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INLAND EMPIRE OUTLOOK

A PUBLIC POLICY JOURNAL
FALL 2025

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We begin this issue of the *Inland Empire Outlook* with an analysis of the changes expected to California's congressional delegation under Proposition 50. Prop 50, placed on the November 2025 ballot by the California legislature, will jettison the state's current congressional map, drawn by the California Citizens Redistricting Commission after the 2020 census. It enacts a new map drawn by the California legislature, designed to reduce the number of Republicans in the delegation from nine (of 52) to four.

Our second article examines the rise and fall of the Ivanpah Solar Electric Generating system in Ivanpah, California. Opened with much fanfare in 2014, Ivanpah was meant to be an engineering marvel and a political assertion of California's climate policy goals. From the start, however, it never produced as much energy as hoped -- output fell far short of forecasts. The project also faced ecological challenges and, ultimately, was not economically sustainable.

Does the municipal bond market rating of a school district reflect the district's quality? If investors are pricing school bonds efficiently, we may expect some correlation between credit ratings, bond yields, and the underlying academic performance of school districts. Our third article presents a study of this issue, based on an analysis of a dataset of school district bond issues from Standard and Poor's.

We hope you find this edition of *Inland Empire Outlook* a useful guide. For information on more Rose Institute research, please visit our website, RoseInstitute.CMC.edu.



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Prop 50 Wipes Out Citizen-Drawn Congressional Maps

by Quinten Carney '26

On Nov 4, 2025, Californians voted on Prop 50, also known as the Election Rigging Response Act, allowing the state to overturn congressional maps created by the California Citizens Redistricting Commission (CCRC) and instead use legislative-drawn maps in response to Texas's mid-decade redistricting effort. Overall, Prop 50 ended up passing statewide 63.7% to 36.3% as of 4:50 PM PT, Nov 6, 2025. The strongest support came from counties that supported Kamala Harris in 2024, signaling that polarization played a defining role, as partisan attitudes triumphed.

In passing Prop 50, the voters returned to legislators something they have always coveted: redistricting control. California was hailed as a national leader in government reform when voters chose to give the responsibility for redistricting to an independent citizen commission close to 20 years ago. Legislators in both Sacramento and Congress, however, fought against this change at every turn. Civic groups such as California Common Cause and the League of Women Voters of California pushed for decades before Proposition 11 passed in November 2008. Prop 11 gave the California Citizens Redistricting Commission (CCRC), as opposed to the Legislature, the power to draw state legislative districts and Board of Equalization districts. In 2010, voters passed Proposition 20, extending the power of the CCRC to draw districts for the U.S. House of Representatives.

In June 2025, the Trump Administration began urging Texas Republican leadership to pursue a mid-decade redistricting plan to convert several congressional seats in the state from Democrat to Republican through partisan gerrymandering. In August, after a Democratic boycott, the Texas Legislature passed House Bill 4, the redistricting measure, by party-line votes. These redistricting efforts are expected to gain Republicans five seats in Texas, expanding the GOP's margin in the state's congressional delegation from 25-13 to 30-8 in next year's midterm election. California's Democratic leaders responded by proposing a counter-gerrymander designed to flip five of the state's congressional districts into the Democratic column.⁷ If the map works as expected, five incumbent Republicans would lose their seats in 2026, expanding the Democrats' advantage in the state's congressional delegation from 43-9 to 48-4

Prop 50 targeted five Republican districts: Doug LaMalfa in CA-01, Kevin Kiley in CA-03, David Valadao in CA-22, Ken Calvert in CA-41, and Darrell Issa in CA-48. At the same time, the map also attempts to reinforce vulnerable Democratic seats across the state.

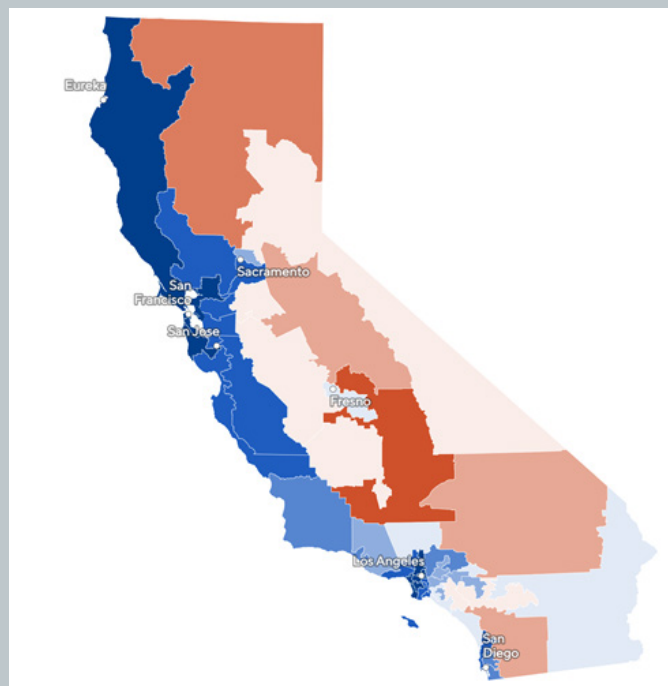
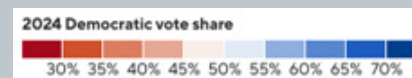
In Southern California, Darrell Issa's district covering eastern San Diego and southeastern Riverside County, goes from a Trump +15 margin to a Harris +3 margin. The 48th District loses the Trump +13 and +5 cities of Santee and Poway, by splitting them into the neighboring 50th and 51st districts. At the same time, the 48th gains the Harris +14 and +61 cities of San Marcos and Palm Springs, narrowly shifting the entire District into the Democratic column. The new map forces Darrell Issa and Ken Calvert into the same District.

The current 41st District, held by Ken Calvert, undergoes the most dramatic transformation of any district in the state. It is eliminated in its current form and reconstituted in southwestern Los Angeles and Northern Orange counties around the Gateway cities of Downey, Whittier, and La Habra. The new CA-41 would have been Clinton +28 in 2016, Biden +26 in 2020, and Harris +14 in 2024 if it had existed over the past decade.

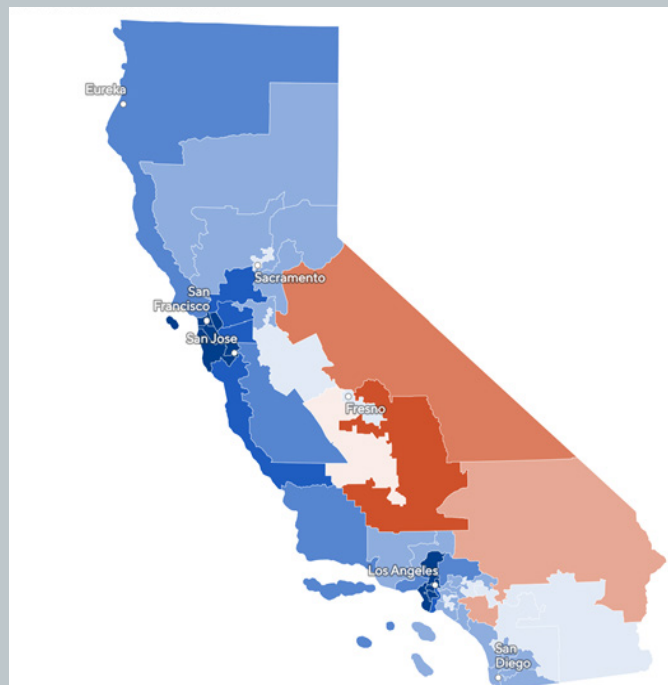
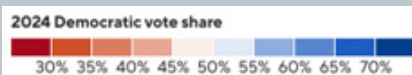
The old CA-41 is split among the 48th (narrow Dem-leaning), 25th (narrow Dem-leaning), 40th (heavily Rep-leaning), 35th (Dem-leaning), and 39th (Dem-leaning). The effect of dismantling the old 41st district is that the surrounding Democratic districts become more Republican, potentially jeopardizing the incumbents if the rightward Hispanic drift continues and there is a Republican wave election.

Incumbent Young Kim in CA-40 is one of the few Republicans to benefit from Prop 50, as her district goes from Trump +2 to Trump +12 in margin. The legislative-drawn map accomplishes this feat by dropping cities such as Tustin (Harris +15) in favor of cities such as Lake Elsinore (Trump +8) and Menifee (Trump +13) from the old CA-41. As a result, CA-40 becomes one of only two Republican seats in Southern California. The other is CA-23, almost entirely located in rural San Bernardino County and the Mojave Desert. The day after Proposition 50's passage, Ken Calvert announced he would run against Young Kim in the 40th congressional district.

Current Congressional Map



Prop 50 Projected Map



Source: Caroline Linton and Kabir Khanna, "Maps Show How Texas and California's Redistricting Could Affect the 2026 Midterm Elections," CBS News, August 2025. <https://www.cbsnews.com/news/texas-californias-redistricting-maps/>.

In order to draw more Democratic-leaning seats, legislative map drawers made existing Democratic districts such as CA-35 slightly less Democratic. Norma Torres's CA-35 goes from Harris +10 to Harris +8 under the new map; however, if the district had existed in 2020, it would have been Biden +23, signaling that a continued Hispanic trend towards the Republicans could make the district more competitive.

To counter the rightward Hispanic voting trend, the legislative-drawn map added in Claremont (Harris +36) and nearby heavily Democratic precincts from North Pomona to CA-35. Claremont only shifted +3 points to the right in 2024, relative to the national margin of 7. Thus, Claremont is likely included in the new CA-35 to stop a total wipeout for Democrats in a heavily Republican cycle.

Proposition 50 made dramatic changes to California's congressional maps, particularly in Southern California and the Inland Empire. The result is new districts drawn to maximize partisan advantage, which make substantial changes from the 2020 cycle CCRC drawn map. In future election cycles, the new map could prove pivotal in providing Democrats with extra seats in order to gain a majority in the House of Representatives. ♦

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Lights Out for Ivanpah Solar

by Arushi Goyal '28

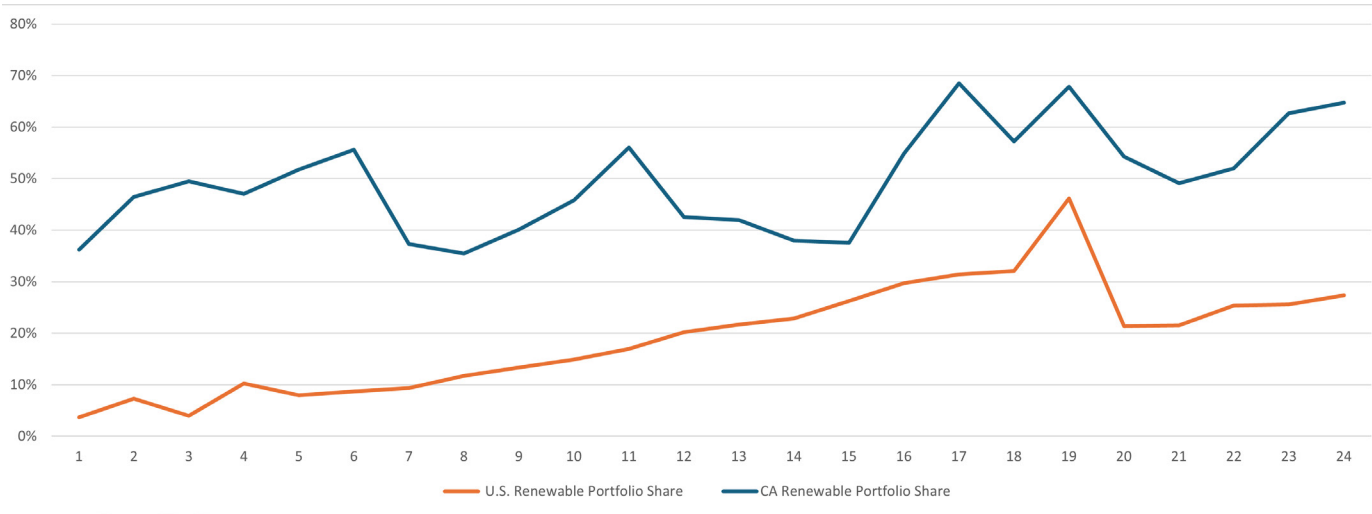
California entered the 21st century with the nation's most aggressive climate policy. As much of the United States debated whether climate change warranted new regulations, Sacramento was already building infrastructure for a green-energy economy. The state's 2000-01 electricity crisis increased public interest in energy security and diversification. The Global Warming Solutions Act of 2006 (AB 32) committed California to reduce greenhouse gas emissions to 1990 levels by 2020—a landmark move that made grassroots climate action a political reality. Around the same time, California's Renewable Portfolio Standard (RPS) set a mandate for utilities to source one-third of their electricity from renewables by 2020, a goal later expanded to 60 percent by 2030.

These policy innovations were part of a broader effort to demonstrate leadership in the absence of federal climate legislation. When the 2008 financial crisis hit, however, there was an unexpected alignment between federal stimulus spending and California's policy agenda. The American Recovery and Reinvestment Act (ARRA) injected billions into clean energy infrastructure, while the Department of Energy (DOE) offered up to \$1.6 billion in loan guarantees for renewable developers. This perfect storm of state-driven demand and federal financing created the conditions for "first-of-its-kind" projects.

From its inception, the Ivanpah Solar Electric Generating System was envisioned as a showcase—an engineering marvel and political statement for California's climate goals. It was developed by BrightSource Energy and built by Bechtel, with equity partners including NRG Energy and Google and debt financing from DOE loan guarantees. The \$2.2 billion project pioneered this new model of public-private collaboration. It also secured long-term power purchase agreements (PPAs) with Pacific Gas & Electric (PG&E) and Southern California Edison (SCE), ensuring stable revenue streams despite its experimental nature.

Despite this promising start, Ivanpah is scheduled to shut down next year. How did California's star project fail after a mere 12 years of operation?

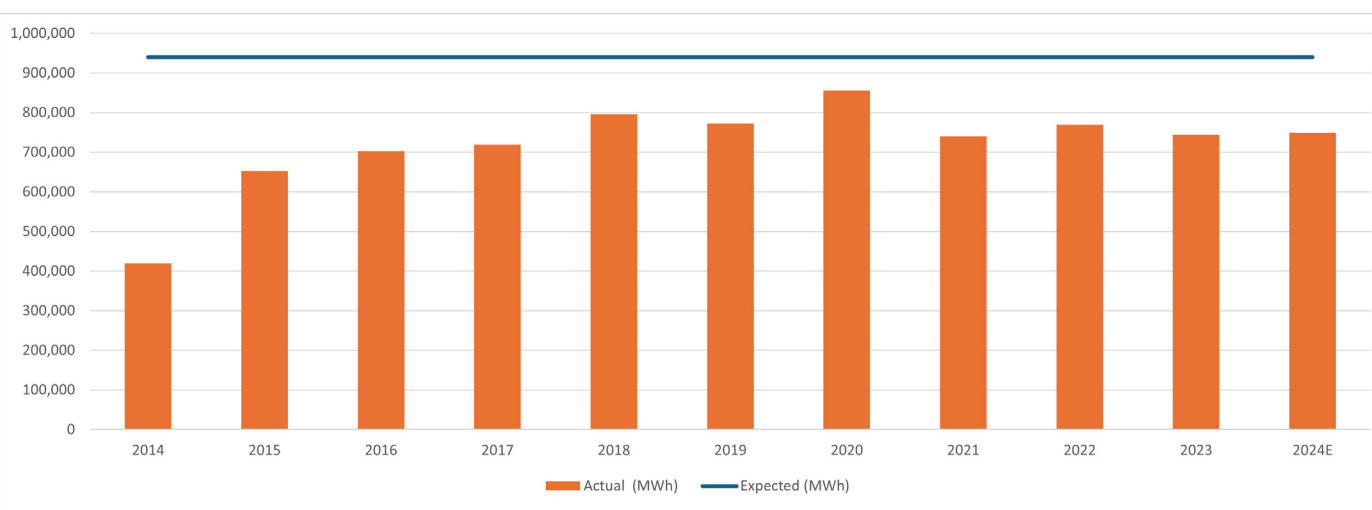
Renewable Portfolio Growth Since 2001, CA vs. U.S. Average



Sources: California Energy Commission, Ivanpah Solar Electric Generating System (07-AFC-5) (Sacramento, CA: California Energy Commission, 2010), accessed November 5, 2025, <https://www.energy.ca.gov/media/4001>; California Energy Commission, Ivanpah Solar Electric Generating System (07-AFC-5) (Sacramento, CA: California Energy Commission, 2010), <https://www.energy.ca.gov/media/4001>.

Ivanpah’s design reflected the “demonstration effect” mindset driving California’s clean energy policy. The largest solar plant in the world, it was intended as proof of concept for a new class of renewable infrastructure. Situated on 3,500 acres of Mojave Desert land near the Nevada border, the facility was designed to produce 392 megawatts (MW) of gross capacity, from over 173,500 heliostats, each reflecting sunlight onto three massive solar towers. When the sun shines onto a solar panel, energy from the sunlight is absorbed by the photovoltaics (PV) cells in the panel. This energy creates electrical charges that move in response to an internal electrical field in the cell, causing electricity to flow. Ivanpah had an expected capacity factor of 30% to 32%. The capacity factor is a measure of how much energy the solar plant is able to generate compared to its maximum rated capacity over a period of time. That is, it measures the plant’s real-world energy production versus its theoretical potential. Ivanpah’s expected capacity factor translated to an annual generation of roughly 1 billion kilowatt-hours. The towers, at 459 feet tall, would dwarf the Statue of Liberty. Ivanpah symbolized the scale of California’s ambitions and the audacity of its approach to renewable transition.

Ivanpah Generation: Expected vs. Actual



Source: U.S. Energy Information Administration (EIA), EIA Form 923: Power Plant Operations Report – Ivanpah Solar Electric Generating System (Plant ID 57945), <https://www.eia.gov/electricity/data/eia923/>.

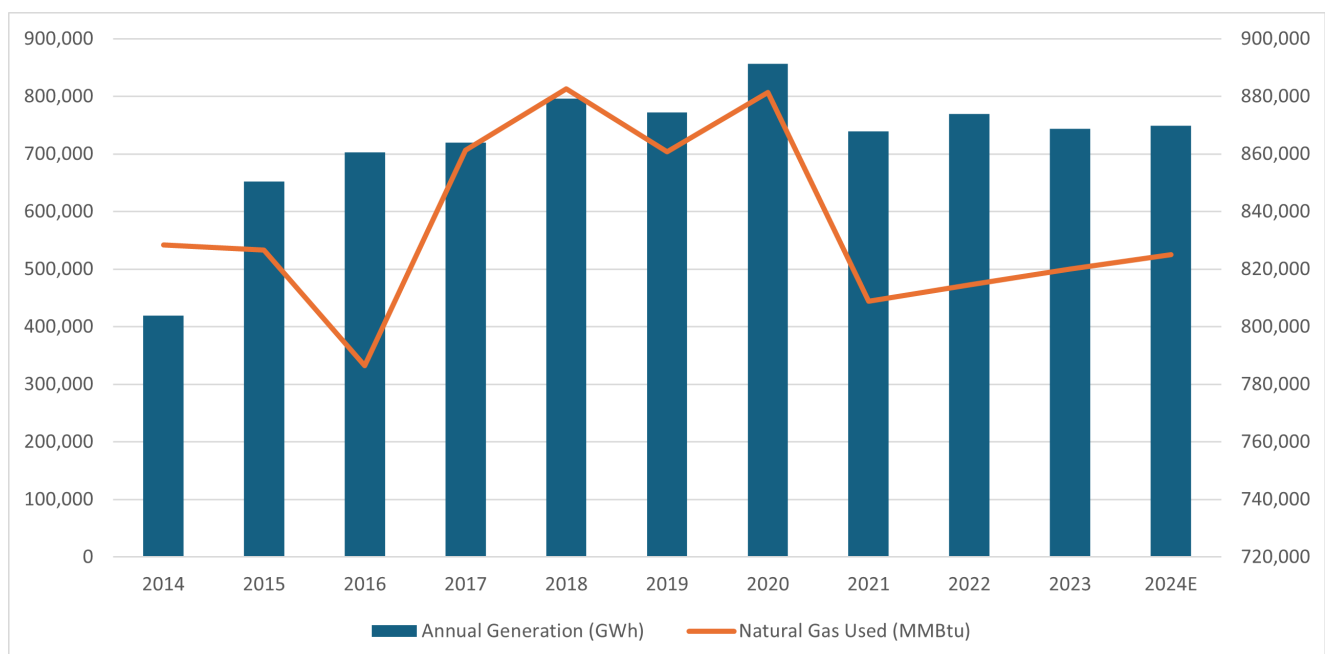


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In many ways, Ivanpah fit perfectly into California’s climate strategy of the 2010s: large-scale and highly visible. It was designed to prove that utility-scale renewables could replace fossil-fuel based plants. It also embodied the risks of that ambition: high capital intensity, novel technology, and reliance on interagency cooperation that was often more aspirational than operational.

Ivanpah began commercial operations in 2014 amid intense scrutiny and high expectations. Within its first year, output fell far short of forecasts. Data from the U.S. Energy Information Administration (EIA) showed that actual generation was less than half of initial projections during early operations. Technical complications, such as misaligned mirrors, heat losses, and maintenance demands, undermined the reliability of the system. Another unexpected problem was not enough sun. Weather predictions for the area underestimated the amount of cloud cover that would blanket Ivanpah since it went into service.

Ivanpah Rising Natural Gas Use

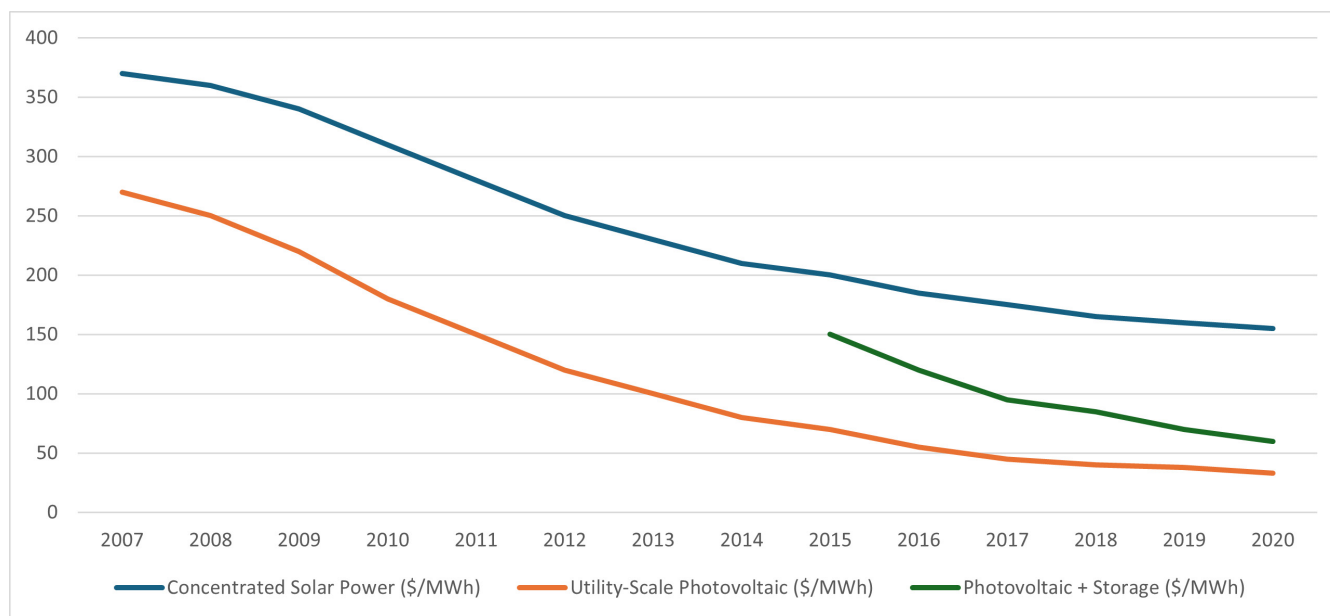


Source: U.S. Energy Information Administration (EIA), EIA Form 923: Power Plant Operations Report — Ivanpah Solar Electric Generating System (Plant ID 57945), <https://www.eia.gov/electricity/data/eia923/>.

A 2016 incident highlighted these vulnerabilities: a fire caused by misdirected mirrors scorched part of a tower, forcing temporary shutdown and extensive repairs. To maintain operational stability, Ivanpah’s developers increasingly relied on natural gas co-firing to preheat boilers in the early morning or during cloudy conditions. Although the gas input accounted for a small percentage of total energy, the optics were damaging. Environmental groups and critics pointed out that a plant built to eliminate emissions now burnt enough fossil fuels to qualify for California’s cap-and-trade program. The California Energy Commission (CEC) eventually approved higher gas consumption thresholds, acknowledging operational necessity but exposing the contradictions of hybrid renewable systems.

The project also faced ecological and reputational challenges. Conservationists criticized the facility’s location on a sensitive Mojave Desert habitat. Studies documented high avian mortality rates, as birds flying through the intense solar flux ignited midair, creating the infamous “streamers” and nicknaming Ivanpah the “The Bird Sink.” The Pulitzer Center’s investigation, *The Fall of Icarus*, captured this new dilemma for environmentalists—one that often pit green energy proponents against conservationists.

Comparative Cost of Solar Technologies



Source: Lazard, *Levelized Cost of Energy Analysis, Versions 1–14* (New York: Lazard, 2008–2020), <https://www.lazard.com/perspective/levelized-cost-of-energy-analysis/>.

Ivanpah’s biggest problem, however, was hard economics. When the plant was proposed in 2007, the cost of electricity of concentrated solar power (CSP) was higher than of photovoltaic (PV) solar panels but came with the advantage of dispatchable power potential. Since then, PV technology costs plummeted from a high of 40 cents to 6 cents per kilowatt-hour. Lazard’s Levelized Cost of Energy (LCOE) reports showed that by 2020, after utility-scale PV with storage had been introduced, it cost less than one-third of CSP without storage. California’s grid had become saturated by lower capital and operating costs projects, and Ivanpah, designed in the 2000s under different assumptions, became economically obsolete before reaching full maturity.

Although Ivanpah generated meaningful quantities of zero-carbon electricity—offsetting an estimated several hundred thousand tons of CO² annually—its life-cycle emissions were higher than anticipated once natural gas use and construction impacts were considered. In short, the plant fulfilled a symbolic promise but failed economic and ecological stress tests.

In January 2025, NRG Energy announced that Ivanpah would begin winding down operations, with full closure targeted for 2026. The decision reflected both shifting market realities and PG&E’s early termination of long-term PPAs. The closure requires a complex regulatory and logistical process. Under oversight of the California Public Utilities Commission, NRG began negotiating contract terminations with PG&E and SCE, while environmental agencies reviewed decommissioning and remediation plans. Decommissioning involves dismantling over 170,000 mirrors and 3 tower receivers, and restoring the desert site to minimize habitat disruption. Cost allocation remains contentious: while NRG

and BrightSource are responsible for direct dismantling costs, federal taxpayers indirectly subsidized much of the project through loan guarantees. A Worker Adjustment and Retraining Notification (WARN) notice filed with the California Employment Development Department (EDD) in February 2025 also outlined layoffs for dozens of on-site employees. The closure's effects trickled down to local contractors, logistics firms, and the small nearby community of Nipton.

The public response to Ivanpah's closure is split along ideological lines. Conservative media outlets blast it as a \$2.2 billion failure, calling the closure a "Green New Scam." Headlines described the project as a "financial boondoggle," highlighting its dependence on federal subsidies. Critics argued that Ivanpah symbolizes an ugly truth of modern, industrial-scale environmentalism—massive spending and minimal return.

Policymakers and energy analysts offered a more nuanced view. The California Energy Commission's renewable portfolio progress reports argue that Ivanpah should be understood as a transitional technology—a bridge between early experimental renewables and today's mature, cost-effective systems. The plant, they emphasize, operated successfully for over a decade, producing millions of megawatt-hours of clean power and yielding valuable lessons in system integration.

In academic circles, Ivanpah's story has become less about failure and more about institutional learning. The project revealed the limitations of one-size-fits-all approaches to clean energy development, the risks of technological lock-in, and the necessity of adaptive regulation. It also underscored the importance of humility in climate policy and the road to decarbonization. As California charts its path toward carbon neutrality, the plant's trajectory offers valuable insights into how policy ambition, technology, and governance interact.

First, the siting and governance reflected the fragmented complexity of California's climate apparatus. Multiple agencies—California Energy Commission, California Public Utilities Commission, California Air Resources Board, and U.S. Bureau of Land Management, as well as county governments—shared overlapping but often conflicting jurisdictions. This made Ivanpah a case study in the challenges of multi-level governance: the state's aggressive targets were implemented through a patchwork of organizations with diverging mandates—climate mitigation, energy reliability, and habitat preservation. New clean-energy project proposals include integrated permitting frameworks that align climate goals with local ecological and economic realities.

Second, Ivanpah revealed the necessity of adaptive policy design. The RPS and associated incentive programs were built for a world where renewables were expensive and unproven. Once market dynamics shifted, those incentives lacked built-in flexibility. Future frameworks may include sunset clauses or periodic reviews tied to cost curves and technological advances, ensuring that public funds remain targeted and effective.

Third, transparency and public accountability is now expected. Ivanpah's performance metrics, wildlife impacts, and gas usage data were often opaque, eroding public trust. Regular, standardized reporting for publicly subsidized projects can strengthen oversight.

The sun may have not fully set on Ivanpah—there is talk of repurposing its infrastructure for PV or hybrid storage. As NRG noted in its 2025 update, the site's existing transmission and permitting groundwork make it ideal for re-use. ♦

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Bond Market Assessment of School District Quality

by Rutvij Thakkar '26

Municipal bonds serve as a primary financing tool for public school districts across the United States, particularly in California, where a recent study from the Public Policy Institute of California (PPIC) reports that local general obligation (GO) bonds account for the majority of K-12 education infrastructure funding. The Inland Empire is home to a diverse array of school districts, many of which issue general obligation bonds to fund general school improvement and new capital projects. These districts range from affluent Temecula Valley and Murrieta Valley Unified to economically challenged San Bernardino City and Coachella Valley Unified.

California's school facility finance system is often described as a three-legged stool, with funding sourced from local GO bonds, state GO bonds, and developer fees. The state funds are administered through the School Facility Program (SFP), established in 1998 to provide matching grants for school districts to acquire school sites, construct new facilities, and modernize existing facilities. School districts must match the SFP funds with local funds on a 50/50 basis for new construction and on a 40/60 basis for modernization projects. School districts fund their share primarily through local GO bonds and developer fees. The bulk of funding, over 65% from 2007 to 2015, has come from local bond issuances, making it crucial to understand how financial markets assess and price these obligations.

Municipal bonds are bonds issued by government entities. They are debt obligations that states, cities, counties and other public entities issue to finance infrastructure projects such as building schools, highways and sewer systems, as well as to fund the issuer's day-to-day obligations.

The intersection of public finance and educational outcomes presents a compelling question. Does the municipal bond market rating reflect the quality of school districts? If investors are pricing school bonds efficiently, we may expect some correlation between credit ratings, bond yields, and the underlying academic performance of school districts. This article uses a dataset of (1) bond issuances, (2) credit ratings, (3) yield-to-worst (YTW), and (4) coupon structures (the schedule of debt repayments made on bonds) from Standard & Poor's (S&P) CapIQ, a subscription financial dataset, to examine this question. (See the explanation of YTW below.)

This study includes all districts in San Bernardino County and Riverside County for which bond issuance data was available for the last ten years in the CapIQ dataset on March 1, 2025. School performance data, such as standardized test scores, reading and math proficiency, average household income, per-student-spending, and teacher salary are from Niche.com.

Standard and Poor's evaluates the credit worthiness of entities which seek to borrow money by selling bonds. It is a judgment on the relative likelihood that a borrower will repay its debts on time and in full. The credit ratings are based on a broad range of financial and business attributes. S&P assigns ratings on a scale from AAA, the highest, through D at the bottom; intermediate ratings of (+) and (-) are offered at each level between AA and CCC.

S&P Bond Rating - Inland Empire School Districts

Issuer	Offering Date	Offering Amount	Long-Term Rating	Yield to Worst	Offering Coupon
Alvord Unified SD	6/27/2023	\$3,500,000	A+	2.63	5
Apple Valley Unified SD	11/19/2020	\$200,000	A	2.87	4
Banning Unified SD	7/31/2014	\$1,000,000	A	2.79	5
Barstow Unified SD	12/19/2018	\$300,000	A	2.76	5
Beaumont Unified SD	6/8/2017	\$100,000	AA	2.94	-
Chaffey Joint Union High SD	12/5/2019	\$10,000,000	AA-	4.48	2.4
Coachella Valley Unified SD	2/13/2014	\$3,200,000	A-	2.71	5
Colton Joint Unified SD	10/28/2020	\$6,000,000	A+	4.12	1.1
Corona-Norco Unified SD	7/8/2015	\$3,400,000	AA-	2.77	5
Fontana Unified SD	7/30/2020	\$1,100,000	A+	5.19	1
Hemet Unified SD	7/15/2020	\$1,400,000	A+	2.69	5
Hesperia Unified SD	7/30/2020	\$2,100,000	A	4.97	1.7
Jurupa Unified SD	5/1/2002	\$1,000,000	A+	3.14	-
Lake Elsinore Unified SD	6/13/2024	\$2,100,000	A+	2.55	5
Moreno Valley Unified SD	5/10/2023	\$300,000	A+	2.61	5
Murrieta Valley Unified SD	12/8/2016	\$100,000	AA	2.74	4
Needles Unified SD	8/9/2011	\$50,000	A-	3.04	-
Palm Springs Unified SD	7/7/2016	\$4,800,000	A+	2.4	5
Palo Verde Unified SD	3/6/2019	\$200,000	AA	2.63	5
Redlands Unified SD	12/12/2017	\$6,300,000	AA-	2.56	5
Rialto Unified SD	7/11/2023	\$5,100,000	A+	2.59	5
Riverside Unified SD	5/25/2017	\$2,100,000	AA-	2.54	5
San Bernardino City Unified SD	9/24/2020	\$9,400,000	A+	4.67	1.1
San Jacinto Unified SD	2/22/2017	\$400,000	AA	2.76	4
Temecula Valley Unified SD	5/18/2016	\$400,000	AA-	2.65	-
Upland Unified SD	2/4/2015	\$500,000	A+	3.14	4

Source: S&P Global Market Intelligence. Fixed Income Municipal Bond Comparable Analysis IQ1202499933. S&P Capital IQ database, March 1, 2025.
See <https://www.spglobal.com/market-intelligence/en/solutions/products/sp-capital-iq-pro>.

S&P Long-Term Bond Rating Scale

Rating	Description
AAA	Extremely strong capacity to meet financial commitments
AA	Very strong capacity to meet financial commitments
A	Strong capacity to meet financial commitments, but somewhat susceptible to economic conditions and changes in circumstances
BBB	Adequate capacity to meet financial commitments, but more subject to adverse economic condition
BB	Less vulnerable in the near-term but faces major ongoing uncertainties to adverse business, financial and economic conditions
B	More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments
CCC	Currently vulnerable and dependent on favorable business, financial and economic conditions to meet financial commitments
CC	Highly vulnerable; default has not yet occurred, but is expected to be a virtual certainty
C	Currently highly vulnerable to non-payment, and ultimate recovery is expected to be lower than that of higher rated obligations
D	Payment default on a financial commitment or breach of an imputed promise; also used when a bankruptcy petition has been filed

Source: S&P Global, "Understanding Credit Ratings," <https://www.spglobal.com/ratings/en/credit-ratings/about/understanding-credit-ratings>.

Higher bond ratings (AAA, AA+) suggest strong financial management, a robust tax base, and effective governance, all of which should contribute to better educational outcomes. Conversely, lower-rated districts (A and below) might face higher borrowing costs, limiting their ability to invest in facilities, teacher salaries, and student resources thereby perpetuating a worse performing school system.

Yield to Worst (YTW) is a metric that assesses the minimum yield an investor can expect from a bond under various scenarios. It is a fluid metric, calculated using variables such as offering coupon, market price, call price, and number of years remaining. A low YTW indicates that investors have higher demand for the bond, pushing the price up and yield down. A higher YTW would mean an investor expects to be compensated for the additional risk associated with a bond.

Districts such as Corona-Norco Unified, Murrieta Valley Unified, and Temecula Valley Unified have bond ratings at the higher end of the scale (AA or AA-) and lower YTWs (2.65 - 2.77). They also boast strong graduation rates (95%+), higher median household incomes (\$110,000 - \$125,000), and solid test scores. Districts like Fontana Unified, Hesperia Unified, and San Bernardino City Unified have lower bond ratings (A to A-) and higher YTWs (4.97 - 5.17). These districts tend to have lower median household incomes (\$48,000-\$98,000) and lower proficiency scores (Hesperia's Reading Proficiency was 29% in 2024).

Using a multiple regression with long-term bond credit rating (numericizing the alphabetic system) as the dependent variable and eight performance metrics from the Niche data set (in the table on page 16) as predictors, this study found that several predictors showed positive coefficients showing that academic success was associated with better ratings. Only a few, however, were statistically significant after accounting for all other factors. Median Household Income emerged as one of the strongest predictors of bond rating. Districts in wealthier communities tend to have higher credit ratings, while districts serving poorer areas generally receive lower ratings. This is not surprising since the tax base is the greatest indicator of the school district's ability to meet its obligations.

Among the school performance indicators, Graduation Rate and Reading Proficiency displayed positive relationships with bond ratings. In the full model, Reading Proficiency had a significant positive coefficient, suggesting that higher student achievement correlates with better credit quality. This finding is consistent with prior research on Texas schools, where higher student test scores were associated with stronger bond ratings. A recent study by E. Rauscher analyzed ballot measures for school bonds offerings in California from 1998 to 2020. It compared districts that narrowly pass bond measures to those that narrowly defeat them. It found that bond passage leads to significant increases in standardized test scores and home prices for up to six years following the vote. This reinforces that capital investment leads to measurable student outcomes, especially measurable in students coming from less privileged socioeconomic backgrounds.

Performance Metrics - Inland Empire Districts

Issuer	Avg SAT	Avg ACT	Graduation Rate	Math Proficiency	Reading Proficiency	Median Household Income	Avg Teacher Salary	Per Student Spending
Alvord Unified SD	1090	23	86%	21%	37%	\$106,438	\$119,086	\$15,707
Apple Valley Unified SD	1080	23	87%	29%	15%	\$65,926	\$83,963	\$11,044
Banning Unified SD	1030	19	76%	10%	21%	\$89,672	\$101,233	\$14,990
Barstow Unified SD	1080	21	75%	11%	23%	\$51,811	\$84,995	\$12,105
Beaumont Unified SD	1110	22	91%	31%	45%	\$105,164	\$82,654	\$10,721
Chaffey Joint Union High SD	1150	23	88%	31%	66%	\$82,806	\$116,185	\$13,528
Coachella Valley Unified SD	1000	18	75%	13%	27%		\$111,019	\$17,008
Colton Joint Unified SD	1050	20	81%	17%	31%	\$69,581	\$101,454	\$15,212
Corona-Norco Unified SD	1180	24	95%	38%	55%	\$125,117	\$114,653	\$12,438
Fontana Unified SD	1030	19	90%	18%	34%	\$98,187	\$100,752	\$16,959
Hemet Unified SD	1090	21	89%	16%	30%	\$89,672	\$103,891	\$14,620
Hesperia Unified SD	1090	22	89%	15%	29%	\$68,971	\$98,282	\$12,024
Jurupa Unified SD	1080	22	86%	15%	29%	\$96,190	\$114,567	\$13,747
Lake Elsinore Unified SD	1140	23	90%	23%	37%	\$96,527	\$107,868	\$13,287
Moreno Valley Unified SD	1080	21	91%	17%	31%	\$87,477	\$107,227	\$14,949
Murrieta Valley Unified SD	1170	25	96%	41%	58%	\$109,780	\$109,773	\$12,441
Needles Unified SD	1050	21	95%	15%	28%	\$39,876	\$86,716	\$16,705
Palm Springs Unified SD	1080	22	87%	20%	36%	\$71,979	\$108,747	\$16,947
Palo Verde Unified SD	1040	20	88%	14%	29%	\$21,984	\$78,071	\$14,250
Redlands Unified SD	1200	26	93%	35%	51%	\$99,158	\$105,324	\$14,143
Rialto Unified SD	1030	20	93%	16%	32%	\$85,521	\$105,144	\$14,537
Riverside Unified SD	1140	23	94%	30%	46%	\$79,554	\$115,150	\$13,957
San Bernardino City Unified SD	1030	20	85%	18%	33%	\$47,940	\$105,875	\$16,790
San Jacinto Unified SD	1050	22	90%	15%	32%	\$78,281	\$106,464	\$14,684
Temecula Valley Unified SD	1190	26	95%	43%	65%	\$117,840	\$118,168	\$11,965
Upland Unified SD	1190	25	93%	33%	48%	\$101,407	\$106,544	\$12,085

Source: "2024 Best School Districts in California," Niche.com, March 1, 2025, <https://www.niche.com/k12/search/best-school-districts/s/california/>.

Bond credit ratings correlate strongly with YTW – higher ratings typically translate to lower yields. The performance indicators appear to capture some of that same effect: districts with characteristics that lead to high ratings (like an affluent tax base and strong student outcomes) tend to have lower yields as well. Median Income, Per Student Spending, and Teacher Salary are also interrelated. Wealthier districts both pay more and spend more. Even in some less affluent districts, however, the Average Teacher Salary is well above the Median Household Income. In Barstow, for example, the Average Teacher Salary is \$84,995, while the Median Household Income is \$51,811. Similarly, in Hesperia (\$98,282, \$68,971). Both Barstow and Hesperia have weaker bond ratings (A), consistent with less affluent districts. In this study, once median income was accounted for, Per Student Spending and Teacher Salary were not significant predictors of YTW. This suggests that investors primarily look at the community's wealth (Median Income) as the fundamental repayment capacity, and do not independently reward a district for high spending or salaries beyond that economic base.

The data suggests that school performance does have a measurable correlation with municipal bond financing availability and cost of financing. In our sample, districts with superior academic results (high test proficiency, graduation rates) tended to be rewarded with higher credit ratings and lower yields. Better academic results may also be predicted by a better local economy, which is really the underlying driver of municipal bond financing. This implies that investors and rating agencies view strong school performance as a positive sign, likely because it correlates with a supportive community, stable enrollment, and sound management. In practical terms, a bond investor might interpret excellent

Performance Metrics - Average by Bond Rating

Bond Rating	Avg SAT	Avg ACT	Graduation Rate	Math Proficiency	Reading Proficiency	Median Household Income	Avg Teacher Salary	Per Student Spending
AA n = 4	1093	22.3	91	25.3	41	\$78,802	\$94,241	\$13,024
AA- n = 5	1170	24.5	93	35.4	57	\$100,895	\$113,896	\$13,206
A+ n = 11	1087	21.4	88	19.5	34	\$86,447	\$107,378	\$14,985
A n = 4	1083	22	82	16.3	22	\$69,095	\$92,118	\$12,541
A- n = 2	1050	21	85	14	28	\$39,876	\$98,868	\$16,857

AA *Beaumont Unified SD, Murrieta Valley Unified SD, Palo Verde Unified SD, San Jacinto Unified SD*
AA- *Chaffey Joint Union High SD, Corona-Norco Unified SD, Redlands Unified SD, Riverside Unified SD, Temecula Valley Unified SD*
A+ *Alvord Unified SD, Colton Joint Unified SD, Fontana Unified SD, Hemet Unified SD, Jurupa Unified SD, Lake Elsinore Unified SD, Moreno Valley Unified SD, Palm Springs Unified SD, Rialto Unified SD, San Bernardino City Unified SD, Upland Unified SD*
A *Apple Valley Unified SD, Banning Unified SD, Barstow Unified SD, Hesperia Unified SD*
A- *Coachella Valley Unified SD, Needles Unified SD*

school performance as a proxy for a well-run district, which lowers perceived default risk and thus the interest rate they would require. Much of the effect of school performance is intertwined with economic factors. Socio-economic fundamentals still play a dominant role in creditworthiness and ultra-wealthy districts in the most affluent parts of California (like Santa Clara) will have AAA ratings without credit enhancement and financially savvy individual households (spending-supportive non-institutional investors) who will invest in the bonds as the capital gains on municipal bonds can be tax advantageous.

A study by Harris and Munley highlights how state-backed credit enhancement programs can significantly impact bond ratings and borrowing costs. Several states have implemented school bond guarantee programs that provide automatic AAA ratings for qualifying school districts. This ensures the lowest possible cost of debt financing across all districts, regardless of underlying socioeconomic factors. California does not currently have a statewide bond guarantee program,



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unlike Texas and Ohio, where eligible districts receive an automatic upgrade in bond rating. This means Inland Empire districts must either purchase private bond insurance or rely on their underlying credit strength. Insurance is not always an option, particularly for districts with below-investment-grade ratings. If the pre-insurance rating is too low, insurers may refuse to underwrite the policy. The absence of a statewide guarantee program means Inland Empire districts often face higher, non-uniform borrowing costs or must purchase costly private bond insurance, a hurdle not present for eligible districts in states like Texas.

Districts that excel academically seem to reap benefits in the bond market, which implies that investing in educational quality can pay off in the form of cheaper capital. However, due to overlaps among many of these factors, districts should be mindful of not over-interpreting any single metric. By addressing underlying socio-economic challenges and continuing to improve educational results, school districts can enhance their credit appeal and optimize bond market participation. ♦

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INLAND EMPIRE OUTLOOK



Authors, from left: Quinten Carney '26, Arushi Goyal '28, and Rutvij Thakkar '26

Photo credit: Chad McElroy '26

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