

A light teal silhouette of the state of California is positioned in the background, partially behind the title text.

California

Data Center Analysis

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Prepared in Q4 2024

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California Data Center

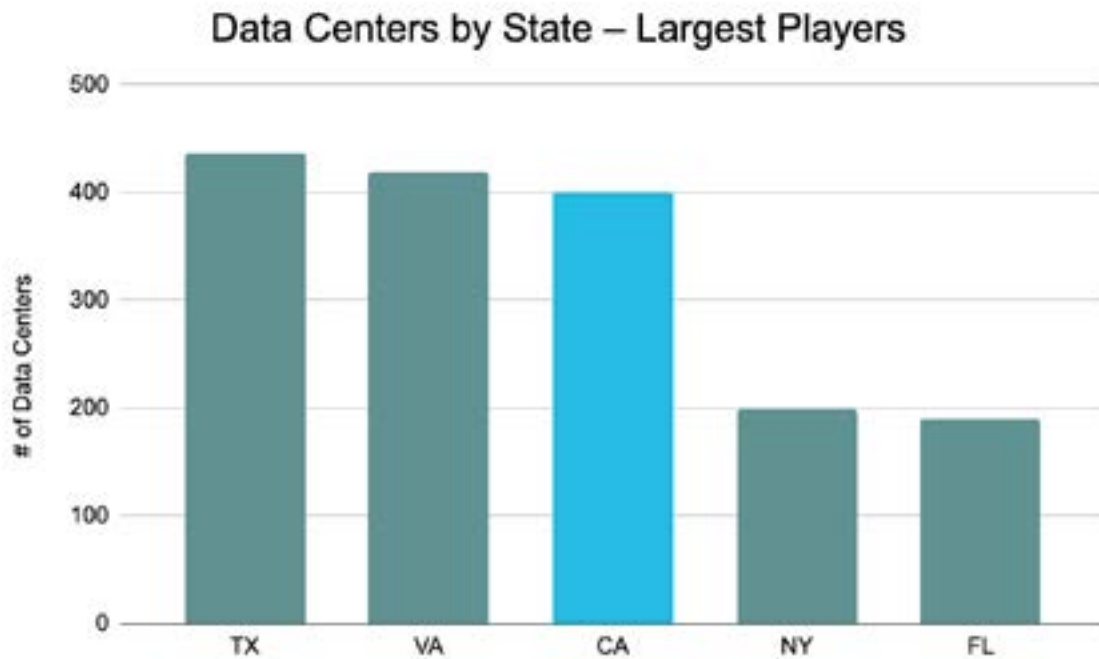
ANALYSIS

Today's data center market in the United States is growing exponentially. With the rapidly evolving digital economy, the need for data centers continues to expand. Data centers stay an essential part in maintaining internet growth and online service demand. LandGate's data shows that the data center market is a vital pillar in the digital revolution and is expected to more than double its power capacity by the end of the decade. With a growth rate of over 52%, the US data center market has invited monumental traffic to the state of California.

California, known as the third largest data center market in the United States, plays a major role in its overall contribution to the country's data economy. Aided by its strategic location, rapid technological growth, and large economy, California has been one of the fastest states as far as data center development, cloud computing, and artificial intelligence is concerned. LandGate shows that

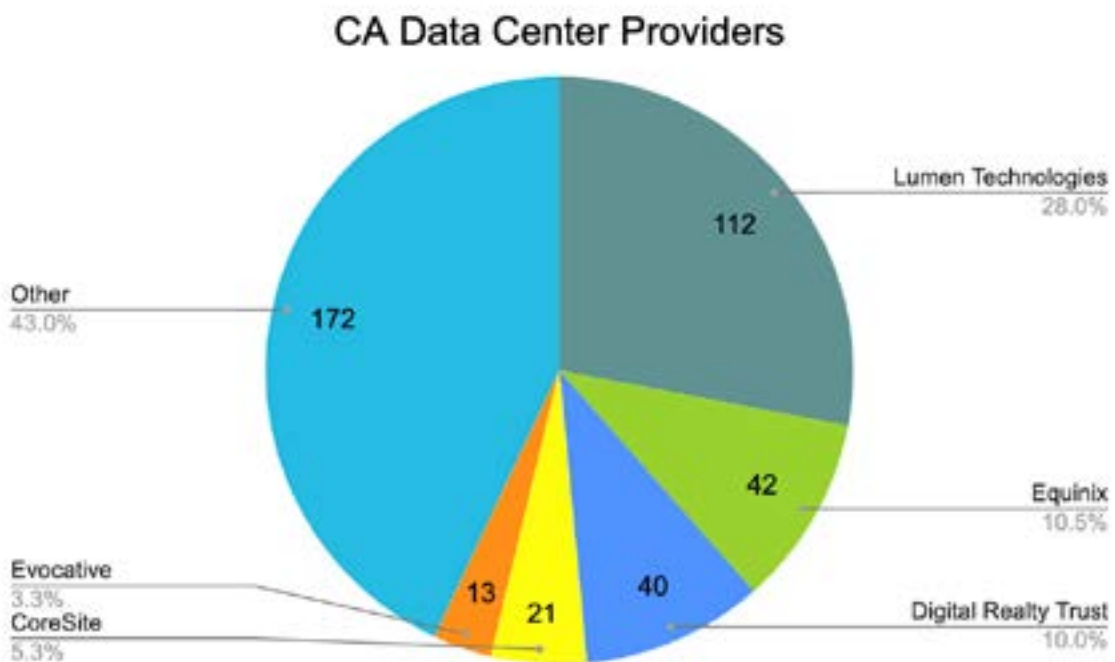
California is home to just over 400 data centers, with over 80 data providers across the state. Ranging from colocation to hyperscale, enterprise, and cloud projects, California's data center development is expected to grow with a return of over 7% every year.

LandGate's extensive profiling capabilities analyze development, economic impact, technological advancements, and off-take capacity across the region and highlights the critical functions of each in supporting growing energy demands. LandGate is the only platform providing a comprehensive state profile on the US data center market including data centers, fiber optic line coverage and off-take capacity. With over 95% of data centers in their exact locations, with the most accurate and up to date data for white space, gross max power, parcel acreage, and power usage effectiveness, LandGate provides the most accurate data across data center resources.

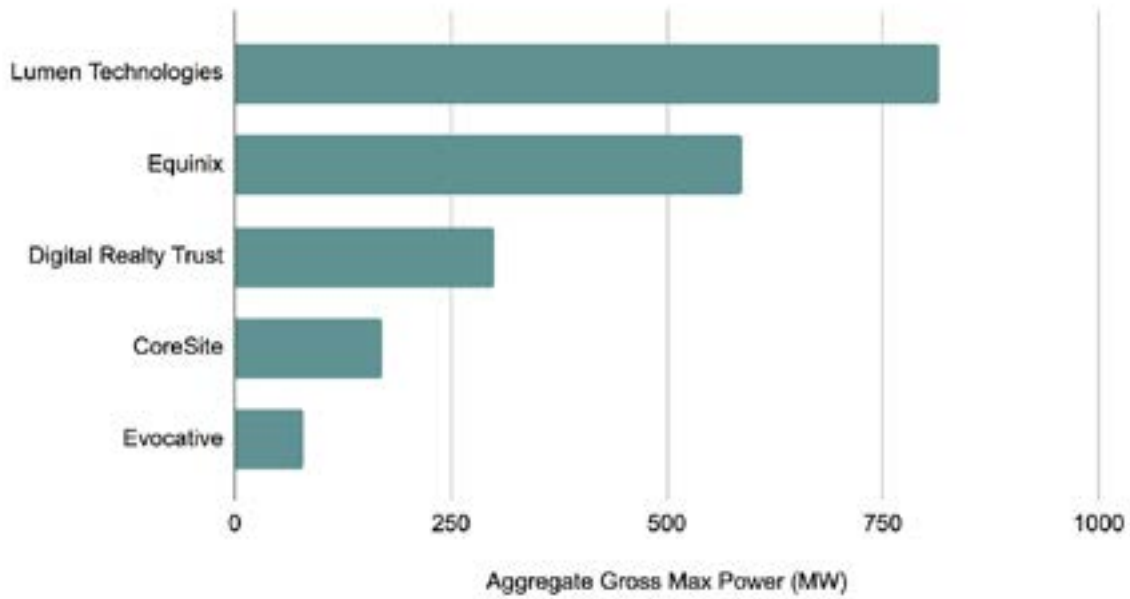


How Many Data Centers Are In California?

According to LandGate’s data, California has over 400 data centers and major players in the market include Lumen Technologies, Equinix, Digital Realty Trust, and CoreSite. The state is also home to an increasing number of hyperscale projects. Major hyperscalers such as Amazon Web Services and Microsoft have large projects in the state, and many have announced plans to expand existing data centers in the area. Major data center providers have over 300 MW of aggregate gross max power across the state.

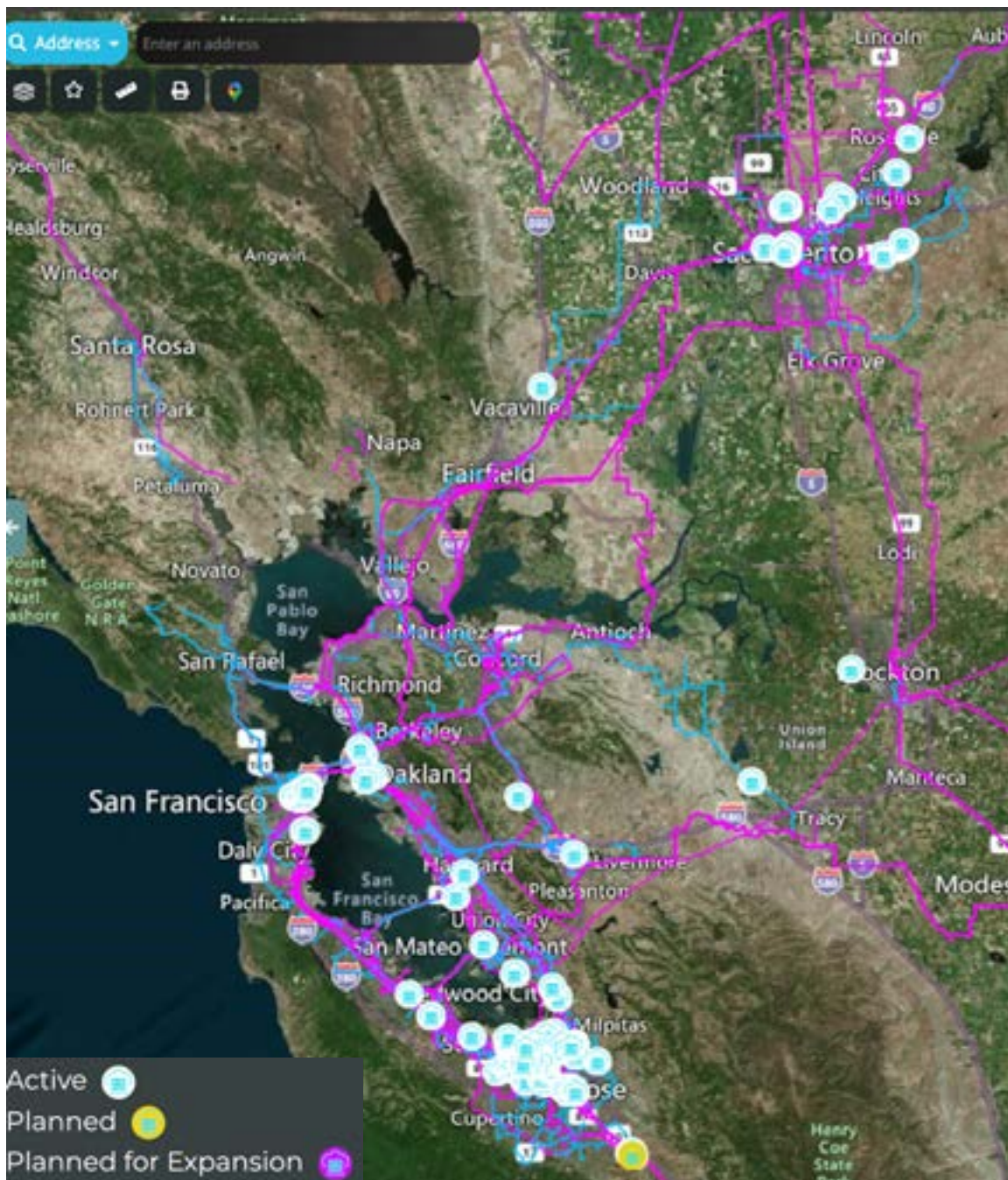


CA Data Center Providers – Gross Max Power



California has seen a steady increase in data center projects over the last few years, with demand surpassing 2 GW of power within the next five years. California offers various incentives to create large scale data center projects as well as many leading initiatives for environmental sustainability and job creation. For example, 80 MW of power are to be added on top of an already existing 20 MW demand of power across Amazon Web Services and Bloom data centers in San Francisco’s Silicon Valley. Silicon Valley already hosts 160 data centers and is exceeding 625 MW of power. LandGate’s estimates show that the area is expected to welcome over 1GW of power over the next two years. Other notable projects include a 20 MW addition of power into Santa Clara and San Diego by the end of next year, with both markets to have an estimated double in size by the end of 2026.

As of now, LandGate is the leading provider of planned and expanding data centers with over 8 planned projects and 8 planned for expansion data centers across the state.



Data Center Hubs in California

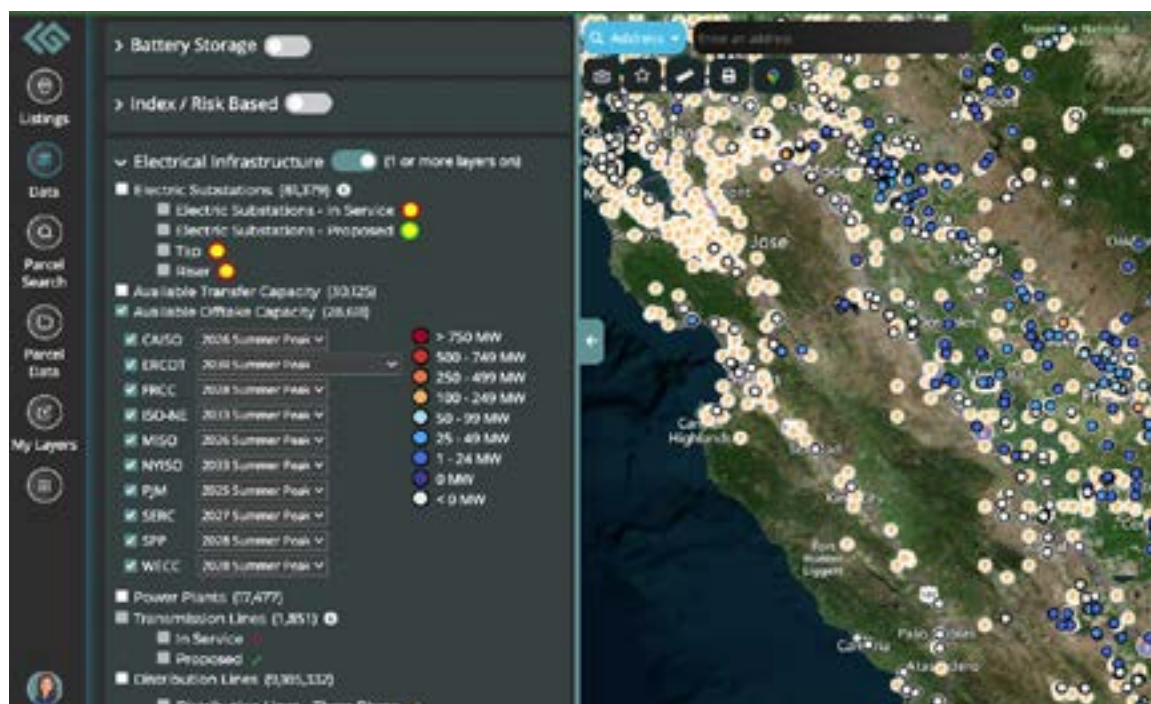
According to LandGate's data center analysis, planned and planned expansion data center hotspots are in Los Angeles and San Jose. LandGate stands out as a resource by providing its users with the most up-to-date, exclusive data for planned and expanding data centers. Find planned data centers on LandGate's platform.

Location Quality + Offtake Capacity

OVERVIEW

There are a multitude of factors that developers consider while setting up a data center. LandGate provides essential data such as redundancy sources, water sources, fiber optic lines, and electrical infrastructure data. LandGate generates property reports and market analyses to identify the locations that are prime for data centers and attract the most business. Additionally, LandGate is the only resource that provides offtake capacity overview, allowing its understanding of the data center market to stand out from other resources.

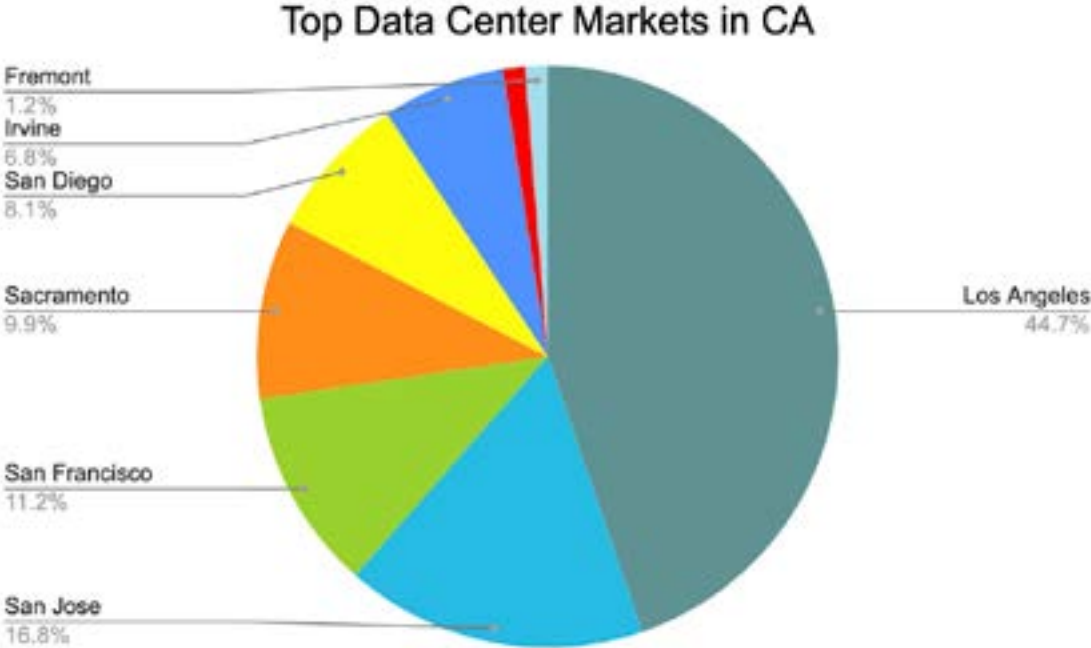
Offtake Capacity refers to the authorized amount of power that can be drawn from an electrical grid for use in data centers or other large industrial projects. This capacity is essential to the efficient operation of data centers and to ensure that company needs are being met. In California, offtake capacity is substantial, with much of California's urban areas designed to support rapid expansion of data center energy demands. Over this year, California has welcomed multiple contracts of over 2 GW of power across offtake projects.



Offtake Capacity in California



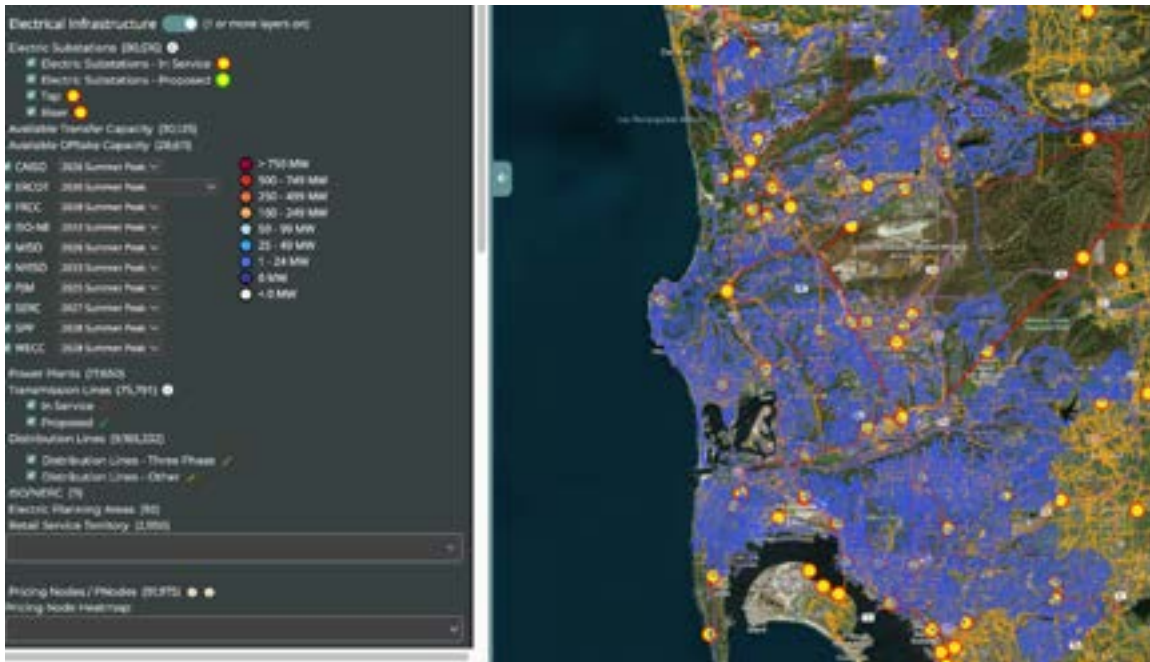
California power is managed by The California ISO that ensures the wholesale energy market is running efficiently and maintaining lower costs with renewable energy development. With abundant provisions across major hubs for data centers being met, LandGate's data shows that Los Angeles, San Jose, San Francisco and Sacramento dominate the data center market, with smaller hubs spread across San Diego, Irvine, and Fremont.



Moreover, with California's reliable supply of energy, proximity to fiber optic networks, and other sources showcased in LandGate's database, the best locations for data centers are shown.



Additionally, LandGate is also able to provide data on how environmentally efficient existing data centers are operating with a Green Index Score. The platform provides all data centers in their exact locations, and has expanded its data set to projects that are also in the pipeline of approval, setting it apart as a data center resource.





How Do California Data Centers Stand Out?

California Data centers have access to long haul and regional fiber optic networks, favorable business environments, and the best access to artificial intelligence and advanced technologies. Data centers in the state have created multiple job opportunities across construction, information technology, corporate, and educational sectors, allowing considerable impacts to be made on local economies. Multiple initiatives to include environmental sustainability into data center design, as well as artificial intelligence and cloud computing ensures that the Californian market continues to flourish.

Data center projects create multiple job opportunities from when they start construction to when they become active and offer full-time employment positions. Large, hyperscale projects are known to make monumental impacts on the economy through creating hundreds of full-time positions as well as multiple additional positions through contract and support services. For example, Amazon Web Services' expansion in Santa Clara created over 100 jobs in the area across construction and maintenance positions. Meta's data center in Menlo Park has similarly created 1200+ jobs across construction and operational phases, as well as full time information technology and corporate positions. With each data center creating hundreds of jobs for local contractors, suppliers, on-site and maintenance workers, they also generate full-time job opportunities across colocation facilities and hyperscale projects.

California has also welcomed the world's first ever floating data center in Stockton. On the deck of a flatboat, the data center uses water cooling technology from its surroundings, allowing high density computing in minimal space. Projects such as these place the state in the forefront of development, innovation, and environmental sustainability.

Project	Status	Description
<p>Nautilus Stockton</p> 	<p>Active</p>	<ul style="list-style-type: none"> • World's first 'waterborne' data center • 7 MW of power across 13 meter square of white space • 1.5 Power Usage Effectiveness
<p>Equinix Campus Silicon Valley</p> 	<p>Active</p>	<ul style="list-style-type: none"> • \$142 million investment • Potential to expand more than 2000 servers • Over 500+ jobs across construction and maintenance

Technological Trends & Economic GROWTH PROSPECTS

Along with the financial gain from either leasing or selling their property for data centers, California is home to multiple benefits for data center development across the state. California is moving towards advanced technological methodologies and is far ahead of other data center markets in incorporating artificial intelligence, machine learning, and edge computing methods within their work spaces to improve overall efficiency and performance. Latency reduction efforts, like reducing data file size for smoother data transmission, have increased with the advancement of technology within data centers, allowing California to remain at the forefront of technological innovation.

The California Competes Tax Credit enables companies to invest in expansion plans through investments in data centers. Additionally, California areas such as San Bernardino offer specific property tax reductions to attract data center development. The potential for energy efficiency increases with renewable energy incentives such as the Self-Generation Incentive Program and specific enterprise zone incentives

Moreover, data center projects in California are incorporating environmental sustainability methods to increase energy and productive efficiency, making them low-traffic sites with reduced infrastructural strain, which preserves the nature of rural land. Many companies have included initiatives such as advanced cooling techniques such as liquid cooling of HVAC. Some data center companies have gone as far as to reduce 40% of energy consumption in peak hot climates. Additionally, some companies, such as Google, had adopted 100% renewable energy as their main energy sources within data centers.

While California experiences an extreme weather profile with its hot climate, drought, wildfires and seismic activity, many data centers have taken on natural disaster and risk mitigation, creating location facilities that are built to withstand damage and have energy efficient ventilation systems, allowing data center development to exponentially increase in the state.



There is no doubt that the area is a promising location for new, expanding, and existing projects. For more information on data center trends, availability, and specifics on off-take capacities, schedule a demo with LandGate's data center team.



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