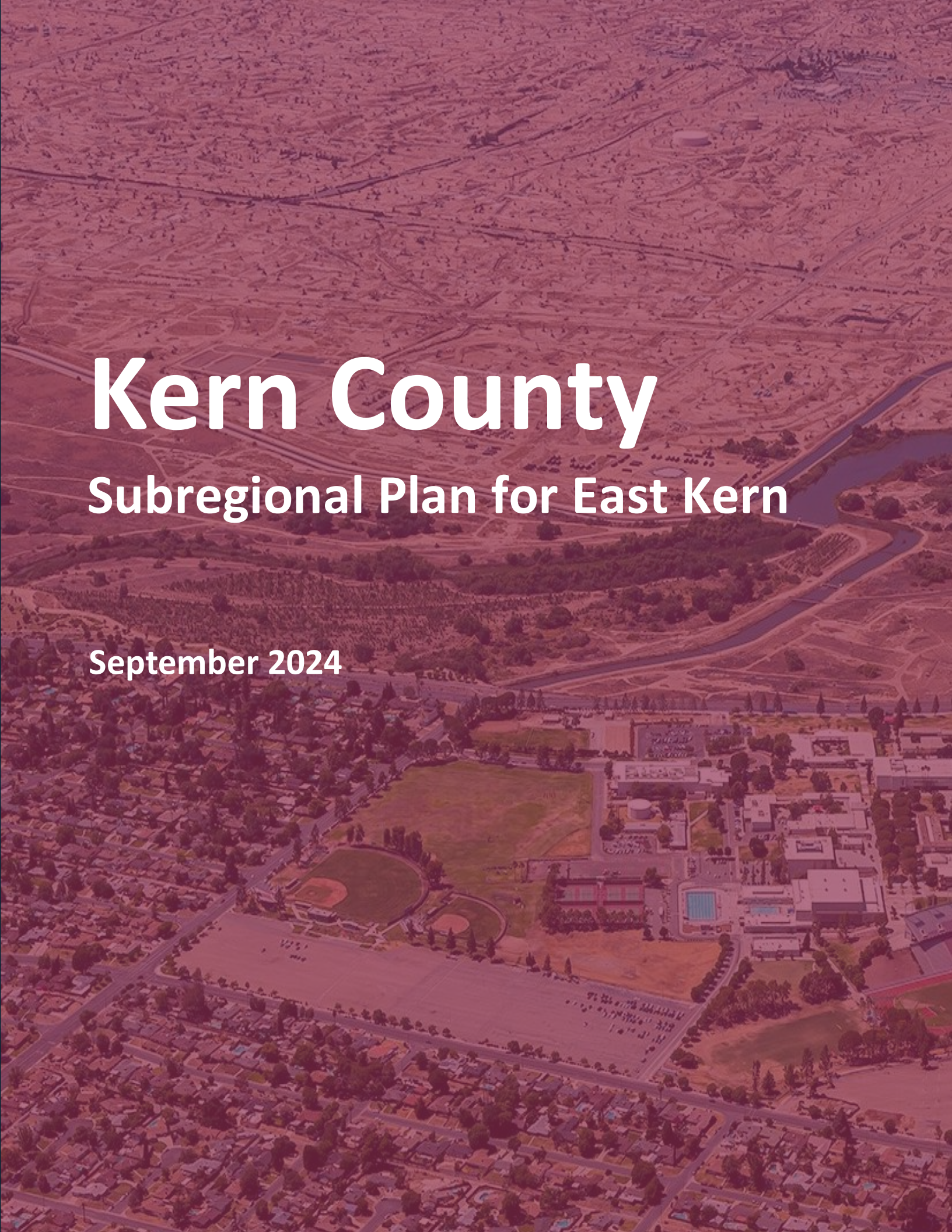

Kern County

Subregional Plan for East Kern

September 2024

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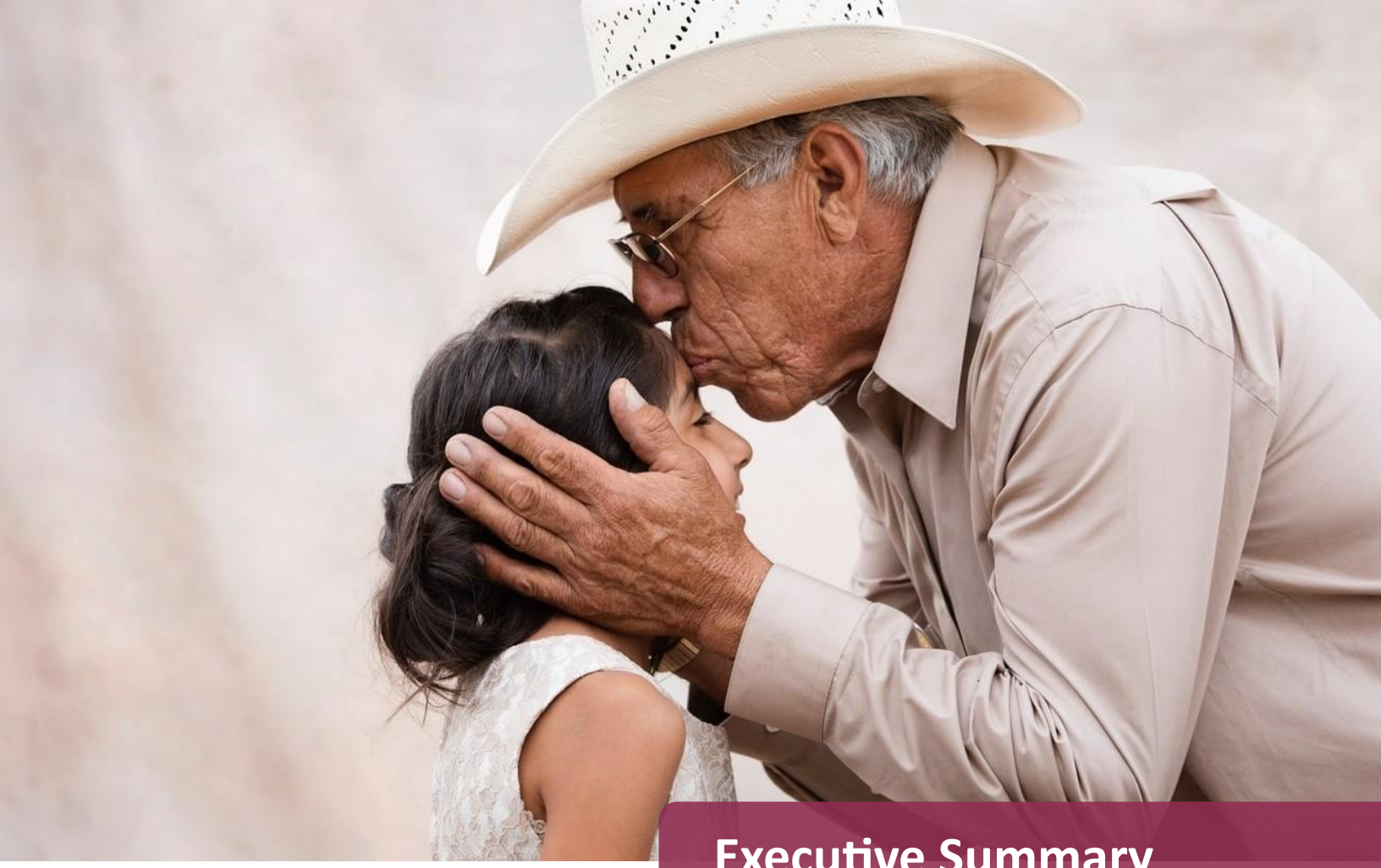


Executive Summary

Since 2021, the State of California has administered California Jobs First, a $600 million fund aimed at diversifying local economies, creating jobs, and improving economic resilience across the state. A group of local Kern County organizations formed the Kern High Road Transition Collaborative (KHRTC) in response to this funding opportunity and commissioned a series of Regional Plans identifying challenges and opportunities for creating a more equitable, inclusive, and sustainable economy in Kern County.

The Regional Plan Part II focused on economic development strategies across Kern County, identifying clean energy, manufacturing, aerospace and defense, transportation and warehousing, tourism and hospitality, and agriculture as priority industries for East Kern. After its production, community leaders expressed a desire for more localized data and insights. Within East Kern, stakeholders identified California City and the Kern River Valley as two localities with unique strengths, challenges, needs, and aspirations, warranting a special addendum to the Regional Plan Part II.

California City

California City is an East Kern municipality of approximately 15,000 people with strong and longstanding ties to the aerospace and manufacturing industry. As the third-largest city in California by land area, it also has significant geographic assets. The surrounding area is currently seeing new investment in a number of industries, positioning California City for economic growth. However, California City also faces roadblocks, including high unemployment and poverty, a lack of community resources, and insufficient public transportation. The city has experienced job decline in recent years due to increasing intrastate competition in the aerospace industry as well as local business closures. It also faces high climate risk due to drought, wildfire, and water risk as well as pollution created by current industries.

This report identifies three high-potential industries that can drive California City's economic development.

The aerospace industry can be a key driver of California City's economic growth, given the city's geographic assets and proximity to existing hubs. The industry offers high-quality jobs at a range of skill levels, though current employment statistics in California City suggest an access issue that will need to be addressed. Strategies to facilitate development include connecting California City residents with existing aerospace projects in surrounding areas and leveraging the city's existing infrastructure while developing financial incentives to attract new businesses focusing on end-to-end manufacturing, including testing and development.

The clean energy industry offers promising growth opportunities, particularly in solar energy and energy storage, also due to the city's existing infrastructure and geographic advantages. Wind is another promising area but faces regulatory restrictions within city boundaries. The clean energy industry is still emergent in California City and is growing in East Kern. Although many jobs in this industry can be short-term in nature (e.g., construction jobs), permanent ones are often high-quality and can be part of a diversified strategy to drive California City's economic growth. Strategies identified to facilitate development include addressing barriers and creating incentives for growth through public-private-community partnerships (e.g., permitting issues, infrastructure needs, financial incentives) and ensuring workers have access to necessary skills training for industry-specific roles.

The warehousing and transportation industry is well-positioned for expansion into the city, given the significant land assets and proximity to major transportation routes that make the city an attractive potential partner for businesses. It has a particular opportunity to offer specialized warehousing solutions to the regional aerospace industry. The industry offers short- and long-term positions. Although some of these positions can be low to medium quality jobs, the city can work to ensure that it attracts higher quality warehousing and transportation roles.

For example, strategies identified to facilitate sustainable and responsible development of the industry include creating a development plan, scouting for businesses that align with the city's vision for the industry and establishing strong labor laws and standards from the outset, including labor recognition and certification programs that reward business for complying with labor laws.

Additional growth enablers identified in California City include improving transportation infrastructure and prioritizing community services such as childcare, healthcare, and recreation.

Kern River Valley

The Kern River Valley is a subregion of East Kern with a population of approximately 10,000 people.[1] It encompasses several unincorporated communities in the northern part of East Kern surrounding Lake Isabella. Tourism connected to Lake Isabella and the Kern River is the backbone of the valley's economy. Its proximity to nature-based attractions and wide offering of water sports are key assets. However, tourism infrastructure is variable across settlements. Some municipalities in the valley, like Kernville, have robust pre-existing infrastructure, while others, like Lake Isabella, struggle to thrive. Factors currently inhibiting development include highly seasonally dependent tourism, an aging population and high unemployment and poverty. The area also faces high climate risk due to drought, wildfire, and dependence on water levels in the Kern River. Pollution also poses a risk to health and natural resources.

This report identifies two high-potential industries that can drive Kern River Valley's economic development.

Tourism-focused entrepreneurship can drive growth by leveraging the Kern River Valley's location, natural beauty, and ample room for industry development and growth. Conservation and cultural heritage efforts are currently growing in the area, and upgrades to lake infrastructure and new entrepreneurial endeavors provide potential for further expansion. Jobs in the industry tend to be of moderate to high quality. Strategies identified to facilitate development include providing financial incentives to improve existing tourist infrastructure, catalyzing investment for year-round recreation, and encouraging local business to pursue sustainable tourism practices.

The Kern River Valley is also well-positioned for growth in the clean energy industry. Kern County has become a regional hub of clean energy, but despite its natural resources, the Kern River Valley's clean energy industry is relatively undeveloped. The industry is poised for expansion, with several clean energy projects currently proposed in East Kern. The valley's water resources, public lands, and infrastructure make it particularly suited to solar, hydropower, and energy storage projects. Although many jobs in this industry can be short-term in nature (e.g.,

[1] The exact borders and communities included in the Kern River Valley vary, but for the purposes of this subregional economic development plan, they include Kernville, Lake Isabella, Weldon, and Wofford Heights as well as several smaller settlements. For the purposes of this report, it does not include Ridgecrest, Indian Wells, or Inyokern.

construction jobs), permanent ones are often high-quality and can be part of a diversified strategy to drive Kern River Valley's economic growth. Strategies identified to facilitate development include addressing barriers and creating incentives for growth through public-private-community partnerships (e.g., permitting issues, infrastructure needs, financial incentives) and ensuring workers have access to necessary skills training for industry-specific roles.

Additional growth enablers identified in the Kern River Valley include building and growing leadership in unincorporated communities, enhancing digital infrastructure, developing a unified and targeted marketing strategy, and providing economic opportunities for youth.

California City

Subregional Plan

Chapter 1: Context

The regional economic overview outlined in the Regional Plan Parts I and II assessed the current status of Kern County's economy, labor market, and industries; climate and environment; and public health—as well as the potential strengths, weaknesses, opportunities, and threats facing the region.[2]

As noted in previous reports, these opportunities and threats vary widely across Kern County's subregions. The following chapter focuses on the economic, climate, and health-related

[2] In the course of developing the Regional Plan Part 2, the Kern High Road Transition Collaborative (KHRTC) interviewed more than 30 organizational stakeholders including labor, industry, government, community-based organizations, and environmental justice advocates. The KHRTC also held 10 community engagement meetings (2 in each of the five subregions) in June and July 2024, with support from local community-based organizations. These built on 40+ community meetings that had been held in the process of developing the Regional Plan Part 1. The KHRTC also administered surveys in multiple languages inviting residents to share their concerns, aspirations, preferences, priority industries, and general ideas. Overall, more than 800 individuals across the county were engaged in the process. To promote accessibility, community meetings were held at 6pm PT to minimize conflicts with participant's work schedules; offered access to materials in English, Spanish, and Punjabi, where applicable; included live translation to / from English, Spanish, and Punjabi, where appliable; included dinner and childcare; and compensated each attendee for their time with a $50 food voucher.

conditions in California City, specifically highlighting differences and similarities with the overall assessment conducted in Part II.[3]

California City snapshot

City overview

California City is a diverse community with a population of about 15,000 residents, located near the Mojave Desert.[4] It has experienced typical population growth, with a roughly ~1% increase in population annually over the past five years.[5] The largest share of the population identifies as white (29.7%), with 22.4% identifying as Black or African American, and 14.2% as Hispanic or Latino.[6] Additionally, the city's demographic profile reveals that 94.5% of residents are U.S. citizens.[7]

California City's economy, which is centered on the aerospace and manufacturing industries, faces some key constraints as it strives to grow. Its relatively small population, lack of robust infrastructure, and geographic isolation limit new business and investment in the area.[8] Moreover, the city's large size along with its many unfinished streets and tracts and unoccupied households, have led to it often be characterized as a "ghost town" in the press,[9] contributing to an image that can make it difficult to attract and retain skilled workers.

Labor market and industries

California City's labor market faces a number of significant challenges, including low wages, persistent unemployment, and high rates of poverty. Wages remain relatively low with the median individual income in the city at $33,909, [10] which is below the county annual living wage of $44,595.[11] Additionally, 23.2% of inhabitants live below the poverty line, nearly twice the state average.[12] Employment is also a challenge, with approximately 60% (9,000 people) of the city's 15,000 residents being of working age (16-64), and only ~51% (4,600 people) participating in its

[3] Note: A more detailed subregional profile of East Kern can be found in Kern County's Regional Plan Part I: Addendum to the UC Merced Community and Labor Center 2024 Report for the Community and Economic Resilience Fund.
[4] Source: Regional Plan Part II
[5] Source: California City US Census Bureau profile
[6] Ibid.
[7] Ibid. Note: Non-U.S. citizens are often undercounted in Census reporting due to fear that the information will be used for immigration enforcement purposes. Source: NPR, 2023
[8] Source: Antelope Valley Economic Development & Growth Enterprise, 2024 Economic Roundtable Report
[9] Source: All That's Interesting, 2023
[10] Source: US Census Bureau
[11] Source: MIT Living Wage
[12] Ibid.

labor force.[13] Its unemployment rate of 20.1%[14] is two times higher than the rest of Kern County (at 10.5%),[15] meaning roughly 900 people in the city remain unemployed.[16] That labor force participation remains low while unemployment and poverty remain persistently high suggests deeper structural challenges within California City's local economy.

Like the East Kern region at large, California City has an economy that is rooted in the aerospace and manufacturing industry. Approximately 20% of employment in California City is in military, defense, and transportation, ranging across skilled and unskilled jobs (e.g., engineering, computer science-related roles, building and grounds maintenance).[17] Another 13% of the labor force is employed in office and administrative roles related to the industry.

Competition from other states and shifting local job markets are compounding these economic headwinds. East Kern's aerospace industry at large faces increasing competition from other states such as Colorado, Florida, New Mexico, and Texas,[18] which have been offering incentives to attract businesses—Kern County has seen over a 15% decrease in jobs in the industry over the last 15 years. Additionally, the California City Correctional Facility, which employed 500 local residents and provided $1M in annual revenue, recently closed.[19] The city also recently voted to lay off a number of city employees due to a projected $4 million deficit.[20]

Despite these challenges, California City also has distinct competitive advantages, including its expansive geography and proximity to large, established, economic projects and hubs. Regarding geography, the city benefits from a large amount of available land, making it ideal for land-intensive industries like aerospace, warehousing and clean energy facility building and storage, particularly those that build off the advantageous conditions for solar energy.[21]

As for proximity to high growth industries, California City is within commuting distance of aerospace and defense innovation hubs as well as key clean energy projects. More specifically, the aerospace and advanced manufacturing industries are supported by the presence of key regional assets like the Mojave Air and Space Port, Edwards Air Force Base, and China Lake Naval Air Weapons Station. Many of these defense companies, as well as private companies like Hyundai, conduct unique industry R&D (e.g., airplane and vehicle safety testing).[22] Importantly, this industry offers accessible economic opportunities, with fewer than 8% of workers requiring

[13] Ibid.
[14] Source: Regional Report Part I, p. 55
[15] Source: US Census Bureau, 2022
[16] Source: St. Louis FRED, 2024
[17] Source: Antelope Valley Economic Development & Growth Enterprise, 2024 Economic Roundtable Report
[18] Source: Denver Gazette, 2024
[19] Source: 23 ABC, 2023
[20] Source: 23 ABC, 2024
[21] Source: Interesting Engineering, 2024
[22] Source: Stratolaunch, Press Release, 2024, Hyundai Proving Grounds Press Release

a formal certificate.[23] As for clean energy, California City is also relatively close to the Mojave Solar Project (50 miles away) and the Tehachapi Wind Resource Area (20 miles away), both of which capitalize on the subregion's strength in land resources and relatively high wind speeds compared to other parts of the state and county.[24] Many of the skills required for these projects overlap with the industry industries and expertise of current city residents.

In summary, California City has the potential for significant economic revitalization despite its challenges. Based on the current unemployment rate of 20.1% (given the labor force is ~4,600,[25] this implies ~900 unemployed people[26]), and the share of the population with full-time jobs living below county living wage (~1,161 people),[27] it is estimated that at least ~2,000 high quality jobs are needed to significantly advance the city's economic development goals. This number could be significantly higher when accounting for populations with part-time or seasonal jobs. This target could be accomplished by developing strategies that leverage current city strengths such as its vast land and proximity to growing industries.

Climate and environmental impact

California City faces significant climate-related risks, mirroring those experienced across East Kern and Kern County. These risks include more frequent and intense droughts which may result in water scarcity for irrigation, intense cold snaps, and an anticipated increase in wildfire intensity.[28] Kern County as a whole is ranked in the 94th percentile nationally for the vulnerability of its population to climate change.[29] Specifically for California City, climate threats paired with socioeconomic conditions may mean increased risks of infrastructure damage from wildfires, more severe challenges in managing limited water resources, and greater economic strain on vulnerable populations due to reduced access to essential services and increased costs associated with climate-related disruptions.

Current climate projections have serious implications for California City's key aerospace and defense industries, which are integral to the local economy. These industries contribute to environmental risks that can exacerbate climate challenges, such as increased emissions and

[23] Source: US Census Bureau
[24] Source: Kern County Special Wind Region Study, 2019
[25] Source: US Census Bureau
[26] Ibid.
[27] Note: The number of workers earning below the Kern County living wage was estimated by i) comparing the median wage for full-time employees in each of the industries listed by the US Census Bureau, to the county living wage benchmark of $44,595 and classifying each industry as above or below living wage and ii) adding the number of workers in each of the industries classified as having median wages below the living wage. Given the lack of individual-level wage data, this method aims to act as a directional estimate of the minimum number of people with low quality jobs, realizing it can only serve as a baseline and is likely an underestimate, as it fails to consider temporary, part-time, or informal employment.
[28] Source: Advancement Project, Kern County's Future in the Face of Climate Change, 2019
[29] Source: Regional Plan Part I

resource depletion (e.g., high water consumption). As a result, businesses are increasingly subject to regulations and oversight—for instance, approval of the Mojave steel mill project required the submission of mitigation measures, and the project will be subject to ongoing approvals. Some industry players have suggested that these regulations slow business and investment in the region.[30]

In summary, California City is grappling with significant climate risks that threaten both its environmental and economic stability. The projected increase in wildfire risk and other climate-related challenges demand urgent attention, especially given the environmental implications for key regional industries. Addressing pollution from established and incoming projects without disincentivizing investment and growth will be a crucial challenge for the city as it strives to build a resilient, sustainable future.

Health and education

Like other parts of East Kern, California City faces barriers to healthcare access. While only 4.1% of residents report being without healthcare coverage, the city has no hospitals within its limits and is directly serviced by only one community health center.[31] The closest area hospital is approximately 30 miles from city center, with three others at even greater length.[32] These access issues are exacerbated by car dependency in the city and the limited public transportation connecting California City to the rest of Kern County.[33]

This lack of healthcare access combined with other prevalent health conditions, such as mental health issues and poor overall well-being, can hinder residents' ability to participate in the labor force. East Kern residents have expressed a strong need for more mental health resources and providers in the region, including in California City.[34] This concern aligns with broader trends across Kern County, where there is just one mental health provider per 490 residents (compared to one per 270 residents in the state).[35] Moreover, the California Healthy Places Index (HPI), which considers measures of well-being and life expectancy as well as socioeconomic factors (e.g., access to healthy food, education, job opportunities), ranks California City residents in the bottom 15% of healthy communities in the state. These stressors can limit labor force participation and productivity.[36]

California City's educational outcomes also reflect significant disparities compared to state averages. Only about 10% of residents aged 25 years or older hold a bachelor's degree or higher,

[30] Source: Mojave Desert News, 2024
[31] Source: US Census Bureau
[32] Source: California City Chamber of Commerce
[33] Source: Regional Plan Part II
[34] Source: Dalberg Community Feedback Matrix
[35] Source: Regional Plan Part I, p. 93
[36] Source: Healthy Places Index

a rate well below the 19% average in Kern County and 37% average across the state, which suggests that employees with advanced degrees in the aerospace industry (e.g., engineering roles), may not reside in the city.[37,38] California City's educational challenges are exacerbated by the absence of two- and four-year universities in the immediate area, with the closest being the Cerro Coso Community College, Ridgecrest Campus roughly 55 miles north of the city.[39] This contributes to the lack of large-scale labor force development training.

In conclusion, California City faces notable challenges in both healthcare access and education. When developing strategies for economic development, these two factors should be taken into account. Improved access to healthcare will be key to reducing absenteeism and increasing labor force participation, while training programs will be key to enabling access to qualified jobs.

Other enablers

California City's limited infrastructure further compounds its economic, climate, and health and education-related challenges. To start, public transportation in California City is limited, which combined with the city's relatively remote location can result in isolation for residents. While some public transport options are available, such as the Kern Transit bus system (connecting to greater Los Angeles, Ridgecrest, and Bakersfield), the community is still heavily reliant on cars particularly to access nearby state highways (connecting to major regional cities and aerospace hubs such as Palmdale, Lancaster, Los Angeles, and Bakersfield). As it stands, the commute times nearly double state averages.

The city also experiences issues with housing and community services. California City is unique in the region in that it has relatively new housing stock with high vacancy rates. These high vacancy rates could reflect a lack of existing employment opportunities, limited awareness of or interest in living in the city, or a possible lack of quality or mismatch between what renters are seeking and what is available.[40] Lastly, East Kern as a whole is also affected by a lack of community-based organizations which can provide resources to residents (e.g., childcare services, career counseling and labor force development, and financial literacy and assistance). This impacts residents' access to jobs overall and makes attracting and retaining skilled workers more difficult.[41]

Conclusion and implications

Despite current challenges, California City holds significant potential for economic growth, given its strategic location, vast land resources, and proximity to key industries like aerospace

[37] Source: Regional Plan Part I
[38] Source: US Census Bureau
[39] Source: Kern County Comprehensive Economic Development Strategy (CEDS), 2021
[40] Source: Milken Institute, An Economic Road Map for Kern County, 2015
[41] Source: Kern County Comprehensive Economic Development Strategy (CEDS), 2021

and clean energy. Based on the current unemployment rate of 20%[42] (given the labor force is ~4,600,[43] this implies ~900 unemployed people)[44], and the share of the population with full time jobs living below county living wage (1,161),[45] it is estimated that at least ~2,000 high quality jobs are needed to significantly advance the city's economic development goals. This number could be significantly higher when accounting for populations with part-time or seasonal jobs. Creation of these jobs should be pursued through industries that align with the competitive advantages of the area: vast land resources and proximity to major aerospace and defense industries. It will be critical to address challenges regarding educational attainment, healthcare access, infrastructure, public transportation, and community-based resources while developing industry strategies in order to foster sustainable economic revitalization and improve quality of life for residents.

Figure 1: SWOT analysis for California City

Strengths	Weaknesses	Opportunities	Threats
• Proximity to key aerospace and defense industries (e.g., Mojave Air and Space Port, Edwards Air Force Base) • Vast available land resources and strategic location prime city for industrial expansion and possibility of industries with high land demand (e.g., warehousing)	• Educational attainment below state averages, poor health outcomes, and relatively high unemployment and poverty rates • Lack of community resources and community-based organizations • Insufficient or mismatched housing stock • Isolation and lack of public transportation	• Entry of new industries and projects in aerospace, manufacturing, and clean energy • Potential for industrial expansion, particularly in warehousing	• Declining jobs due to new intrastate and national competition, as well as closures in specific industries (e.g., California City Correctional Facility) • Climate-related risks (e.g., wildfire, droughts, water scarcity) and negative environmental impact from industrial aerospace and advanced manufacturing activities

[42] Source: Regional Report Part I, p. 55
[43] Source: US Census Bureau
[44] Ibid.
[45] Note: The number of workers earning below the Kern County living wage was estimated by i) comparing the median wage for full-time employees in each of the industries listed by the US Census Bureau, to the county living wage benchmark of $44,595 and classifying each industry as above or below living wage and ii) adding the number of workers in each of the industries classified as having median wages below the living wage. Given the lack of individual-level wage data, this method aims to act as a directional estimate of the minimum number of people with low quality jobs, realizing it can only serve as a baseline and is likely an underestimate, as it fails to consider temporary, part-time, or informal employment.

Chapter 2: Industry Prioritization

The analysis in Regional Plan Part II identified priority industries for the East Kern region, including clean energy, manufacturing, aerospace and defense, transportation and warehousing, tourism and hospitality, and agriculture. The analysis in this chapter aims to validate similarities and differences between priority industries at the subregional level to identify priority industries specifically for California City. This process identified aerospace and manufacturing, clean energy, and quality warehousing and transportation as priorities for the city.

Industry prioritization and rationale

Industries were analyzed with the goal of identifying the two or three industries with the highest potential for economic development and quality job creation for California City. Supporting strategies for each of these industries were then developed and are included in Chapter 3 of this report. This exercise analyzed industries that were (i) identified as "highly relevant" or "relevant" in the Regional Plan Part II industry analysis, and/or (ii) were raised as high-potential industries by members of the Kern High Road Transition Collaborative (KHRTC) and stakeholders interviewed. This included an analysis of clean energy, aerospace and manufacturing, warehousing and transportation, and entrepreneurship.

In this exercise, **each industry was evaluated[46] across four key categories:**

[46] Category criteria:
Regional assets: High (<1 hour distance), Medium (1-2 hour), Low (>2 hour)

- **Regional assets** that can support an industry's growth, including natural resources, geographic location, and existing infrastructure in the region
- **Job quality**, including current or projected job numbers as well as average wages
- **Market signals** that suggest favorable conditions for industry development or growth, such as anticipated investments, supportive government policies, or emerging market trends
- **Community desirability**, which refers to community desire for jobs in the industry, based on insights gathered from community and stakeholder interviews conducted during Phase II, as well as stakeholder interviews conducted in the course of preparing these subregional plans

Additionally, each industry was also evaluated on the basis of its alignment with equity, climate, and regional strategies to assess compliance, or in its absence, identify any necessary steps for compliance to be achieved.

Based on these factors, the two-three industries with the highest potential for California City were identified: aerospace and manufacturing, clean energy, and quality warehousing and transportation. These industries are estimated to bridge the gap towards the minimum ~2,000 quality jobs outlined in Chapter 1 as those required by California City to substantially advance its economic development goals.[47] A summary of the prioritization exercise and criteria can be found in Figure 1 below.

Job quality: High (if both of the following criteria were high), Medium (if one of the criteria was high), Low (if both were low).

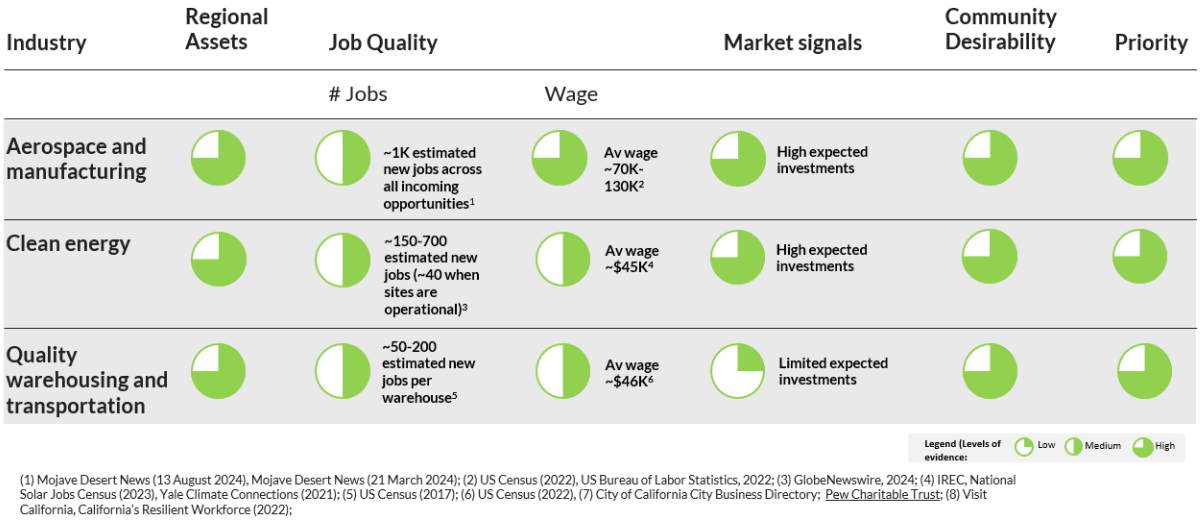
- Number of jobs: High (Projections can reach 50% of the target metric of job creation), Medium (20-50%), Low (0-20%)
- Wage: High (10% above county living wage, which is 44K according to the MIT Wage Calculator), Medium (<= 10%), Low (below 44K)

Market signals: High (Multiple factors: 2-3 incoming opportunities specific to subregion), Medium (1-2 incoming opportunities that are specific to the region at large, not the subregion), Low (limited qual data suggesting opportunities to (sub)region

Community desirability: High (Ranked 1-3 in community interviews and/or highly ranked in qual data), Medium (highly ranked by some community members, but unconclusive via qualitative data), Low (low ranked by all qualitative data sources)

[47] Note: Based on the current unemployment rate of 20.1% (given the labor force is ~4,600, this implies ~900 unemployed people), and the share of the population with full-time jobs living below county living wage (~1,161 people), it is estimated that at least ~2,000 high quality jobs are needed to meet the city's economic development goals. The number of workers earning below the Kern County living wage was estimated by i) comparing the median wage for full-time employees in each of the industries listed by the US Census Bureau, to the county living wage benchmark of $44,595 and classifying each industry as above or below living wage and ii) adding the number of workers in each of the industries classified as having median wages below the living wage. Given the lack of individual-level wage data, this method aims to act as a directional estimate of the minimum number of people with low quality jobs, realizing it can only serve as a baseline and is likely an underestimate, as it fails to consider temporary, part-time, or informal employment.

Figure 2: California City industry prioritization



(1) Mojave Desert News (13 August 2024), Mojave Desert News (21 March 2024); (2) US Census (2022), US Bureau of Labor Statistics, 2022; (3) GlobeNewswire, 2024; (4) IREC, National Solar Jobs Census (2023), Yale Climate Connections (2021); (5) US Census (2017); (6) US Census (2022), (7) City of California City Business Directory; Pew Charitable Trust; (8) Visit California, California's Resilient Workforce (2022);

Industry 1: Aerospace and advanced manufacturing

Overview

The aerospace and manufacturing industry has historically been key for California City's economy and holds substantial potential for future growth. California City is strategically located near a concentration of aerospace establishments and holds vast land with potential for aerospace manufacturing and testing, which positions it to become a vital player in the East Kern aerospace and defense industry. At the same time, increasing competition from aerospace hubs in other states with more favorable policies and incentives suggests that the city will need to foster investments and supporting policies to maintain a competitive advantage.

Regional assets

With its close proximity to existing aerospace and manufacturing hubs, as well as geographic assets that support the industry's expansion, California City is well-positioned to attract existing and new players in the aerospace and advanced manufacturing industry. As the third-largest city by area in the state, California City's vast acreage of still available and affordable land can be a draw both to current manufacturers and others looking to relocate or begin operations.[48] The city is already close to major aerospace hubs in the broader East Kern area (e.g., Mojave Air and Space Port and Edwards Air Force Base, both roughly 20 miles away; China Lake Naval Air Weapons Station roughly 50 miles away), as well as product testing grounds for both military and private actors.[49]

[48] Source: Stakeholder interview, 9/25/2024, validated via listings on LandWatch as of 9/26/2024

[49] Source: Hyundai, Press Release: Hyundai Proving Grounds

Job quality and quantity

The aerospace and manufacturing industries in the area are already key sources of high-quality jobs that do not require a college degree. Approximately 20% of jobs[50] held by California City residents are reported to be related to the aerospace and defense industries, with another 10% of jobs in manufacturing.[51] Median industry wages—ranging from $70,000 for advanced manufacturing[52] to $130,000 for aerospace roles[53]—are high compared to the city median wage of $55,000 and Kern County's living wage of $45,000.[54] Notably, fewer than 8% of workers require an educational certificate for high-quality jobs in this industry,[55] suggesting that major incoming investments (projected to produce upwards of 1,000 jobs during initial construction phases[56]) would be accessible to much of the city's labor force. Furthermore, stakeholder interviews indicate that East Kern aerospace hubs are often unable to fill positions, with local industry players such as the Mojave Air and Space Port consistently indicating the need for qualified workers.[57]

Market signals

Incoming investments related to the aerospace and manufacturing industries suggest the potential for strong growth in the region. For example, a recent $2 million federal project for a new aerospace innovation hub[58] and a $540 million steel mill project[59] have been slated to come to neighboring Mojave, and cumulatively these investments are expected to create over 500 construction jobs and 440 related full-time positions that can meet the needs of both a skilled and unskilled labor force.

Community desirability

Community interest in aerospace and manufacturing is high. Community members ranked aerospace and defense as the second-highest priority in the subregion in surveys and interviews conducted during the Regional Plan Part II.[60] The strong local presence of the industry and its contribution to the economy likely explains why California City residents viewed the industry

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[50] Source: Antelope Valley Economic Development & Growth Enterprise, 2024 Economic Roundtable Report

[51] Source: US Census Bureau

[52] Ibid.

[53] Source: US Bureau of Labor Statistics

[54] Source: MIT Living Wage

[55] Source: Regional Plan Part II, p. 75; cited source: U.S. Bureau of Labor Statistics, 2023

[56] Source: Mojave Desert News, 13 August 2024

[57] Source: Stakeholder interview, 13 September 2024; Note: While total demand is to be pressure tested, benchmark research indicates that Mojave Air and Space Port and Stratolaunch Technology accelerator currently employ ~400 FTE, and that unmet demand ranges in the hundreds

[58] Source: Mojave Desert News, 13 August 2024

[59] Source: Mojave Desert News, 21 March 2024

[60] Source: Community interviews administered directly to California City residents in June 2024, during research conducted for the Regional Plan Part II

more favorably—or as more essential—than their counterparts in other areas of the Kern County region did.[61] Residents ranked manufacturing (as a standalone industry) as the third-highest priority.[62]

Alignment with equity, climate, and regional strategy

The aerospace and manufacturing industry has potential to align with equity and climate goals and is well-aligned with regional strategy. The industry can better support the region's equity goals if it pursues strategies that make it a priority to integrate disinvested communities into its labor force. Similarly, alignment with climate goals can be achieved through strategies that adopt cleaner technologies and practices in order to ensure reduced environmental impact from manufacturing activities. Prioritizing aerospace and manufacturing aligns with East Kern's economic development strategy, as it was categorized as one of the highest relevant industries for the region in the Regional Plan Part II.[63]

Notably, the aerospace and manufacturing industry also faces gender disparities that should be addressed. Not only are women underrepresented in the industry, holding only 15.2% of engineering roles, 23.4% of facilities management roles, and 15% of construction and inspection roles,[64] they also earn nearly 20 to 30% less than their male counterparts for aerospace engineering and related construction/maintenance roles, respectively.[65] These patterns emphasize the need for intentional strategies to advance gender equity and inclusion, helping build a more diverse labor force in the aerospace and manufacturing industry.

Conclusion

In conclusion, California City is poised to become a key player in the aerospace and manufacturing industries, with its strategic location, vast land resources, and potential for high-quality job creation. Upcoming investments and regional growth trends position the city to attract new industry players and expand its economic footprint. With competitive wages and accessible jobs, the industry can provide substantial benefits to the local labor force. Aligning aerospace and manufacturing activities with regional equity and climate goals will ensure that California City's growth is both sustainable and inclusive.

[61] Source: Ibid.
[62] Ibid.
[63] Ibid.
[64] Source: US Bureau of Labor Statistics
[65] Source: Narrow the Gap

Industry 2: Clean energy (solar energy and energy storage)

Overview

Over the past 15 years, the Kern County region has become a center of clean energy in California. The region currently boasts over 20,000 megawatts of wind, solar, and energy storage capacity.[66] In Kern County's clean energy industry, solar energy is expanding rapidly, representing over a third of the clean energy labor force.

Compared to other cities in the county, the clean energy industry in California City is still emerging. A few projects are already present in surrounding area (e.g., Mojave Solar Project, Tehachapi Wind Resource Area), with indications that other projects are in the pipeline (e.g., Camino Solar Energy Project, Willow Rock Energy Storage), but there is ample room for growth. Given the limited energy infrastructure in the city, availability of clean energy sources could help residents access this necessary resource.

Regional assets

With its vast land resources and existing infrastructure California City is well-positioned to attract investments in solar energy and energy storage. California City's abundant sunlight, flat terrain, and proximity to established energy infrastructure—including the Mojave Solar Project—can help the city emerge as a player in Kern County's burgeoning clean energy industry. California City may also have potential to support wind energy projects given proximity to sites such as the Tehachapi Wind Resource Area and favorable wind speeds compared to other parts of the county (particularly for utility-scale projects that involve turbine operation),[67] but key stakeholders note that additional development within city boundaries may face limitations due to airspace and building height restrictions around the regional airport and aerospace facilities.[68]

Job quality and quantity

As outlined in the Regional Plan Part II, clean energy jobs are generally high-quality, offering competitive pay, benefits, stability, and opportunities for worker participation. Research has identified a higher proportion of quality jobs in energy efficiency and renewable energy generation compared to the overall labor market. Observed wages in the industry are high—related industries such as utilities and construction, which support solar projects, pay median wages of $101,000 and $58,000, respectively.[69] These are well above the living wage for Kern County (~$45,000) and median earnings for California City workers (~$55,000).[70] Notably, only

[66] Source: US Department of Energy, Communities LEAP, 2024
[67] Source: Kern County Special Wind Region Study, 2019
[68] Source: Stakeholder interview, 9/25/2024
[69] Source: IREC, National Solar Jobs Census, 2023, Yale Climate Connections, 2021
[70] Source: MIT Living Wage

39% and 37% of positions in renewable energy generation and green construction, respectively, require a four-year degree.[71]

However, one commonly cited shortcoming is that the clean energy industry has higher potential for short-term than long-term job creation. Locally, clean energy is expected to create a medium number of jobs—for example, the Camino Solar Energy Project is expected to create ~150 jobs during peak construction,[72] while Willow Rock Energy Storage would create ~700 jobs during construction, ~40 when operational.[73]

Market signals

Investments in clean energy are on the horizon in the Kern County region, including several projects in close proximity to California City. These include the Camino Solar Energy Project and Willow Rock Energy Storage, which are incoming to the surrounding region and anticipated to lead to moderate to high job creation, as noted above.

From a policy perspective, California City, like Kern County on the whole, also benefits from clean energy supportive policies outlined in the Regional Plan Part II. These include the Green Jobs Initiative, federal legislation such as the 2021 Infrastructure Investment and Jobs Act and the 2022 Inflation Reduction Act. These could present critical opportunities to bring more sustainable and higher-wage jobs into the county and attract additional investment to California City.

Community desirability

California City residents expressed a high interest in the clean energy industry, ranking it as the highest priority during Phase 2 of the regional planning process. Stakeholder interviews revealed that the clean energy industry greatly benefit the community as a source of additional energy and high paying jobs.[74] However, community members expressed concerns about securing access to energy, as most of the energy currently produced is sold outside of the city.[75]

Alignment with equity, climate, and regional strategy

The development of clean energy aligns well with equity goals. Clean energy technologies can help significantly decrease air pollution, which has substantial public health benefits, particularly for disinvested communities that often bear the brunt of pollution and have limited access to healthcare. The adoption of frontier clean energy technologies (e.g., advanced energy storage solutions, smart grid technology, and next-generation solar and wind technologies) can also

[71] Source: IREC, National Solar Jobs Census, 2023
[72] Source: Bureau of Land Management, 2024
[73] Source: GlobeNewswire, 2024
[74] Source: Community interviews administered directly to California City residents in June 2024, during research conducted for the Regional Plan Part II
[75] Source: Stakeholder interview, 9/25/2024

potentially help reduce energy prices, which would benefit communities for whom energy costs are most burdensome.

At the same time, the clean energy industry also faces notable gender disparities. Women in this industry earn nearly 20% less than their male counterparts, reflecting a significant wage gap.[76] In the solar photovoltaic industry specifically, women hold 40% of full-time positions[77], but only hold 14% of senior management positions globally.[78] Their participation in science, technology, engineering, and mathematics (STEM) roles within the renewable energy industry is also considerably lower than in administrative positions.[79] These trends underscore the urgent need for targeted initiatives aimed at promoting equity and representation, ultimately fostering a more inclusive energy industry that can effectively harness the diverse talents of its labor force.

As outlined in the Regional Plan Part II, the clean energy industry aligns strongly with climate goals. Coal, oil, and gas are the largest contributors to global climate change by a large margin, accounting for over 75% of global greenhouse gas emissions and nearly 90% of all carbon dioxide emissions. By building up its clean energy industry, California City will be addressing the urgent need for climate action by supporting the transition away from fossil fuels.

Lastly, clean energy as a priority industry also aligns with East Kern's economic development strategy. In the Regional Plan Part II, clean energy was categorized as one of the highly relevant industries for the subregion.

Conclusion

In conclusion, California City is poised to become a relevant player in the County's rapidly growing solar energy and energy storage industry, with its abundant sunlight and flat terrain, suggesting high potential for quality job creation. Upcoming investments and regional growth trends position the city to attract new industry players and expand its economic footprint. With competitive wages and accessible jobs, the industry can provide substantial benefits to the local labor force that also further regional equity and climate goals.

Industry 3: Quality warehousing and transportation

Overview

California City is well-positioned to contribute to the region's growing warehousing and transportation industry. With its expansive land resources, strategic location near key highways,

[76] Source: S&P Global, 2024
[77] Source: International Renewable Energy Association
[78] Source: World Bank, 2022
[79] Source: International Renewable Energy Association, Renewable Energy: A Gender Perspective, 2019

and proximity to major aerospace hubs, the city has the potential to attract industry investment and foster job creation. As the industry experiences rapid growth across the county, California City's assets and regional connections make it a promising area for future development, particularly in industries like aerospace that require specialized warehousing solutions.

Regional assets

California City is well positioned to play a role in the region's warehousing and transportation industry, specifically for aerospace-related goods. Not only does California City benefit from vast amounts of available and affordable land and even unused buildings/facilities fit for this purpose;[80] its location nearby state highways provides road connectivity to both major aerospace hubs in Kern (e.g., China Lake Weapons Station, Mojave Air and Space Port) and to state-wide hubs (e.g., Palmdale, Lancaster). Roadways also connect the city to Los Angeles, Bakersfield, and even Las Vegas to the east, making the city a strong contender to centralize materials for aerospace manufacturing for Southern California and surrounding regions.

Job quality and quantity

The warehousing and transportation industry has high potential for both short-term and longer-term job creation of moderate quality. The median industry wage falls at $45,000 annually, which is lower than the city median wage of $55,000/year but roughly equal to county's living wage of $44,595/year.[81] Promisingly, the industry has seen a high growth rate across the region (with over 2,500 jobs created in 2022, and 8% growth expected annually through 2030[82]), with a single warehouse having the potential to create roughly 50–200 jobs depending on size. While data on the number of California City residents employed in the industry is limited, anecdotal evidence suggests there are currently limited employment opportunities in the region. Key investments can serve to kickstart growth trends in the subregion.[83]

Market signals

The rapid expansion of the warehousing industry throughout Kern County is a market signal that the industry might be amenable to investing in California City. As noted above, California City has significant regional assets that could attract warehousing investment. It can take advantage of a county-wide trend to accelerate its own economic development**.**

Community desirability

Community interest in warehousing and transportation is high. Community members identified it as a high-priority industry for its potential to drive short- and medium-term job growth in the

[80] Source: Stakeholder interview, 9/25/2024, validated via listings on LandWatch as of 9/26/2024

[81] Source: US Census, 2022; Note: Compared to the living wage for the county at $44K; Source: MIT Living Wage

[82] Source: California Department of Transportation, Kern County Economic Forecast, 2021

[83] Source: Stakeholder interview, 9/25/2024

subregion in the subregion in surveys and interviews conducted during the Regional Plan Part II.[84] This selection was unique to California City, and while residents expressed some concerns about job quality (e.g., safety, environmental impact, upwards mobility) consistent with those voiced in other subregions, they were more focused on and interested in the industry's growth trends and its ability to generate immediate, accessible employment opportunities.

Alignment with equity, climate, and regional strategy

The warehousing and transportation industry will need to establish up-to-standards labor conditions and implement climate mitigation practices in order to align with equity and climate goals. More specifically, the industry needs a clear strategy to improve on its track record of poor labor conditions and worker safety issues, while offering more high-quality, accessible jobs with opportunities for advancement. It also needs to address the harmful health impacts of air pollution, which disproportionately impacts minority and low-income communities, where warehouses are often located. As discussed in the Regional Plan Part II, the transportation industry accounts for half of California's GHG emissions.

Gender disparities are also a persistent challenge in the warehousing and transportation industry. Women make up only 4% of truck drivers and 21% of warehouse workers; they also face a 17% gender wage gap in trucking and a 11% wage gap in warehousing roles.[85] These inequities are compounded by industry stereotypes that often view roles that require physical labor as more suitable for men, which make it more challenging for women to enter and succeed in the field.[86] Addressing these issues will require deliverable efforts to advance gender equity and inclusion, fostering a more diverse and representative labor force in the industry.

Prioritization of this industry is also in alignment with the subregional strategy outlined in the Regional Plan Part II. While the subregional strategy highlights concerns related to job quality, safety, and environmental impacts in the warehousing and transportation industry, it also recognizes the industry's growth potential across East Kern, categorizing it as "highly relevant."

Conclusion

California City's warehousing and transportation industry offers promising opportunities for job creation and economic growth, particularly in aerospace-related industries. While there are challenges regarding job quality and environmental impact, targeted investments and improvements in labor conditions could drive both immediate employment and long-term development. By aligning the industry with regional equity and climate goals, California City can

[84] Source: Regional Plan Part II; Community interviews during the July 2024 subregional meetings with a total attendance of 477 people
[85] Source: Schollmeier & Scott. Examining the gender wage gap in logistics, 2023.
[86] Source: TCI Transportation

capitalize on its assets to support sustainable growth while meeting the evolving needs of its community and the broader region.

Chapter 3: Industry Strategies

This chapter presents strategies aimed at enhancing economic mobility in California City across the prioritized industries identified in Chapter 2. The following presents the vision for each prioritized industry, followed by specific objectives to achieve that vision and detailed sub-strategies for each objective. Ultimately, these strategies aim to promote job quality, leverage regional assets, and align with the broader strategies as outlined in the Regional Plan Part II.

Strategies are organized and tagged by a series of development approaches, using the terms defined below:

- **Expand:** Refers to increasing the number of jobs provided by existing companies.
- **Upgrade:** Focuses on attracting new businesses within already established industries.
- **Adapt:** Involves adjusting current industries to meet future needs.
- **Initiate:** Pertains to drawing in new companies from industries not currently represented in the region.
- **Access:** Emphasizes improving access to existing job opportunities.

The following section outlines the industry-specific strategies for California City for the (i) aerospace and advanced manufacturing industry, (ii) clean energy industry, and (iii) quality warehousing industry.

Industry strategies

Industry 1: Aerospace and advanced manufacturing

This aerospace and advanced manufacturing strategy[87] envisions California City as an additional key player in the aerospace and manufacturing industry, and a gateway to the established industry in the rest of East Kern. It aims to foster high-quality job opportunities for residents while also attracting businesses by leveraging the city's manufacturing and testing infrastructure and proximity to major industry hubs. This vision can be realized through the following key objectives and supporting strategies:

1. **Upgrade: Leverage California City's infrastructure to attract and support new businesses for aerospace R&D, testing, and manufacturing, ultimately promoting end-to-end product testing and development housed within the city.** This strategy aims to build on California City's existing infrastructure for the aerospace industry (e.g., testing facilities) to create a competitive environment for companies to establish and consolidate their operations, with the ultimate goal of attracting companies that test, develop, and manufacture within the region.

   1a. **Offer incentives for companies to complete a full product life-cycle (including testing and manufacturing) within the California City region.** Provide grants or other incentives[88] to companies that elect to both test new technologies and manufacture products within the region. This could position the city as a leading center for innovation, encouraging R&D alongside product development.

2. **Access: Ensure California City residents are directly connected to existing and new job opportunities in nearby areas.** This focus is critical, given that community members have reported unmet demand at aerospace establishments in the surrounding area, suggesting a skills gap that needs to be addressed.

   2a. **Create a local hiring preference program.** Work with nearby employers, including those in Mojave, to establish a local hiring preference for California City residents. This could involve offering incentives[89] to employers or streamlining recruitment efforts that

[87] Note: We have chosen to present our strategies for these industries together as our regional plan Part II highlights advanced manufacturing as a critical step in the value chain for industries like aerospace and ultimately positions industries as interdependent.

[88] See above

[89] Note: These incentives would be granted only if companies meet specific key performance indicators (KPIs), such as the number of quality jobs generated, the average wage of those jobs, the percentage of positions offering benefits, and the level of job training provided to employees.

prioritize local talent, particularly for entry-level or unskilled positions (e.g., a centralized job portal dedicated to connecting California City residents with open positions).

2b. **Organize local career fairs to increase awareness for job opportunities, with a specific focus on targeted recruitment for disadvantaged communities.** Hold regular career fairs, hosted in partnership with employees, community based organizations (CBOs), and city government, that focus on upcoming opportunities from nearby industries. These events would feature representatives from the aerospace and manufacturing industries and offer on-the-spot interviews and hiring for both skilled and unskilled roles. Event hosts would also work directly with CBOs and local nonprofits to tailor programs specifically aimed at reaching disadvantaged communities (e.g., ensuring multilingual event advertising).

2c. **Ensure that California City residents have access to upskilling opportunities that can prepare them for industry jobs.** These labor force development programs will be designed through partnerships between employers and local educational institutions, including community colleges and technical schools, to offer training and certification courses on skills relevant to the industry such as precision machining, robotics, and quality control. These programs should offer flexible options like evening classes and financial assistance to reduce barriers to participation, and can include options such as mobile training units that can reduce transportation barriers and making upskilling more accessible for residents. Strategies should also be tailored to enhance women's access to aerospace jobs by implementing fair and transparent performance evaluation systems, promoting allyship among both male and female leaders, and offering mentorship opportunities. These initiatives can help create a supportive environment that empowers women to succeed and advance in the industry.

Industry 2: Clean energy (solar energy and energy storage)

This strategy envisions California City as a key participant of the solar energy production and storage industry, supported by a skilled labor force. The clean energy industry is still in a transitional phase in California City, and the proposed strategy is designed to capitalize on existing infrastructure from large-scale solar projects, as well as promote energy storage. The strategy aims to create accessible, high-quality jobs across various the solar energy industry and ensure that residents are equipped to meet the evolving demands of the industry. This vision can be realized through the following key objectives and supporting strategies:

1. **Expand: Increase the number of stable high-quality jobs supported by solar technologies and energy storage facilities in proximity to California City.** This objective aims to address key barriers for expansion faced by existing solar energy and energy storage companies in California City, while diversifying their revenue streams. Supporting strategies include

forming a public-private-community partnership to diagnose labor force and infrastructure gaps and upgrading energy infrastructure to enhance grid capacity for energy export.

1a. **Create a public-private-community partnership to assess and address specific barriers for the inclusive development of solar technologies, as well as energy storage, in California City.** Convene key stakeholders from government, clean energy companies, and CBOs to form a public-private-community partnership focused on addressing barriers to inclusive clean energy development in California City. The partnership will identify challenges such as permitting issues, labor force skill gaps, and infrastructure needs, conducting an evidence-based assessment to inform solutions. The growth strategy will prioritize expanding operations for clean energy employers by promoting the development of end-use products like microgrids and scaling solar projects, as well as the possibility of wind. While targeted financial incentives and streamlined permitting processes may be explored as part of a broader toolkit, the strategy will also consider other support mechanisms tailored to business needs. Clear roles will be assigned to public, private, and community actors, with measurable goals that align with California City's economic and social objectives, particularly in community inclusion and job creation.

1b. **Establish job retention initiatives.** Partner with employers, labor force agencies, and community organizations to help construction workers transition into permanent roles after project completion. This can include wage subsidies and incentives to companies that retain workers in operations, maintenance, or facility expansion roles, as well as requirements for employers benefiting from city incentives to prioritize internal recruitment from their construction labor force for long-term positions. Additional strategies can include systems like a regional pool of qualified employees that allows construction workers to shift between public and private projects, ensuring continued employment.

2. **Access. Ensure local workers have access to the necessary skills, training, and career pathways to thrive in technical clean energy roles.** By upskilling the labor force, providing financial incentives, and establishing retention initiatives, California City can help residents access technical clean energy roles and even help construction workers transition from temporary project-based roles to permanent positions, ensuring continued employment as the clean energy industry grows.

   2a. Upskill local labor force in clean energy installation, maintenance, and related technical roles. Partner with clean energy employers to design inclusive training programs

that upskill the labor force for key technical roles, such as solar panel installation, maintenance of solar facilities, electrical systems, and the operation of energy storage systems. Given the specialized nature of this field, explore the potential for partnerships with advanced training institutions. The programs should be designed to provide flexible scheduling to accommodate working families, ensuring greater accessibility for all workers, particularly women and underserved communities. Additionally, companies should be encouraged to offer practical, hands-on training directly linked to employment opportunities, ensuring participants transition seamlessly into these high-demand jobs.

2b. Provide financial incentives for upskilling and retraining. Collaborate with solar and wind energy employers in the region to develop financial incentive programs that encourage California City workers to pursue upskilling opportunities. These incentives could include paid training programs, bonuses tied to certification completion (such as certifications for solar energy maintenance or electrical system installation), or wage increases upon gaining technical qualifications. Additionally, offer job guarantees in areas like solar panel manufacturing, energy storage system maintenance, and clean energy infrastructure development upon successful completion of relevant training. Strategies should also be tailored to enhance women's access to clean energy jobs by implementing fair and transparent performance evaluation systems, promoting allyship among both male and female leaders, and offering mentorship opportunities. These initiatives can help create a supportive environment that empowers women to succeed and advance in the industry.

2c. Offer career advancement opportunities. Work with project developers to implement career development programs that offer clear pathways for advancement within the clean energy industry. This could include mentorship programs, professional development workshops, and opportunities for further education that are administered in tandem with, or as an additional unit to, the upskilling training outlined in strategy 3a.

Industry 3: Quality warehousing and transportation

California City's warehousing and transportation strategy envisions positioning the city as a hub for warehousing services, particularly for those that support the aerospace industry. This approach aims to create accessible, quality jobs while also enhancing logistics capabilities and addressing community concerns about safety and environmental impacts. This vision can be realized through the following key objectives and supporting strategies:

1. **Initiate: Position California City as a competitive hub for high-quality warehousing, particularly to support aerospace and advanced manufacturing logistics needs.** This objective focuses on laying the groundwork for California City to become a location conducive to attracting investment, with a clear emphasis on developing sustainable and

quality warehousing from the start. By ensuring high standards in labor practices, environmental responsibility, and worker safety, California City can create a warehousing industry that addresses community concerns regarding the poor health, safety, and environmental impacts typically associated with the industry. The goal is to set the foundation for an industry that prioritizes fair practices, offers well-paying jobs, and adheres to the highest environmental standards while supporting the growth of the industry at large.

1a. Develop a long-term sustainable growth plan for establishing new logistics hubs in California City. Collaborate with urban planners, sustainability experts, and industry leaders, particularly in aerospace and advanced manufacturing, to craft a strategic blueprint for the sustainable development of logistics hubs in California City. Since the city is newer to this industry, the plan should prioritize foundational aspects such as site selection, transportation infrastructure, renewable energy integration, and labor force development, particularly in alignment with new state mandates for the industry (e.g., AB 98).[90] Emphasis should be placed on creating an environmentally responsible industry that minimizes carbon footprints, incorporates energy-efficient technologies, and offers high-quality employment opportunities. By thinking ahead, the city will ensure these hubs are built with a focus on long-term economic and environmental sustainability.

1b. Attract businesses that align with California City's vision for sustainability and job quality. Scout for a private industry partner who can champion California City's vision of building a sustainable logistics industry that creates quality jobs. Launch a targeted outreach initiative aimed at attracting logistics companies committed to environmentally responsible practices, offering incentives such as tax credits, expedited permitting, and grants for companies investing in clean energy technologies, low-emissions vehicles, and energy-efficient logistics systems. Seek a corporate partner which not only adheres to the highest environmental standards but is also committed to labor force development, offering competitive wages, safe working conditions, and opportunities for career advancement.

1c. Establish strong labor laws and standards from the outset. Partner with state and local labor organizations to ensure the warehousing industry in California City adheres to high labor standards from the start. By advocating for fair wages, safe working conditions,

[90] Note: AB 98 is a California law signed in September 2024 that requires new or expanded warehouses to be set back 300-500 feet from homes, schools, and hospitals. It also mandates energy efficiency, EV infrastructure, and restrictions on truck routes to reduce environmental impact and improve public health in affected areas. The bill aims to balance the growth of the logistics industry with community health and environmental standards. Source: Politico, 2024

and comprehensive benefits, the city will create a labor force-friendly industry that attracts and retains talent.

1d. Promote certification and labor recognition programs. Establish a certification program from the outset to ensure that California City's nascent warehousing industry grows into a high-quality, sustainable industry. By setting clear benchmarks for labor conditions, environmental practices, and operational standards, the city can guide new entrants in the industry to adopt best practices early on. This forward-thinking approach will provide a competitive edge, positioning California City as a leader in responsible warehousing. Certified companies will be eligible for tax incentives and public recognition, helping to attract industry investments while ensuring that the industry maintains a focus on job quality and sustainability as it grows.

2. **Access: Prepare California City residents to engage in high-quality warehousing jobs.** This objective focuses on connecting the local labor force with opportunities in the industry and equipping them any additional skills and resources needed to access high-quality warehousing jobs. By fostering local partnerships and aligning education with industry needs, California City can build a skilled labor force ready to meet the demands of modern warehousing and logistics roles.

   2a. Organize local career fairs to increase awareness of incoming job opportunities, with a specific focus on targeted recruitment for disadvantaged communities. Hold regular career fairs in California City that are focused on the opportunities arising from warehousing development. Event hosts would also work directly with employers, CBOs, and local nonprofits to create programs specifically tailored towards reaching disadvantaged communities.

   2c. Invest in labor force training and upskilling related to technical aspects of warehousing, with a focus on reaching disadvantaged communities. Administered in partnership with local community colleges, technical schools, and CBOs, the training can cover topics such as warehouse management software to promote proficiency in relevant technological skills (e.g., fulfillment monitoring systems, customer relationship management tools) and certifications to improve workplace safety (e.g., forklift operation, fire safety, use of ergonomic tools, and emergency response protocols). Programs will offer flexible options, such as evening classes and financial assistance, to minimize barriers to participation and ultimately create a skilled labor force to support warehousing and logistics operations in the city.

   2c. Foster regional collaboration for labor force development. Collaborate with cities like Mojave, Shafter, and Bakersfield to create shared labor force development programs that

pool resources for training and education. This ensures California City's residents have access to specialized skills without requiring significant upfront investments in training infrastructure.

Industry development enablers and strategies

To effectively support the growth of its aerospace, manufacturing, warehousing, and clean energy industries, California City should prioritize several key enablers and strategies. These include enhanced transportation infrastructure and improved community amenities. Specifically:

1. **Improving transportation infrastructure** could play a vital role in connecting workers to employment opportunities and industries to a reliable labor force. Upgrading state routes and expanding public transit options such as bus services and carpool incentives would ease commuting, reducing travel barriers for residents. This could increase job accessibility, boost labor force retention, and ensure a steady supply of skilled labor. In addition, it would provide reskilling opportunities for disadvantaged communities, aligning the local labor force with industry needs and supporting long-term economic growth.

2. **Prioritizing strong community services** is a crucial step to attracting and retaining workers. Accessible childcare, healthcare services, parks, and recreational facilities would make the city more livable, encouraging individuals and families to settle in the area. A more stable, satisfied population supports industry growth by ensuring a reliable and long-term labor force.

By prioritizing these enablers, California City could not only strengthen its foundation for industrial expansion but also create a more supportive and sustainable community environment that meets the diverse needs of its residents.

Kern River Valley

Subregional Plan

Chapter 1: Context

The regional economic overview outlined in the Regional Plan Parts I and II assessed the current status of Kern County's economy, labor market, and industries; climate and environment; and public health—as well as the potential strengths, weaknesses, opportunities, and threats facing the region.[91]

As noted in previous reports, these opportunities and threats vary widely across Kern County's subregions. The following chapter focuses on the economic, climate, and health-related

[91] In the course of developing the Regional Plan Part II, the Kern High Road Transition Collaborative interviewed more than 30 organizational stakeholders including labor, industry, government, community-based organizations, and environmental justice advocates. The KHRTC also held 10 community engagement meetings (2 in each of the five subregions) in June and July 2024, with support from local community-based organizations. These built on 40+ community meetings that had been held in the process of developing the Regional Plan Part 1. The KHRTC also administered surveys in multiple languages inviting residents to share their concerns, aspirations, preferences, priority industries, and general ideas. Overall, more than 800 individuals across the county were engaged in the process. To promote accessibility, community meetings were held at 6pm PT to minimize conflicts with participants' work schedules; offered access to materials in English, Spanish, and Punjabi, where applicable; included live translation to / from English, Spanish, and Punjabi, where appliable; included dinner and childcare; and compensated each attendee for their time with a $50 food voucher.

conditions in the Kern River Valley, specifically highlighting differences and similarities with the overall assessment conducted in Part II.[92]

Kern River Valley snapshot

Region overview

The Kern River Valley encompasses several unincorporated communities[93] and settlements in the northern part of East Kern and is home to roughly 10,000 total residents.[94] The exact borders of and communities included in this designation vary, but for the purposes of this subregional economic development plan, include Kernville, Lake Isabella, Weldon, and Wofford Heights as well as several smaller settlements. For the purposes of this report, it does not include Ridgecrest, Indian Wells, or Inyokern. Notably, these communities' unincorporated status hinders their ability to organize and effect change in the region, exacerbating existing issues and contributing to disinvestment.

These communities are all relatively small with a majority white population. More specifically, the average population size is roughly 2,300, and the racial makeup of these communities is often as high as 80-90% white, in stark contrast to the overall demographics of Kern County, where more than 55% of residents are Hispanic or Latino.[95] Notably, the Kern River Valley is also the ancestral home of several Indigenous tribes, including the Tübatulabal and Kawaiisu, adding to the communities' racial diversity.

Lastly, the region's population skews older than other parts of the county, which has resulted in issues around aging businesses and limited future opportunities for youth. Wofford Heights, for instance, has a median age of 60, double that of Bakersfield, and according to community members, this has led to significant issues with a lack of succession plans for multigenerational businesses, vacant and unkempt homes that attract squatters, and overall lack of support for an aging and retired population.[96] A lack of meaningful and enriching opportunities for the youth in

[92] Note: A more detailed subregional profile of East Kern can be found in Kern County's Regional Plan Part I: Addendum to the UC Merced Community and Labor Center 2024 Report for the Community and Economic Resilience Fund.
[93] Note: Unincorporated communities are communities that do not have their own local (e.g., city or municipal) government. Because of this political status, residents in unincorporated communities are more likely to experience political exclusion and diminished access to resources, particularly for low-income communities of color. Source: Gomez-Vidal & Gomez, 2021.
[94] Note: Estimation found by summing total number of residents in each settlement, as identified via the US Census Bureau. See below sources for direct links to each Census profile.
[95] Source: Regional Plan Part I, p.50
[96] Source: Stakeholder interview, 9/24/2024

the region (e.g., due to inaccessibility of educational opportunities listed above) contributes to poor outcomes and migration out of the region.[97]

Labor market and industries

The Kern River Valley's labor market lags behind the rest of Kern County, facing challenges with low wages and high unemployment and poverty rates that vary across settlements. For instance, Lake Isabella, with a labor force of ~800,[98] faces severe challenges with a median household income of $27,116, far below the county's living wage;[99] an unemployment rate of 17.23%, which is nearly twice the overall Kern County rate of 10.47%;[100] and 36.4% of its residents living below the poverty line,[101] more than three times the state average of roughly 12.2%.[102] Weldon appears to be only slightly better positioned, with a labor force of ~800, a median household income of $27,377, and a poverty rate of 35.7%.[103] Wofford Heights has a better standing with a median household income of $36,614, and a poverty rate of 24.8% across a labor force of ~500.[104] Kernville, with a labor force of ~250, has a median household income of $41,497, and an unemployment rate of 20.5% but a poverty rate of 13%,[105] a discrepancy that could be reflective of the presence of a retired community in the settlement.[106]

Tourism is the key industry in the Kern River Valley economy, although it faces challenges as not all settlements have been able to benefit from it in the same way, and as decaying infrastructure and recent natural disasters hinder industry growth. While all settlements are located in the surroundings of Lake Isabella and nearby the Kern River, only Kernville has a robust hospitality industry, with 24% of its population working in accommodation and food services[107] and with the availability of strong attractions and infrastructure (e.g., immediate access to the Kern River, annual events that draw over 70,000 people, significant numbers of Airbnbs)[108]. Community members note that other towns have been unable to harness tourism and build out infrastructure in the same way,[109] with some accounts describing areas around Lake Isabella as a "ghost town,"

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[97] Source: Stakeholder interview, 9/13/2024
[98] Source: Lake Isabella US Census Bureau profile
[99] Source: MIT Living Wage
[100] Source: Lake Isabella US Census Bureau profile
[101] Ibid.
[102] Source: Statista, 2022
[103] Source: Weldon US Census Bureau profile. Note: Disaggregated unemployment data for the settlement is unavailable
[104] Source: Wofford Heights US Census Bureau profile. Note: Disaggregated unemployment data for the settlement is unavailable.
[105] Source: Kernville US Census Bureau profile
[106] Ibid.
[107] Ibid.
[108] Source: Kernville Chamber of Commerce
[109] Source: Stakeholder interview, 9/24/2024

particularly during dry seasons.[110] These issues have been compounded by environmental threats including fires, droughts, and the draining of the Isabella Dam that have negatively impacted tourism and highlighted the region's dependency on water-related activities. This has weakened the Kern River Valley's competitive advantages over other California destinations like Lake Tahoe.[111]

Despite these challenges, there are emerging opportunities that could help expand tourism, while the region's geographical assets could be leveraged to drive economic growth in other industries. For instance, conservation and cultural heritage efforts in the region are growing: in 2023, over 2,000 acres of ranchland in the Kern River Valley were deeded to a local cultural heritage foundation and the Tübatulabal Tribe, the land's ancestral inhabitants, with the former expressing interest in expanding public access to natural lands.[112] Recent upgrades to the Isabella Dam and the refilling of the Kern River fish hatchery also suggest an opportunity to leverage and expand outdoor recreation beyond the whitewater rafting activities that have long been the most popular in the region.[113] As for opportunities outside of tourism, the area's vast land and water resources could attract other industries such as clean energy.

In summary, the Kern River Valley has the potential for significant economic revitalization despite its challenges. The lack of complete data for the Kern River Valley makes it difficult to estimate the number of new jobs needed to significantly advance its economic development objectives. However, based on Lake Isabella (17.2%) and Kernville's (20.5%) unemployment rates, and assuming 10,000 residents in the area,[114] we estimate at least 2,000 additional high-quality jobs would need to be created.[115] More jobs are likely needed, as some Kern River Valley residents are currently in low-quality jobs and need a path to a high-quality job. This target could be accomplished by developing strategies that leverage the region's current strengths such as proximity to tourist attractions and vast land resources.

[110] Source: SF Gate, 2022
[111] Source: Stakeholder interviews, 9/13/2024, 9/24/2024
[112] Source: 23ABC News, 2023
[113] Source: Stakeholder interviews, 9/13/2024, 9/24/2024
[114] Note: Estimation found by summing total number of residents in each settlement, as identified via the US Census Bureau. See above sources for direct links to each Census profile.
[115] Note: The estimate for high quality jobs is based on the size of the total population (~10K) multiplied by the unemployment rate (~20%) and further validated through interviews with Governance Council members and interviews with community members. Note that the methodology to achieve this number does not use the total size of the labor force as calculated in other subregions based on limited data. Therefore, the estimate aims to act as a directional estimate of the minimum number of people with low quality jobs, realizing it can only serve as a baseline and is likely an underestimate, as it fails to consider temporary, part-time, or informal employment.

Climate and environment impact

As mentioned above, the Kern River Valley is increasingly vulnerable to climate risks such as prolonged droughts and severe storms, which have significantly impacted the region's industries. Historically, the Kern River has relied on sporadic wet years for its water supply, but recent trends show longer and more frequent drought periods.[116] These changes have adversely affected local farmers, food manufacturers,[117] and the tourism industry, which is highly reliant on water sports like whitewater rafting. Other climate disasters (including storms, wildfires, and flooding) have negatively impacted both small businesses and residents as recovery efforts fail to keep pace with local needs such as repairs to damaged buildings and infrastructure.[118] In addition to infrastructure damage, disasters deter visitors concerned about potential safety risks and closures of recreational activities.[119]

The Kern River Valley, particularly Lake Isabella and its surrounding areas, also grapple with pollution issues that are closely tied to its primary industries. According to CalEnviroScreen 4.0, the region is classified as a disadvantaged community based on proximity to hazardous waste facilities and groundwater contamination that contribute to its poor environmental and health outcomes.[120] These pollution sources not only deteriorate environmental quality but also exacerbate health risks for residents, who are already vulnerable due to socioeconomic challenges such as poverty and unemployment.

In summary, the Kern River Valley is grappling with significant climate risks that threaten both its environmental and economic stability. Finding ways to reduce the region's dependency on water-related activities and increasing protection from consequences of natural disasters will be crucial for the region's growth and residents' health.

Health and education

Like many of the communities in Kern County, the Kern River Valley experiences high access barriers to healthcare due to its rural location and relatively limited resources.[121] Though there are relatively high healthcare coverage rates (e.g., just 5.81% of residents in Lake Isabella are uninsured, with 16.8% on Medicare and 56.6% on Medicaid[122]), the area is serviced primarily by just one medical facility, the Kern Valley Hospital in Lake Isabella, as well as scattered community clinics and specialty providers. Many of the latter are close to or have already retired, making the

[116] Source: Sustainable Kern River
[117] Source: Sustainable Kern River
[118] Source: Bakersfield Now, 2023
[119] Ibid.
[120] Source: CalEnviroScreen analysis from Regional Plan Part I: Addendum to the UC Merced Community and Labor Center 2024 Report
[121] Source: South Kern Sol, 2024
[122] Source: US Census Bureau

decline in labor force an additional concern that is aggravated by a lack of healthcare training facilities in the region.[123]

Additionally, residents of the Kern River Valley experience a range of health issues, influenced by both environmental and socioeconomic factors. For instance, proximity to hazardous waste sites has been linked to increased rates of adverse health outcomes.[124] This environment, combined with the socioeconomic stressors that impact Kern River Valley residents (e.g., poverty and economic uncertainty) have contributed to what researchers call "toxic stress" passed on through generations in the region, which is exacerbated by other issues such as homelessness (which was reported to be a serious issue in the region during community interviews)[125] and drug abuse.[126] These findings are in line with reports that Kern County residents experience death from opioid overdoses at two times the state average.[127]

Educational outcomes in the Kern River Valley vary but are generally lower than those across Kern County. Community members note that educational attainment has been a chronic and generational issue in the area, reflected by secondary education rates hovering between 6-10% in Lake Isabella, Weldon, and Wofford Heights.[128] Furthermore, the Kern River Valley has limited secondary educational institutions, with students often commuting ~two hours daily to access educational services in areas like Bakersfield.[129] The main instructional site in the area is Cerro Coso Community College (within the Kern Community College District, or KCCD), in Ridgecrest (roughly 60 miles away from all four communities in the KRV). As of 2017, Cerro Coso served the largest student population over age 35 (56.3%) among community colleges in the KCCD, suggesting that there is high potential demand for mid-career education and retraining opportunities in the region.[130]

In conclusion, the Kern River Valley faces notable challenges in both healthcare access and education. When developing strategies for economic development, these two factors should be taken into account. Improved access to healthcare will be key to reducing absenteeism and increasing labor force participation, while training programs will be key to enabling access to qualified jobs.

[123] Source: Stakeholder interview, 9/13/2024
[124] Source: Brender et al., 2011
[125] Source: Bakersfield-Kern Regional Homeless Collaborative 2020 PIT Count Report
[126] Source: USC Annenberg Center for Health Journalism, 2017
[127] Source: KGET, 2022
[128] Source: All educational data pulled from settlements' respective US Census Bureau profiles, cited above
[129] Source: Stakeholder interview, 9/24/2024
[130] Source: Kern Community College District Strategic Plan, 2019-2022

Other enablers

The Kern River Valley's remote location and limited public transportation contributes to high commuting costs and limits community services. The region is serviced by some bus routes via Kern Transit,[131] but even so, community members report high vehicle ownership and the necessity of driving to access services, which leads to high spending (e.g., up to $700+ in monthly commuting fees) in order to access more central areas of the county such as Bakersfield.[132] Similarly, the remote location, coupled with the lack of community-based organizations and nonprofits in the region, means that key services such as disaster relief services take a long time to respond to issues in the area.

Conclusion and implications

Despite current challenges, the Kern River Valley holds potential for economic growth, given its proximity to key tourist attractions and vast land resources. While complete data are not available to accurately estimate the number of jobs needed to significantly advance the region's economic development goals, triangulation of available unemployment rates (Lake Isabella's 17.2% and Kernville's 20.5%) to the area's population of 10,000 residents, put this number at least 2,000 jobs (not inclusive of jobs needing quality increase).[133] Creation of these jobs should be pursued through industries that align with the competitive advantages of the area: vast land resources and proximity to tourist attractions. It is critical to address challenges regarding educational attainment, healthcare access, and infrastructure when developing industry strategies in order to foster sustainable economic revitalization in the Kern River Valley and improve quality of life for its residents.

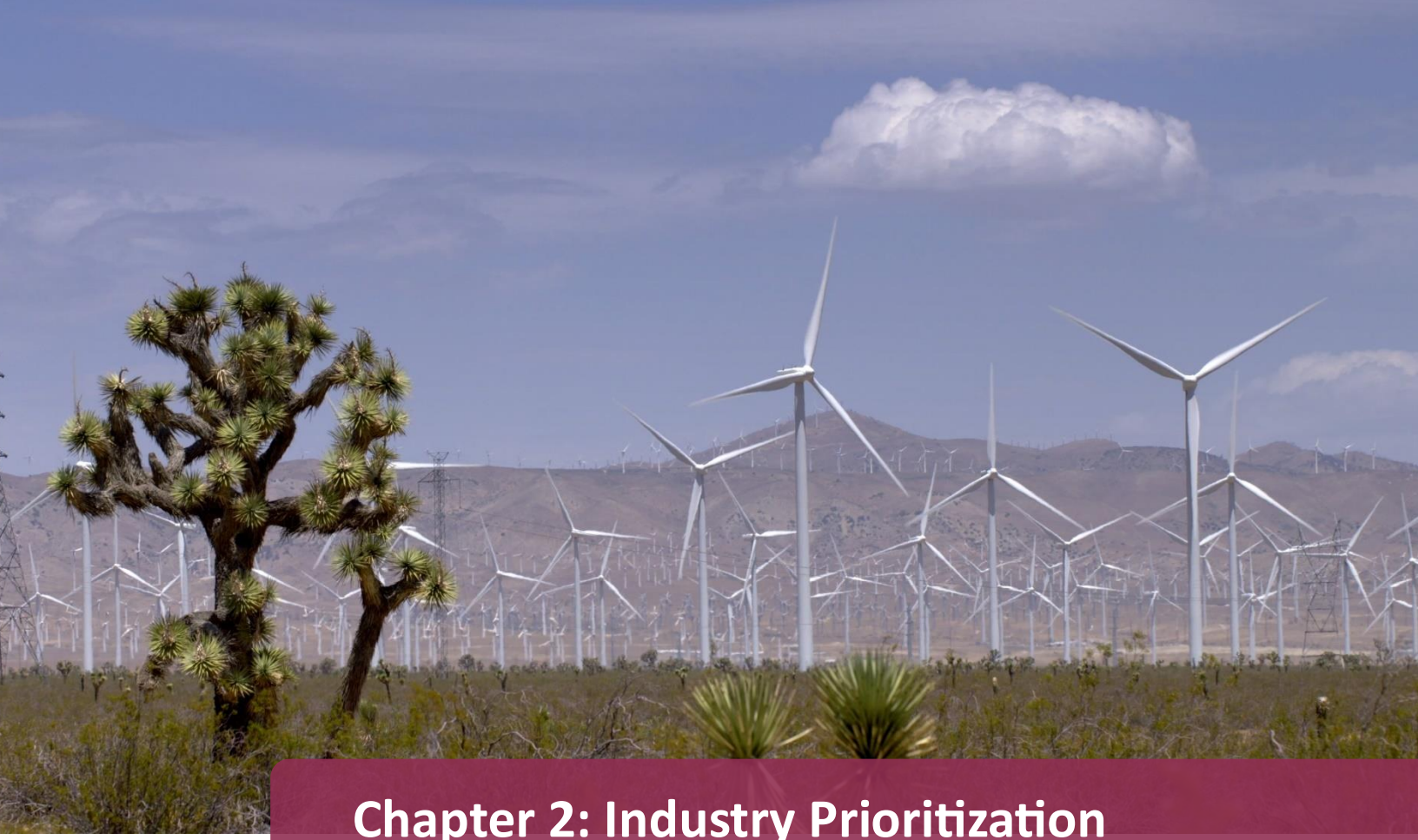
[131] Source: Kern River Valley Transportation Development Plan, 2015

[132] Source: Stakeholder interview, 9/24/2024

[133] Note: The estimate for high quality jobs is based on the size of the total population (~10K) multiplied by the unemployment rate (~20%) and further validated through interviews with Governance Council members and interviews with community members. Note that the methodology to achieve this number does not use the total size of the labor force as calculated in other subregions based on limited data. Therefore, the estimate aims to act as a directional estimate of the minimum number of people with low quality jobs, realizing it can only serve as a baseline and is likely an underestimate, as it fails to consider temporary, part-time, or informal employment.

Figure 1: SWOT analysis for the Kern River Valley

Strengths	Weaknesses	Opportunities	Threats
• Strong tourism and outdoor recreation sectors driven by proximity to national parks and forests • High potential for renewable energy projects, such as pumped hydroelectric storage at Lake Isabella	• High poverty and unemployment rates • Low educational attainment and lack of local educational institutions • Poor infrastructure (healthcare, roads, community services)	• Potential for growth in energy storage and renewable energy (hydropower) sectors • Expansion of tourism and outdoor recreation activities	• Climate risks, including prolonged droughts, severe storms, and water scarcity, impacting tourism and agriculture • Pollution from nearby hazardous waste sites and environmental risks tied to primary industries • Competition from other regions for tourism and energy investments



Chapter 2: Industry Prioritization

The analysis in the Regional Plan Part II identified priority industries for the East Kern region, including clean energy, manufacturing, aerospace and defense, transportation and warehousing, and hospitality and tourism. The analysis in this chapter aims to validate similarities and differences between priority industries at the subregional level to identify priority industries specifically for the Kern River Valley. This process identified tourism-focused entrepreneurship and clean energy as priorities for the region.

Industry prioritization and rationale

Industries were analyzed with the goal of identifying the two or three industries with the highest potential for economic development and quality job creation for the Kern River Valley. Supporting strategies for each of these industries were then developed and are included in Chapter 3 of this report. This exercise analyzed industries that were (i) identified as "highly relevant" or "relevant" in the Regional Plan Part II industry analysis, and/or (ii) were raised as high-potential industries by members of the Kern High Road Transition Collaborative (KHRTC) and stakeholders interviewed. This included an analysis of (i) clean energy, manufacturing, aerospace and defense, transportation and warehousing, tourism and hospitality, agriculture and (ii) entrepreneurship.

In this exercise, each industry was evaluated[134] across four key categories:

- **Regional assets** that can support an industry's growth, including natural resources, geographic location, and existing infrastructure in the region
- **Job quality**, including current or projected job numbers as well as average wages
- **Market signals** that suggest favorable conditions for industry development or growth, such as anticipated investments, supportive government policies, or emerging market trends
- **Community desirability**, which refers to community desire for jobs in the industry, based on insights gathered from community and stakeholder interviews conducted during Phase II, as well as stakeholder interviews conducted in the course of preparing these subregional plans

Additionally, each industry was also evaluated on the basis of its alignment with equity, climate, and regional strategies to assess compliance, or in its absence, identify any necessary steps for compliance to be achieved.

Based on these factors, two industries with the highest potential for Kern River Valley were identified: tourism-focused entrepreneurship and clean energy. These industries are estimated to bridge the gap towards the ~2,000 quality jobs outlined in Chapter 1 as the minimum required by Kern River Valley to further its economic development goals.[135] A summary of the prioritization exercise and criteria can be found in Figure 1 below.

Figure 2: Kern River Valley industry prioritization

[134] Category criteria:
Regional assets: High (<1 hour distance), Medium (1-2 hour), Low (>2 hour)
Job quality: High (if both of the following criteria were high), Medium (if one of the criteria was high), Low (if both were low).

- Number of jobs: High (Projections can reach 50% of the target metric of job creation), Medium (20-50%), Low (0-20%)
- Wage: High (10% above county living wage, which is 44K according to the MIT Wage Calculator), Medium (<= 10%), Low (below 44K)

Market signals: High (Multiple factors: 2-3 incoming opportunities specific to subregion), Medium (1-2 incoming opportunities that are specific to the region at large, not the subregion), Low (limited qual data suggesting opportunities to (sub)region
Community desirability: High (Ranked 1-3 in community interviews and/or highly ranked in qual data), Medium (highly ranked by some community members, but unconclusive via qualitative data), Low (low ranked by all qualitative data sources)

[135] Note: The estimate for high quality jobs is based on the size of the total population (~10K) multiplied by the unemployment rate (~20%) and further validated through interviews with Governance Council members and interviews with community members. Note that the methodology to achieve this number does not use the total size of the labor force as calculated in other subregions based on limited data. Therefore, the estimate aims to act as a directional estimate of the minimum number of people with low quality jobs, realizing it can only serve as a baseline and is likely an underestimate, as it fails to consider temporary, part-time, or informal employment.

Industry	Regional Assets	Job Quality		Market signals	Community Desirability	Priority
		# Jobs	Wage			
Tourism-focused entrepreneurship		~15-50 employees per venture, ~5-10 ventures annually[1]	Av wage ~$82K for year-round FTE[2]	Expected investments		
Clean energy		~40-150 estimated new jobs[3]	Av wage ~$45K-80K[4]	High expected investments		

Legend (Levels of evidence: Low Medium High

(1) Estimation based on the reported number of employees per Kern River Valley recreation business and estimation of number of ventures launched via rural community business incubator programs; source: KGET, 2020, Brookings Institute, 2016; (2) Visit California, California's Resilient Workforce (2022); (3) Bureau of Land Management, 2024; (4) IREC, National Solar Jobs Census (2023), Yale Climate Connections (2021), (5) Estimation based on current size of KRV healthcare system (25-bed unit), job openings/listings as of 9/20/2024, and qualitative data from California Health Care Foundation, 2022. (6) Bureau of Labor Statistics, 2022

Industry 1: Tourism-focused entrepreneurship[136]

Overview

Tourism and tourism-focused entrepreneurship have long been the backbone of the Kern River Valley economy. The region's natural beauty and a range of outdoor recreation activities attract tourists from across the state and country. As such, Kern Valley River residents recognize the importance of the industry to their livelihood. Hence, community members have expressed interest in ensuring that the industry is a sustainable and responsible part of their communities, particularly as recent natural disasters (e.g., wildfires that have burned down local accommodations) and other circumstances (e.g., temporary draining of the Isabella Dam) have negatively impacted tourism.[137] Thus, in order to diversify and expand the potential of tourism, community members have pointed to entrepreneurship as a key vehicle to innovate and develop new tourism ventures.

Regional assets

The Kern River Valley's location and natural features are the primary drivers of regional tourism. Its proximity to major natural attractions and national parks gives strength to outdoor recreation activities such as whitewater rafting, mountain biking, and camping. Key events, such as the annual trout fishing derby, also draw tourists into the region. The presence of vacation homes in certain parts of the region signals potential for a year-round holiday destination as well, but community members note that the dry year-round climate means that the location lacks strengths in being a destination location like cities such as Tahoe and Aspen. Additionally, tourism

[136] Note: For the purposes of this report, tourism-focused entrepreneurship refers to the creation and management of businesses that cater primarily to tourists, offering products, services, or experiences designed to enhance their travel and leisure activities.

[137] Source: Bakersfield Now, 2023.

infrastructure is variable across settlements. While locations like Kernville have a relatively strong variety of appealing hotels, accommodations and restaurants, areas like Lake Isabella have weaker tourist infrastructure and limited accommodations, especially due to recent natural disasters impacting the community.[138]

Recreation activities are largely centered around water sports in the Kern River, but also present limitations. More specifically, while whitewater rafting has been historically popular, fluctuation between high and low water years has sparked an increased interest in and potential to grow non-water sports activities in the region, particularly for parts of the region that are not as close to the Kern River (e.g., Weldon, compared to areas like Kernville). Along these lines, community members also note the need for strong tourist infrastructure, amenities, and strategic marketing efforts to continue to attract tourists, particularly during off seasons.[139]

Job quality and quantity

The tourism industry employs a significant number of residents across the Kern River Valley and offers accessible jobs of moderate to high quality. Roughly 23.6% of jobs in Kernville are related to tourism, accommodations, and hospitality,[140] and while data are lacking for other smaller settlements in the area, anecdotal evidence from community interviews suggests that the industry plays just as considerable a role in these other communities. Employment in the industry is projected to increase by a total of 15% from 2021 to 2026 across the county at large.[141] A quarter of seasonal tourism employees in California earn $20/hour, [142] while full-time employees (without a bachelor's degree) make an average of $82,000 annually.[143] Stakeholder interviews suggest analogous jobs in the Kern River Valley can **pay** comparably to, or below, these wage levels. Jobs in the industry are also accessible, as workers tend to be younger, less likely to hold a bachelor's degree, and/or more likely to come from outside of the paid labor force (e.g., to have been unemployed the previous year or for this to be their first job).[144]

Market signals

Both current market signals and new local developments suggest strong potential for industry growth. More specifically, travel to Kern County has reportedly increased by 5% over pre-

[138] Note: This is likely due to Kernville's proximity to the Kern River (relatively closer compared to other Kern River Valley settlements) and an active chamber of commerce that other settlements notably lack. Source: Stakeholder interview, 9/24/2024
[139] Source: Stakeholder interview, 9/13/2024, stakeholder interview, 9/24/2024
[140] Source: US Census Bureau
[141] Source: California Department of Transportation, Kern County Economic Forecast, 2021
[142] Note: This is above the minimum wage for the county, and at the living wage for a family with 2 working adults and 1 child. Source; MIT Living Wage
[143] Source: Visit California, California's Resilient Workforce, 2022
[144] Ibid.

pandemic levels, likely due to an increased interest in local/regional tourism in lieu of international travel.[145] Though disaggregated information on the number of tourists to the Kern River Valley is unavailable, community members note that the region is considered the tourist seat of the county, and that visitors are typically most interested in the national parks around the area.[146] Furthermore, local developments, such as the refilling of the Isabella Dam and its hatchery (which will restock the lake for fishing) and a new regional coworking space that supports remote work suggest key opportunities to attract visitors to the region.[147]

Community desirability

Community members in Lake Isabella explicitly identified tourism as a subregional priority.[148] At the same time, community members acknowledge that irresponsible or extractive tourism may place a strain on their communities, and state that there needs to be intentional effort to ensure that visitors are connected to, and support, local businesses.

Alignment with equity, climate, and regional strategy

This prioritized industry aligns with equity and climate goals as well as the findings of the Regional Plan Parts I and II. In terms of equity goals, research suggests that tourism has low barriers to entry and is one of the most accessible industries in which to work.[149] Furthermore, while tourism at large has both been negatively impacted by the effects of climate change (e.g., natural disasters that alter travel plans) and can contribute to it (e.g., carbon emissions from air travel), local tourism has been found to drive innovation and an interest in sustainable travel.[150] Lastly, tourism-related entrepreneurship strongly aligns with the economic development strategies outlined in the Regional Plan Part II, given that community members categorized the industry as a high priority for the region, and identified it as an opportunistic industry specific to Kern River Valley (particularly Lake Isabella).[151]

However, at the same time, it must be noted that the tourism and entrepreneurship industries reveals persistent gender and racial disparities despite promising growth signals. Women represent 48.2% of tour and travel guides nationally, and global trends suggest a slight edge in tourism roles.[152] California also ranks fifth in women-owned businesses,[153] and women make up

[145] Source: 23ABC, 2023
[146] Stakeholder interview, 9/24/2024
[147] Ibid. Stakeholder interview, 9/13/2024
[148] Source: Community interviews administered directly to California City residents in June 2024, during research conducted for the Regional Plan Part II
[149] Note: See above section on job quality and quantity for additional information.
[150] Source: NYTimes, 2021
[151] Source: Regional Plan Part II
[152] Source: US Bureau of Labor Statistics
[153] Source: National Women's Business Council, Annual Report, 2023

40.5% of new entrepreneurs in the U.S., with notable growth among Black and Latino entrepreneurs.[154] At the same time, women and minority business owners still face significant challenges in accessing funding, receiving smaller loans and being less likely to secure financing compared to men.[155,156] These imbalances highlight the need for targeted strategies to foster tourism-focused entrepreneurship, ensuring that women and minority entrepreneurs receive the support needed to overcome barriers to success.

Conclusion

In conclusion, the Kern River Valley's tourism industry holds strong potential for growth and diversification, especially through entrepreneurship and sustainable practices. By leveraging the region's natural assets, focusing on expanding tourism infrastructure, and supporting local businesses, the Valley can thrive as a key destination while ensuring that tourism benefits both visitors and the community. Aligning these efforts with regional equity and climate goals will not only boost the local economy but also create a more resilient and responsible tourism industry for the future.

Industry 2: Clean energy (hydropower and energy storage)

Overview

Over the past 15 years, the Kern County region has become a center of clean energy in California. The region currently boasts over 20,000 megawatts of wind, solar, and energy storage capacity.[157] For instance, in Kern County's clean energy industry, solar energy is expanding rapidly, representing over a third of the clean energy labor force, and the region also has a longstanding history of hydropower projects along the Kern River.[158]

However, compared to other cities in the county, the hydropower and energy storage industry in Kern River Valley is still emerging. A few projects are already present in surrounding area (e.g., Kern River Hydroelectric Projects)[159], with indications that other projects are in the pipeline (e.g., an energy storage project around Lake Isabella),[160] but there is still room for growth that leverages the region's assets. These projects have the potential to not only increase renewable energy generation but also bolster the local economy through high-quality job creation and sustainable infrastructure development.

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[154] Source: Kauffman Foundation, Trends in Entrepreneurship Series, 2021
[155] Source: Fundera, State of Small Business Lending, 2020
[156] Source: Stanford Latino Entrepreneurship Initiative, 2024
[157] Source: US Department of Energy, Communities LEAP, 2024
[158] Source: 23 ABC, 2024
[159] Source: Southern California Edison Company, 2020
[160] Source: SJV Water, 2024

Regional assets

With its vast water resources, abundance of government-owned land, and existing infrastructure, the Kern River Valley is well-positioned to attract investments in hydropower and energy storage. More specifically, the Kern River Valley's proximity to both natural and man-made water sources via the Kern River and Isabella Dam, as well as existing hydropower projects (e.g., three separate Kern River Hydroelectric Projects),[161] can help the city emerge as a player in Kern County's burgeoning hydropower industry. Energy storage projects can benefit from the swaths of government-owned land in the region, most notably the federally controlled land around Lake Isabella.[162]

Job quality and quantity

As outlined in the Regional Plan Part II, clean energy jobs are generally high quality, offering competitive pay, benefits, stability, and opportunities for worker participation. Research has identified a higher proportion of quality jobs in energy efficiency and renewable energy generation compared to the overall labor market. Observed wages in the industry are high—related industries such as utilities and construction, which support solar projects, pay median wages of $101,000 and $58,000, respectively.[163] These are well above the living wage for Kern County (~$45,000) and average earnings for Kern River Valley residents (~$17,000).[164] Notably, only 39% and 37% of positions in renewable energy generation and green construction, respectively, require a four-year degree.[165]

However, one commonly cited shortcoming is that the clean energy industry has higher potential for short-term than long-term job creation. Locally, clean energy is expected to create a medium number of jobs—for example, two projects across greater East Kern, the Camino Solar Energy Project and Willow Rock Energy Storage projects, are expected to create ~150 jobs during peak construction[166] and create ~700 jobs during construction, ~40 when operational, respectively.[167]

Market signals

Investments in clean energy are on the horizon in the Kern County region, including several projects that will benefit Kern River Valley. Among these are three proposed pumped energy storage projects in East Kern, including a potential reservoir situated above Lake Isabella. If

[161] Source: Southern California Edison Company, 2020
[162] Source: 23 ABC, 2023; further validated by stakeholder interviews, 9/24/2024
[163] Source: IREC, National Solar Jobs Census, 2023, Yale Climate Connections, 2021
[164] Source: Lake Isabella US Census Bureau profile
[165] Source: IREC, National Solar Jobs Census, 2023
[166] Source: Bureau of Land Management, 2024
[167] Source: GlobeNewswire, 2024

preliminary permitting is approved, the region will likely see extensive environmental and engineering studies to evaluate the suitability of this location for the project.[168]

From a policy perspective, the Kern River Valley, like the broader Kern County, benefits from clean energy-supportive policies outlined in the Regional Plan Part II. These include the Green Jobs Initiative, Federal legislation such as the 2021 Infrastructure Investment and Jobs Act and the 2022 Inflation Reduction Act. These could present critical opportunities to bring more sustainable and higher-wage jobs into the county and attract additional investment to the Kern River Valley.

Community desirability

Kern River Valley residents expressed a high interest in the clean energy industry, ranking it as the highest priority during Phase 2 of the regional planning process. Stakeholder interviews revealed that residents believe that the clean energy industry can greatly benefit the community as a source of additional energy and high-paying jobs.[169] However, some community members have also expressed concern around specific energy projects, particularly around the Kern River and Lake Isabella, given environmental concerns.[170]

Alignment with equity, climate, and regional strategy

The development of clean energy aligns well with equity goals. Clean energy technologies can help significantly decrease air pollution, which has substantial public health benefits, particularly for disinvested communities that often bear the brunt of pollution and have limited access to healthcare. The adoption of frontier clean energy technologies (e.g., advanced energy storage solutions, smart grid technology, and next-generation solar and wind technologies) can also potentially help reduce energy prices, which would benefit communities for whom energy costs are most burdensome.

At the same time, the clean energy industry currently faces notable gender disparities. Women in this industry earn nearly 20% less than their male counterparts, reflecting a significant wage gap.[171] In the solar photovoltaic industry specifically, women hold 40% of full-time positions[172], but only hold 14% of senior management positions globally.[173] Their participation in science, technology, engineering, and mathematics (STEM) roles within the renewable energy industry is

[168] Source: SJV Water, 2024
[169] Source: Community interviews administered directly to California City residents in June 2024, during research conducted for the Regional Plan Part II
[170] Source: SJV Water, 2024
[171] Source: S&P Global, 2024
[172] Source: International Renewable Energy Association
[173] Source: World Bank, 2022

also considerably lower than in administrative positions.[174] These trends underscore the urgent need for targeted initiatives aimed at promoting equity and representation, ultimately fostering a more inclusive energy industry that can effectively harness the diverse talents of its labor force.

As outlined in the Regional Plan Part II, the clean energy industry aligns strongly with climate goals. Coal, oil, and gas are the largest contributors to global climate change by a large margin, accounting for over 75% of global greenhouse gas emissions and nearly 90% of all carbon dioxide emissions. By building up its clean energy industry, the Kern River Valley will be addressing the urgent need for climate action by supporting the transition away from fossil fuels.

Lastly, clean energy as a priority industry also aligns with East Kern's economic development strategy. In the Regional Plan Part II, clean energy was categorized as one of the highly relevant industries for the subregion.

Conclusion

In conclusion, the Kern River Valley is poised to become a relevant player in the county's rapidly growing hydropower and energy storage industry, with its river and readily accessible government-owned land, and potential for high-quality job creation. Upcoming investments and regional growth trends position the city to attract new industry players and expand its economic footprint. With competitive wages and accessible jobs, the industry can provide substantial benefits to the local labor force, that also further regional equity and climate goals.

[174] Source: International Renewable Energy Association, Renewable Energy: A Gender Perspective, 2019

Chapter 3: Industry Strategies

This chapter presents strategies aimed at enhancing economic mobility in the Kern River Valley across the prioritized industries identified in Chapter 2. The following presents the vision for each prioritized industry, followed by specific objectives to achieve that vision and detailed sub-strategies for each objective. Ultimately, these strategies aim to promote job quality, leverage regional assets, and align with the broader strategies as outlined in the Regional Plan Part II.

Strategies are organized and tagged by a series of development approaches, using the terms defined below:

- **Expand**: Refers to increasing the number of jobs provided by existing companies.
- **Upgrade:** Focuses on attracting new businesses within already established industries.
- **Adapt:** Involves adjusting current industries to meet future needs.
- **Initiate:** Pertains to drawing in new companies from industries not currently represented in the region.
- **Access:** Emphasizes improving access to existing job opportunities.

The following section outlines the industry-specific strategies for the Kern River Valley for the (i) tourism and entrepreneurship industry and (ii) clean energy industry.

Industry strategies

Industry 1: Tourism-focused entrepreneurship

This tourism-focused entrepreneurship strategy aims to establish the Kern River Valley as a relevant tourist destination, leveraging the region's proximity to natural attractions and national parks to support its economic development. By enhancing infrastructure, diversifying outdoor activities, and fostering local entrepreneurship, the region can achieve the sustainable and responsible growth of the industry. This vision can be realized through the following objectives and strategies:

1. **Expand: Provide targeted financial incentives to foster the growth of existing tourist attractions (e.g., water sports, recreation around nearby national parks).** These incentives will address community concerns about the lack of strong tourist infrastructure and amenities in the region, particularly after recent natural disasters (e.g., wildfires) that have impacted regional tourism.

   1a. Secure investments for comprehensive tourism-supportive infrastructure, including improvements such as new hiking trails, enhanced roadways, additional piers on lakes and rivers, and electric vehicle (EV) charging stations. These developments will help position the Kern River Valley as a sustainable tourism hub, offering essential conveniences for visitors and promoting environmentally friendly travel through the Valley and its surrounding regions (e.g., the High Sierras). Expanding infrastructure will support a variety of outdoor recreational activities while improving access for tourists and strengthening the local tourism economy.

   1b. Provide financial support for entrepreneurs and business owners in improving existing facilities and services at established attractions, including hotels and other accommodations. Offer grants or low-interest loans to operators of attractions, such as water sports companies and hotels, to modernize facilities and enhance visitor experiences. For businesses focused on outdoor recreation, this could include upgrading equipment, improving hiking trails, expanding services (e.g., guided tours), improving infrastructure like parking and visitor centers, and renovating accommodations to increase capacity, improve energy efficiency, and adding amenities. For hotels and other accommodations, this could include remodeling facilities, upgrading rooms to meet modern standards, and expanding amenities like pools or dining areas.

2. **Initiate: Catalyze local entrepreneurship focused on new year-round outdoor recreation offerings and responsible, sustainable tourism,** especially as community members recognize that current water-based sports are vulnerable to changing water levels in the

Kern River and surrounding water sources (e.g., Lake Isabella), indicating a strong opportunity to diversify into other recreational activities.

2a. Offer grants and incentives for new tourism businesses, providing financial support and low-interest loans to local entrepreneurs who develop non-water-based tourism activities. These businesses could include mountain bike rentals, eco-lodges, adventure tour companies, and other sustainable offerings that align with the region's natural assets. Special priority could be given to initiatives that focus on eco-friendly practices, promote cultural or historical education, or engage with the community in a way that fosters long-term sustainability. Strategies should also focus on improving access to funding, mentorship, and leadership opportunities for women and minority entrepreneurs in tourism. This can be achieved by expanding equitable funding programs, improving access to loans, and fostering diverse support networks. Promoting collaboration between entrepreneurs from different backgrounds will help create a more inclusive and sustainable tourism industry that empowers all entrepreneurs to succeed.

3. **Adapt: Encourage existing local businesses to pursue responsible, sustainable, year-round tourism.** Community members report that tourists, while a significant part of the Kern River Valley economy, are not a sustainable lifeline for local businesses as they engage in ways that can be extractive, highly seasonal, and disconnected from the needs of the local community.

   3a. Develop a local tourism incubator that provides shared workspace and networking opportunities for emerging entrepreneurs. By leveraging existing coworking organizations in the area, the incubator can offer essential business services, such as marketing support, legal advice, and grant-writing assistance. It can also host workshops on digital marketing, sustainable practices, and partnership building with local businesses. This collaborative environment would help entrepreneurs grow and scale their operations while keeping costs low.

   3b. Support existing businesses in adopting sustainable tourism practices by facilitating the transition of seasonal jobs into full-time roles through upskilling. Train seasonal workers in eco-tourism guiding or advanced customer service to enable them to become full-time tour guides or hospitality staff. Additionally, provide grants or low-interest loans to help businesses implement eco-friendly operations, reduce resource consumption, and source local products to ensure local businesses attract environmentally conscious visitors and positively impact the local economy and environment.

Industry 2: Clean energy (hydropower and energy storage)

This clean energy strategy proposes leveraging the Kern River Valley's existing hydropower infrastructure and incoming energy storage investments. The goal is to position the region as a key player in Kern County's renewable energy industry and create accessible, high-quality jobs across the hydropower and energy storage industries, while also addressing community concerns around the environmental impacts of localized projects. This vision can be realized through the following key objectives and supporting strategies:

1. **Expand: Increase the number of long-term, high-quality jobs supported by hydropower technologies within or close to the Kern River Valley (e.g., Kern River Hydroelectric Project).** Strategies supporting this objective aim to expand permanent, high-quality jobs along the supply chain.

   1a. Create a public-private-community partnership to assess and address specific barriers for the inclusive development of hydropower infrastructure. Convene key stakeholders from government, clean energy companies, and CBOs to form a public-private-community partnership focused on addressing barriers to inclusive clean energy development in the Kern River Valley. The partnership will identify challenges such as permitting issues, labor force skill gaps, and infrastructure needs. It will focus on challenges specific to the region such as wildfire resilience, road accessibility, climate implications, and logistical challenges around growing the industry in the region. Clear roles will be assigned to public, private, and community actors, with measurable goals that align with the Kern River Valley's economic, social, and environmental objectives, particularly in community inclusion and job creation.

   1b. Establish job retention initiatives. Partner with employers, labor force agencies, and community organizations to help construction workers transition into permanent roles in the clean energy industry after project completion. This can include wage subsidies and incentives to companies that retain workers in operations, maintenance, or facility expansion roles, as well as requirements for employers benefiting from city incentives to prioritize internal recruitment from their construction labor force for long-term positions. Additional strategies can include systems like a regional pool of qualified employees that allows workers to shift between public and private projects, ensuring continued employment.

2. **Access: Ensure local workers have access to the necessary skills, training, and career pathways to thrive in technical clean energy roles.** By upskilling the labor force, providing financial incentives, and establishing retention initiatives, we can help workers transition from temporary project-based roles (which are often construction roles in response to

new site development) to permanent positions, ensuring continued employment as the clean energy industry grows.

2a. Upskill workers into clean energy installation, maintenance, and related technical roles. Partner with clean energy employers to design inclusive training programs that upskill the labor force for key technical roles, such as hydropower facility maintenance, turbine operations, and electrical systems specific to hydropower generation, as well as complementary energy storage technologies. Given the specialized nature of this field, explore the potential for partnerships with advanced training institutions. The programs should be designed to provide flexible scheduling to accommodate working families, ensuring greater accessibility for all workers, particularly women and underserved communities. Additionally, companies should be engaged to offer practical, hands-on training directly linked to employment opportunities, ensuring participants transition seamlessly into these high-demand jobs.

2b. Provide financial incentives for upskilling and retraining. Collaborate with solar and wind energy employers in the region to develop financial incentive programs that encourage Kern River Valley workers to pursue upskilling opportunities. These incentives could include paid training programs, bonuses tied to certification completion (such as certifications for solar energy maintenance or electrical system installation), or wage increases upon gaining technical qualifications. Additionally, offer job guarantees in areas like solar panel manufacturing, energy storage system maintenance, and clean energy infrastructure development upon successful completion of relevant training. Strategies should also be tailored to enhance women's access to clean energy jobs by implementing fair and transparent performance evaluation systems, promoting allyship among both male and female leaders, and offering mentorship opportunities. These initiatives can help create a supportive environment that empowers women to succeed and advance in the industry.

2c. Offer career advancement opportunities. Work with project developers to implement career development programs that offer clear pathways for advancement within the clean energy industry. This could include mentorship programs, professional development workshops, and opportunities for further education that are administered in tandem, or as an additional unit to, the upskilling training outlined in strategy 2a.

Industry development enablers and strategies

To effectively develop and support the growth of its tourism and clean energy industries, the Kern River Valley should prioritize several key enablers and strategies. These include community

leadership, digital infrastructure enhancement, unified marketing strategies, and youth engagement. Specifically:

1. **Building and growing leadership in unincorporated areas** may help leverage and direct resources to the region more effectively, responding to long-expressed community concerns. Recent efforts to mobilize regional councils for reassessment and advocacy for incorporated status could potentially catalyze progress across various enablers.
2. **Enhancing digital infrastructure** is another important consideration. Improving high-speed internet access in remote areas could better serve local businesses and meet the needs of modern tourism, ensuring visitors can easily access information and services during their stay.
3. **Developing a unified and targeted marketing strategy** could further stimulate growth in the tourism industry by promoting year-round outdoor recreation beyond the region's well-known water-based activities. Collaborating with travel agencies, engaging in social media campaigns, and developing a local tourism ambassador program could raise awareness of attractions and responsible tourism practices while fostering local culture.
4. **Addressing economic opportunities for youth** is vital for the long-term health of the region. With many family-owned businesses facing closure due to retirements without succession plans, creating enriching opportunities for youth—such as stronger satellite community college campuses and flexible collaborative spaces—could engage young people and encourage connections with local industries.

Ultimately, by promoting these enablers, the Kern River Valley can foster a more vibrant economic landscape and a sustainable future.