



Gigawatts for Good Jobs

Capturing Fresno County's Clean Energy Economic Advantage for a More Equitable, Healthier and Prosperous Future

Introductory Summary

The draft case statement presented in this paper outlines a general logic and process for accessing and harnessing sufficient power from the massive and unique utility-scale clean energy development planned for western Fresno County to generate significant numbers of new good jobs and other benefits for the residents, businesses and institutions of Fresno County. It encourages dialogue, consideration of mutually beneficial partnerships across different sectors and stakeholder groups in Fresno County, and is aimed at complementing and supporting the clean energy scenario evaluations and job creation deliberations being conducted in the San Joaquin Valley, but with a focus on urgent and pragmatic implementation considerations specific to Fresno County. ⁱ

The multi-gigawatt clean power to be produced in our county is primarily intended to be exported to other regions of California to meet statewide goals. Our ability to expeditiously organize together will determine if we can secure enough long-term reliable clean electricity before it is committed to other regions, to be able to drive significant increases in local clean powered industry investment, high paying permanent jobs, community equity and environmental health. Proposed clean energy project environmental clearances and permitting have already started, we must be organized to negotiate with developers.

We will need a local joint powers authority structure capable buying and managing electricity through long-term power purchase contracts that address our local needs, goals and desired benefits. We can do so through a countywide Superordinate Community Choice Aggregation program (SUPER CCA) and by developing the clean energy powered industry parks we must have for a diverse and vibrant 21st century economy of advanced and value-added manufacturing, fabrication, assembly, technology, logistics and more.

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1. Rapidly rising and unpredictable electricity rates are currently out of our local control

'California adopts one of nation's highest fixed-utility fees' (May 9, 2024) ⁱⁱ

"PG&E rates have doubled – more than doubled – in the last 10 years," Campbell said. "PG&E is unfortunately the undisputed leader in the last few years of rate increases." (January 8, 2024) ⁱⁱⁱ

"After January's rate hike, PG&E customers began paying on average 39.6 cents per kilowatt hour. The PG&E rate was 21 cents per kilowatt hour back in 2019, according to tracking data." (April 25, 2024) ^{iv}

'Household Energy Costs Are Projected to Increasingly Exceed Inflation Over the Next Decade' (February 2021) ^v

- For many reasons, a new multidecadal inflationary trend appears to have begun in the U.S. Not the least of the reasons for incessant inflationary pressures going forward will be persistently rising electricity rates.
- New sources of massive demand for electricity across the U.S. will drive potentially \$trillions of cumulative investments in utility scale electric power generation, battery storage and transmission infrastructure, with the vast majority of these costs most likely to be passed along to rate payers. Artificial Intelligence and National Security are also quickly rising as significant urgent demand factors for both increased clean energy and fossil fueled power in the U.S. ^{vi}
- Extreme distress, confusion and growing anger over electricity rate actions is spreading with epidemic speed among a diversity of business, institutional and residential customers.

2. The largest global cluster of utility scale clean electricity generation is planned for western Fresno County – but is being designed for export of the power generated locally to the rest of California to meet State goals

- The California Public Utility Commission approved a plan in February 2024 to add 56 gigawatts of clean energy resources by 2035, cementing the huge demand for the development of generation facilities and transmission for new clean energy sources across the state. ^{vii}
- The California Independent System Operator (CAISO) maintains reliability on one of the largest and most modern power grids in the world, and operates a transparent, accessible wholesale energy market. CAISO provides a very informative Statewide Map of the 20-year Transmission Outlook for Renewable Generation. ^{viii}

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- The Westlands Water District has proposed significant farmland acreage to be retired and repurposed for clean energy generation (primarily utility scale solar) because of long-term irrigation water availability constraints. They have a clean energy development master planner, Golden State Clean Energy. These two entities are at the epicenter of clean energy planning and development in western Fresno County and the state. See recent presentations linked below.^{ix}
- Comparative notes on the relative scale and uniqueness of clean energy development proposed in western Fresno County:
 - The largest power plant in the world is in CHINA – Three Gorges Dam at 22.5 Gigawatts
 - The largest cluster of clean energy solar planned in the world that we can find is in INDIA at 22.5 Gigawatts
 - For perspective: Diablo Canyon Power Plant produces 1.8 Gigawatts
 - Truly global scale clusters of solar, battery storage, and green hydrogen of 30 Gigawatts or more is proposed in Fresno County alone, and other types of clean energy production and transmission facilities are being planned for hundreds of thousands of the potentially one million acres of farmland likely to be retired across the eight counties of the San Joaquin Valley because of reduced water availability and an array of state and federal incentives to develop clean energy facilities.
 - Fresno County is slated for a massive portion of clean energy development in the state because of the nearly 200,000 acres of farmland to be retired and repurposed in western Fresno County.

3. RAND Corp research suggests very few permanent jobs will come directly from clean energy production facility development and operations in the San Joaquin Valley

- The RAND Corporation research organization conducted a study of job creation potential in the eight county San Joaquin Valley^x as a key part of a Clean Air Task Force initiative and report: *‘An Exploration of Options and Opportunities for the San Joaquin Valley’s Clean Energy Future.’*^{xi}
- See summary on RAND document page 40 linked above. “For instance, the Proportional portfolio is estimated to generate about 4,000 total jobs, of which 1,100 are direct permanent each year. While the number of both total and permanent jobs varies significantly by portfolio, the overall ratio is similar because the portfolios are dominated by solar.”
- This RAND data analysis indicates very few permanent jobs will likely come directly from clean energy production facility development and operations located within the geography of the San Joaquin Valley for the benefit of our 4.3 million population. If we want to leverage massive clean electricity generation for significantly increasing high paying permanent job creation, we will need authentic and inclusive collaborative

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efforts to establish the organizational structure and capacities required to actually buy and manage electrical power for these purposes.

4. San Joaquin Valley Manufacturing Alliance (SJVMA) suggests a diversity of new manufacturing, fabrication, assembly, technology, processing and distribution industries can be grown and attracted to locate here

- We posed a scenario question to the CEO of the SJVMA: “If we had access to all the land, water, and clean energy we need to drive significant attraction and organically grown new manufacturing, fabrication, assembly, tech, R&D and more here in Fresno County, what, in your opinion, would be an ideal mix of different industries that would be most advantageous to build upon and to newly attract to build a resilient/diverse economy here?”
- The response linked below ^{xii} provides “an expanded list of manufacturing practices and types of companies that could be well-supported in Fresno in the future.” This list gives us a starting point from the SJVMA perspective for envisioning what may be possible to achieve for our local economy if we can effectively harness clean energy at scale, productively prepare and train our existing residents, and do a much better job of collaboratively aligning our land use, water resource, and transportation infrastructure priorities going forward to focus on equitable development, environmental health, and sustainable and inclusive economic opportunities.
- In addition, HawkTower, a venture capital fund focused on Fresno, the San Joaquin Valley and Central California, has an amazing and experienced team with a compelling entrepreneurial vision for implementing a critically needed start-up company eco-system in our region that will complement new large-scale economic development driven by clean energy. ^{xiii}

5. AB117 Community Choice Aggregation (CCA) is the only current state authorized and tested structure we can find for buying and controlling our own electricity

- Through Community Choice Aggregation (CCA), communities can join together to pool (or aggregate) their electricity load in order to purchase clean energy and develop local projects and programs on behalf of their residents and businesses. Aggregators work in partnership with the region’s existing Investor-Owned Utility (IOU), which continues to deliver power and maintain the grid. ^{xiv}
- CCAs provide:
 - Consumer choice, local control, and accountability
 - Policy tool to help communities reach their climate and economic goals
 - Transition to a cleaner, more efficient energy supply
 - Revenues reinvested in the community, not distributed to shareholders
 - Tool for communities to establish local energy resources and programs such as solar+storage for resilience, low-income solar, EV vehicle and

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infrastructure incentives, feed-in-tariff, net energy metering (NEM), energy efficiency, demand response, and more

- Development of new renewable energy projects
- There are 25 CCAs operating in California now serving over 14 million customers.
- In a presentation by The Climate Center in March 2023 related to analysis of a potential CCA just for the City of Fresno jurisdiction, \$150 million was the rough estimate of the amount that leaves the Fresno economy every year, and that would be redirected to local control with a Community Choice agency.^{xv}
- Regenerate California Innovation (RCI), through the work of Nicolas Jendian, CSUF Student Intern, has created a comparative analysis spreadsheet of eight of California's best and most notable CCAs, that we are vetting with each CCA assessed for accuracy and additional critical data. Our preliminary findings are extremely sound financial and programmatic results and positive community and business impacts across the CCAs evaluated.^{xvi}

6. A SUPER CCA can add the long-term electricity purchase capacity needed for superordinate industry development and a local economy enhanced scale of production for generating new high paying permanent jobs for our residents

- We can only grow, attract and support the magnitude and mix of clean energy powered industries and permanent jobs we desire, if we actually provide access to the reliable scale of clean power, land, water and transportation infrastructure, and the skilled labor force required by these industries.
- Having local access to sufficient reliable clean energy at industry development and operational incentivizing prices should in turn incentivize all our local sectors and stakeholders to collaboratively leverage and align our mutual priorities and actions for providing the land, water, and transportation infrastructure and training programs for the local skilled labor required by these industries.
- A Superordinate Community Choice Aggregation program (SUPER CCA) for Fresno County can provide all the opportunities, programs and benefits referenced above for CCAs, plus enter into sufficiently large, long-term, and cost-saving 20-25 year purchase power contracts directly with clean energy developers in Fresno County to meet the scale of clean electricity needed for the industries we desire.
- A SUPER CCA founded and supported by all 15 Cities and the County of Fresno would provide the options and opportunities for comprehensive CCA-type benefits to residents, businesses and institutions in all cities and unincorporated communities in Fresno County, and be the clean energy engine for truly inclusive, integrated, equitable and sustainable 21st century economic development for our whole county.
- The authentic collaboration reflected in accomplishing a SUPER CCA in Fresno County and its outcomes can be exemplary for all of California.

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7. General strategy logic for Implementing a SUPER CCA in Fresno County that includes 15 Cities and the County of Fresno thinking and acting Together

- a. Previous proposals for establishing CCAs have failed to gain traction at the City of Fresno and County of Fresno for various different reasons. All these proposals preceded awareness of the unique and significant opportunities for expanding desirable industry and significant good job creation that can be leveraged by the global utility scale clean electricity generation now planned for western Fresno County.
- b. We have talked with CCA study consultants, and various elected officials and key business and labor stakeholders about past efforts to launch CCAs and what questions need to be answered and constituencies engaged for a SUPER CCA proposal in Fresno County to get a fair hearing and real chance of approval by local jurisdictions. Our summary of a possible strategy pathway follows.
- c. A feasibility study and business plan for a SUPER CCA must be conducted and prepared by expert consultants as a collaborative effort among jurisdictions and stakeholders to ensure the scope of work for the study and business plan have inclusive input before being initiated.
- d. We found two interesting examples for referencing CCA feasibility and business plan scopes. 1. Feasibility Study: Community Choice Aggregation for the City of Stockton is a great example of a thorough standard CCA assessment that resulted in approval (Stockton actually joined the East Bay Community Energy Community Choice Aggregation joint powers authority). 2. BUSINESS PLAN FOR THE FORMATION OF A COMMUNITY CHOICE AGGREGATION PROGRAM FOR THE CITY OF SAN DIEGO (Approved and launched).^{xvii}
- e. Meetings must be conducted with key staff and leaders from each of the desired 16 partnering jurisdictions in Fresno County to review and incorporate input and questions a SUPER CCA scope of work must address based on their perspectives and needs before feasibility study and business planning begins.
- f. To avoid financial conflicts of interest and minimize possible competing stakeholder interests, the estimated \$250,000 cost of the feasibility study and business plan work should be secured from nonprofit, philanthropic and/or state or federal sources. The study/business plan consulting work and stakeholder/jurisdictional engagement would best be managed by a neutral group of nonprofit community-based organizations working closely through and with the Fresno Council of Governments and key local-regional economic and industry development agencies. Managing this SUPER CCA organizing process also obviously would involve seeking assistance from individual CCAs and associations supporting CCAs to draw their critical experience into our local efforts. See the rough estimate below that was informed by consultants contacted:

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Prospective CCA Assessment for Fresno County/15 Cities - Feasibility Study and Business Plan - Estimated budgets:

1. Feasibility study: \$65k +
2. Economic analysis: \$25k +
3. Energy efficiency, demand reduction opportunities: \$15k +
4. Clean energy sourced industrial park(s) economic analysis: \$50k +
5. Remote consultant presentations to City Councils/BoS –1- 2 Meetings @ \$500 per: \$16k +
6. Local multi-jurisdiction engagement, consultant coordination and quality assurance: \$64k
7. Grant fiscal expense: \$15k

Rough total cost estimate: \$250k

8. In addition to buying and locally controlling reliable long-term clean energy at the scale needed – we must inclusively plan and build new clean energy powered industry parks in different locations in Fresno County

- It is important to acknowledge that Fresno County must develop diverse industries with higher paying permanent jobs to ever have a realistic chance of reducing perniciously high poverty and income inequities. Clean energy powered industry parks with access to rail, freeway and air transport infrastructure must be a key part of this change equation.
- Inertia is a polite descriptor for the lack of our progress for more than several decades to advance planning in partnership with impacted communities for mutually desirable and acceptable development of new large scale industry sites needed in Fresno County that can contribute to greater and more equitable economic opportunity. There are many substantive reasons for this seemingly intractable status.
- Environmental justice and pollution issues are real and must be effectively addressed.
- Agricultural and habitat land, and water and other resource conservation issues are real and must be effectively addressed.
- All legacy, disadvantaged and low-income communities must be respected, engaged and protected.
- However, a 100% clean energy future for mobile and stationary power use with the eventuality of no emissions offers the potential to start clean energy industry development now with rigorous construction and operational standards enforced for achieving acceptable interim emission results.
- There will be a transition period with a mix of clean and fossil fuel powered transportation, but there is no reason that new industry facility development cannot to be 100% clean from the start if it has access to sufficient 100% clean power.

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- This is the moment for all sides to come together to negotiate pragmatic compromises and management of reasonable unavoidable transition period impacts of critically needed clean energy powered industry parks. If we do not negotiate in good faith now to move our economy forward, we will have fumbled a once in a lifetime opportunity for leveraging the clean energy transition to address serious interrelated structural challenges that have limited the achievement of inclusive social, environmental and economic health and prosperity across Fresno County for at least the past 80 years. Time is of the essence.
- A ‘Three Horizons Framework’ may be useful in the multi-sided negotiations required for successful transition period development and managed impacts^{xviii} The Three Horizons Framework has proven widely useful as a conceptual model to aid people thinking about current assumptions, emerging changes, and possible and desired futures.

9. Elevating the value of inclusively improving ‘The Social Determinants of Health’ for all residents through clean energy implementation efforts can meaningfully unite diverse sectors and stakeholders to authentically work together

- Our individual, group and/or organizational goals, values and interests can divide or unite us in meeting critical present and future needs for all stakeholders in our entire county.
- The Social Determinants of Health can be a uniting framework for shared goals and outcomes in our collective clean energy transition work. We reference the Federal Plan for Equitable Long-Term Recovery and Resilience (Federal Plan for ELTRR), which leverages the Vital Conditions for Health and Well-Being as a guiding framework related to The Social Determinants of Health. We believe its integrative aspects anchored by ‘belonging and civic muscle’ have broad and inclusive applications.



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ⁱ Central Valley Community Foundation Valley CERF/S2J2: <https://www.valleycerf.org/> and An Exploration of Options and Opportunities for the San Joaquin Valley’s Clean Energy Future, Clean Air Task Force. April 2024. https://www.rand.org/pubs/research_reports/RRA3115-1.html

ⁱⁱ California adopts one of nation’s highest fixed-utility fees. The Orange County Register. May 9, 2024: <https://www.ocregister.com/2024/05/09/california-adopts-one-of-nations-highest-fixed-utility-fees/>

ⁱⁱⁱ *PG&E becomes California's most expensive power provider. Channel 4 LA Investigative, by Jaxon Van Derbeken, January 8, 2024:* <https://www.nbclosangeles.com/investigations/national-investigations/pge-rate-hike-california/3302833/>

^{iv} Soaring PG&E power rates in 2024 approach Hawaii. Channel 4 LA Investigative, by Jaxon Van Derbeken, April 25, 2024: <https://www.nbcbayarea.com/investigations/soaring-pge-power-rates-california-hawaii/3521441/>

^v Slide 12 of ‘UTILITY COSTS AND AFFORDABILITY OF THE GRID OF THE FUTURE’, CA Public Utilities Commission, February 2021: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/en-banc/rates-en-bancwhite-paperv20.pdf>

^{vi} New energy sources for AI, data centers are vital to U.S. national security. Wall Street Journal-MarketWatch Opinion. May 22, 2024. <https://www.marketwatch.com/story/ai-and-data-centers-are-devouring-energy-resources-threatening-u-s-security-d2316452>

^{vii} California PUC approves plan to add 56 GW of clean energy resources by 2035. Utility Dive, February 20, 2024. <https://www.utilitydive.com/news/california-puc-carbon-preferred-system-plan-irp-caiso/707876/>

^{viii} CAISO 20 Year Transmission Outlook Update, April 18, 2024. [Presentation-20YearTransmissionOutlook-Apr18-2024.pdf](https://www.caiso.com/~/media/CAISO/Presentations/20YearTransmissionOutlook-Apr18-2024.pdf) (caiso.com)

^{ix} Golden State Clean Energy and Westland Water District Slides: [Westlands VCIP 4.22.24.pptx](#) – and - [Golden State Clean Energy VCIP 4-22-24.pptx](#)

^x Informing Clean Energy Planning in California’s San Joaquin Valley, RAND Corporation, RR-A3115-1, April, 2024. https://www.rand.org/pubs/research_reports/RRA3115-1.html

^{xi} An Exploration of Options and Opportunities for the San Joaquin Valley’s Clean Energy Future, Clean Air Task Force. April 2024. <https://cdn.catf.us/wp-content/uploads/2024/04/22145139/San-Joaquin-Valley-Clean-Energy-Transition.pdf>

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xii **SJVMA List of manufacturing practices and types of companies that could be well-supported in Fresno in the future. March 18, 2024.** [Possible Feasible Diverse Industry Sectors to Build Organically or Attract to Fresno Region - March 18, 2024, SJVMA.docx](#)

xiii **HawkTower:**

<file:///C:/Users/Admin/Downloads/HawkTower%20for%20Underleveraged%20California%20-%20S2J2.pdf>

xiv **California Community Choice Association (CalCCA):** <https://cal-cca.org/cca-impact/>

xv **The Climate Center, March 2023.**

https://docs.google.com/presentation/d/15GCbzzJdEFHwvpWeD_rBMNA8IbToT9Q/edit?usp=sharing&oid=109835448918441935507&rtpof=true&sd=true

xvi **CCA Comparative Spreadsheet by Regenerate California Innovation (RCI). April 2024.**

<https://docs.google.com/spreadsheets/d/1nrqVIKcqxU5RYewXpCBD7zVK9Itlrqq30vjmAX8wSo/edit#gid=0>
[Of](#)

xvii **Stockton, CA CCA Feasibility Study:**

<https://stockton.legistar.com/View.ashx?M=F&ID=9234458&GUID=07BEE44D-1730-4B2F-BDF1-EDEB4575572B> – and - **BUSINESS PLAN FOR THE FORMATION OF A COMMUNITY CHOICE AGGREGATION PROGRAM FOR THE CITY OF SAN DIEGO:**

https://www.sandiego.gov/sites/default/files/draft_final_cca_business_plan_city_of_san_diego_october_2018.pdf - and - <https://www.sandiego.gov/sustainability/clean-and-renewable-energy/community-choice-aggregation-program#:~:text=The%20City%20of%20San%20Diego,more%20competitive%20rates%20for%20customers>

xviii **The Three Horizons of Innovation and Cultural Change:** <https://medium.com/activate-the-future/the-three-horizons-of-innovation-and-culture-change-d9681b0e0b0f> - and **Sharpe and**

Hodgson, UK Foresight Programme: <https://training.itcilo.org/delta/Foresight/3-Horizons.pdf>

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