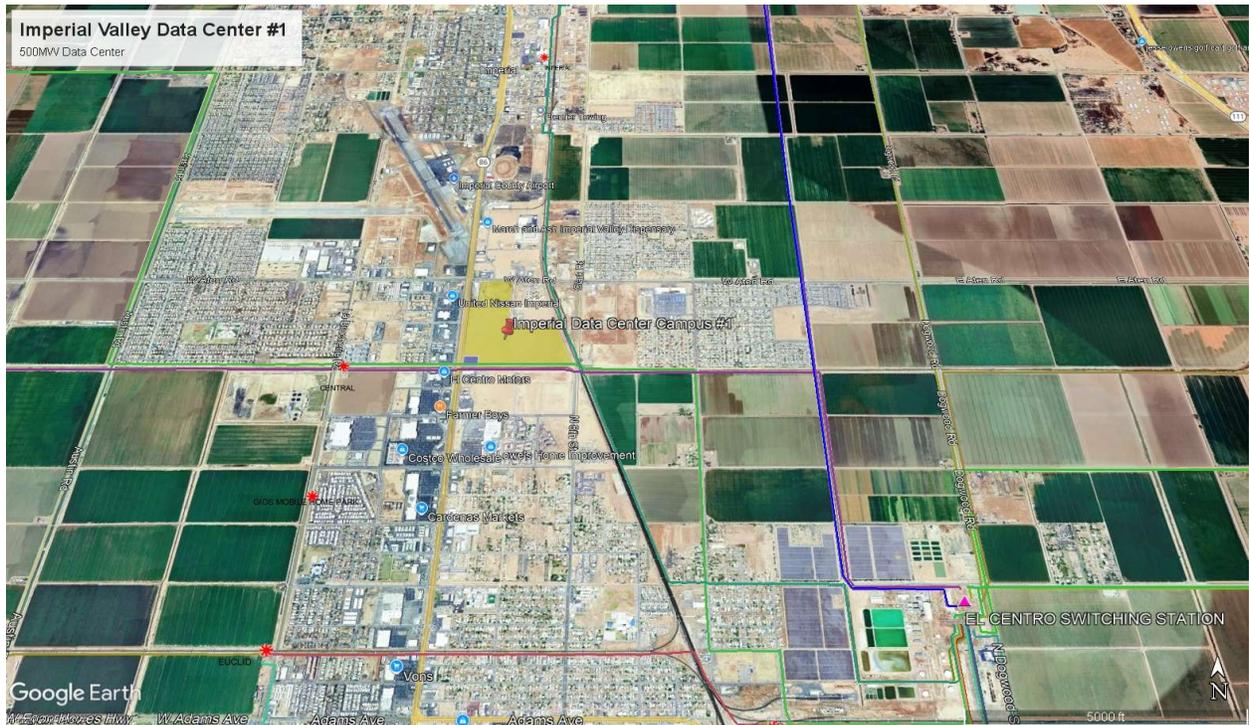


FIGURE 2: PROJECT GEOGRAPHICAL LOCATION

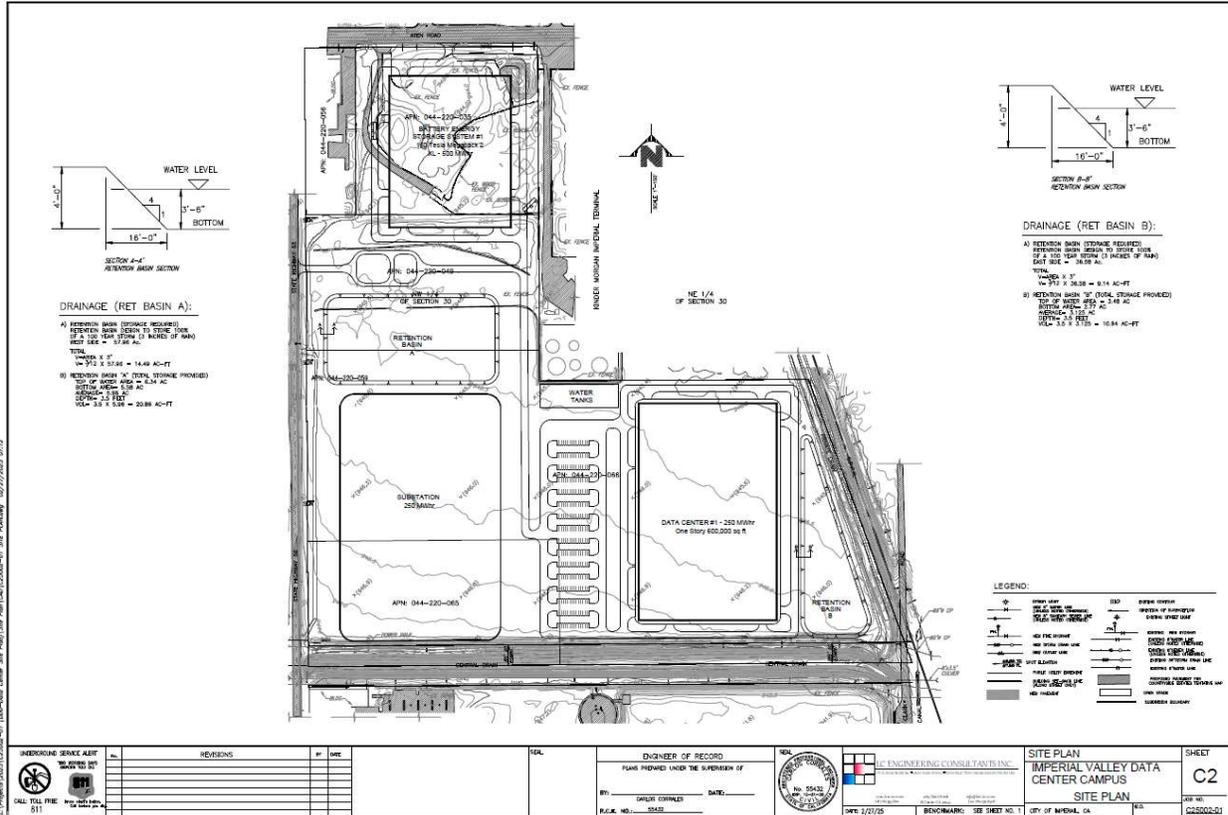


FIGURE 3: PROJECT SITE PLAN

IVCM DATA CENTER BREAKDOWN			
MW	MVAR	MVA	PF
150MW	49MVAR	158MVA	0.95
200MW	65MVAR	210MVA	0.95
250MW	82MVAR	263MVA	0.95
500MW	164MVAR	526MVA	0.95

TABLE 1: PROJECT BREAKDOWN PER LOADING SCENARIO



STUDY DATA ASSUMPTIONS AND METHODOLOGY

Various base cases were developed for this assessment with the intent to cover all critical operating scenarios, and to document all potential impacts that could be caused by the implementation of the Project. No queue generation was included unless the project has an executed Generator Interconnection Agreement (GIA), a Power Purchase Agreement (PPA), or a Tolling Agreement with the IID and the project is in accordance with section 4.0 of IID’s Planning Standards. Distribution projects were included with either an executed Joint Power Agreement (JPA) or system impact studies were finalized. The base cases were developed to represent the Heavy Summer operating conditions and the early Spring operating conditions. For the early Spring assessments, an early Spring time frame of 0600-0800 was analyzed.

Table 1 below lists the WECC approved base cases that were used to model the IID system for steady-state analysis:

WECC Seed Case	PSLF Base Case Name	Description
Heavy Summer Peak Scenarios		
25HS4a.sav	27HS_IVCM_Peak_pre.sav	2027 Heavy Summer without Project (pre-case)
	27HS_IVCM_150MW_Peak.sav	2027 Heavy Summer with Project (150MW)
	27HS_IVCM_200MW_Peak.sav	2027 Heavy Summer with Project (200MW)
	27HS_IVCM_250MW_Peak.sav	2027 Heavy Summer with Project (250MW)
	27HS_IVCM_500MW_Peak.sav	2027 Heavy Summer with Project (500MW)
Heavy Summer Solar Reduced Scenarios		
25HS4a.sav	27HS_IVCM_Solar_Reduced_pre.sav	2027 Heavy Summer without Project (pre-case); 20% solar
	27HS_IVCM_150MW_Solar_Reduced.sav	2027 Heavy Summer with Project (150MW); 20% solar
	27HS_IVCM_200MW_Solar_Reduced.sav	2027 Heavy Summer with Project (200MW); 20% solar
	27HS_IVCM_250MW_Solar_Reduced.sav	2027 Heavy Summer with Project (250MW); 20% solar
	27HS_IVCM_500MW_Solar_Reduced.sav	2027 Heavy Summer with Project (500MW); 20% solar
Light Spring Early Morning Solar Reduced Scenarios		
26LSP1Sa.sav	27LSP_IVCM_Solar_Reduced_pre.sav	2027 Light Spring without Project (pre-case); 40% solar
	27LSP_IVCM_150MW_Solar_Reduced.sav	2027 Light Spring with Project (150MW); 40% solar
	27LSP_IVCM_200MW_Solar_Reduced.sav	2027 Light Spring with Project (200MW); 40% solar
	27LSP_IVCM_250MW_Solar_Reduced.sav	2027 Light Spring with Project (250MW); 40% solar
	27LSP_IVCM_500MW_Solar_Reduced.sav	2027 Light Spring with Project (500MW); 40% solar

TABLE 2: SUMMARY OF BASE CASES ANALYZED

The GE PSLF version 23.0.8.2 software was used to analyze the pre and post Project study cases, with respect to the North American Electric Reliability Corporation (NERC) revised NERC TPL-001-5.1 standard, reflecting the use of P0-P7 outage categories and the corresponding WECC system performance criteria. GE PSLF was also used to check for system performance criteria violations in each of the post-Project cases when comparing to the corresponding pre-Project case. GE ProvisoHD was utilized to accumulate the power flow results in order to facilitate the comparison between pre and post Project cases. The base cases developed are designed to reflect the IID electrical system via loads, resources, topology and conditions expected when the project starts operation. While it is impossible to study all the IID transmission system flows and generation levels during all seasons, these pre-Project base cases represent extreme generation and transmission flows that will potentially expose any transmission constraints at the POI. However, the IID cannot guarantee that the Project can operate at its maximum rating year-round without impacting the transmission system, during times and seasons not studied.



Steady State Contingency Analysis:

The assessment considered all of IID's credible single and multiple contingencies, as well as the most severe multiple contingencies within the IID system. External contingencies that are known to cause the most severe impacts to the IID transmission system were analyzed also. The scope of the steady-state analysis consisted of thermal, voltage magnitude and angle difference violations. The full suite of NERC standard TPL-001-5.1 contingency sets, P1-P7, was analyzed.

STUDY RESULTS AND CONCLUSION

The Imperial Irrigation District (IID) conducted a high-level feasibility study for the proposed Project at various loading levels, with the POI located on the 230kV 'S' Line between IID's El Centro substation and SDG&E's Imperial Valley substation. The study evaluated multiple loading and generation scenarios for the Project's target year, using Heavy Summer and Light Spring cases. Below are the findings and results for each loading scenario:

150 MW load

- Results showed there were no thermal violations in IID's transmission system under P0-P7 contingencies. Project did not cause any buses to experience voltage exceedances or deviations.

200 MW load

- Results showed there were no thermal violations in IID's transmission system under P0-P7 contingencies. Project did not cause any buses to experience voltage exceedances or deviations.

250 MW load

- Results showed there were no thermal violations in IID's transmission system under P0-P7 contingencies. Project did not cause any buses to experience voltage exceedances or deviations.

500 MW load

- Thermal and voltage violations were found under the following outage:
 - P1: Loss of 230kV 'S' Line between 230kV Imperial Valley Substation and 230kV IVCM Substation.
- The outage mentioned above shows the Project poses a significant risk of voltage collapse due to its heavy reliability on imported power and the limited transmission capacity of IID's system to support such demand. In order to avoid this risk and for the project to be feasible, a new independent 230kV circuit from Imperial Valley Substation to IVCM Substation will be needed.

Please note that this is based on high-level assumptions and does not represent the final results of the study, as conceptual models and designs were used to verify that the proposed maximum output at the point of interconnection is feasible.

EXHIBIT 8



VERSION: DRAFT

JULY 25, 2025



**IMPERIAL VALLEY COMPUTER
MANUFACTURING LLC, (DATA CENTER #1)
SYSTEM IMPACT STUDY**

TRANSMISSION PLANNING



TABLE OF CONTENTS

1. Executive Summary..... 4

2. Project Description..... 5

3. Study Data Assumptions and Methodology 7

 3.1 Base Cases and Assumptions 7

 3.2 Methodology..... 8

 3.2.1 Steady State Contingency Analysis..... 8

 3.2.2 Transient Stability Analysis..... 8

 3.2.3 Post-Transient Analysis (Reactive Margin) 10

 3.3.1 Power Flow Modeling 10

 3.3.2 Dynamic Models 11

 3.3.3 Remedial Action Scheme Modeling 11

 3.4 System Upgrades/Mitigations..... 12

4. Study Criteria..... 12

 4.1 NERC Reliability Standards..... 12

 4.2 WECC Reliability Criteria 12

 4.3 Steady State Study Criteria 12

 4.3.1 Normal Overloads 13

 4.3.2 Emergency Overloads 13

 4.3.3 Voltage Criteria..... 14

 4.3 Transient Stability Data..... 14

 4.4.1 Bus Voltage..... 14

 4.4.2 Bus Frequency..... 16

 4.5 Reactive Margin Criteria 16

5. Study Results..... 16

 5.1 Power Flow Analysis:..... 16

 5.1.1 (2027) Heavy Summer Peak..... 17

 5.1.2 (2027) Heavy Summer Peak Solar Reduced 20% 17

 5.1.3 (2027) Light Spring Solar Reduced 40% 17

 5.2 Transient Stability Analysis 17

 5.2.1 (2027) Heavy Summer Transient Stability Results..... 17

 5.2.2 (2027) Heavy Summer Solar Reduced Transient Stability Results..... 17

 5.2.3 (2027) Light Spring Solar Reduced Transient Stability Results 17

 5.3 Post Transient Stability and Reactive Power Margin: Heavy Summer 17

7/25/2025 IMPERIAL VALLEY COMPUTER MANUFACTURING LLC, (DATA CENTER #1) 2

SYSTEM IMPACT STUDY



6. Conclusion.....18



1. EXECUTIVE SUMMARY

The Imperial Irrigation District (IID) received a request from Imperial Valley Computer Manufacturing LLC (Customer) for the interconnection of their Imperial Data Center Campus (Project) in the Imperial Valley. The facility's proposed Point of Interconnection (POI) to the IID System is at the 230kV 'S' line between IID's El Centro switching station (ECSS) and San Diego Gas & Electric's (SDG&E's) Imperial Valley substation. As part of this study, IID evaluated the interconnection of 250 MW of load to assess potential system impacts and infrastructure requirements. Commercial Operation Date (COD) is planned to be in service by the year 2027.

IID's Transmission Planning Department performed a System Impact Study (SIS) to evaluate the potential impact of integrating this Project into the IID transmission system. The study included power flow (steady-state), transient stability, and post-transient stability analysis. The scope of the analyses is to identify the transmission system impacts caused solely by the addition of the project and reinforcements necessary to mitigate the adverse impact of the Project under different system operating conditions. The following scenarios were studied accordingly:

- 2027 Heavy Summer
- 2027 Heavy Summer (Solar reduced)
- 2027 Light Spring (Early morning solar reduced)

Each scenario includes two versions, a pre-case and a post-case including the project load. All cases include all generation with an executed Generation Interconnection Agreement (GIA), planned IID transmission upgrades, as well as anticipated distribution projects as identified in the IID 2024-33 Capital Investment plan. The project was modeled as a new load with a value of 250 MW for the year 2027. The analysis tested the impact of the load addition on the reliability of IID's electrical system.

Note: IID Transmission Planning assumed that the majority of the power required to serve this load would be imported for the purposes of this study. IID currently does not have the capability to reliably support a large-scale load requiring continuous 24-hour service with existing resources. As such, this report does not represent a commitment by IID to serve the requested load.



2. PROJECT DESCRIPTION

The proposed Project consists of a large-scale data center campus, upwards of 250MW, that is to be placed in a land parcel near the 230kV 'S' line between IID's El Centro switching station and SDG&E's Imperial Valley substation, which will serve as the POI for the Project. The Project had an assumed power factor of 0.95. The Figures 1, 2, & 3 below indicate the single line diagram, geographical location, and site plan of the Project.

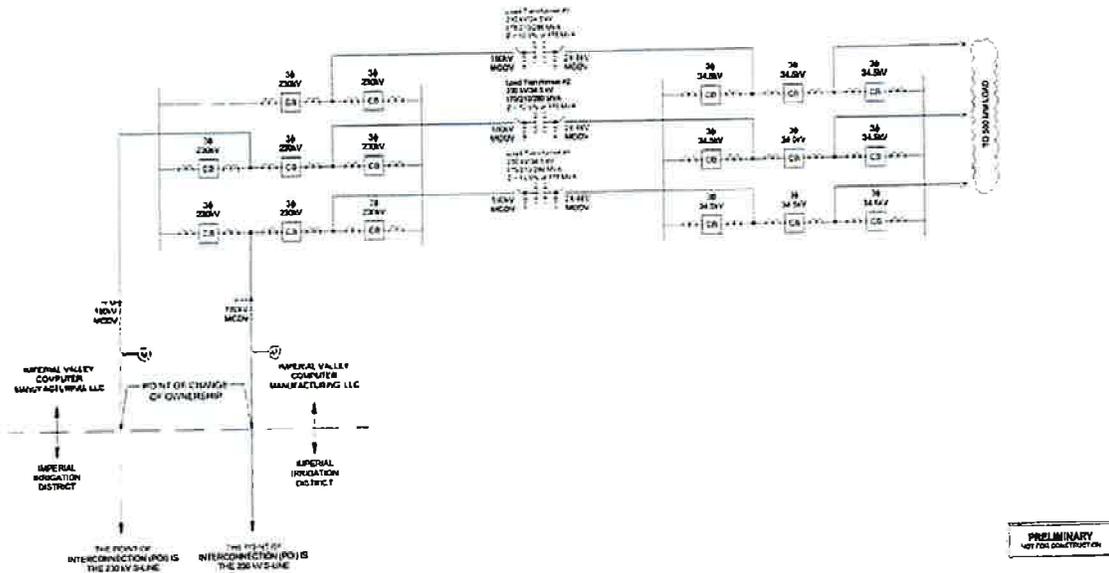


FIGURE 1: PROJECT SINGLE LINE DIAGRAM

*Note: Based on a feasibility study, the initial proposed project at 500MW has now been reduced to 250MW. The single line has not been updated and serves as a high-level electrical representation.



FIGURE 2: PROJECT GEOGRAPHICAL LOCATION

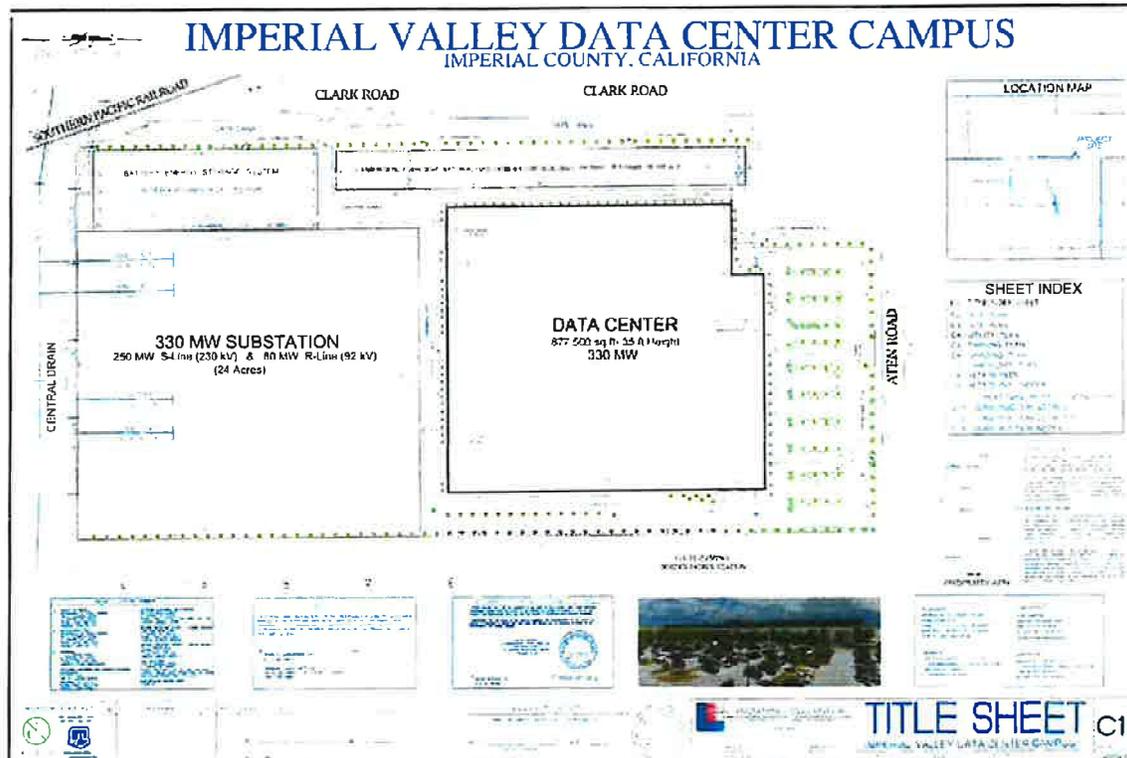


FIGURE 3: PROJECT SITE PLAN



3. STUDY DATA ASSUMPTIONS AND METHODOLOGY

3.1 BASE CASES AND ASSUMPTIONS

Various base cases were developed for this assessment with the intent to cover all critical operating scenarios, and to document all potential impacts that could be caused by the implementation of the Project. Any generation that had an executed Generation Interconnection Agreement (GIA), a Power Purchase Agreement (PPA), or a Tolling Agreement with the IID, and the project is in accordance with section 4.0 of IID's Planning Standards was included in the base cases. Distribution projects were included with either an executed Joint Power Agreement (JPA) or a finalized system impact study. The base cases were developed to represent the Heavy Summer operating conditions, representing high load with high generation output. A Heavy Summer sensitivity during the time frame of 1900-2100, representing high load with reduced solar output. Finally, Light Spring sensitivity, during the time frame of 0600-0800, representing moderate load with reduced solar output.

Table 1 below lists the WECC approved base cases that were used to model the IID system:

WECC Seed Case	PSLF Base Case Name	Description
Heavy Summer Peak Scenarios		
25HS4a.sav	27HS_IVCM_Peak_pre.sav	2027 Heavy Summer without Project (pre-case)
	27HS_IVCM_250MW_Peak.sav	2027 Heavy Summer with Project (250MW)
Heavy Summer Solar Reduced Scenarios		
25HS4a.sav	27HS_IVCM_Solar_Reduced_pre.sav	2027 Heavy Summer without Project (pre-case); 20% solar
	27HS_IVCM_250MW_Solar_Reduced.sav	2027 Heavy Summer with Project (250MW); 20% solar
Light Spring Early Morning Solar Reduced Scenarios		
26LSP1Sa.sav	27LSP_IVCM_Solar_Reduced_pre.sav	2027 Light Spring without Project (pre-case); 40% solar
	27LSP_IVCM_250MW_Solar_Reduced.sav	2027 Light Spring with Project (250MW); 40% solar

TABLE 1: SUMMARY OF BASE CASES ANALYZED

The GE PSLF version 23.0.8.2 software was used to analyze the pre and post Project study cases, with respect to the North American Electric Reliability Corporation (NERC) revised NERC TPL-001-5.1 standard, reflecting the use of P0-P7 outage categories and the corresponding WECC system performance criteria. GE PSLF was also used to check for system performance criteria violations in each of the post-Project cases when comparing to the corresponding pre-Project case. GE ProvisoHD was utilized to accumulate the power flow results in order to facilitate the comparison between pre and post Project cases. The base cases developed are designed to reflect the IID electrical system via loads, resources, topology and conditions expected when the project starts operation. While it is impossible to study all the IID transmission system flows and generation levels during all seasons, these pre-Project base cases represent extreme generation and transmission flows that will potentially expose any transmission constraints at the POI. However, the IID cannot guarantee that the Project can operate at its maximum rating year-round without impacting the transmission system, during times and seasons not studied.



3.2 METHODOLOGY

Steady state, transient stability and post-transient reactive margin analysis were performed for this assessment. Table 2 describes the type of analysis completed on each base case.

PSLF Base Case Name	Steady State	Transient Stability	Post Transient
27HS_IVCM_Peak_pre.sav	X	X	X
27HS_IVCM_250MW_Peak.sav	X	X	X
27HS_IVCM_Solar_Reduced_pre.sav	X	X	
27HS_IVCM_250MW_Solar_Reduced.sav	X	X	
27LSP_IVCM_Solar_Reduced_pre.sav	X	X	
27LSP_IVCM_250MW_Solar_Reduced.sav	X	X	

TABLE 2: DESCRIPTION OF THE ANALYSIS COMPLETED ON DEVELOPED BASE CASES VIA PSLF

3.2.1 Steady State Contingency Analysis

The assessment considered all of IID's credible single and multiple contingencies, as well as the most severe multiple contingencies within the IID system. External contingencies that are known to cause the most severe impacts to the IID transmission system were analyzed also. The scope of the steady-state analysis consisted of thermal, voltage magnitude and angle difference violations. The full suite of NERC standard TPL-001-5.1 contingency sets, P1-P7, was analyzed.

3.2.2 Transient Stability Analysis

Transient stability analysis is a time-based simulation that assesses the performance of the power system shortly before, during, and after a transient disturbance. Initial conditions are characterized by the power flow case and model equations are used to simulate expected behavior from dynamic elements, such as generators and loads over time. Bus voltage and frequency plots are developed with an emphasis on all BES buses, and various non-BES buses in the IID system. These buses are the following:

➤ BES Buses

- Alhambra Switching Station 161kV
- Arkansas Switching Station 161kV
- Avenue 58 161kV
- Calipatria Switching Station 230kV
- Coachella Switching 92kV
- Coachella Valley 92kV
- Coachella Valley 161kV
- Coachella Valley 230kV
- El Centro Switching Station 161kV
- El Cento Switching Station 230kV
- El Centro Switching Station 92kV
- Highline 230kV
- Hudson Ranch 230kV
- Midway 230kV
- Midway 92kV
- Nelson Switching Station 230kV
- Niland 161kV
- Pilot Knob 161kV
- Ramon 230kV
- Sonora Switching Station 230kV
- Yucca 161kV



▪ **Non-BES Buses**

- Ave 42 92kV
- Niland 92kV
- Ramon 92kV
- Ave. 58 92kV
- El Centro 34.5kV
- Blythe 161kV

Bus voltage plots provide a means of detecting out-of-step conditions and are useful to assess the magnitude and duration of post-disturbance voltage dips and peak-to-peak voltage oscillations. The voltage plots also indicate system damping response and the expected bus voltage following the disturbance. Bus frequency plots provide expected magnitude and duration of post-disturbance frequency swings, as well as indicating possible over-frequency or under-frequency conditions. Additionally, IID utilizes a dynamic criteria EPCL script to assist in evaluating if monitored buses meet WECC regional criteria as shown in Figures 4 and 5. The selected critical contingencies listed below in Table 3 were simulated for the transient stability analysis. This contingency list contains the most severe internal and external contingencies.

#	IID Critical Contingencies
1	P1 - Colorado River-Red Bluff 500kV Line Fault
2	P1 - Coachella Valley-Mirage 230kV Line Fault
3	P1 - Coachella Valley-Ramon 230kV Line Fault
4	P1 - Devers-Mirage 230kV Line Fault
5	P1 - Devers-Red Bluff 500kV Line Fault
6	P1 - El Centro Bank#4
7	P1 - Eco-Miguel 500kV Line Fault
8	P1 - El Centro-Mall 92kV Line Fault
9	P1 - El Centro Steam #2
10	P1 - Hassayampa-Hoodoowash 500kV Line Fault
11	P1 - Hassayampa-North Gila 500kV Line Fault
12	P1 - Imperial Valley-Eco 500kV Line Fault
13	P1 - Midway-Coachella Valley 230kV Circuit 1 Line Fault
14	P1 - Midway 1 Tap-Midway 92kV Circuit 1 Line Fault
15	P1 - N. Gila-Imperial Valley 500kV Line Fault
16	P1 - Paloverde-Colorado River 500kV Line Fault
17	P1 - Ramon Bank #1
18	P1 - Ramon-Mirage 230kV Line Fault
19	P1 - El Centro-Imperial Valley Data Center 230kV Line Fault
20	P1 - Imperial Valley Data Center-Imperial Valley 230kV Line Fault
21	P2 - Ave. 58 161kV Bus Fault
22	P2 - Colorado River Bus Fault
23	P2 - El Centro Bus #1 92kV Bus Fault
24	P2 - El Centro Bus #2 92kV Bus Fault



25	P2 - Midway 230kV Bus Fault
26	P6 - Coachella Valley-Mirage & Ramon-Mirage 230kV Line Fault
27	P7 - Devers-Mirage Circuit 1&2 230kV Line Fault
28	P7 - Coachella Valley-Mirage & Coachella Valley-Ramon 230kV Line Fault
29	P7 - Coachella Valley-Midway #1 and #2 230kV Line Fault

TABLE 3: CRITICAL CONTINGENCIES USED FOR TRANSIENT AND POST-TRANSIENT ANALYSIS

3.2.3 Post-Transient Analysis (Reactive Margin)

Post-transient stability analysis was performed on selected buses in the IID transmission system following selected, most severe, and critical outages. Moreover, governor power flow tools were used for the analysis. For each bus assessed, a synchronous condenser was modeled to determine the highest reactive power margin available on that bus. All BES and non-BES buses were monitored.

During post-transient simulations, the following assumptions were used:

- Loads were modeled as constant MVAs, during the post-transient time frame
- Reactive power output of the system swing generator was limited to its maximum capability
- No manual operator intervention was allowed to increase generator MVAR flow
- Remedial actions, such as generator dropping, load shedding, or blocking of automatic generator control were not considered for single outages

Positive reactive margin is desired at all of the buses. For the IID transmission system, the post-transient stability analysis criteria are the following:

- For transfer paths, all P0-P1 events shall demonstrate a positive reactive power margin at a minimum of 105 percent of transfer path flow.
- For transfer paths, all P2-P7 events shall demonstrate a positive reactive power margin at a minimum of 102.5 percent of transfer path flow.
- For load areas, all P0-P1 events shall demonstrate a positive reactive power margin at a minimum of 105 percent of forecasted peak load.
- For load areas, all P2-P7 events shall demonstrate a positive reactive power margin at a minimum of 102.5 percent of forecasted peak load.

Selected critical contingencies listed above in Table 3 were simulated for post-transient stability analysis. These contingencies included the most severe internal and external contingencies.

3.3 MODELING

The following section document the modeling methods used to represent the project in steady state and dynamics analyses.

3.3.1 Power Flow Modeling

Equivalent load of project:

- A 250MW equivalent load on the 230kV IVCM data center bus.



3.3.2 Dynamic Models

WECC approved models from the GE PSLF library was used to represent the Project. For this Project, dynamic stability models included models for the following:

- Commercial and Industrial Load
 - WECC Composite Load Model: **cmpldw**

3.3.3 Remedial Action Scheme Modeling

Various Remedial Action Schemes (RAS) were modeled in conjunction with the various projects included in the base cases. A summary of the internal automatic actions taken are described below:

- South R-Line RAS: Open breaker “RNO” at Dixieland will send a trip signal to Ocotillo Wells Solar.
- North R-Line RAS: Loss of Anza to Oasis and Ave 58 will send a trip signal to Seville 3.
- “K” line SPS: Loss of the “K” line, “N” Line, and the loss of the Niland 92/161kV transformer will send a trip signal to Colgreen.
- Path 42 RAS:
 - Loss of the 230kV “KN” line between Coachella Valley and Mirage and the 230kV “KS” line between Coachella Valley and Ramon will send a trip signal to the identified generation.
 - Loss of the 230kV “KN” line between Coachella Valley and Mirage and the 230kV “KS” line between Ramon and Mirage will send a trip signal to the identified generation.
 - Devers-Mirage 1 & 2: Loss of circuit numbers 1 and 2 will send a trip signal to the identified generation.
- Path 42 RAS N-1:
 - Loss of the 230kV “KN” line between Coachella Valley and Mirage will send a trip signal to the identified generation.
 - Loss of the 230kV “KS” line between Coachella Valley and Ramon will send a trip signal to the identified generation.
 - Loss of the 230kV “KS” line between Ramon and Mirage will send a trip signal to the identified generation.
 - Loss of the 230kV “KN” line between Coachella Valley and Midway will send a trip signal to the identified generation.
 - Loss of the 230kV “KS” line between Coachella Valley and Midway will send a trip signal to the identified generation.
- Coachella Valley – Midway RAS:
 - Loss of the 230kV “KN” line between Coachella Valley and Midway will send a trip signal to the identified generation.
 - Loss of the 230kV “KS” line between Coachella Valley and Midway will send a trip signal to the identified generation.
- Midway Transformer RAS N-1:
 - Loss of either bank #1 or bank #2 92/230kV Transformer at Midway will send a trip signal to the identified generation.
- El Centro 161kV Bus RAS N-1:
 - Loss of the 161kV Bus at El Centro Switching will send a trip signal to the identified generation.



3.4 SYSTEM UPGRADES/MITIGATIONS

- Southern 92kV R-Line Upgraded – Q2 2026 (Ocotillo Mitigation)
- Coachella Valley Switching Station Upgrade – Q2 2026 (TPL-001)
- Ramon-Mirage 230kV Circuit 2 – Q4 2028 (TPL-001)
- 135MVAR Reactive Support at Ramon 230kV – Q2 2026 (IPP Mitigation)
- ECSS RAS N-1 – Q3 2025 (IPP Mitigation)
- Northern 92kV R-Line Upgraded – Q4 2026 (IPP Mitigation)
- Midway Transformer RAS – Q4 2025 (IPP Mitigation)

4. STUDY CRITERIA

Grid Reliability Criteria, which incorporates the WECC and NERC planning criteria, was used for this assessment. IID's standards and procedures were followed during the study process.

4.1 NERC RELIABILITY STANDARDS

The need for transmission upgrades and additions was determined in accordance with NERC Reliability Standards. These standards set forth criteria for system performance requirements, which must be met under specific set of operating conditions. The following NERC Reliability Standards are applicable to the Transmission Operators (TOs) as registered NERC Planning Authorities, Transmission Planners, and are the primary standards for the interconnection of new facilities and system performance:

- FAC-001: Facility Connection Requirements
- FAC-002: Coordination of Plans for New Facilities
- TPL-001-5.1: Transmission System Planning Performance Requirements

4.2 WECC RELIABILITY CRITERIA

The WECC TPL system performance criteria, TPL-001-WECC-CRT-4, sets forth additional requirements that must be met under various, but specific set of operating conditions and may be applicable to the TOs as Planning Authorities.

4.3 STEADY STATE STUDY CRITERIA

The system performance, with the addition of the Project, was evaluated under normal conditions and following losses of a single or multiple Bulk Electric System (BES) element(s), as defined by the applicable reliability standards and criteria. Figure 4: Listing of TPL-001-5.1 P1-P7 contingency descriptions summarizes the contingencies per NERC Reliability Standards, and WECC Regional Criteria.



Category	Initial Condition	Event ¹	Fault Type ²	BES Level ³	Interruption of Firm Transmission Service Allowed ⁴	Non-Consequential Load Loss Allowed
P0 No Contingency	Normal System	None	N/A	EHV, HV	No	No
P1 Single Contingency	Normal System	Loss of one of the following: 1. Generator 2. Transmission Circuit 3. Transformer ⁵ 4. Shunt Device ⁶	3Ø	EHV, HV	No ⁹	No ⁹
		5. Single Pole of a DC line	SLG			
P2 Single Contingency	Normal System	1. Opening of a line section w/o a fault ⁷	N/A	EHV, HV	No ⁹	No ⁹
		2. Bus Section Fault	SLG	EHV	No ⁹	No
				HV	Yes	Yes
		3. Internal Breaker Fault ⁸ (non-Bus-tie Breaker)	SLG	EHV	No ⁹	No
				HV	Yes	Yes
		4. Internal Breaker Fault (Bus-tie Breaker) ⁸	SLG	EHV, HV	Yes	Yes
P3 Multiple Contingency	Loss of generator unit followed by System adjustments ⁸	Loss of one of the following: 1. Generator 2. Transmission Circuit 3. Transformer ⁵ 4. Shunt Device ⁶	3Ø	EHV, HV	No ⁹	No ⁹
		5. Single pole of a DC line	SLG			
P4 Multiple Contingency (Fault plus stuck breaker ¹⁰)	Normal System	Loss of multiple elements caused by a stuck breaker ¹⁰ (Bus-tie Breaker) attempting to clear a Fault on one of the following: 1. Generator 2. Transmission Circuit 3. Transformer ⁵ 4. Shunt Device ⁶ 5. Bus Section	SLG	EHV	No ⁹	No
				HV	Yes	Yes
		6. Loss of multiple elements caused by a stuck breaker ¹⁰ (Bus-tie Breaker) attempting to clear a Fault on the associated bus	SLG	EHV, HV	Yes	Yes
P5 Multiple Contingency (Fault plus relay failure to operate)	Normal System	Delayed Fault Clearing due to the failure of a non-redundant relay ¹¹ protecting the Faulted element to operate as designed, for one of the following: 1. Generator 2. Transmission Circuit 3. Transformer ⁵ 4. Shunt Device ⁶ 5. Bus Section	SLG	EHV	No ⁹	No
				HV	Yes	Yes
P6 Multiple Contingency (Two overlapping singles)	Loss of one of the following followed by System adjustments ⁸ 1. Transmission Circuit 2. Transformer ⁵ 3. Shunt Device ⁶ 4. Single pole of a DC line	Loss of one of the following: 1. Transmission Circuit 2. Transformer ⁵ 3. Shunt Device ⁶	3Ø	EHV, HV	Yes	Yes
		4. Single pole of a DC line	SLG	EHV, HV	Yes	Yes
P7 Multiple Contingency (Common Structure)	Normal System	The loss of: 1. Any two adjacent (vertically or horizontally) circuits on common structure ¹¹ 2. Loss of a bipolar DC line	SLG	EHV, HV	Yes	Yes

FIGURE 4: LISTING OF TPL-001-5.1 P1-P7 CONTINGENCY DESCRIPTIONS

4.3.1 Normal Overloads

Normal overloads are those that exceed 100 percent of normal facility rating under NERC Category P0 conditions (no contingencies). Normal overloads are identified in the Reliability Study power flow analysis, in accordance with the Reliability Standard, TPL-001-5.1. It is required that loading of all transmission system facilities be within their normal ratings under NERC Category P0 conditions.

4.3.2 Emergency Overloads

Emergency overloads are those that exceed 100 percent of emergency ratings under NERC and WECC Category P1-P7 contingency conditions. Emergency overloads are identified in the Reliability Study power flow analysis in accordance with Reliability Standards, TPL-001-5.1. It is required that loading of all transmission system facilities be within their emergency ratings under the Category P1-P7 contingency conditions.



4.3.3 Voltage Criteria

A voltage criteria violation occurs if a bus within the transmission system, of each TO, fails to meet the requirements defined in Table 4. For Voltage Criteria, bus voltages are relative to the nominal bus voltages of the system under study.

Voltage Level	Normal Conditions (P0)		Contingency Conditions (P1-P7)		Voltage Deviation	
	VMIN (p.u.)	VMAX (p.u.)	VMIN (p.u.)	VMAX (p.u.)	Load Buses (P1)	Non-Load (P1) & All Buses (P2-P7)
≤200kV	0.95	1.05	0.9	1.1	≤8%	≤10%
≥200kV	0.95	1.05	0.9	1.1	≤8%	≤10%
≥500kV	0.95	1.05	0.9	1.1	≤8%	≤10%

TABLE 1: VOLTAGE CRITERIA

The maximum total voltage deviation for P3 and P6 events will be measured from the voltage that exists after the initial condition and therefore takes into consideration only voltage deviation due to the second event. Buses within the IID controlled grid that cannot meet the requirements in Table 4 will be further investigated.

4.3 TRANSIENT STABILITY DATA

Transient stability analysis is a time-based simulation that assesses the performance of the power system shortly before, during, and quickly following a contingency. Transient stability studies were performed to verify the stability of the system following a system fault. Transient stability analysis was performed based on the WECC Disturbance-Performance Criteria, for selected system contingencies, using Version 23.0.8.2 of the GE PSLF software. Transient stability contingencies were simulated for a minimum of 10 seconds, including 1 second of pre-disturbance data. Unless specified, all faults were modeled as 3-phases with 4 cycles of breaker clearing time. System damping was assessed visually with the aid of stability plots.

4.4.1 Bus Voltage

Bus voltage plots provide a means of detecting out-of-step conditions and are useful to assess the magnitude and duration of post-disturbance voltage dips and peak-to-peak voltage oscillations. The voltage plots also indicate system damping response and the expected bus voltage following the disturbance. WECC Regional Criteria, TPL-001-WECC-CRT-4, requires that the following criteria be applied:

- Following fault clearing, the voltage shall recover to 80% of the pre-contingency voltage within 20 seconds of the initiating event for all P1 through P7 events, and for each applicable BES bus serving load.
- Following fault clearing and voltage recovery above 80%, voltage at each applicable BES bus serving load shall neither dip below pre-contingency voltage, for more than 30 cycles, nor remain below 80% of pre-contingency voltage for more than 2 seconds, for all P1 through P7 events.
- For contingencies without a fault (P2.1 category event), voltage dips at each applicable BES bus serving load shall neither dip below 70% of pre-contingency voltage, for more than 30 cycles, nor remain below 80% of pre-contingency voltage for more than two seconds.
- All oscillations that do not show positive damping within 30-seconds, after the start of the studied event, shall be deemed unstable.

- Figure 5 and 6 represent the acceptable recovery trajectory.

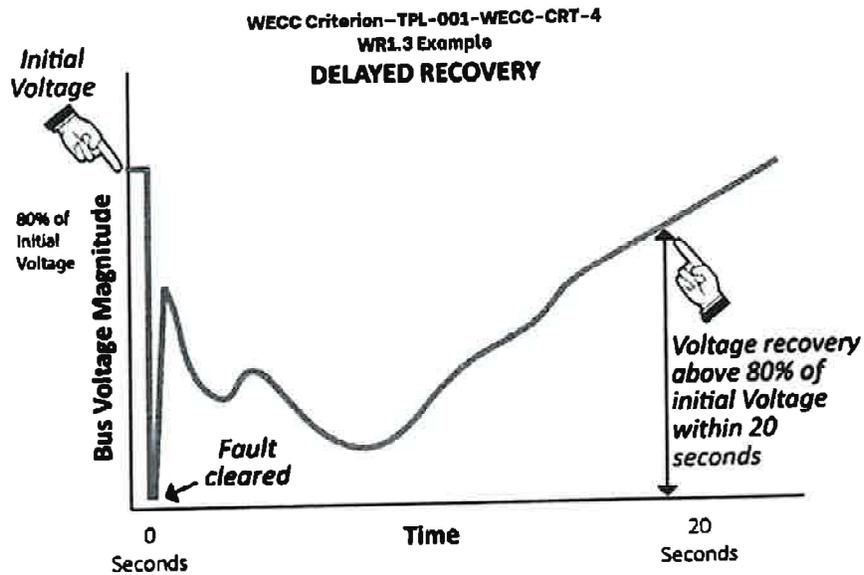


FIGURE 5: WECC DIAGRAM REPRESENTING ADEQUATE VOLTAGE RECOVERY (DELAYED)

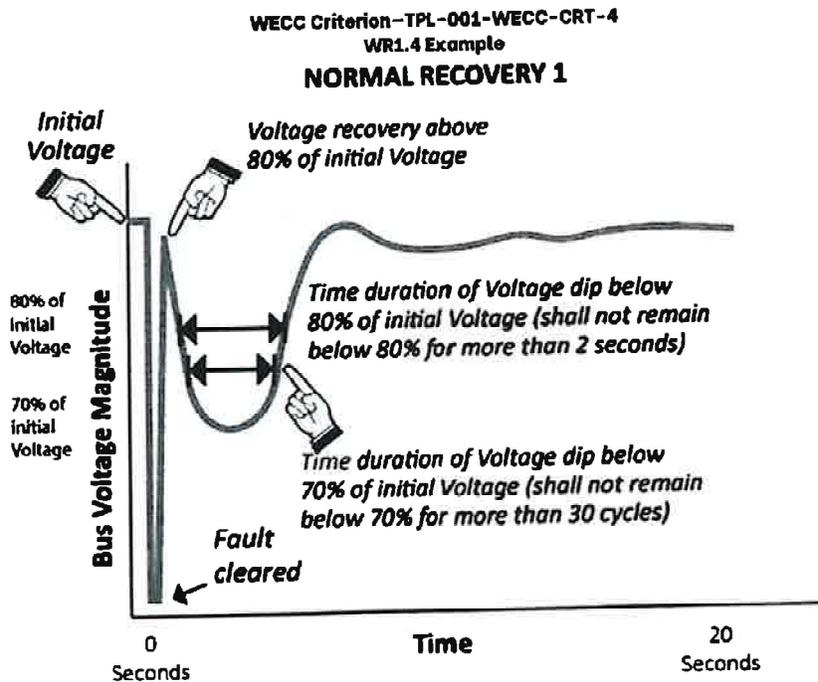


FIGURE 6: WECC DIAGRAM REPRESENTING ADEQUATE VOLTAGE RECOVERY (NORMAL)



4.4.2 Bus Frequency

Bus frequency plots provide expected magnitude and duration of post-disturbance frequency swings, and possible over-frequency or under-frequency conditions. WECC Regional Criteria, TPL-001-WECC-CRT-4, requires that the following be applied:

- All oscillations that do not show positive damping, within 30-seconds, after the start of the studied event, shall be deemed unstable.

4.5 REACTIVE MARGIN CRITERIA

Post-transient stability analysis was performed on selected buses in the IID transmission system, following selected critical outages. For each bus assessed, a synchronous condenser was modeled to extract reactive power, until the point where voltage collapse occurs. The maximum reactive power consumed prior to the voltage collapse is determined. Positive reactive margin is desired at all buses.

5. STUDY RESULTS

This System impact study modeled the new load with a total of 250MW for summer and light spring scenarios. The following analysis tested the impact of the load addition on the reliability of IID's electrical system.

5.1 POWER FLOW ANALYSIS:

Power flow analysis was performed using the base cases identified in Table 1, under Section 3. System thermal and voltage performance were tested during normal and emergency (contingency) conditions, in order to compare pre-Project and post-Project scenarios. Identified impacts, if any, are caused solely by this Project.

Thermal and voltage performance of the system was evaluated for base cases under normal, (P0), single element outage, (P1, P2), and selected multiple element outages, (P3-P7). Thermal loadings were reported when a model transmission component was loaded above 95% of its continuous MVA rating, (P0), and above 95% of its emergency rating, (P1-P7). Generally, the concerns are raised when an element is found loaded above 100% of its normal or emergency rating; however, 95% was chosen to identify circuits that are also at the edge of an overload. Moreover, such circuits need to be closely monitored and can be placed as potential candidates for future upgrades.

Transmission voltage violations for normal, (P0), conditions were reported when per unit voltages were less than 0.95 or greater than 1.05. Transmission voltage violations, following single or multiple outages, were reported when per unit voltages were less than 0.90 or greater than 1.1. Voltage deviations were recorded whenever these deviations were greater than 8% for load serving buses and 10% non-load serving buses.

The steady state study results for each of the cases is described in the following sections, while the complete results can be found in Appendix B.



5.1.1 (2027) Heavy Summer Peak

5.1.1.1 Voltage and Thermal Performance

- The project did not cause any buses in the base case to experience voltage exceedances or deviations with respect to the criteria on Table 4.
- The project did not cause thermal violations in IID's system.

5.1.2 (2027) Heavy Summer Peak Solar Reduced 20%

5.1.2.1 Voltage and Thermal Performance

- The project did not cause any buses in the base case to experience voltage exceedances or deviations with respect to the criteria on Table 4.
- The project did not cause thermal violations in IID's system.

5.1.3 (2027) Light Spring Solar Reduced 40%

5.1.3.1 Voltage and Thermal Performance

- The project did not cause any buses in the base case to experience voltage exceedances or deviations with respect to the criteria on Table 4.
- The project did not cause thermal violations in IID's system.

5.2 TRANSIENT STABILITY ANALYSIS

Transient stability was performed on the Heavy Summer and Light Spring pre- and post- Project base cases.

5.2.1 (2027) Heavy Summer Transient Stability Results

These simulation results show that the Project did not cause impacts on IID system stability under any of the simulated contingencies.

Refer to Appendix C for the 2027 Heavy Summer Transient pre and post stability plots.

5.2.2 (2027) Heavy Summer Solar Reduced Transient Stability Results

These simulation results show that the Project did not cause impacts on IID system stability under any of the simulated contingencies.

Refer to Appendix D for the 2027 Heavy Summer Solar Reduced transient pre and post stability plots.

5.2.3 (2027) Light Spring Solar Reduced Transient Stability Results

These simulation results show that the Project did not cause impacts on IID system stability under any of the simulated contingencies.

Refer to Appendix E for the 2027 Light Spring Solar Reduced transient pre and post stability plots.

5.3 POST TRANSIENT STABILITY AND REACTIVE POWER MARGIN: HEAVY SUMMER

Post-transient stability was performed on selected buses in IID transmission system following selected critical outages. Results show that the Project did not cause impacts on IID System reactive margin under any of the simulated contingencies

Refer to Appendix F for complete post-transient voltage (reactive margin) results.



6. CONCLUSION

The System Impact Study modeled the new load with a total of 250MW for summer and light spring scenarios. The following analysis tested the impact of the load addition on the reliability of IID's electrical system. The Project's POI is located on the 230kV 'S' Line between IID's El Centro substation and SDG&E's Imperial Valley substation. The study evaluated different seasons and generation scenarios for the Project's target year, using Heavy Summer and Light Spring cases. Below are the findings and results for this loading scenario:

250 MW load

- Results showed there were no thermal violations in IID's transmission system under P0-P7 contingencies. Project did not cause any buses to experience voltage exceedances or deviations.
- Results showed there were no transient stability violations in IID's transmission system under any of the simulated contingencies.

Study results show that this project can be deemed feasible. Please note that IID currently does not have the capability to reliably support a large-scale load requiring continuous 24-hour service. As such, this report does not represent a commitment by IID to serve the amount of requested load.

EXHIBIT 9



EESI

Environmental and Energy Study Institute

Advancing science-based climate solutions

(/)
[About](#) | [News](#) | [Get Involved \(/get-involved\)](#) | [Subscribe \(/subscribe\)](#) | [Contact \(/contact\)](#) | [\(/about/recognition\)](#)

[Energy Transmission and Storage \(/topics/transmission\)](#) [Fossil Fuels \(/topics/fossil-fuels\)](#)

Data Centers and Water Consumption

By **Miguel Yañez-Barnuevo (/authors/miguel-yanez)** ✉ (<mailto:myanez@eesi.org>)

June 25, 2025

Highlights:

- Data center developers are increasingly tapping into freshwater resources to quench the thirst of data centers, which is putting nearby communities at risk.
- Large data centers can consume up to 5 million gallons *per day*, equivalent to the water use of a town populated by 10,000 to 50,000 people.
- With larger and new AI-focused data centers, water consumption is increasing alongside energy usage and carbon emissions.
- Novel technologies like direct-to-chip cooling and immersion cooling can reduce water and energy usage by data centers.

Data centers have a thirst for water, and their rapid expansion threatens freshwater supplies. Only 3% of Earth's water is freshwater, and only 0.5% of all water (<https://www.eesi.org/articles/view/how-water-reuse-can-address-scarcity>) is accessible and safe for human consumption. Freshwater is critical for survival. On average, a human being can live without water for only three days (<https://www.medicalnewstoday.com/articles/325174#how-long-can-you-live-without-water>). Increasing drought and water shortages are reducing water availability (<https://www.eesi.org/articles/view/how-water-reuse-can-address-scarcity>). Meanwhile, data center developers are increasingly tapping into surface and underground aquifers to cool their facilities.

Data center water usage closely parallels energy usage and carbon emissions. As data centers use more energy for their typical data center operations and to meet AI requests, they consume larger amounts of water to cool their processor chips, so as to avoid overheating and potential damage. Similarly, as energy use increases in data centers, so do carbon emissions.

A medium-sized data center can consume up to roughly 110 million gallons of water (<https://www.npr.org/2022/08/30/1119938708/data-centers-backbone-of-the-digital-economy-face-water-scarcity-and-climate-ris>) per year for cooling purposes, equivalent to the annual water usage of approximately 1,000 households. Larger data centers can each “drink” up to 5 million gallons per day, or about 1.8 billion annually (<https://www.washingtonpost.com/climate-environment/2023/04/25/data-centers-drought-water-use/>), usage equivalent to a town of 10,000 to 50,000 people. Together, the nation's 5,426 data centers (<https://www.eesi.org/articles/view/data-center-energy-needs-are-upending-power-grids-and-threatening-the-climate>) consume billions of gallons of water annually. One report estimated that U.S. data centers consume 449 million gallons of water per day (<https://www.nature.com/articles/s41545-021-00101-w>) and 163.7 billion gallons annually (as of 2021). A 2016 report (<https://journal.uptimeinstitute.com/dont-ignore-water-consumption/>) found that fewer than one-third of data center operators track water consumption. Water consumption is expected to continue increasing as data centers grow in number, size, and complexity.

According to scientists at the University of California, Riverside, each 100-word AI prompt is estimated to use roughly one bottle of water (<https://www.washingtonpost.com/technology/2024/09/18/energy-ai-use-electricity-water-data-centers/>) (or 519 milliliters). This may not sound like much, but billions of AI users worldwide enter prompts into systems like ChatGPT every minute. Large language models require many energy-intensive calculations (<https://insideclimatenews.org/news/28092024/ai-water-usage/>), necessitating liquid cooling systems.

The Water Cycle of Data Centers

AI/Data Center Resources

- **Article | Data Center Energy Needs Could Upend Power Grids and Threaten the Climate** (<https://www.eesi.org/articles/view/data-center-energy-needs-are-upending-power-grids-and-threatening-the-climate>)
- **Briefing | Artificial Intelligence: Implications for Energy and the Environment** (<https://www.eesi.org/briefings/view/092525ai>)
- **All EESI Data Center Resources** (<https://www.eesi.org/page/Data+Centers>)

Donate

A data center's water footprint is calculated as the sum of three categories (<https://arxiv.org/pdf/2304.03271>): on-site water usage, water use by power plant facilities that supply power to data centers, and water consumption during the manufacturing process of processor chips. Water can come from various sources, including blue sources (<https://iopscience.iop.org/article/10.1088/1748-9326/abfba1>) (e.g., surface water and groundwater), piped sources such as municipal water, and gray sources (e.g., purified reclaimed water). Using recycled or non-potable water to meet a data center's cooling needs is a well-established practice to conserve limited potable water resources, particularly in dry or drought-prone areas.

In the context of data centers, "water consumption" (<https://arxiv.org/pdf/2304.03271>) refers to the amount of water withdrawn from blue or gray sources minus the water discharged by the centers (primarily warm water left over from cooling the IT racks). The consumed water is generally the water that evaporates or is otherwise taken out of immediate human usage. Withdrawal of fresh water from local streams or underground aquifers may lead to aquifer exhaustion, particularly in water-stressed areas.

Researchers at The Green Grid (<https://www.thegreengrid.org/>), a nonprofit industry consortium, developed a metric called Water Usage Effectiveness (<https://www.datacenterknowledge.com/cooling/a-guide-to-data-center-water-usage-effectiveness-wue-and-best-practices>) (WUE) to measure water usage by data centers. Similar to the Power Usage Effectiveness ([https://www.vertiv.com/en-emea/about/news-and-insights/articles/educational-articles/what-is-pue-power-usage-effectiveness-and-what-does-it-measure/#:~:text=Does%20It%20Measure?-,What%20Is%20PUE%20\(Power%20Usage%20Effectiveness\)%20and%20What%20Does%20It,There%20are%20several%20practical%20considerations](https://www.vertiv.com/en-emea/about/news-and-insights/articles/educational-articles/what-is-pue-power-usage-effectiveness-and-what-does-it-measure/#:~:text=Does%20It%20Measure?-,What%20Is%20PUE%20(Power%20Usage%20Effectiveness)%20and%20What%20Does%20It,There%20are%20several%20practical%20considerations)) (PUE) metric, which measures the energy efficiency of a data center, the WUE metric assesses the efficiency of a data center's water use. WUE is reported in liters per kilowatt-hour (kWh) (<https://www.datacenterknowledge.com/cooling/a-guide-to-data-center-water-usage-effectiveness-wue-and-best-practices>): a data center's total water consumption, measured in liters, is divided by the total energy consumed by that data center in kilowatt-hours in the same time period. While "0" is the ideal WUE score (<https://www.datacenterknowledge.com/cooling/a-guide-to-data-center-water-usage-effectiveness-wue-and-best-practices>), this can only be achieved in air-cooled data centers, and most data centers cannot meet this target due to their location's climate conditions. The average WUE across data centers is 1.9 liters per kWh (<https://www.datacenterknowledge.com/cooling/a-guide-to-data-center-water-usage-effectiveness-wue-and-best-practices>), which is a great goal to beat.

Data centers' water usage depends on various factors, including location, climate, water availability, size, and IT rack chip densities. In hotter climates, like in the southwest United States, data centers need to use more water to cool the building and equipment. With the increasing number of centers supporting AI requests, chip density is also growing, which leads to higher room temperatures, necessitating the use of more water chillers at the server level to maintain cool temperatures. Most data centers use a combination of chillers and on-site cooling towers to avoid chip overheating.

Cooling data centers is a complex operation (<https://arxiv.org/pdf/2304.03271>). At the server level, water chillers cool IT rooms to maintain optimal temperatures and prevent damage to chips. This can be achieved through air cooling using water evaporation, which is an open-loop and more water-intensive method, or through server liquid cooling (<https://www.datacenterdynamics.com/en/analysis/an-introduction-to-liquid-cooling-in-the-data-center/>). Server cooling is a more expensive approach that delivers the liquid coolant directly to the graphics processing units (GPUs) and central processing units (CPUs). Direct-to-chip liquid cooling and immersive liquid cooling (<https://www.datacenterdynamics.com/en/analysis/an-introduction-to-liquid-cooling-in-the-data-center/>) are two standard server liquid cooling technologies that dissipate heat while significantly reducing water consumption. During immersive cooling, water or specialized synthetic liquids flood the chips, absorbing the heat. The difference between direct server liquid cooling and air cooling through evaporation can be compared to the difference between drip irrigation and flooding in agriculture.

In areas with limited water availability (<https://www.npr.org/2022/08/30/1119938708/data-centers-backbone-of-the-digital-economy-face-water-scarcity-and-climate-ris>), server liquid cooling is the best choice, as it requires minimal water consumption. Conversely, in areas with a strained power grid, an evaporative air cooling tower is a suitable building design, as it requires minimal power usage.

Regardless of the approach chosen, a heat exchanger is necessary to capture (<https://blog.equinix.com/blog/2024/09/19/how-data-centers-use-water-and-how-were-working-to-use-water-responsibly/>) the hot air or hot water produced as a byproduct of the cooling process. Hot water coming from the servers is cooled by water from either the air-cooled chiller or a cooling tower. Likewise, hot air is exchanged with cooler air. A heat exchanger transfers heat from the server room to the building's cooling system.

Approximately 80% of the water (<https://arxiv.org/pdf/2304.03271>) (typically freshwater) withdrawn by data centers evaporates, with the remaining water discharged to municipal wastewater facilities. The large volume of wastewater from data centers may overwhelm existing (<https://ketos.co/ai-data-centers-wastewater-discharge-and-the-growing-need-for-effective-water-management#:~:text=The%20influx%20of%20wastewater%20from,time%20to%20manage%20the%20influx.>) local facilities, which were not designed to handle such a high volume.

Besides on-site water consumption, a significant portion of data center water usage originates from the power facilities where they obtain their energy. Because 56% of the electricity used to power data centers nationwide (<https://arxiv.org/pdf/2411.09786>) comes from fossil fuels, a significant portion of data center water consumption is derived from steam-generating power plants. Fossil fuel power plants rely on large boilers filled with water that is superheated by natural gas or coal to produce steam, which in turn rotates a turbine and generates electricity. Water withdrawals from these power plants (https://www.srs.fs.usda.gov/pubs/ja/2023/ja_2023_caldwell_002.pdf) are a significant source of water stress, particularly in drought-prone areas and in the summer, when water levels are lower and electricity demands are higher.

A federal report estimated (<https://eta-publications.lbl.gov/sites/default/files/2024-12/lbnl-2024-united-states-data-center-energy-usage-report.pdf>) that the indirect water consumption footprint (from electricity use) of data centers in the United States was roughly 211 billion gallons in 2023. Given that 176 terawatt-hours (TWh) of electricity were consumed by data centers in 2023, the centers' indirect water consumption can be estimated at 1.2 gallons per kWh on average nationally in 2023. As data centers are expected to consume up to 1,050 TWh annually by 2030 (<https://www.eesi.org/articles/view/data-center-energy-needs-are-upending-power-grids-and-threatening-the-climate>), water usage will increase in parallel.

Chip and server manufacturing are significant sources of water consumption for data centers. Semiconductors and computer chips are integral to data center processing. Each server in a data center contains multiple CPUs, GPUs, and memory chips. (<https://ifp.org/how-to-build-an-ai-data-center/>) Larger data centers and those that support AI requests can contain tens of thousands of servers, each with multiple chips. Ultrapure water is ideal for cleaning,

etching, and rinsing chips during the manufacturing process. (<https://www.weforum.org/stories/2024/07/the-water-challenge-for-semiconductor-manufacturing-and-big-tech-what-needs-to-be-done/>) Creating ultrapure water is a highly water-intensive process, requiring approximately 1,500 gallons of piped water to produce 1,000 gallons of ultrapure water. An average chip manufacturing facility (<https://www.weforum.org/stories/2024/07/the-water-challenge-for-semiconductor-manufacturing-and-big-tech-what-needs-to-be-done/>) consumes approximately 10 million gallons of ultrapure water per day. A single chip installed in a data center has already consumed thousands (<https://cwrrr.org/resources/analysis-reviews/8-things-you-should-know-about-water-and-semiconductors/>) of gallons of water by the time it reaches the site.



Water-cooled high computing systems in a data center.

Credit: ECMWF Data Center.

Water Impacts in Nearby Communities

The water consumption of the 5,426 data centers nationwide (<https://www.statista.com/statistics/1228433/data-centers-worldwide-by-country/>) is already impacting local communities. Northern Virginia is considered the world capital for data centers, with over 300 operational data centers (<https://www.governing.com/infrastructure/the-data-center-capital-of-the-world-is-in-virginia>) spread across four counties: Fairfax, Loudoun, Prince William, and Fauquier (<https://www.ft.com/content/1d468bd2-6712-4cdd-ac71-21e0ace2d048>). Collectively, all data centers in Northern Virginia consumed close to 2 billion gallons of water in 2023, a 63% increase from 2019 (<https://www.ft.com/content/1d468bd2-6712-4cdd-ac71-21e0ace2d048>). Loudoun County, with approximately 200 (<https://virginiabusiness.com/loudoun-county-advances-changes-to-data-center-regulations/>) operational data centers, used around 900 million gallons of water in 2023 (<https://vcnva.org/agenda-item/responsible-data-center-development/>). This has led Loudoun Water, the county's water authority, to rely heavily on potable water for data centers rather than reclaimed water.

Making Data Centers More Water-Efficient

Data center developers' most common choice is to withdraw water from blue sources and employ water-intensive practices, such as air cooling through water evaporation. However, there are other options. To make a more sustainable choice for nearby communities and ecosystems, developers can instead use innovative water management techniques to reduce water consumption, including closed-loop cooling systems, immersion cooling, air cooling, and using non-potable water sources (e.g., recycled wastewater and captured water).

Closed-loop cooling systems enable the reuse of both recycled wastewater and freshwater, allowing water supplies to be used multiple times. A cooling tower can use external air to cool the heated water, allowing it to return to its original temperature. These systems can reduce freshwater use by up to 70% (<https://www.weforum.org/stories/2024/11/circular-water-solutions-sustainable-data-centres/#:~:text=To%20further%20mitigate%20the%20broader,Aquapreneur%20Innovation%20Initiative%2C%20visit%20UpLink.>).

Free cooling is a method where outside cold air is drawn into the data center to cool the equipment. Data centers must be located in cooler climates for this strategy to be effective.

Air cooling involves air conditioning vents and tubes that remove heat generated by chips (<https://www.digitalrealty.com/resources/articles/future-of-data-center-cooling>) as they process data and AI requests. This method is most effective in areas where electricity is cheaper and water resources are limited.

Immersion cooling in data centers involves bathing servers, chips, and other components in a specialized dielectric (or non-conductive) fluid. Hardware is submerged in specially designed tanks filled with the coolant. (<https://www.grcooling.com/blog/forecasting-data-center-immersion-cooling-technology/#:~:text=Immersion%20cooling%20submerges%20computer%20hardware,it%20into%20a%20heat%20exchanger.>) The non-conductive liquid absorbs the heat from the chips and transfers it to a heat exchanger, where it is cooled down before flowing back into the tank. Immersion cooling is a novel process that entails higher upfront costs than conventional direct liquid cooling, but provides significant energy savings and space-optimization benefits for data center developers. Since the technology uses synthetic fluids, it requires significantly less water than other approaches.

Powering data centers with renewable energy sources, like solar or wind, requires significantly less water consumption than obtaining energy from fossil fuel power plants. With approximately 56% of the electricity used to power data centers nationwide (<https://arxiv.org/pdf/2411.09786>) coming from fossil fuels, deploying more clean energy to power these facilities can significantly reduce water consumption. Coal plants are the most water-intensive facilities, requiring approximately 19,185 gallons of water (<https://www.eia.gov/todayinenergy/detail.php?id=56820#:~:text=Natural%20gas%20plants%20use%20a,19%2C185%20gal%2FMWh%20for%20coal.>) per megawatt-hour (MWh) of power generation. Natural gas power plants consume approximately 2,800 gallons per MWh (<https://www.eia.gov/todayinenergy/detail.php?id=56820#:~:text=Natural%20gas%20plants%20use%20a,19%2C185%20gal%2FMWh%20for%20coal.>). In 2022, 40% of all total U.S. annual water withdrawals, or about 48.5 trillion gallons (<https://iopscience.iop.org/article/10.1088/1748-9326/ad6fb8>), were made by coal and gas power plants. Of those 48.5 trillion gallons, 962 billion gallons of water were consumed (<https://iopscience.iop.org/article/10.1088/1748-9326/ad6fb8>) and were no longer available for direct downstream use. Meanwhile, rooftop solar panels and wind turbines do not need any cooling water, and they are not a steam-based energy technology like coal and natural gas.

If the United States moves toward 100% renewable energy generation and the retirement of fossil fuel plants, the water savings would be enormous, with billions of gallons of water saved, and more freshwater would be available for both human consumption and natural ecosystems.

Author: Miguel Yañez-Barnuevo

 [EESI RSS Feed \(/rss/all\)](/rss/all)

Newsletters

[Sign Up \(/subscribe\)](/subscribe)

[Climate Change Solutions \(/newsletters/climate-change-solutions\)](/newsletters/climate-change-solutions)

[EESI Impact \(/newsletters/eesi-impact\)](/newsletters/eesi-impact)

Podcast

[Episode List \(/podcasts\)](/podcasts)

The Climate Conversation  [\(/podcast\)](/podcast)

Tags / Keywords

[Data Centers \(https://www.eesi.org/page/Data+Centers\)](https://www.eesi.org/page/Data+Centers)

[Electric Grid \(https://www.eesi.org/page/Electric+Grid\)](https://www.eesi.org/page/Electric+Grid)

[Sustainability \(https://www.eesi.org/page/Sustainability\)](https://www.eesi.org/page/Sustainability)

Environmental and
Energy Study Institute

1020 19th Street, NW, Suite 400
Washington, DC 20036-6101

(202) 628-1400 *phone*
(202) 204-5244 *fax*

[info@eesi.org \(mailto:info@eesi.org\)](mailto:info@eesi.org)

[Staff directory \(/about/staff\)](/about/staff)

EIN: 52-1268030

EXHIBIT 10



In this Section



Data Drain: The Land and Water Impacts of the AI Boom

By *Jon Gorey*, October 17, 2025





from sunlight, active all night. And much like a vampire, at least according to folkloric tradition, it can only enter a place if it's been invited inside.

In states and counties across the US, lawmakers aren't just opening the door for these metaphorical, mechanical monsters. They're actively luring them in, with tax breaks and other incentives, eager to lay claim to new municipal revenues and a piece of the explosive growth surrounding artificial intelligence.

That may sound hyperbolic, but data centers truly are **resource-ravenous**. Even a mid-sized data center consumes as much water as **a small town**, while larger ones require up to 5 million gallons of water every day—as much as a city of 50,000 people.

Powering and cooling their rows of server stacks also takes an astonishing amount of electricity. A conventional data center—think cloud storage for your work documents or streaming videos—draws as much electricity as 10,000 to 25,000 households, **according to the International Energy Agency**. But a newer, AI-focused “hyperscale” data center can use as much power as 100,000 homes or more. Meta's Hyperion data center in Louisiana, for example, is expected to draw more than twice the power of the entire city of New Orleans once completed. Another Meta data center **planned in Wyoming** will use more electricity than every home in the state combined.

And of course, unlike actual clouds, data centers require land. Lots of it. Some of the largest data centers being built today will cover hundreds of acres with impermeable steel, concrete, and paved surfaces—land that will no longer be available for farmland, nature, or housing—and require new transmission line corridors and other associated infrastructure as well.

Data centers have been part of our built landscape for over a decade, however—many of them tucked into unassuming office parks, quietly processing our web searches and storing our cellphone photos. So why the sudden concern? Artificial intelligence



investing quickly and heavily in AI.

The number of US data centers more than doubled between 2018 and 2021 and, fueled by investments in AI, that number has already doubled again. Early in the AI boom, in 2023, US data centers consumed **176 terawatt-hours of electricity**, roughly as much as the **entire nation of Ireland** (whose electric grid is itself nearly maxed out, prompting data centers there to **use polluting off-grid generators**), and that's expected to **double or even triple** as soon as 2028.

This rapid proliferation can put an enormous strain on local and regional resources—burdens that many host communities are not fully accounting for or prepared to meet.

“Demand for data centers and processing has just exploded exponentially because of AI,” says Kim Rueben, former senior fiscal systems advisor at the Lincoln Institute of Land Policy. Virginia and Texas have long had tax incentives in place to attract new data centers, and “**other states** are jumping on the bandwagon,” she says, hoping to see economic growth and new tax revenues.

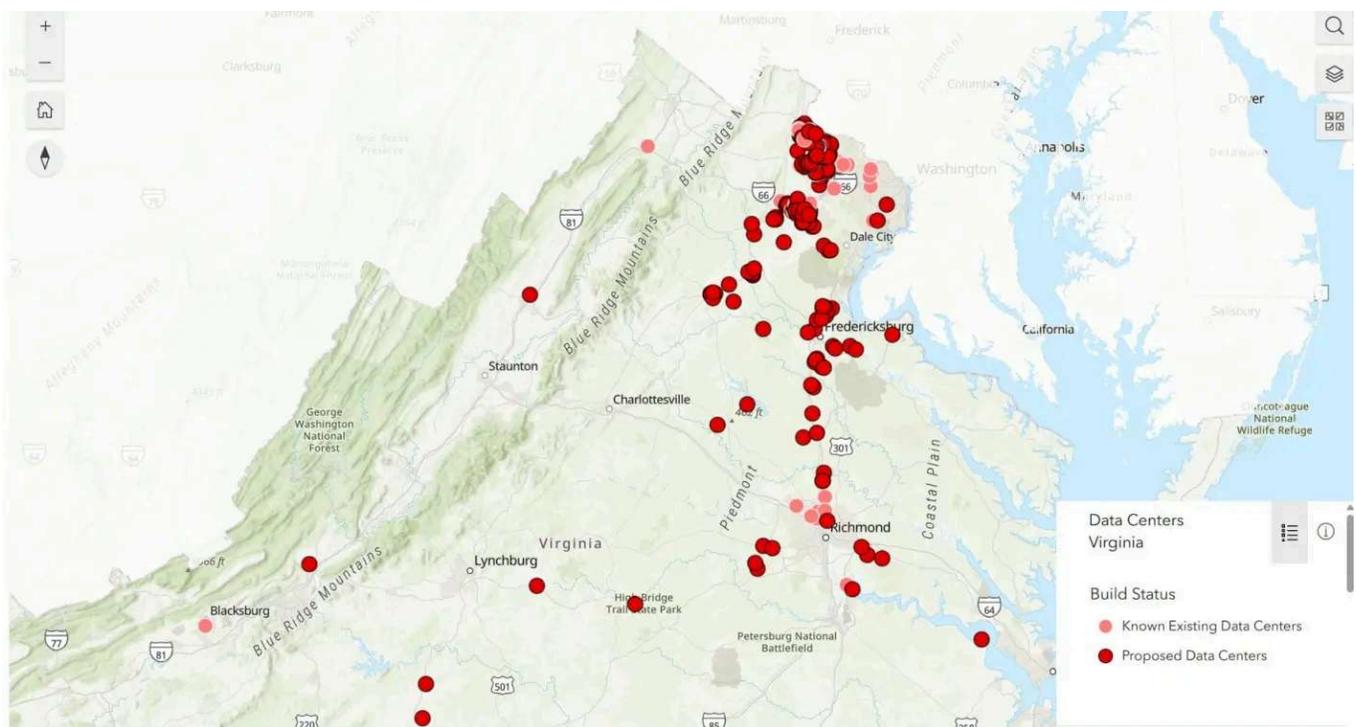
But at a Land Policy and Digitalization conference convened by the Lincoln Institute last spring, Rueben likened the extractive nature of data centers to coal mines. “I don't think places are acknowledging all the costs,” she says.

Yes, Virginia, There Is a Data Clause

At that conference, Chris Miller, executive director of the **Piedmont Environmental Council**, explained how roughly two-thirds of the world's internet traffic passes through Northern Virginia. The region already hosts the densest concentration of data centers anywhere in the world, with about 300 facilities in just a handful of counties. Dozens more are planned or in development, ready to consume the region's available farmland, energy, and water, enticed by a statewide incentive that gives companies more than **\$130 million** in sales and use taxes each year.



from local data centers in fiscal year 2025 to approach \$900 million, **nearly as much** as the county's entire operating budget. The proportion of revenue derived from data centers has grown so lopsided that the county's board of supervisors is considering **adjusting the tax rate**, so as not to be so reliant on a single source.



Existing and planned data centers in Northern Virginia. The state has been dubbed “the data center capital of the world.” Credit: Piedmont Environmental Council.

While many communities see data centers as an economic boon due to that tax revenue, the facilities themselves are not powerful long-term job engines. Most of the jobs they create are rooted in their construction, **not their ongoing operation**, and thus are largely temporary.

Decades ago, PEC supported some of the data center development in Northern Virginia, says Julie Bolthouse, PEC's director of land policy. But the industry has changed dramatically since then. When AOL had its headquarters in what's known as **Data Center Alley**, for example, the company's data center was a small part of a larger campus, “which had pedestrian trails around it, tennis courts, basketball

L

isolated from the community now, and it is only going to employ about 100 to 150 people on the same piece of land. That's the difference."

The facilities have also gotten "massive," Bolthouse adds. "Each one of those buildings is using as much as a city's worth of power, so that power infrastructure is having a huge impact on our communities. All the transmission lines that have to be built, the eminent domain used to get the land for those transmission lines, all of the energy infrastructure, gas plants, pipelines that deliver the gas, the air pollution associated with that, the climate impacts of all of that."

Across Northern Virginia, on-site diesel generators—**thousands of them**, each the size of a rail car—spew diesel fumes, creating air quality issues. "No other land use that I know of uses as many generators as a data center does," Bolthouse says. And while such generators are officially classified as emergency backup power, data centers are permitted to run them for "demand response" for 50 hours at a time, she adds. "That's a lot of air pollution locally. That's particulate matter and NOx [**nitrogen oxides**], which impacts growing lungs of children, can add cases of asthma, and can exacerbate heart disease and other underlying diseases in the elderly."

And then there's the water issue.

'Like a Giant Soda Straw'

A **study** by the Houston Advanced Research Center (HARC) and University of Houston found that data centers in Texas will use 49 billion gallons of water in 2025, and as much as 399 billion gallons in 2030. That would be equivalent to drawing down the largest reservoir in the US—157,000-acre Lake Mead—by **more than 16 feet** in a year.

Anyone who's accidentally left their phone out in the rain or dropped it in a puddle might wonder what a building full of expensive, delicate electronics could want with millions of gallons of water. It's largely for cooling purposes. Coursing with electrical



What that means, however, is that the water isn't just used for cooling and then discharged as treatable wastewater; much of it evaporates in the process—*poof*.

“Even if they're using reclaimed or recycled water, that water is no longer going back into the base flow of the rivers and streams,” Bolthouse says. “That has ecological impacts as well as supply issues. Everybody is upstream from someone else.”

Washington, DC, for example, will still lose water supply if Northern Virginia data centers use recycled or reclaimed water, because that water won't make it back into the Potomac River. Evaporative cooling also leaves behind high concentrations of salts and other contaminants, she adds, creating water quality issues.

There are less water-intensive ways to cool data centers, including closed-loop water systems, which require more electricity, and **immersion cooling**, in which servers are submerged in a bath of liquid, such as a synthetic oil, that conducts heat but not electricity. Immersion cooling allows for a denser installation of servers as well, but is not yet widely used, largely due to cost.

Ironically, it can be hard to confirm specific data about data centers. Given the proprietary nature of AI technology and, perhaps, the potential for public backlash, many companies are **less than forthcoming** about how much water their data centers consume. Google, for its part, **reported** using more than 5 billion gallons of water across all its data centers in 2023, with 31 percent of its freshwater withdrawals coming from watersheds with medium or high water scarcity.

A 2023 **study** by the University of California Riverside estimated that an AI chat session of 20 or so queries uses up to a bottle of freshwater. That amount can vary depending on the platform, with more sophisticated models demanding larger volumes of water, while other estimates suggest it could be closer to a few spoonfuls per query.





of water for a few queries, but it's all being taken from one basin where that data center is located—that's thousands and thousands of gallons of water being drawn from one place from people doing their AI queries from all over the world," he says.

"Wherever they choose to put a data center, it is like a giant soda straw sucking water out of that basin," Colohan continues. "And when you take water from a place, you have to reduce demand or put water back in that same place, there's no other solution. In some cases, at least, major data center developers have begun to recognize this problem and are actively engaging in [water replenishment](#) where it counts."

Locating data centers in cooler, wetter regions can help reduce the amount of water they use and the impact of their freshwater withdrawals. And yet roughly two-thirds of the data centers built since 2022 have been located in water-stressed regions, [according to a Bloomberg News analysis](#), including hot, dry climates like Arizona.





The warm water-cooling system at a Sandia Labs data center in Albuquerque, New Mexico. The data center earned LEED Gold certification for efficiency in 2020. Credit: Bret Latter/Sandia Labs via Flickr CC.

It's not just cooling the server rooms and chips that consumes water. About half of the electricity currently used by US data centers comes from fossil fuel power plants, which themselves use a lot of water, as they heat up steam to turn their massive turbines.

And the millions of microchips processing all that information? By the time they reach a data center, each chip has already consumed thousands of gallons of water. Manufacturing these tiny, powerful computing components requires "ultrapure" treated water to rinse off silicon residue without damaging the chips. It takes about 1.5 gallons of tap water to produce a gallon of ultrapure water, and the typical chip factory uses about 10 million gallons of ultrapure water each day, [according to the World Economic Forum](#)—as much as 33,000 US households.



There could be important uses for artificial intelligence—if it can be harnessed to solve complex problems, for instance, or to improve the efficiency of water systems and electric grids.

There are clearly superfluous uses, too. A YouTube channel with 35 million subscribers, for example, features AI-generated music videos ... of AI-generated songs. The MIT Technology Review *estimates* that, unlike simple text queries, using AI to create video content is extremely resource-heavy: Making a five-second AI-generated video uses about as much electricity as running a microwave nonstop for over an hour.

Data center defenders tend to point to the fact that Americans use more water each year to irrigate golf courses (more than **500 billion gallons**) and lawns (over **2 trillion gallons**) than AI data centers use. However, that argument rings false: America has a well-documented addiction to green grass that is also not serving us well. The solution, water experts say, lies in water conservation and consumer education, not comparing one wasteful use to another.

Putting a Finite Resource First

Even a small data center can place an immense, concentrated burden on local infrastructure and natural resources. In Newton County, Georgia, a Meta data center that opened in 2018 *uses 500,000 gallons of water* per day—10 percent of the entire county's water consumption. And given Georgia's cheap power and generous state tax breaks, Newton County continues to field requests for new data center permits—some of which would use up to 6 million gallons of water per day, more than doubling what the entire county currently consumes.





coordinated, holistic understanding of existing resources and potential impacts on the energy grid and the watershed, says Mary Ann Dickinson, policy director for land and water at the Lincoln Institute. “We would like to help communities make smarter decisions about data centers, helping them analyze and plan for the potential impacts to their community structures and systems.”

“Water is often one of the last things that gets thought about, so one of the things that we’re really promoting is early engagement,” says John Heron, strategic development manager at **Thames Water** in the UK. “So when you’re thinking about data centers, it’s not just about the speed you’re going to get, it’s not just about making sure there’s a lot of power available—we need to make sure that water is factored in at the earliest possible thinking ... at the forefront, rather than an afterthought.”

Despite its damp reputation, London doesn’t receive a whole lot of rainfall compared to the northern UK – **less than 25 inches a year**, on average, or roughly half of what falls in New York City. Yet because so much growth is centered on London, the Thames Water service area holds about 80 percent of the UK’s data centers, Heron says, and another 100 or so are proposed.

What’s more, their water usage peaks during the hottest, driest times of the year, when the utility can least accommodate the extra demand. “That’s why we talk about restricting or reducing or objecting to [data centers],” Heron says. “It’s not because we don’t like them. We absolutely get it, we need them ourselves. AI will massively help our call center ... which means we can have more people out fixing leaks and proactively managing our networks.”

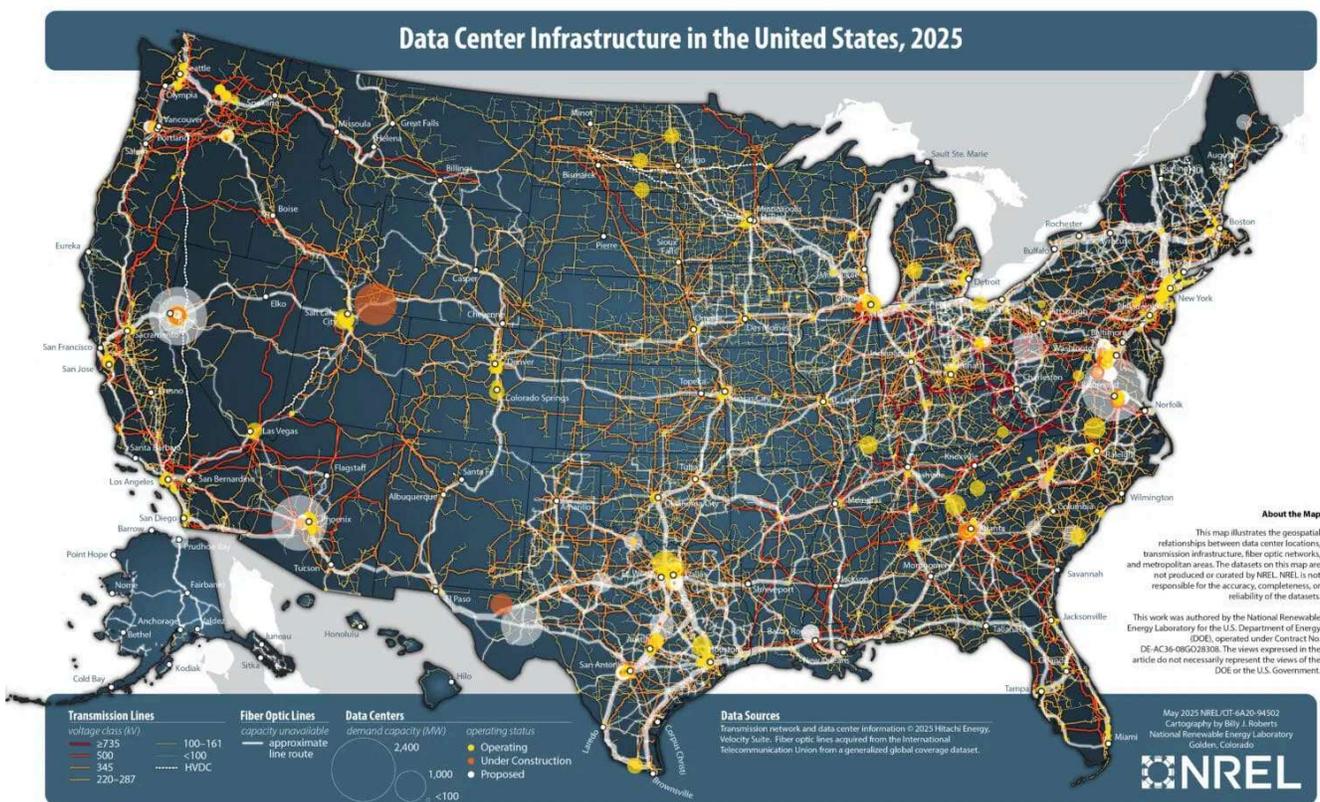
Keeping the Lights On

One way for data centers to use less water is to rely more heavily on air-cooling technology, but this requires more energy—which may in turn increase water use indirectly, depending on the power source. What’s more, regional grids are already



associate professor of engineering at University of Southern California.

The government wants US technology companies to build their AI data centers domestically—not just for economic reasons, but for national security purposes as well. But even as the Trump administration appears to understand the enormous energy demands data centers will place on the electric grid, it has actively squashed new wind power projects, such as **Revolution Wind** off the coast of Rhode Island.



NREL (the National Renewable Energy Laboratory) created this overlay map of transmission lines and data center locations to “help visualize the overlap and simplify co-system planning.” Credit: NREL.gov.

Other carbon-free alternatives like small modular reactors (SMRs) and geothermal energy have bipartisan support, Sanders says. “But the problem is, even if you put shovels in the ground for an SMR today, it’s going to take 10 years,” she says. “The things that we can do the fastest are wind, solar, and batteries. But in the last six



the grid soon, in some of these regions that are really congested.”

Data centers are among the reasons ratepayers nationwide have seen their electric bills increase at **twice the rate of inflation** in the past year. Part of that is the new infrastructure data centers will require, such as new power plants, transmission lines, or other investments. Those costs, as well as ongoing grid maintenance and upgrades, are typically shared by all electric customers in a service area, through charges added to utility bills.

This creates at least two issues: While the tax revenues of a new data center will benefit only the host community, the entire electric service area must pay for the associated infrastructure. Secondly, if a utility makes that huge investment, but the data center eventually closes or needs much less electricity than projected, it's the ratepayers who will foot the bill, not the data center.

Some tech companies are securing their own clean power independent of the grid—Microsoft, for example, signed a 20-year agreement to **purchase energy** directly from the Three Mile Island nuclear plant. But that approach isn't ideal either, Sanders says. “These data centers are still going to use transmission lines and all those grid assets, but if they're not buying the electricity from the utility, they're not paying for all that infrastructure through their rate bills,” she says.

Aside from generating new power, Sanders says, there are strategies to squeeze more capacity from the existing grid. “One is good old energy efficiency, and the data centers themselves have all of the incentives aligned to try to make their processes more efficient,” she says. AI itself could potentially also **help enhance** grid performance. “We can use artificial intelligence to give us more information about how power is flowing through the grid, and so we can optimize that power flow, which can give us more capacity than we would have otherwise,” Sanders says.

Another strategy is to make the grid more flexible. Most of the time, and in most regions of the US, we only use about 40 percent of the grid's total capacity, Sanders



flexibility and stabilize the grid during times of peak demand. In July, California's Pacific Gas and Electric Company (PG&E) conducted **the largest-ever test** of its statewide "virtual power plant," using residential batteries to supply 535 megawatts of power to the grid for two full hours at sundown.

With some intentional, coordinated planning—"it's not just going to happen naturally," Sanders says—it may be possible to add more capacity without requiring a lot of new generation if data centers can reduce their workloads during peak times and invest in large-scale battery backups: "There is a world in which these data centers can actually be good grid actors, where they can add more flexibility to the grid."

Confronting Trade-Offs With Land Policy

As the demand for data centers grows, finding suitable locations for these facilities will force communities to confront myriad and imperfect trade-offs between water, energy, land, money, health, and climate. "Integrated land use planning, with sustainable land, water, and energy practices, is the only way we can sustainably achieve the virtuous circle needed to reap the benefits of AI and the economic growth associated with it," Colohan says.

For example, using natural gas to meet the anticipated electricity load of Texas data centers would require 50 times more water than using solar generation, according to the HARC **study**, and 1,000 times more water than wind. But while powering new data centers with wind farms would consume the least water, it would also require the most land—four times as much land as solar, and 42 times as much as natural gas.

Absent an avalanche of new, clean power, most data centers are adding copious amounts of greenhouse gases to our collective emissions, at a time when science demands we cut them sharply to limit the worst impacts of climate change. Louisiana regulators in August approved plans to **build three new gas power plants** to offset the expected electricity demand from Meta's Hyperion AI data center.

L

more regionally, including to areas that won't see any new tax revenue.

That's one reason data center permitting needs more state oversight, Bolthouse says. "The only approval that they really have to get is from the locality, and the locality is not looking at the regional impacts," she says. PEC is also pushing for ratepayer protections and sustainability commitments. "We want to make sure we're encouraging the most efficient and sustainable practices within the industry, and that we're requiring mitigation when impacts can't be avoided."



Too close for comfort? A data center abuts homes in Loudoun County, Virginia. Credit: Hugh Kenny via Piedmont Environmental Council.

PEC and others are also pressing for greater transparency from the industry. "Very often, data centers are coming in with non-disclosure agreements," Bolthouse says. They're hiding a lot of information about water usage, energy usage, air quality

L

“We need communities to be educated about what they’re facing, and what their trade-offs are when they let in a data center,” Colohan says. “What is the cost—the true cost—of a data center? And then how do you turn that true cost into a benefit through integrated land policy?”

Rueben says she understands the desire, especially in communities experiencing population loss, to tap into a growing industry. But rather than competing with each other to attract data centers, she says, communities ought to be having broader conversations about job growth and economic development strategies, factoring in the true costs and trade-offs these facilities present, and asking the companies to provide more guarantees and detailed plans.

“Forcing data center operators to explain how they’re going to run the facility more efficiently, and where they’re going to get their water from—and not just assuming that they have first access to the water and energy systems,” she says, “is a shift in perspective that we kind of need government officials to make.”

Jon Gorey is a staff writer at the Lincoln Institute of Land Policy.

Lead image: Data center facilities in Prince William County, Virginia. The county has 59 data centers in operation or under construction. *Credit:* Hugh Kenny via Piedmont Environmental Council.

Get the latest land policy updates

Subscribe



LINCOLN INSTITUTE
OF LAND POLICY



Lincoln Institute of Land Policy © 2025
113 Brattle St, Cambridge, MA 02138-3400 USA

[Help](#) [Privacy](#) [Terms of Service](#)



EXHIBIT 11

Posted on: December 12, 2025

City of El Centro Addresses Community Questions Regarding Proposed Data Center

EL CENTRO, Calif. — Dec. 12, 2025 — The City of El Centro is aware of information circulating regarding a privately proposed data center north of the City and claims related to the use of reclaimed wastewater.



The City of El Centro wishes to clarify that no agreement of any kind has been entered into with any data center developer. The City has not received or approved an application, has not authorized the use of reclaimed or wastewater, and has not committed to constructing infrastructure to support such a project.

While the City proudly welcomes new businesses and economic opportunities that benefit our community, residents, and environment, no commitments or decisions have been made regarding any proposed data center. Any entity expressing interest in locating within El Centro or acquiring services from the City must undergo a formal, transparent, and thorough review process, which includes evaluating potential impacts on City services, infrastructure, natural resources, and overall community well-being.

Tools

[RSS](#)

Categories

- [All Categories](#)
- [City News](#)

Select Language ▼

Google Translate

Separately, questions have been raised regarding potable water service. The City did receive a request for a conditional will-serve letter from the data center developer, which is a standard, informational tool commonly requested by developers and financial institutions to assess whether water service could potentially be available. A will-serve letter does not constitute a commitment to provide water or approval of a project, and in this case, was issued with clear conditions and additional safeguards stating that no commitments exist and that any future consideration would require formal studies, applications, environmental review, and public approval.

The City of El Centro remains committed to responsible, sustainable economic development that aligns with community values and long-term goals. Should a formal proposal be submitted, the City will ensure that residents are notified and fully informed as part of the public review and decision-making process.

We welcome interest from prospective businesses, but it is important to underscore that the City has not entered into any agreement or made any commitments related to a data center project.

For ongoing updates, residents are encouraged to follow official City communications, including our free Mass Notification System available at our website, www.cityofelcentro.org.

[Press Release \(English\)](#)

[Press release \(Spanish\)](#)

###

← [Previous](#)

[El Centro Library Director
Carla Mason Appointed to
Cal Cities Policy Committee](#)

[Next](#) ⇒

[Mayor Carter appointed to Cal
Cities Public Safety Policy
Committee](#)

Other News in City News

[El Centro Library Director Carla Mason Appointed to Cal Cities Policy Committee](#)

Posted on: December 15, 2025



[Mayor Carter appointed to Cal Cities Public Safety Policy Committee](#)

Posted on: December 11, 2025



EXHIBIT 12



Deficit Irrigation Program (DIP)

Background

The Colorado River Basin has experienced the driest 24-year period in its historical record. Prolonged drought and low runoff conditions accelerated by climate change have led to historically low water levels in both Lake Powell and Lake Mead. In 2022, after determining the Colorado River would operate under Tier 2 drought conditions in 2023, the U.S. Department of the Interior committed to address the near-term drought crisis, historically low reservoir elevations and low runoff conditions by announcing its intent to modify the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead. Congress indicated its support for voluntary compensated water management and conservation actions by appropriating \$4 billion in funding specifically for the Colorado River Basin and other areas experiencing similar levels of drought, under the Inflation Reduction Act of 2022. In September 2022, Reclamation announced the creation of the Lower Colorado River Basin System Conservation and Efficiency Program (LC Conservation Program) to allocate some of this funding to Colorado River contractors to fund voluntary temporary conservation efforts. In November 2022, IID submitted a four-year LC Conservation Program 1.b proposal to Reclamation to expand the district's conservation efforts for four years, from 2023 through 2026, to create up to 1 million acre-feet of conservation, consistent with the Lower Basin proposal. IID and Reclamation agreed to separate IID's proposal into two parts, developing one System Conservation Implementation Agreement for calendar year 2023 and one SCIA for calendar years 2024 through 2026. The 2023 SCIA was executed on December 6, 2023, and resulted in the creation of 106,111 acre-feet of System Conservation Water from IID's On-Farm Efficiency Conservation Program, funded by the LC Conservation Program. On August 12, 2024 IID executed the 2024 – 2026 SCIA to fund the creation of up to 300,000 acre-feet per year of System Conservation Water to be left in Lake Mead, with a cumulative total of up to 700,000 acre-feet of conservation during those three years.

In 2024, IID implemented a truncated Deficit Irrigation Program from August 13 – September 30, 2024. This shortened program involved 154,145 acres of Alfalfa, Bermuda grass and Klein grass that were not irrigated for a 49 to 60-day period, yielding 172,266 AF of conservation at-River with conservation payments of nearly \$50 million to participants. A summary of the 2024 DIP is posted below.

2025 Deficit Irrigation Program

The Deficit Irrigation Program (DIP) incentivizes deficit irrigation practices to be performed on a voluntary basis by farmers on land that is cultivating either Alfalfa, Bermuda grass, or Klein grass in order to reduce IID’s consumptive use of Colorado River water and create System Conservation Water. Eligible fields must be at least 20 acres and have been cultivating Alfalfa, Bermuda grass or Klein grass prior to January 1, 2024. Participants will be allowed to select a 45-day or 60-day deficit irrigation term between the beginning of June and the end of September. During the 45 to 60-day deficit irrigation period, IID will physically lock the delivery gate and institute electronic locks to prevent water from being ordered for participating fields. Conservation yields will be based off the average historical water use recorded for Alfalfa, Bermuda grass, and Klein grass in the Imperial Valley during similar time periods, and IID will remove the final conservation volume from the participant’s annual farm unit water apportionment account. Landowner signatures will be required on DIP. The DIP conservation payment rate for 2025 is \$300/AF, and additional DIP details are included in the updated project description below.

2025 DEFICIT IRRIGATION PROGRAM SCHEDULE*	
DIP Participation Solicitation Period Opens	February 19, 2025
DIP Participation Solicitation Period Ends	March 15, 2025 at 5:00 p.m.
Initiation of USFWS/CDFW coordination efforts	March 17, 2025
DIP Contracting Begins* (estimate)	May 2025
Implementation Period	June 1, 2025 - September 30, 2025

*Contingent upon federal funding.

2025 Deficit Irrigation Program Conservation Rates

60-DAY DEFICIT IRRIGATION PERIOD CONSERVATION RATES			
START DATE	ALFALFA (AF/AC)	BERMUDA GRASS (AF/AC)	KLEIN GRASS (AF/AC)
6/1/2025 - 6/7/2025	1.67	1.45	1.79
6/8/2025 - 6/14/2025	1.65	1.42	1.78
6/15/2025 - 6/21/2025	1.62	1.40	1.78
6/22/2025 - 6/28/2025	1.60	1.38	1.77
6/29/2025 - 7/5/2025	1.57	1.36	1.77
7/6/2025 - 7/12/2025	1.50	1.39	1.74
7/13/2025 - 7/19/2025	1.43	1.43	1.71
7/20/2025 - 7/26/2025	1.36	1.46	1.68

60-DAY DEFICIT IRRIGATION PERIOD CONSERVATION RATES			
START DATE	ALFALFA (AF/AC)	BERMUDA GRASS (AF/AC)	KLEIN GRASS (AF/AC)
7/27/2025 - 8/2/2025	1.28	1.49	1.66
45-DAY DEFICIT IRRIGATION PERIOD CONSERVATION RATES			
START DATE	ALFALFA (AF/AC)	BERMUDA GRASS (AF/AC)	KLEIN GRASS (AF/AC)
6/1/2025 - 6/7/2025	1.35	0.90	1.40
6/8/2025 - 6/14/2025	1.33	0.88	1.39
6/15/2025 - 6/21/2025	1.29	0.92	1.40
6/22/2025 - 6/28/2025	1.24	1.00	1.42
6/29/2025 - 7/5/2025	1.17	1.08	1.41
7/6/2025 - 7/12/2025	1.10	1.14	1.41
7/13/2025 - 7/19/2025	1.04	1.18	1.39
7/20/2025 - 7/26/2025	0.98	1.20	1.37
7/27/2025 - 8/2/2025	0.93	1.18	1.37
8/3/2025 - 8/9/2025	0.93	1.10	1.35
8/10/2025 - 8/17/2025	0.91	1.09	1.30

The generic 2025 DIP application package is posted below. More detailed Farm Unit application packages are available upon request and include a list of all fields within a farm unit that meet the eligibility requirements for the 2025 DIP. Please email deficitirrigation@iid.com to request a Farm Unit Application package and include the Farm Unit name that you are requesting as it appears on the water card.

There is currently some level of uncertainty as to the status of all federal funding as a result of the transition to a new administration. Contracting for the 2025 DIP is contingent upon a continuation of federal funding. IID is working to advocate for this contracted funding and to obtain additional federal assurances for the balance of outstanding (2024) and anticipated (2025-2026) system conservation payments under its 2024-2026 SCIA.

Additional questions regarding the DIP should be directed to (760) 339-9256 or by email to deficitirrigation@iid.com, your patience is appreciated as we respond to inquiries in the order they are received.

For information regarding the current DIP solicitation and a program description, forms, and sample contracts, please click on the links below.

DOWNLOAD / VIEW
Final May 2025 DIP Program Description [PDF]
Final May 2025 DIP Contract Template [PDF]
2025 DIP Lottery Excluded Fields 5-22-2025 [PDF]
2025 DIP Application [PDF]
2025 DIP Application [XLS]
DIP PARTICIPATION SUMMARY
2025 Deficit Irrigation Program Payments [PDF]
2025 DIP Report [PDF]
2024 Deficit Irrigation Program Payments [PDF]
2024 DIP Report [PDF]