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August 19, 2025

Vice Chair Siva Gunda
California Energy Commission
Docket No. 25-EIPR-04
715 P Street
Sacramento, CA 95814

Re: IEPR Commissioner Workshop on Firm Zero-Carbon Resources and Hydrogen

Dear Vice Chair Gunda and Members of the Commission:

California Resources Corporation (CRC)[1] appreciates the opportunity to provide comments on the California Energy Commission (CEC or Commission) IEPR Commissioner Workshop on Firm Zero-Carbon Resources and Hydrogen, which was held on July 29, 2025. As the CEC develops a pathway for inclusion of clean, firm resources on the system, the 2025 IEPR should build on the analysis and findings of the SB 423 Emerging Renewable and Firm Zero-Carbon Resources Report, and ensure inclusion of Carbon Capture.

No power generation resource is zero-carbon when considering lifecycle emissions, given emissions associated with manufacturing, construction, operation, and decommissioning. Natural gas with carbon capture and storage (NGCCS), however, can have lifecycle GHG emissions comparable to energy resources that are presently defined as "clean." In addition to reducing GHG emissions, NGCCS also reduces criteria pollutant emissions, positively impacting air quality of local communities. NGCCS also has a minimal land footprint, usually just a few acres, which can often fit within the footprint of existing facilities and infrastructure. By improving local air quality and minimizing land impacts, NGCCS projects minimize siting risk.

[1] CRC, through its Carbon Terravault line of business (CTV), is leading the development of Carbon Capture and Sequestration (CCS) in California. CTV is developing a CCS project at CRC's Elk Hills power plant in Kern County, where captured CO_2 will be stored in a co-located, depleted oil and gas storage reservoir.

NGCCS is a reliable and affordable technology that can be quickly scaled to meet California's clean, firm energy needs. Therefore, the Commission should include NGCCS in the 2025 IEPR as a recommended clean firm power solution, and encourage its procurement with the California Public Utilities Commission and other agencies to affordably meet California's climate goals.

The Need for Clean, Firm Resources

It is widely recognized that clean, firm resources will play a critical role in affordably decarbonizing California's electricity grid toward meeting the 100% clean power goal of SB 100 (De Leon, Chapter 312, Statutes of 2018) and the net zero greenhouse gas (GHG) emissions goal of AB 1279 (Muratsuchi, Chapter 337, Statutes of 2022). As SB 423 (Stern, Chapter 243, Statutes of 2021) states, "Quickly and cost-effectively deploying these and other firm baseload and firm flexible zero-carbon resources will provide reliability and resiliency benefits for California's electrical grid and communities, benefits to electricity ratepayers, and broad environmental benefits, including in those communities disproportionately impacted by pollution."

While the deployment of increasing amounts of intermittent renewables and energy storage have helped decarbonize power generation for portions of the day/year, there is a significant gap to achieving 100% clean power during the remaining hours, as well as in providing year-round reliability regardless of weather conditions. As the Sacramento Municipal Utility District noted during their workshop presentation, renewables output can be highly uncertain, having experienced solar production of less than 10% of its capability for 2 weeks in January of 2022.[2] This gap in energy production and reliability is currently filled predominantly by natural gas power generation, which supplied 37% of California electricity demand in 2023[3], given its dispatchability, low cost, and relatively low emissions compared to other fossil generation. The SB 423 report identifies a number of firm, zero- and low-emission resources that fill this critical gap (see Figure 1, below).[4]

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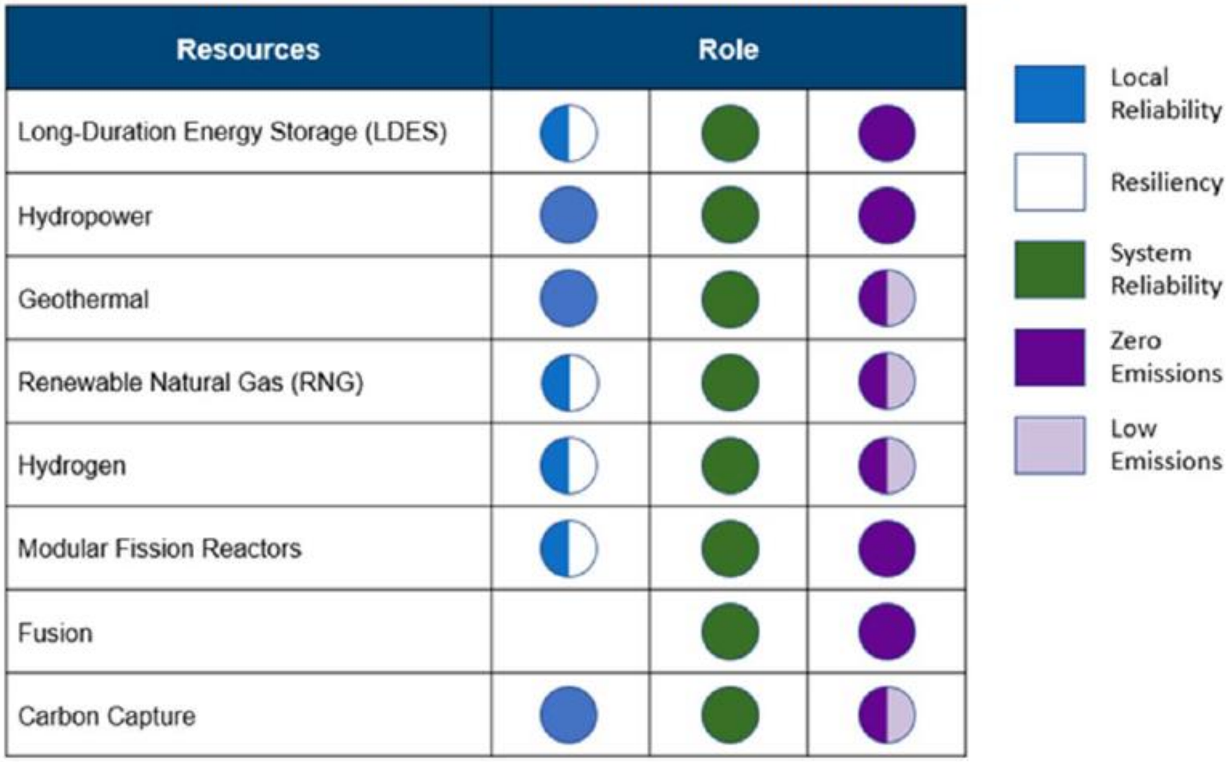
[2] California Energy Commission, *IEPR Commissioner Workshop on Firm Zero-Carbon Resources and Hydrogen*, July 29, 2025.
[3] *See* CEC, *2023 Total System Electric Generation* (available at: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2023-total-system-electric-generation).
[4] California Energy Commission, *SB 423 Emerging Renewable and Firm Zero-Carbon Resources Report*, Dec. 2024, Publication Number: CEC-200-2024-012 (SB 423 Report) at 8.

Figure 1: Overview – Role of Firm Zero-Carbon Resources



As identified in Figure 1, NGCCS is a prime technology to provide clean, firm power. NGCCS is clean, reliable, affordable, and scalable, making it an ideal resource for California's future electricity grid, and key to the timely achievement of the state's clean energy goals. NGCCS builds upon California's strengths:

- World class geology for storing CO2 (with estimates of up to 70 gigatons of CO2 storage potential);[5]
- Access to affordable and cleanly produced natural gas deliverable through an expansive pipeline network; and
- A large existing NGCC fleet, already interconnected, that can be readily retrofitted with CCS.

Repurposing existing California generation assets and power infrastructure through NGCCS leverages these strengths. Importantly, it also would significantly reduce the cost associated with decarbonizing the grid, while accelerating emissions reductions. For these reasons, the CARB 2022 Scoping Plan includes 16.7 million metric tons of CCS from existing natural gas power plants to meet state GHG and clean electricity goals.[6]

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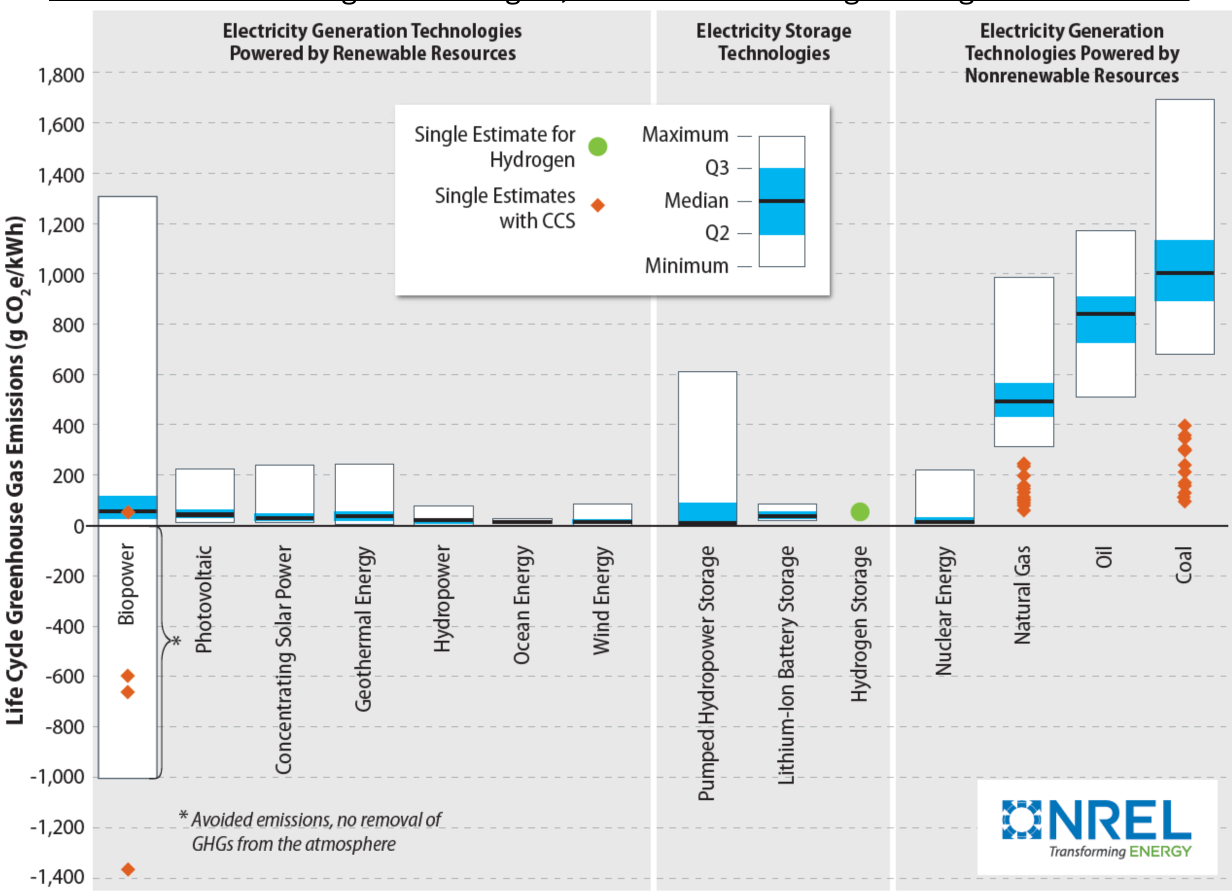
[5] Energy Futures Initiative & Stanford University, *An Action Plan for Carbon Capture and Storage in California: Opportunities, Challenges, and Solutions*, Oct. 2020 at 43.
[6] California Air Resources Board, 2022 Scoping Plan for Achieving Carbon Neutrality (CARB 2022 Scoping Plan), Dec. 2022 at 201..

NGCCS is an ideal clean, firm resource for meeting the State's goals

A. NGCCS Is Clean

No electricity resource is truly zero carbon. When looking at the full lifecycle GHG impact of power resources, renewables such as solar and wind generate emissions through manufacturing, construction, and decommissioning/disposal (see Figure 2, below). When paired with low carbon intensity natural gas, NGCCS has lifecycle GHG emissions on par with, and often below that of, renewable power resources paired with battery storage. This advantage becomes even clearer when accounting for system GHG emissions arising from energy storage, backup generation, and additional infrastructure needed to accommodate new, intermittent power resources.

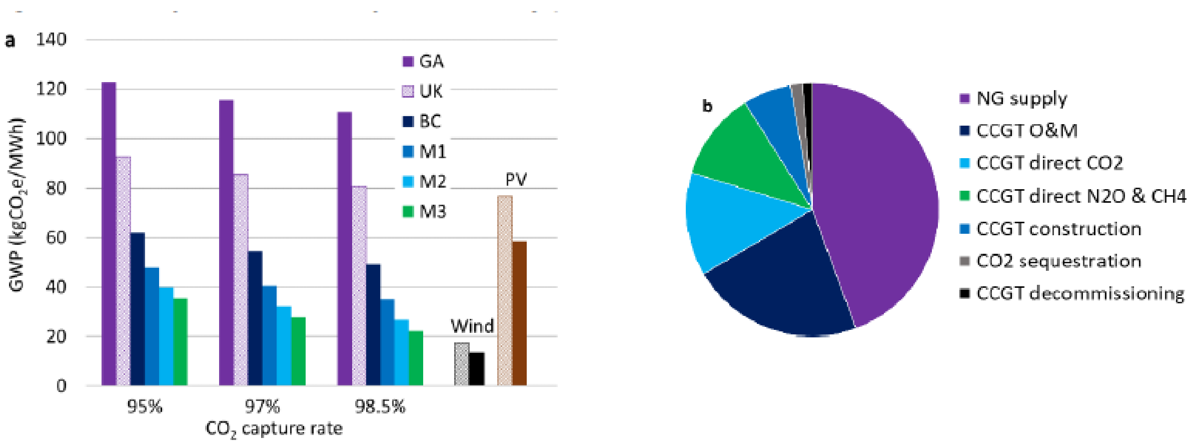
Figure 2. Life Cycle of GHG Emission Estimates for Selected Electricity and Generation and Storage Technologies, and some Technologies Integrated with CCS[7]



[7] National Renewable Energy Laboratory (NREL), *Life Cycle Greenhouse Gas Emissions from Electricity Generation: Update*, NREL/FS-6A50-80580, 2021 at 2 (available at: https://docs.nrel.gov/docs/fy21osti/80580.pdf).

In addition to NREL, a recent Oxford study shows that NGCCS can have a lifecycle carbon intensity comparable to wind and solar (see Figure 3, below) when paired with low carbon intensity natural gas production.[8] Low carbon intensity natural gas paired with NGCCS is indicated by M3 (green) bar column when compared to Western U.S. wind and solar PV (solid black and brown, respectively) bar columns.

<u>Figure 3. Life Cycle GW Intensity of Electricity Produced from CCGT with CCS[9]</u>

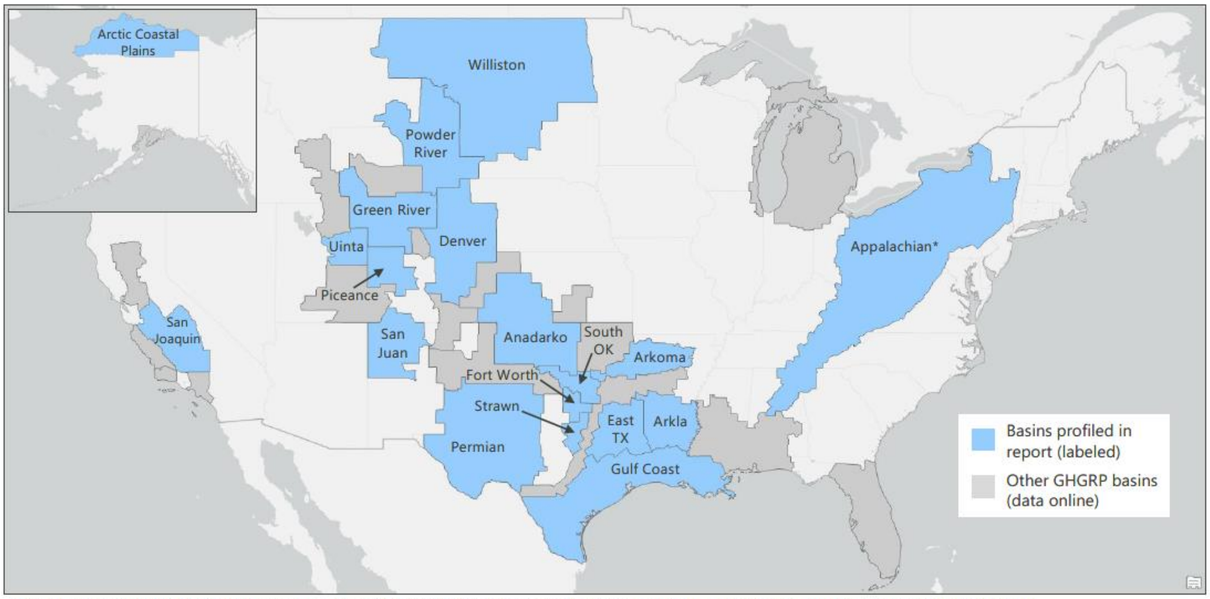


Note: **(a)** Carbon footprint for CCGT electricity generation with six natural gas supply chain scenarios compared to wind and photovoltaic generation. Natural gas supply scenarios: global average supply (GA), UK average supply (UK), BC average production in 2020 (BC), BC Montney production with natural gas drive compressors (M1), BC Montney production with electric drive compressors (M2), and BC Montney production with electric drive compressors and 2030 fugitive methane emission reduction target achieved (M3). Results for wind and photovoltaic shown for BC (diagonal hatch) and western USA (solid). **(b)** Breakdown of life cycle GHG emissions for CCGT with 98.5 per cent CO_2 capture and BC Montney natural gas supply with electric drive compression and reduced fugitive methane emissions (M3)[41].

As pointed out in the Oxford study, emissions associated with natural gas production and transportation play a critical role in NGCCS lifecycle GHG evaluation.[10] California procures its natural gas from the following basins: California basins of San Joaquin and Sacramento (11% of total supply) and U.S. imports from Permian, San Juan, Anadarko, Powder River, Denver, Green River, Uinta, and Piceance (see Figure 4, below).

[8] Oxford Institute for Energy Studies, *Unlocking gas-to-power with life cycle greenhouse gas emissions as low as renewables*, May 2025. (May 2025).
[9] *Id*. at 6.
[10] *Id*. at 10.

Figure 4. GHG Reporting Program Basins[11]



* GHGRP data contain two distinct Appalachian basins (160 & 160A). This analysis combines data reported across both basins and presents them as a single basin.
Note: Basin boundaries defined by geologic provinces published by the American Association of Petroleum Geologists; data provided by U.S. EPA.

A recent study by the Clean Air Task Force benchmarked GHG emissions and methane intensity from all of these major fields in the US, including but not limited to California supply (see Figure 5, below).

Figure 5. GHG reporting Program Basin Methane & GHG Intensity[12]

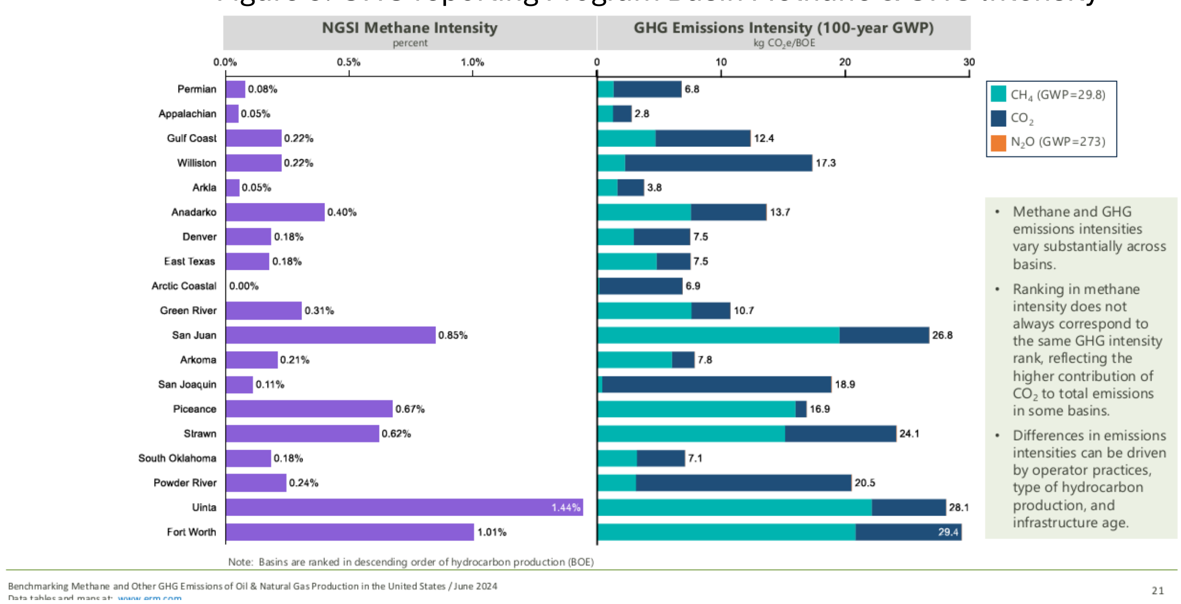


Figure 5, above, shows that the simple average of GHG emissions intensity for all of the California supply basins is 16.7 kg CO2e/BOE. To compare this GHG emissions

[11] Clean Air Task Force, *Benchmarking Methane and Other GHG Emissions of Oil & Natural Gas Production in the United States*, June 2024 at 18.
[12] *Id*. at 21.

intensity to values in the Oxford study, the value is converted to same units, resulting in 2.7 g CO2e/MJ, which places California's natural gas supply at the lowest M3 level. The result is that NGCCS at any of the Oxford study capture rates is *lower* than PV solar and wind on a lifecycle basis when deployed together. Further, California, with some of the strictest environmental standards in the world, excels at producing low carbon intensity natural gas. This is evidenced by CRC's "Grade A" MiQ certification for methane emissions at its Los Angeles and Orange County operations.[13] Even with some of the lowest natural gas production emissions, CRC continues to pursue further GHG reductions, exemplified by its planned deployment of CCS in natural gas processing at its Elk Hills field. This is planned to reduce the carbon intensity of the natural gas feeding the Elk Hills Power Plant,[14] and can be replicated elsewhere in the state.

Beyond lifecycle GHG emissions, NGCCS offer significant air quality improvements for local communities, while minimizing land impacts

In addition to reductions in GHG emissions, CCS is also expected to reduce criteria pollutant emissions, such as nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter (PM). Recent studies have shown that implementation of carbon capture, and requisite flue gas pre-treatment, can reduce criteria pollutant emissions by 75-99+%, resulting in material health benefits for residents of the surrounding region (see Table 1, below). This positively impacts air quality for local communities, while allowing natural gas power plants to continue to provide local reliability services.

Table 1. Summary of Emissions Reductions at Martinez and Beaumont FCC Units[15]

Reduction in Emissions of Various Pollutants from CCS Addition at Studied Refinery FCC Units*					
	CO_2 Reduction	Criteria Air Pollutants Reduction			
Refinery	CO_2	NO_X**	SO_2	Filterable PM	Condensable PM
Martinez	87% 1,250,000 TPY	73% 351 TPY	99+% 673 TPY	97.5% 61 TPY	96% 296 TPY
Beaumont	87% 1,344,000 TPY	33% 55 TPY	99+% 160 TPY	95% 151 TPY	95% 59 TPY

** TPY=tons per year. Calculation of % Reduction is (Original Emissions less Emissions w/ Pre-Treatment and CO2 capture, including New Auxiliary Boiler)/(Original Emissions).*

*** NO_X reduction for Martinez is greater than for Beaumont because Beaumont has an existing SCR that achieves high efficiency NO_x control. This study included an upgrade of Martinez's SNCR to an SCR, resulting in higher NO_x removal efficiency.*

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[13] *See California Resources Corporation Achieves MiQ "Grade A" Certification for its Los Angeles Basin Assets*, Apr. 11, 2024 (available at: https://www.crc.com/news-releases/news-release-details/california-resources-corporation-achieves-miq-grade).

[14] 35R gas processing CCS project, projected to come online in 2025 and sequester CO2 in the CTV I Class VI site at Elk Hills field.

[15] Clean Air Task Force, *Air Pollutant Reductions From Carbon Capture*, Nov. 2023 at 8 (available at: https://www.catf.us/resource/air-pollutant-reductions-carbon-capture/).

NGCCS has a minimal land footprint, usually no more than a few acres. Carbon capture equipment can often fit within the existing footprint of natural gas power facilities, CO2 pipelines can potentially follow existing pipeline right of ways, and CO2 storage just needs a few acres for injection wells (which are sometimes located within existing oilfields). This potential to minimize new land impacts through utilization of existing facility and infrastructure footprints gives NGCCS projects lower siting risk, especially for the many potential developments that are co-located with CO2 storage. This conformance with existing land uses is one of the reasons why proposed California NGCCS projects, such as CRC's CalCapture project at its Elk Hills Power Plant, enjoy local support.[16]

B. NGCCS Is Reliable

Natural gas currently forms the backbone of California's electricity grid, given its reliability and dispatchability, allowing it to meet demand regardless of the weather or time of day/year. This reliability has become ever more important with the increasing penetration of intermittent renewable resources, and is why most studies, including CARB's 2022 Scoping Plan, call for retaining natural gas power generation for "*decades to come.*"[17]

Additionally, natural gas power generation also provides grid stability, with gas turbines providing spinning reserve. Spinning reserve allows for quick response to sudden increases in demand or loss of generation, preventing power outages that can spiral out of control and impact entire regions or states. This has become an increasingly important service with the higher penetration of renewables, which do not provide this ancillary service.

Critically, adding carbon capture and sequestration to natural gas power generation does *not* impact natural gas's ability to reliably meet grid demand and provide grid stability. Thus, NGCCS can play a critical role in ensuring a reliable and clean California grid in 2045 and beyond.

C. NGCCS Is Affordable

In 2024, Californians paid the highest electricity prices in the Lower 48 states,[18] making energy affordability an important issue as residents and policymakers grapple with how to promote affordability in the State. California average residential electric rates have doubled since 2014 (see Figure 6), during which time the contribution of solar and wind towards statewide electricity consumption has increased from 12% to 28%.[19] Energy

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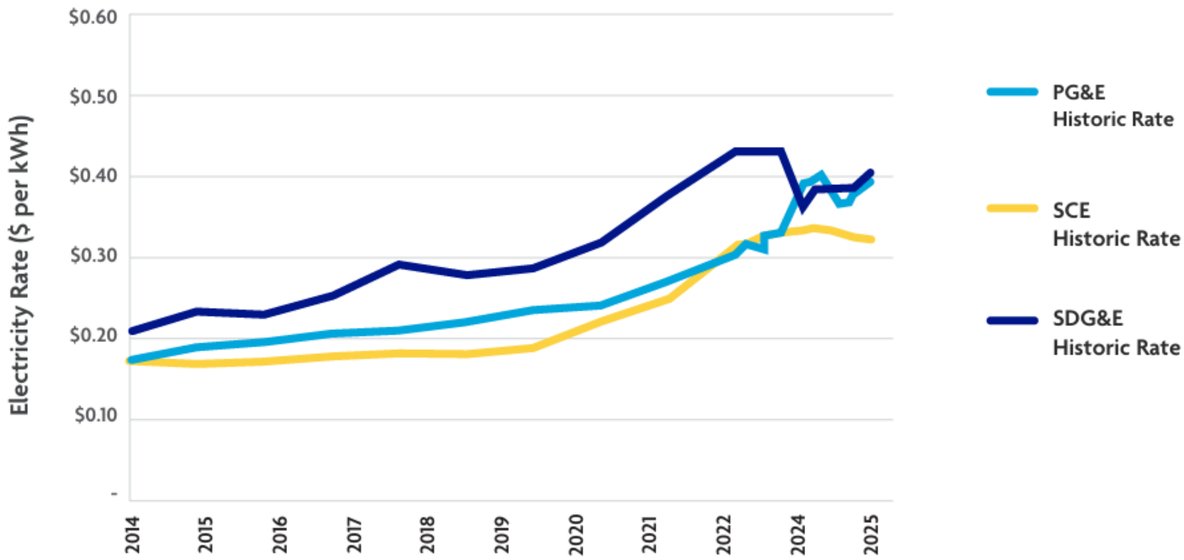
[16] CTV I Elk Hills 26R Storage Project EPA Public Hearing (2024).
[17] CARB 2022 Scoping Plan at 198.
[18] Energy Information Administration, *Electric Power Monthly*, Feb. 2025, Table 5.6.B (available at:https://www.eia.gov/electricity/monthly/archive/february2025.pdf).
[19] California Energy Commission, *2009-2023 Total System Electric Generation Spreadsheet* (available at: https://www.energy.ca.gov/media/7311).

affordability issues must be addressed to avoid hindering electrification goals for transportation and buildings, and the imposition of significant costs. It is critical that the costs of meeting SB 1020 and SB 100 goals are minimized by considering all decarbonization technologies.

Figure 6. Average Residential Electric Rates by Utility[20]

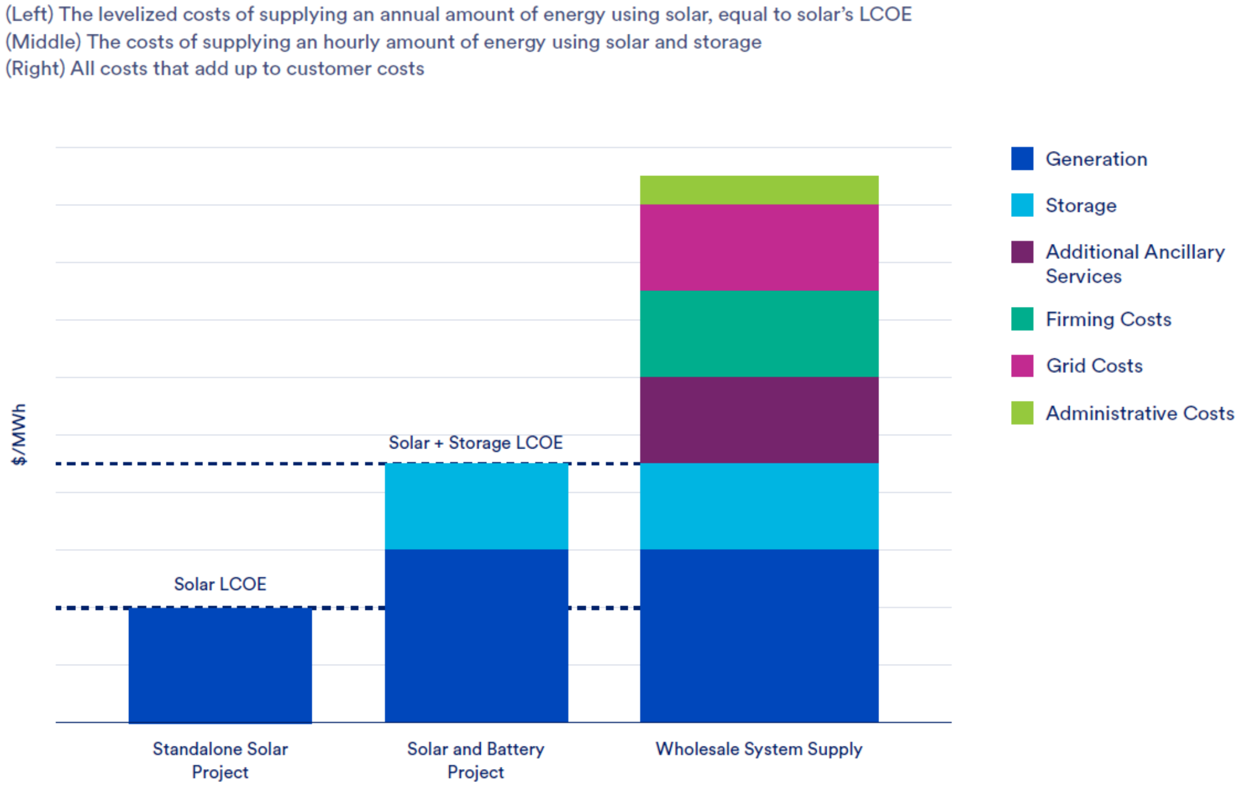


Source: Public Advocates Office analysis of utility data showing latest Bundled Residential Average Rates (RAR) as of October 1, 2024.

When evaluating the cost of different clean power generation technologies, it is important to look at the overall system. As illustrated in Figure 7, below, additional costs from storage, transmission, and backup generation can often surpass the cost of generation significantly, which makes evaluating impacts based on generation alone misleading. In California, generation comprises just 25% of customer electricity costs, with the large penetration of renewables adding significant costs to the electrical system beyond generation. These additional cost categories, such as energy storage and infrastructure buildout, also contribute to lifecycle GHG emissions, increasing the GHG emissions of the entire system. Utilizing existing natural gas generation avoids most of these additional costs and emissions, as it is a firm power source already tied to existing grid infrastructure.

[20] Public Advocates Office, *2024 Annual Report* (available at: https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/annual-reports/2024-public-advocates-office-annual-report.pdf).

Figure 7. Illustrative Breakdown of Costs from Several Perspectives[21]

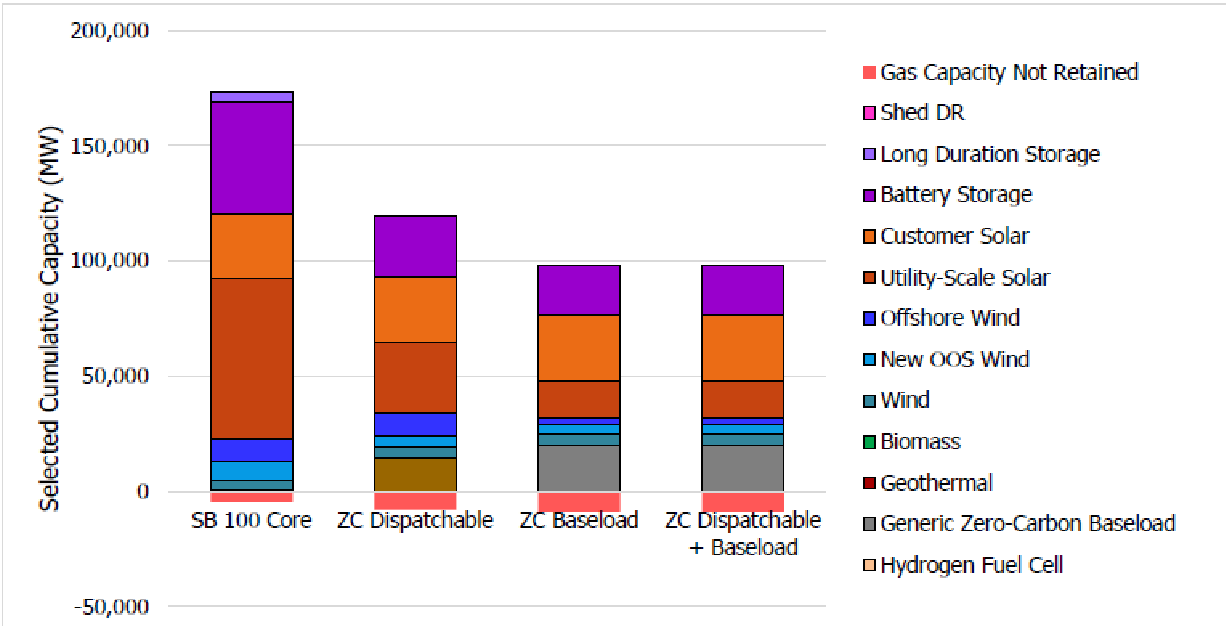


For these reasons, clean, firm power, especially resources with existing interconnections, are critical to affordably decarbonizing the grid. The 2021 SB 100 Joint Agency Report estimated that clean, firm power could reduce the buildout of additional energy resources by over 70 GW (see Figure 8, below), resulting in annual savings of $2 billion by 2045.[22]

[21] Clean Air Task Force, *Beyond LCOE: A Systems-Oriented Perspective for Evaluating Electricity Decarbonization Pathways, Clean Air Task Force*, May 2025 at 4 (available at: https://cdn.catf.us/wp-content/uploads/2025/06/12134742/beyond-lcoe.pdf).

[22] California Energy Commission, *2021 SB 100 Joint Agency Report*, Mar 2021, Publication Number: CEC-200-2021-001 at 13.

Figure 8: Cumulative Capacity Additions for the SB 100 Core and Generic Zero-Carbon Firm Resource Scenarios in 2045[23]

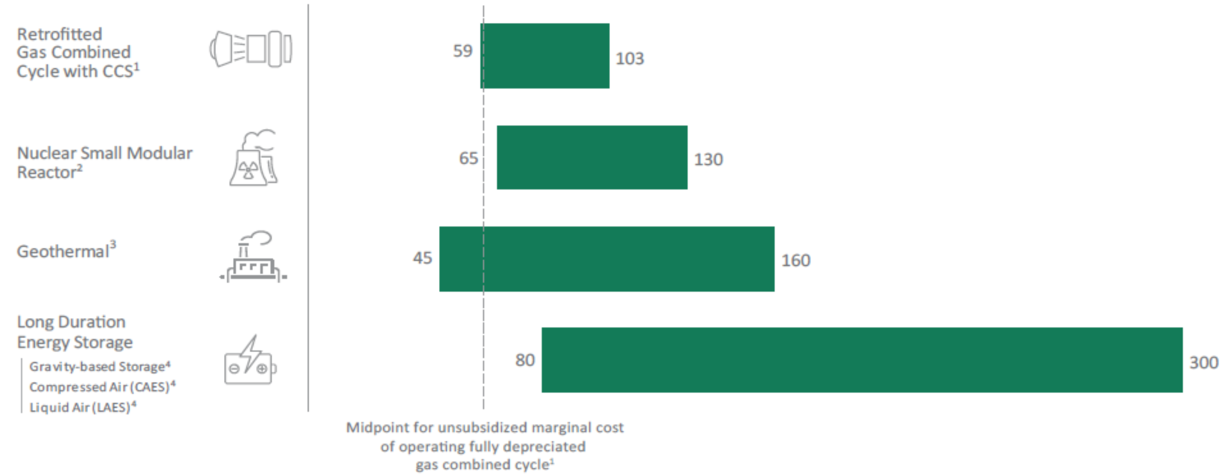


Source: CEC staff and E3 analysis

Natural gas is already one of the most cost effective sources of power generation, which, along with its dispatchability, is why it sets California power prices for much of the year. Adding CCS will increase the price of natural gas power, but the increase can partially be offset by incentives (e.g. 45Q tax credit, and avoidance of Cap & Trade fees). Even with the addition of CCS, NGCCS is one of the cheapest sources for clean, firm power generation (see Figure 9, below). This does not account for the fact that CCS on natural gas power plants would utilize existing interconnections and transmission, improving its cost advantage over new build clean, firm resources.

[23] California Energy Commission, *2021 SB 100 Joint Agency Report*, Mar 2021, Publication Number: CEC-200-2021-001 at 13.

Figure 9. Estimated Levelized Cost of Energy (LCOE)/Storage (LCOS) ($/MWh)[24]



Sources: 1. Lazard 2. PNNL 3. BCG analysis 4. US DoE

Given recent passage of the One Big Beautiful Bill Act and imposition of tariffs, there is also significant uncertainty in the cost of various power resources going forward. It is estimated that 80% of solar photovoltaic panels, 70% of battery storage, and 65% of wind turbines are made by Chinese manufacturers. Relying only on foreign supply chains for grid decarbonization comes with significant geopolitical risk, which will likely increase costs and uncertainty over future resource development and availability. This can be mitigated through a broad and diverse resource procurement strategy, which includes clean, firm resources such as NGCCS, with more domestically-based supply chains.

D. NGCCS Is Scalable

The CARB 2022 Scoping Plan projects electricity demand increasing by 76% by 2045, due in large part to electrification of transportation, building heating, and industry.[25] This unprecedented load growth will require an unprecedented build out of generation and transmission. As identified the CARB 2022 Scoping Plan, as well as in the 2021 SB 100 Joint Agency Report, the only way to meet this demand affordably while also achieving SB 1020 and SB 100 goals is through the deployment of tens of GW of clean, firm power.[26]

NGCCS is the only clean, firm power technology that can scale quickly (<5 yrs) through leveraging existing generation, interconnections, and transmission. There is already 1GW of NGCCS under development in the State (CRC Elk Hills and Calpine

[24] Boston Consulting Group, *Unlocking California's Climate Ambition*, Jul. 2024 at 14 (available at: https://web-assets.bcg.com/37/f5/7685135144d38912ab9623dfaf6e/ca-decarbonization-report-2024-07-12.pdf).
[25] CARB 2022 Scoping Plan at 203.
[26] *Ibid*.; *see also* Long et al., *California needs clean firm power, and so does the rest of the world; Three detailed models of the future of California's power system all show that California needs carbon-free electricity sources that don't depend on the weather,* 2021.).

Sutter).[27] A Stanford study[28] identified 25 California natural gas plants, representing 14 GW of generation, that could be retrofitted with CCS in the near-term (see Figure 10, below). Additionally, new NGCCS plants can be brought online relatively quickly given proximity to existing natural gas and electricity infrastructure, and streamlined permitting under the CEC.

Figure 10. Potential NGCC Retrofit Sites and Existing Gas Power Plant Sites, 2018[29]

This analysis found 25 NGCCs for potential CCS retrofit that could have a combined total annual capture potential of 27.5 $MtCO_2$.
Source: Energy Futures Initiative and Stanford University, 2020.

As the 2035 goal of SB 1020 nears, there are fewer options for lowering electricity emissions, given the long-lead times for permitting and developing certain generation technologies (e.g. offshore wind, nuclear, hydrogen with storage) and building new

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[27] *See*, CRC, *CalCapture* (available at https://www.crc.com/carbon-terravault/projects/calcapture); Calpine, *Sutter Carbon Capture* (available at: https://www.calpine.com/carbon-capture-and-sequestration-ccs/sutter-carbon-capture/).
[28] Energy Futures Initiative & Stanford, *An Action Plan for Carbon Capture and Storage in California: Opportunities, Challenges, and Solutions*, Oct. 2020 (available at https://efifoundation.org/wp-content/uploads/sites/3/2022/03/CaliforniaCCS_Report_Oct20-1.pdf).
[29] *Id.* at 51.

transmission. Leveraging existing power generation facilities and transmission infrastructure, which NGCCS does, will be key to meeting targets. This has the added benefits of reducing GHG emissions faster, while also lowering the cost of these emission reductions.

CCS has wide support, given its positive environmental impact from emissions reductions and its positive impact on local communities, through the jobs created and retained from construction and continued operations and associated community benefits plans. For example, the CCS project at Elk Hills saw numerous comments during community meetings from local residents supporting the project.[30] Community support is critical to securing local permits and quickly advancing energy projects, and is another reason why NGCCS can quickly scale to meet California needs.

Implementing CCS on existing Natural Gas Power Plants in California would eliminate GHG faster than planned by CARB and resources that require interconnection to the grid

The CARB 2022 Scoping Plan included 16.7 million metric tons of CCS on existing natural gas power plants in 2045 to meet State GHG and clean electricity goals.[31] The 20-year timeline to reduce these emissions can be reduced and largely achieved by 2030, because of the development of EPA Class VI permitted CO2 sequestration capacity in California. CRC's carbon management subsidiary, Carbon TerraVault (CTV), has 320 MMT of sequestration capacity in various phases of EPA permitting, which would support approximately 15 million MMT per year of CO2 injection (see Figure 11, below); this capacity alone is enough to meet 90% of CARB's goal.

California is a national leader in CO2 sequestration capacity, with CTV securing, in December 2024, the first final Class VI permits in the nation issued west of the Rockies, representing only the second time EPA issued effective Class VI permits for a CCS project.[32] Given CTV's sequestration capacity and the estimated carbon that can be captured from existing natural gas power plants and sequestered beginning in 2030, these projects can eliminate a cumulative total of 250 million metric tons of CO2 (16.7 million metric tons per annum CO2 emissions x 15 years acceleration) over the final CARB 2022 Scoping Plan scenario. Put into perspective, California's total economy-wide emissions are 371 million metric tons.[33]

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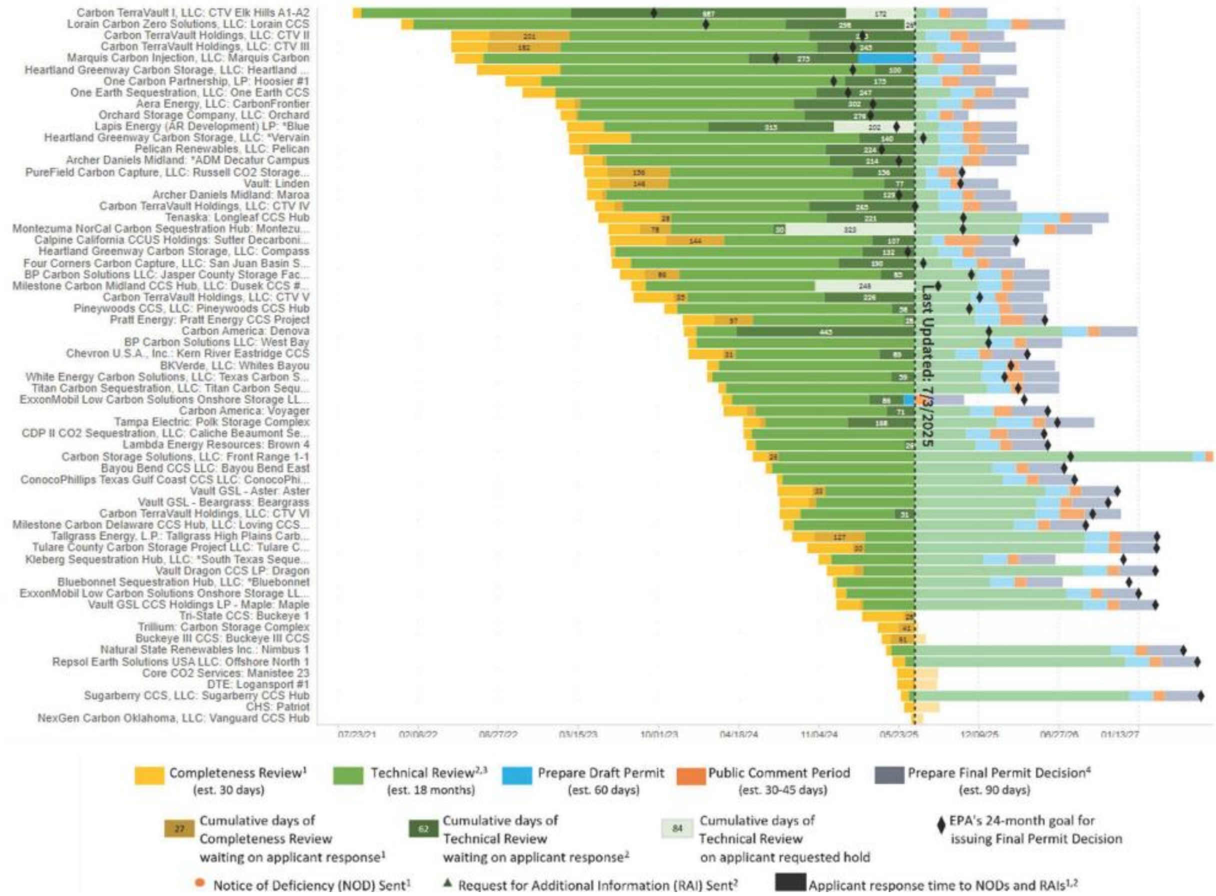
[30] CTV I Elk Hills 26R Storage Project EPA Public Hearing (2024).
[31] CARB 2022 Scoping Plan at 201.
[32] *See, EPA issues first ever underground injection permits for carbon sequestration in California*, Dec. 31, 2024 (available at: EPA issues first ever underground injection permits for carbon sequestration in California | US EPA).
[33] *See* CARB, 200-2022 GHG Inventory (2024 Edition) (available at: https://ww2.arb.ca.gov/ghg-inventory-data).

Figure 11. EPA Underground Injection Control (UIC) Class VI Permit Tracker[34]



As it relates to new resources, NGCCS have a built-in timing advantage in that they are already permitted and interconnected to the grid. A recent study by the Lawrence Berkley National Laboratory[35] indicates that the California Independent System Operator (CAISO) has the longest interconnect time in the country, at approximately 110 months (9 years) from start to commercial operations (COD) (see Figure 12, below).

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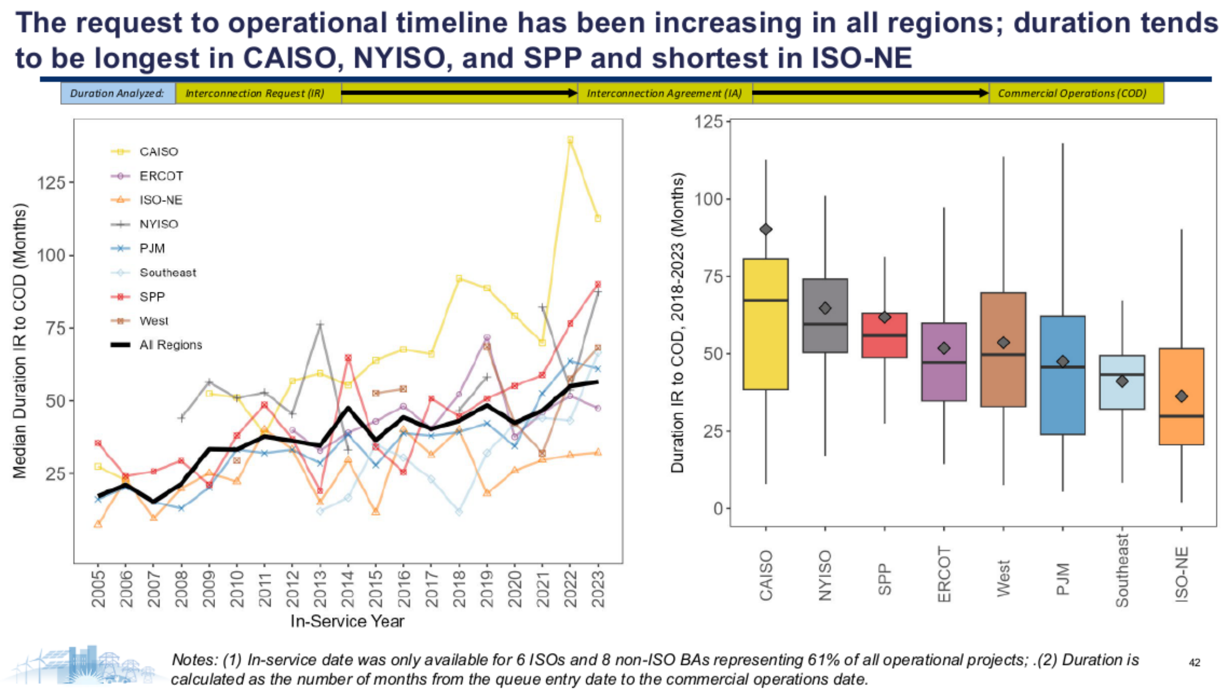
[34] United States Environmental Protection Agency, *UIC Class VI Permit Tracker Dashboard*, Aug 1, 2025 (available at https://www.epa.gov/uic/current-class-vi-projects-under-review-epa).

[35] Rand et al., Queued *Up: 2024 Edition; Characteristics of Power Plants Seeking Transmission Interconnection as of the End of 2023*, Apr. 2024 (Berkeley Report).

Figure 12. Comparison of Request to Operational Timelines[36]

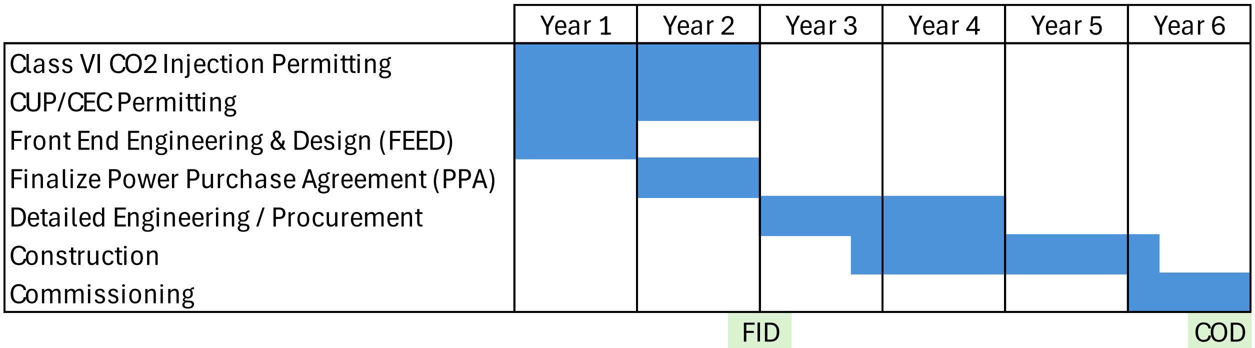


CRC estimates that NGCCS resources can be deployed within 6 years at the maximum, assuming Class VI storage permitting has not begun (see Figure 13, below). However, California has the opportunity to benefit from a large head start in Class VI storage permitting which, per the EPA tracker,[37] shows a majority of Class VI permits being issued in 2026. Given that existing CCGTs are already interconnected to the grid, this would compress the timeline to 5 years, which is 4 years sooner than the CAISO interconnect timeline. Importantly, existing NGCC resources continue to provide power and reliability services to the grid while carbon capture is being constructed, allowing them to contribute towards grid reliability and affordability during CCS development.

[36] *Id.* at 42.

[37] United States Environmental Protection Agency, *UIC Class VI Permit Tracker Dashboard*, Aug 1, 2025, which shows 11 out of 12 California Class VI applications expected to receive final permits in 2026 (available at https://www.epa.gov/uic/current-class-vi-projects-under-review-epa).

Figure 13: Development Timeline for Typical CCS Retrofit on a California NGCC Plant[38]



This NGCCS timeline is further shortened with existing projects that are already well into development, such as at CRC's Elk Hills Power Plant and Calpine's Sutter Energy Center, which represent a combined 1 GW of clean, firm power.[39]

II. CONCLUSION

CRC appreciates the opportunity to provide these comments on the IERP and urges the Commission to include NGCCS in the 2025 IEPR as a recommended clean firm power solution, and encourages its procurement with the CPUC and other agencies to affordably and reliably meet California's climate goals.

Respectfully Submitted,

Chris Gould

Chris Gould
Chief Sustainability Officer

[38] California Resources Corporation, Aug 2025, based on current experience developing the CCS on its 550 MW Elk Hills Power Plant and permitting over 300 MMT of Class VI CO_2 storage, including receipt of the first Class VI permits and CCS Conditional Use Permit (CUP) in California for the CTV I CCS project.

[39] CRC's CalCapture project on the 550 MW Elk Hills Power Plant (more info available at https://www.crc.com/carbon-terravault/projects/calcapture); Calpine's Sutter Carbon Capture project on the 550 MW Sutter Energy Center (more info available at https://www.calpine.com/carbon-capture-and-sequestration-ccs/sutter-carbon-capture/).