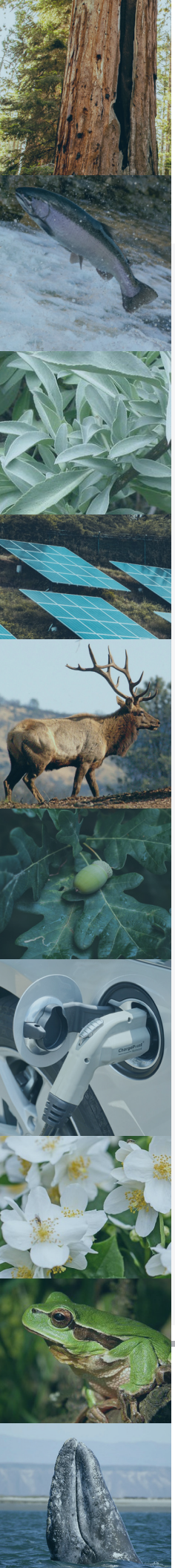

CTGA

CALIFORNIA TRIBAL GAP ANALYSIS

FINAL REPORT

Executive Summary
Accessible Version

PREPARED BY

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COMMISSIONED BY

CALIFORNIA STRATEGIC GROWTH COUNCIL

CALIFORNIA ENERGY COMMISSION

FOREWORD

Seventy-six California Native American Tribes participated in the California Tribal Gap Analysis (CTGA), which studied clean energy and climate change adaptation and resilience priorities, needs, and barriers affecting Tribes throughout the State. This report covers CTGA engagement and data collection that occurred from 2020 through 2022, focused on energy and climate matters relevant during that timeframe. If the CTGA was conducted today, additional topics of relevance would be analyzed such as Tribal perspectives on hydrogen, long-duration energy storage, electric vehicle (EV) fast charging infrastructure, and EV fleet transitions as well as new gaps and needs resulting from federal funding cutbacks and uncertainties. Despite the continuously evolving landscape of energy and climate matters, the CTGA Report findings remain applicable today in 2025, particularly regarding barriers and capacity constraints, outreach and engagement, access to existing assistance programs, and recommended State investments.

California agencies have made noteworthy progress on a variety of issues important to Tribes since the CTGA study ended in 2022. For example, the State has offered more Tribal-specific funding opportunities and increased funding for both federally and non-federally recognized Tribes, including the California Strategic Growth Council's (SGC) Tribal Capacity Building Program (TCBP), the California Energy Commission's (CEC) Tribal Research Grant Program, and the California Natural Resources Agency's (CNRA) Tribal Nature-Based Solutions Program. Addressing a critical concern for many federally recognized Tribes, some State funding programs did not require waivers of sovereign immunity, such as the California Energy Commission (CEC) Tribal Electric Vehicle Infrastructure, Planning, and Workforce Training and Development program. The State also assisted Tribes in building regional capacity including the Southern California Tribal Chairmen's Association's Tribal Energy & Climate Collaborative (TECC), which received funding from California Public Utilities Commission Equity and Access grants, an SGC Regional Climate Collaboratives grant, and California Jobs First investments.

The State of California and the federal government made significant investments in Tribal clean energy and climate change initiatives from 2021 through 2024 following the onset of the COVID pandemic. In 2025, much of that funding is declining or disappearing – with detrimental and disruptive effects for Tribes. Uncertainty about funding for a variety of Tribal programs and nationwide political instability has exacerbated the internal and external gaps and challenges identified in the CTGA

Report, which continue inhibiting Tribes' progress toward clean energy and climate goals. Additionally, as industry trends and policy priorities have evolved, opportunities and technologies have changed, affecting Tribes' needs for technical assistance.

Notwithstanding such developments, the CTGA Report provides a strong representation of Tribes' priorities and needs in 2025, as well as gaps and barriers that continue impeding access to clean energy and climate program assistance. The Recommendations and Conclusions are a stand-alone, evergreen component of the CTGA Report to be used for implementation planning, tracking, and evaluation. Through TECC, the CTGA team anticipates working with Tribes and the State to refine and implement recommendations while conducting regular reviews with updates and adjustments that reflect changing conditions and circumstances. The CTGA team looks forward to leveraging the CTGA recommendations to close gaps and reduce barriers for Tribes in accessing State assistance, as well as expanding and increasing the effectiveness of State investments, and advancing Tribal clean energy and climate change priorities.

CALIFORNIA TRIBAL GAP ANALYSIS

Authorship and Acknowledgements

The report was prepared for the Strategic Growth Council and the California Energy Commission by Josh Simmons and Angie Hacker at Prosper Sustainably, LLC and Michael Burr at Burr Energy, LLC with significant contributions from Shasta Gaughen at SCG Consulting, Elizabeth Perez and Rick Halperin at GC Green, and Kelly Trumbull, Lolly Lim, Gregory Pierce, and JR DeShazo at the University of California Los Angeles. Instrumental guidance was provided by a State Committee that included Coral Abbott, Elizabeth Grassi, Ena Lupine, and Leah Fisher from the Strategic Growth Council; and Thomas Gates, Sierra Graves, Katrina Leni-Konig, Hilarie Anderson, Mithra Moezzi, Davina Whitethorne, and Kelsey Freeman from the California Energy Commission.

The authors would like to express deep gratitude to the California Native American Tribes that generously offered their time and perspectives to inform this analysis. The authors would also like to thank the State of California for its leadership in commissioning a report on this important topic and for entrusting us with the honor of conducting the analysis.

Disclaimer

The analysis presented is that of the authors and not necessarily that of any organization or other source referenced herein. The mention of any organization or source reported is not to be construed as actual or implied endorsement of the CTGA findings.

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EXECUTIVE SUMMARY

How can the State of California better support the needs of California Native American Tribes in the areas of clean energy and climate change adaptation and resilience? From July 2020 to April 2022, the California Tribal Gap Analysis (CTGA) project conducted extensive Tribal outreach and research to help the State of California answer this question. Seventy-six California Native American Tribes ("California Tribes") shared perspectives on their clean energy and climate change adaptation and resilience needs, and ways to improve relevant assistance programs. This report summarizes the findings of this analysis and provides recommendations to help the State serve as a better partner with Tribes in achieving shared goals for clean energy and climate change initiatives.

Introduction and Methodology

In 2020, the California Strategic Growth Council (SGC), in partnership with the California Energy Commission (CEC), contracted with a team led by Prosper Sustainably, LLC to conduct the CTGA project. The purpose of the CTGA is to identify Tribal priorities, needs, and barriers in the areas of clean energy and climate change adaptation and resilience, and to provide recommendations for the development and enhancement of State of California programs, funding, technical assistance (TA), and other support to address Tribal needs and priorities. The CTGA also seeks to advance collaboration and build relationships between Tribes and State agencies to support current and future partnerships as well as grant programs.

The scope of the CTGA project included primary research to gather perspectives from Tribes and Tribal serving organizations through a Tribal questionnaire, as well as from State agencies through an informal questionnaire. The primary research instrument was the formal CTGA Tribal Questionnaire. The Project Team invited all California Tribes to participate and performed extensive statewide outreach to engage participants. Participants had the option to complete the questionnaire independently or through a live remote-guided meeting with a Project Team member.

Representatives from 76 Tribes (75% federally recognized and 25% non-federally recognized) responded to the CTGA questionnaire, with no Tribe providing more than one response. Sixty Tribes reported they hold lands in federal trust, and 16 reported they do not hold any land or did not answer the question. The Project Team worked with the State to match participating Tribes to the regional maps developed for California's

Fourth Climate Change Assessment Regions (Table 1), some of which were combined to improve data analysis.

Table 1. CTGA Survey Respondents by California Climate Region

Fourth California Climate Assessment Regions	Respondents
1. Inland South/Los Angeles	13
2. San Diego	14
3. Sierra Nevada Mountains/Sacramento Valley	21
4. North Coast/SF Bay	19
5. Central Coast/San Joaquin	9

The CTGA process also included gathering and analyzing information from a variety of secondary sources (see Appendix O of the full report at California Tribal Gap Analysis), notably reports from a series of Tribal energy and climate meetings hosted by the California Energy Commission. The Project Team also compiled information on more than 150 relevant assistance programs offered by State, federal, non-governmental organizations (NGO), and private sources ranging from grants and incentives to TA, and then performed a preliminary assessment to identify key program gaps and barriers to Tribes' access.

The Project Team analyzed this primary and secondary information to better understand Tribes' priorities and needs for clean energy and climate change adaptation and resilience as well as to gather perspectives and ideas about current and future assistance programs. Along with identifying the highest-need areas, the Project Team performed preliminary assessment of applicable assistance programs to identify the most significant gaps in assistance for Tribes (e.g., awareness, access, and availability) to inform its recommendations for the State when considering future actions and investments.

The CTGA process yielded the following key deliverables:

1. This Report, including all appendices, presenting CTGA findings and recommendations
2. Standalone Recommendations and Conclusions
3. Survey Response Database, with responses anonymized to protect the identities of participants
4. Database of Assistance Programs that support clean energy and climate adaptation and resilience

5. Documentation of CTGA outreach and engagement activities, including webinar and Tribal Energy and Climate Exchange (TECX) video recordings, presentations, newsletters, and other materials[1]

Key Findings

The report includes sections that address Tribes' needs related to clean energy and climate change adaptation and resilience. Needs were determined by assessing Tribal goals, priorities, and need for assistance. In both sections, CTGA Tribal Questionnaire respondents, on average, broadly indicated the following clean energy and climate change adaptation and resilience goals as the most important now and in the future:

- Protect environmental and cultural resources
- Protect human health
- Strengthen Tribal sovereignty

The CTGA questionnaire asked respondents to rank their need for assistance on all the clean energy and climate change subtopics in order from highest to lowest need. Ranks were translated numerically as 1 through 6, with 1 indicating the highest ranking and the highest degree of need. Renewable Energy and Energy Storage ranked the highest in need by a wide margin, and Clean Transportation ranked the lowest in need by a wide margin.

1. Renewable Energy and Energy Storage (Score = 2.67)
2. Climate Change Adaptation/Resilience - Health and Social (e.g. health, culture, economies, and education) (Score = 3.21)
3. Energy Efficiency and Energy Conservation (Score = 3.25)
4. Climate Change Adaptation/Resilience - Natural and Managed Resources (e.g., water, ecosystems, wildlife, and agriculture) (Score = 3.28)
5. Climate Change Adaptation/Resilience - Built Systems (e.g., buildings and infrastructure) (Score = 3.84)
6. Clean Transportation (Score = 4.40)

The CTGA questionnaire also included questions about 59 specific activities, including 54 clean energy activities across three subtopics (energy efficiency, renewable energy and energy storage, and clean transportation), three sectors (residential, commercial, and government), and five climate change adaptation and resilience strategies across a range of climate hazards and impacts. The questionnaire asked Tribes to characterize each activity in terms of its degree of priority for the Tribe, amount of work completed,

[1] An archive of TECX recordings can be found at caltribalgapanalysis.org.

and magnitude of need for additional assistance. Notably, all activities were considered a high priority by at least one responding Tribe. The report analyzes these results in detail, alongside qualitative questionnaire responses and secondary information such as reports on Tribal perspectives shared during Tribal-State conferences.

Through analyzing and interpreting both quantitative and qualitative data, the CTGA team identified the following specific activities as the top eight "need areas" for California Native American Tribes (not listed in any specific order):

- Installing solar electricity systems
- Installing energy storage systems
- Installing microgrid systems (commercial and government sectors only)
- Installing energy efficiency upgrades
- Preparing climate change adaptation or resilience plans
- Implementing planned adaptation and resilience strategies, especially those that reduce impacts to health/social and natural/managed resources due to drought, wildfire, and temperature extremes
- Installing and offering public EV charging stations (commercial and government sectors only)
- Sustainable transportation development and planning (government sector only)

Since the rankings are relative, an activity's lower rank does not mean that assistance isn't needed. Rather, it might relate to respondents' familiarity or lack thereof with a given technology or strategy, indicating an opportunity for the State to support access to information about various options as well as assistance in planning and implementing them.

As noted throughout this report, results sometimes vary significantly by certain respondent characteristics, such as federal recognition status and land status. For example, across all 59 activities, non-federally recognized Tribes indicated they had completed 60% less work to achieve their goals on average than federally recognized Tribes, and they scored need for assistance as 20% higher overall – presumably due to their relatively smaller staff capacity and resources.[2] Additionally, using responding Tribes' locations, the Project Team developed a summary of Tribal climate change adaptation and resilience needs by region to support the State's interest in this topic (see Appendix L of the full report at California Tribal Gap Analysis).

[2] Appendix A of the full report is at California Tribal Gap Analysis: See CTGA Tribal Questionnaire, Questions #11-19 and #24

Gaps in Addressing Needs

Respondents to the CTGA survey reported several factors that prevent Tribes from addressing their most important clean energy and climate change needs, including internal barriers and gaps in external assistance programs. These factors include lack of funding, lack of staff time, lack of expertise or training, and lack of information or data.[3]

The CTGA survey asked Tribal representatives to indicate how beneficial they expected various types of external assistance would be in addressing Tribes' clean energy and climate change adaptation and resilience needs and goals. Here, the highest score corresponds to the highest need. Response averages indicated that assistance in the form of grants (2.95), grant writing (2.72), and planning and design expertise (2.65) would be the most beneficial types of assistance for future programs, with other types of incentives close behind (2.57).

CTGA research identified more than 150 assistance programs that may, to varying degrees, be viable options to help Tribes meet their clean energy and climate adaptation goals and needs. A database of these programs is available online.[4] Importantly, while the large number of programs might appear promising, few of these programs are active at any given time or are recurring. Furthermore, many of these programs are challenging for Tribes, especially non-federally recognized Tribes, to access and utilize for a wide variety of reasons including those listed below in Challenges Accessing Existing Assistance Programs.

The questionnaire asked respondents about their experiences with a selection of 16 adaptation and resilience programs administered by agencies of the State, the federal government, or NGOs. Tribes reported the greatest success utilizing the following three programs:

1. Low Income Home Energy Assistance Program (LIHEAP) - California Department of Community Services and Development (CSD) (37.5% of all respondents reported greatest success utilizing)
2. Tribal Resilience Planning Grant - U.S. Department of the Interior – Indian Affairs (BIA) (24.3% of all respondents)
3. Energy and Mineral Development (EMDP) Grant - US BIA (19.4% of all respondents)

[3] Appendix A of the full report is at California Tribal Gap Analysis: See CTGA Tribal Questionnaire, Question #31

[4] CTGA Assistance Programs Database

Challenges Accessing Existing Assistance Programs

1. Tribal Outreach and Awareness
2. Eligibility and Evaluation Criteria
   a. Tribes ineligible
   b. Exclusionary criteria and scoring
   c. Vague eligibility terms
   d. Lack of Tribal set-aside
   e. Inconsistent access to ratepayer programs across IOUs
   f. Short funding solicitation periods
   g. Inconsistent funding cycles
3. Legal, Contractual, and Financial Requirements
   a. Waiver of sovereign immunity
   b. CEQA requirements
   c. Exposure of Tribes' knowledge and data
   d. Match/cost-share requirements
   e. Reimbursement vs. advanced payment
4. Eligible Projects or Activities
   a. Inflexible, overly prescriptive programs
   b. Eligibility of planning vs. implementation vs. continuation activities
5. Grant Writing, Administration, and Technical Capacity

Non-federally recognized Tribes indicated a low degree of familiarity with most assistance programs. Several non-federally recognized Tribes commented that they did not feel they were eligible for most of the programs listed. Across 20 selected programs, a maximum of 37.5% of all respondents had successfully used any one program (LIHEAP).

Forty-four out of 76 respondents raised concerns or challenges working with the State or accepting assistance. They provided ideas and recommendations on how the State can help Tribes address goals, needs, barriers, or gaps related to clean energy and climate change adaptation and resilience in the future. Similar observations were raised by participants at State-hosted Tribal energy conferences, which also informed the CTGA recommendations.

Additionally, the CTGA survey asked respondents to identify clean energy or climate change knowledge gaps or research topics that Tribes would like to see studied by researchers. Tribes' suggestions for research topics can be found in (see Appendix M of the full report at California Tribal Gap Analysis). In the survey, Tribes also prioritize greater investment in Tribes' capacity to lead or support research on clean energy and climate change impacts and solutions, especially to the degree that research

incorporates Traditional Ecological Knowledge (TEK) and supports Tribes' goals for education and scientific advancement.[5]

The Project Team refined this analysis by matching the eight need areas[6] identified above to known assistance programs that provide the types of assistance that CTGA questionnaire respondents indicated they preferred: planning grants, implementation grants and incentives, project planning assistance, and grant writing assistance. This Preliminary Assessment of Assistance Gaps in Top Need Areas, found in Appendix N of the full report at California Tribal Gap Analysis, contains an assessment of program features including Tribal awareness, access, and availability, based on information obtained through primary and secondary research. Only minimal information about current Tribal utilization of programs was available for analysis during the CTGA process; further research and analysis is needed to establish Tribes' access and utilization of existing programs.

The CTGA process identified gaps in assistance program awareness, accessibility, and availability across all eight need areas. Anticipated State and federal investments might partially address some gaps, such as in energy storage, microgrids, electric vehicle charging, emergency preparedness and disaster mitigation, wildfire resilience using traditional practices, and nature- or conservation-based adaptation strategies. However, these opportunities likely will be limited and competitive. The analysis identified the following Tribal needs and gaps in State programs addressing Tribal clean energy and climate change adaptation and resilience:

- Support for awareness among Tribes of existing programs
- Project planning assistance across all areas of need
- Grant writing assistance outside of a few SGC programs that provide grant writing TA for their own funding programs
- Assistance for Tribes outside of investor-owned utility (IOU) territories

[5] Traditional Ecological Knowledge (TEK) refers to the evolving knowledge acquired by Indigenous and local peoples over hundreds or thousands of years through direct contact with the environment. This knowledge is specific to a location and includes the relationships between plants, animals, natural phenomena, landscapes and timing of events that are used for lifeways, including but not limited to hunting, fishing, trapping, agriculture, and forestry.

[6] The eight Need Areas include: Installing solar electricity systems; Installing energy storage systems; Installing microgrid systems (commercial and government sectors only); Installing energy efficiency upgrades; Preparing climate change adaptation or resilience plans; Implementing planned adaptation and resilience strategies, especially those that reduce impacts to health/social and natural/managed resources as a result of drought, wildfire, and temperature extremes; Installing and offering public EV charging stations (commercial and government sectors only); and Sustainable transportation development and planning (government sector only)

- Inconsistent treatment of Tribal status as disadvantaged communities (DAC)
- Tribal-focused funding and set-asides
- Assistance for non-federally recognized Tribes

Recommendations and Conclusions

While Tribes have demonstrated the creativity, adaptability, and knowledge to help lead the country on clean energy and climate change adaptation, centuries of disenfranchisement and legal hurdles continue to make it uniquely difficult for California Native American Tribes to access adequate resources to meet their needs and goals. Tribes need greater assistance in all areas addressed in the CTGA, and those without recognition, land, or facilities need greater assistance overall. While some relevant assistance programs exist, much work is needed to improve Tribal awareness, access, and availability of these programs. The role of the State of California becomes even more vital to sustain progress in an era of shifting federal policies and budget cutbacks that affect a wide range of Tribal priorities.

California State leaders and agencies have many opportunities to meaningfully invest in addressing Tribal clean energy and climate change needs as well as the assistance program gaps reflected in the top eight Need Areas identified above. When under-resourced and historically excluded Tribes are targeted for assistance, program success depends on minimizing barriers to participation and increasing support where possible. The Project Team recommends that the State implement the following actions under three categories:

I. Improve State-led Tribal outreach, communication, and engagement
II. Improve Tribal access to and utilization of existing State programs
III. Increase State investments to create and expand Tribal assistance programs

The Recommendations and Conclusions section addresses in detail each of the general recommendations listed below and provides specific action steps for implementation.

I) Improve State-led Tribal Outreach, Communication, and Engagement

- Increase Tribes' knowledge and awareness of assistance programs
- Maintain the Tribal clean energy and climate program assistance database
- Conduct regular Tribal energy and climate meetings
- Improve Tribal relations, capacity, and training among State employees
- Improve State Tribal engagement policies and processes
- Empower Tribes to inform and shape programs and policies
- Centralize, streamline, and sustain interagency communications and engagement

II) Improve Tribal Access to and Utilization of Existing State Programs

- Eliminate requirements that undermine Tribal sovereignty, such as:
  - Requiring waivers of sovereign immunity
  - Imposing CEQA requirements on Tribal land
  - Infringing on data sovereignty
- Further assess Tribal access, challenges, and utilization of applicable assistance programs such as, among others:
  - Expand eligibility including access to non-Tribal specific programs
  - Expand Tribal set-asides and Tribe-specific grants
  - Reduce or eliminate cost-share requirements
  - Provide guidance and technical assistance during solicitation periods
  - Expand Q&A during solicitation periods
- Remove unfunded plans and other requirements
- Simplify, streamline, and coordinate grant solicitations
- Reduce and simplify grants management requirements
- Collaborate with Tribes on State climate change research
- Use standard metrics for State agencies to track and report Tribal utilization of programs as well as agency performance on best practices and policies that uphold and support Tribal sovereignty

III) Increase State Investments to Create and Expand Tribal Assistance Programs

- Increase investments in top eight Need Areas
- Increase flexible funding
- Increase recurring funding
- Offer funding and assistance for pre-development activities
- Offer phased funding and assistance programs
- Increase and expand technical assistance (TA)
- Provide grant writing assistance
- Increase funding for Tribal staffing
- Increase Tribal staff training
- Provide cost-share for federal grants
- Provide low-interest loans and loan guarantees
- Fund initiatives to acquire ancestral lands
- Fund basic and broader Tribal energy projects and initiatives
  - Basic electrification (on- and off-grid)
  - Infrastructure modernization
  - Tribal utilities and energy ventures
  - Cultural resource protection

- Create a centralized, evergreen inventory and pipeline of fundable Tribal energy and climate projects
- Establish Tribal-serving regional energy and climate hubs

The next and most important step in applying the outcomes of the CTGA process is for the State of California and Tribes to jointly develop an implementation plan to address the identified Tribal clean energy and climate change gaps, and advance CTGA report recommendations. The State will most efficiently and effectively address gaps and advance recommendations by authorizing and operationalizing a single State-Tribal committee or body to develop and oversee this implementation plan, coordinated and effectuated by a Tribally led implementation team in partnership with agency staff.

The CTGA team gratefully appreciates the contributions of Tribal representatives who shared invaluable knowledge and perspectives through their participation in the CTGA survey as well as in TECX meetings and other forums for State-Tribal engagement on clean energy and climate change issues. Their inputs show that despite the barriers and gaps they face, California Tribes are committed to addressing the energy and climate challenges facing their communities. Continued engagement and progress by the State to apply the findings and recommendations from the CTGA process will demonstrate the State's commitment to meaningfully collaborate with Tribes in achieving their clean energy and climate change goals to benefit their communities for generations to come.