CLIMATE CHANGE RESEARCH PROGRAM

ROUND 3

Fiscal Year 2019-2020 Program Solicitation

CALIFORNIA CLIMATE INVESTMENTS

Cap and Trade Dollars at Work

CALIFORNIA STRATEGIC GROWTH COUNCIL

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EXECUTIVE SUMMARY

State Agency Name: Strategic Growth Council (SGC), Governor's Office of Planning and Research

State Funding Opportunity Title: California Climate Investments: Climate Change Research Program

Submission Date: Research Proposal Submission Packages are due no later than 5:00 p.m. Pacific Standard Time, Wednesday, February 12, 2020, using the California Department of Water Resources' Grants Review and Tracking System (**GRanTS**).[1] Submissions uploaded after the closing date and time will not be accepted.

State Funding Opportunity Description: The Strategic Growth Council was allocated a total of $5 million in California Climate Investments Program funds in the fiscal year 2019-2020 budget for the Climate Change Research (CCR) Program to administer a third round of grant awards. The CCR Program is a statewide research initiative that funds outcome-based research advancing the State's climate goals, focused on climate mitigation, adaptation, and resilience. Successful research proposals must be located in California. The research submission package must demonstrate how the proposed research will contribute to achieving the seven program goals and respond to the 2019 Research Priority Areas described in this solicitation and in the program's Research Investment Plan.[2] Research proposals must seek to address key questions, barriers, hurdles, or opportunities that contribute to the advancement of new or developing climate initiatives that will facilitate the reduction of greenhouse gas emissions in California and that will provide benefits to low-income or disadvantaged communities.

This Funding Opportunity includes information needed to apply to the program and the criteria for submitting a Research Proposal requesting between $100,000 and $1,000,000 in total state funding for a twelve month to three-year period.

The SGC will post a list of recommended research awards on June 15, 2020, and the Council will vote on approving the awards at the June 25, 2020 public meeting. Funded projects are anticipated to start no later than October 1, 2020, and all work must be completed within a 36-month period and contain an end date on or before March 31, 2023.

This solicitation is funded as part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work by reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

[1] http://water.ca.gov/grants/

[2] http://sgc.ca.gov/programs/climate-research/docs/20181003-Approved-Research_Investment_Plan.pdf
http://sgc.ca.gov/programs/climate-research/docs/20180130-Final_Research_Investment_Plan.pdf

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I. INTRODUCTION

A. PURPOSE OF THE SOLICITATION

The purpose of this solicitation is to allocate up to $4.75 million of grant funding appropriated in the fiscal 2019-2020 budget for Climate Change Research Program projects that facilitate the reduction of greenhouse gas emissions, in areas including clean energy, adaptation, and resiliency. Awarded research projects will demonstrate how State investments can advance California's climate change goals while building innovative, outcome-driven partnerships between the State, the research community, and other research partners.

A proposal for a Climate Change Research Grant must include the following:

- Integrative research that addresses one or more of the research needs identified in the State's 2015 Climate Change Research Plan[3] – monitoring and modeling, greenhouse gas emission reduction, adaptation and resilience, and cross-cutting research needs;
- Research that facilitates the State's GHG emissions reduction goals;
- Results that deliver major economic, environmental, and/or public health benefits for Californians;
- Projects that consider how the proposed investments could provide both direct and indirect benefits to low-income households, low-income communities, disadvantaged communities, and/or populations that are vulnerable to the impacts of climate change, as defined in division 26, part 2, chapter 4.1 of the Health and Safety Code[4];
- Research design and approaches that integrate meaningful engagement with stakeholders, including community members, decision makers, and other partners throughout all of the phases of the project; and,
- Free and open access to research results and findings published through final manuscripts of scholarly articles, reports, and other projects produced entirely or primarily with program funding, as pursuant to Assembly Bill 2192.[5]

II. DESCRIPTION OF FUNDING OPPORTUNITY

A. OVERVIEW

In 2017, the Legislature passed Assembly Bill (AB) 109, which created a climate change research program within the SGC.[6] Statute directed SGC to develop a Research Investment Plan to outline research needs; award grants on a competitive basis; and to have the program open to eligible institutions, including the University of California, California State University, federally-funded national laboratories, and private, non-profit colleges and universities. The Council approved the Research Investment Plan in January 2018 and awarded the first round of awards in July 2018.

In 2018, the Legislature passed Senate Bill (SB) 856, appropriating an additional $18 million for Round 2 of the Climate Change Research Program, awarded on December 20, 2018. As part of the Budget Act of 2019, Assembly Bill 74, the Legislature appropriated $5 million to fund this third round of the program.

[3] http://climatechange.ca.gov/climate_action_team/reports/CAT_research_plan_2015.pdf

[4] Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=HSC&division=26.&title=&part=2.&chapter=4.1.&article=

[5] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB2192

[6] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB109

B. PROGRAM GOALS

As noted in the Climate Change Research Program's adopted Research Investment Plan, research proposals must advance the seven program goals listed below to be eligible to receive a research grant award. Applicants must provide a brief description of how the proposed project portfolio addresses these goals.

These goals are to:

1. Invest in research that has a clear and demonstrated connection to the State's climate change goals. Investments should demonstrate potential to significantly reduce GHG emissions, should show potential to be easily replicated and scaled, and should support climate adaptation and resilience.
2. Advance research to support low-income and disadvantaged communities, and advance equitable outcomes in the implementation of the State's climate change policies and investments.
3. Build a program that augments, builds connections, and fills gaps across existing research programs.
4. Prioritize outcome-based research linked to practical climate action.
5. Model meaningful engagement with the research community, community-based organizations, tribal, local, and/or regional agencies, and other stakeholders at all stages of the program to ensure relevance and utility of research process, projects, and results.
6. Continue to advance and develop a common research platform to support climate change planning, policy development, and implementation across all sectors at the state, regional, and community scale.
7. Leverage and complement existing research funding and policy innovations to accelerate climate change research, innovation, policy, and technology deployment.

C. RESEARCH PRIORITY INVESTMENT AREAS:

The Climate Change Research Program's Research Investment Plan includes five Research Priorities areas; this solicitation allows researcher to propose projects within or across **three** of these areas. Researchers must specify which priority area(s) a research proposal is addressing, as well as which topic(s), if any, identified as a crosscutting thematic lens for Round 3 are being incorporated. Further information on the Research Priority Areas and the crosscutting thematic lens are listed in Appendix C, 2019 Research Investment Areas. Research Priority Areas to be funded in Round 3 are:

- **Supporting and protecting vulnerable communities from the impacts of climate change.**
- **Accelerating and supporting transitions to climate smart communities.**
- **Integrating land use, conservation, and management into California's climate change programs.**

Proposers' submission packages will be evaluated on the demonstrated ability to specifically advance one or more of the Research Priority Areas and crosscutting thematic lens, incorporating collaborative partnerships throughout the Research Grant.

D. PROGRAM AUTHORITY

The Strategic Growth Council is authorized to issue Climate Change Research Program grants under Item 0650-001-3228, provision 2 of section 2.00 of the Budget Act of 2019 (Chapter 23, Statutes of 2019).

E. KEY ACTIVITIES SCHEDULE

The solicitation's key activities, dates, and times are presented below.

Figure 1: Key Activities Schedule

TASK	DATE
SGC Council Meeting: Direct staff to develop RFP	August 27, 2019
Round 3 Notice of Request for Proposals Released	November 15, 2019
Webinar—Proposal Submissions	Mid-December 2019 (TBA)
Deadline for Written Questions	December 20, 2019
Application Submission Deadline	February 12, 2020
List of Award Recommendations Posted	June 15, 2020
SGC Council Meeting—Awards Approved by the Council	June 25, 2020

F. NOTICE OF PRE-SUBMISSION RESEARCH PROPOSAL WORKSHOP

SGC staff will hold one Pre-Submission Research Proposal Workshop to discuss the solicitation with applicants. Participation is optional but encouraged. Participants may attend the workshop in-person in Sacramento, via the internet, or via conference call on the date, time, and location listed on the SGC's website.

G. QUESTIONS

During the solicitation process, direct questions to SGC staff person listed below:

Elizabeth Grassi
Strategic Growth Council
1400 Tenth Street
Sacramento, California 95814
Telephone: (916) 327-5362
E-mail: research@SGC.CA.GOV

Applicants may ask questions at the Pre-Submission Research Proposal Workshop, and may submit written questions via mail, and by electronic mail. However, all **technical** questions must be received by the deadline listed in Figure 1, the Key Activities Schedule (above). **Non-technical** questions (e.g., questions concerning format requirements or attachment instructions) may be submitted to SGC staff at any time prior the deadline for submitting a Research Proposal.

The SGC will email a question and answer document to all parties who attend the Pre-Submission Research Proposal Workshop, provided they included current contact information on the workshop's sign-in sheet. The SGC will also post this document on the Program's website: http://www.sgc.ca.gov/programs/climate-research/.

If an **ambiguity, conflict, discrepancy, omission, or other error** is discovered in the solicitation at any time prior to the submission deadline, the proposer may notify the SGC in writing and request modification or clarification of the solicitation. The SGC, at its discretion may provide modifications or clarifications either by an addendum to the solicitation or by a written notice to all parties who requested the solicitation. At its discretion, the SGC may re-open the question/answer period to provide all applicants the opportunity to seek any further clarification required.

Any verbal communication with an SGC employee concerning this solicitation is not binding on the State and will in no way alter a specification, term, or condition of the solicitation. Therefore, all communication should be directed in writing to the assigned SGC staff person identified above.

III. AWARD INFORMATION

A. FUNDING AVAILABILITY

This solicitation will fund up to $4.75 million through this solicitation to approximately five to seven Research Grant awards. Awards will range from $100,000 - $1,000,000.

Research Grants ($100,000 - $1,000,000): Awarded to individual researchers or research groups, who have identified collaborations and partners, to examine a specific question or set of questions. Research results are expected at the completion of the grant. Projects can be twelve to thirty-six months in duration. Projects with early research results are encouraged.

A Standard Grant or Cooperative Agreement, providing cost-reimbursements, is the method used to execute awards to grant recipients.

B. PROJECT/AWARD PERIOD

All funds administered through this program must be encumbered and spent by June 30, 2023. The SGC requires that researchers complete all of project work by March 31, 2023.

C. CHANGE IN FUNDING AMOUNT

Along with any other rights and remedies available to it, the Strategic Growth Council reserves the right to:

- Increase or decrease the available funding and the group minimum/maximum award amounts described in Section III, B.
- Allocate any additional or un-awarded funds to passing proposals.
- Reduce funding to an amount deemed appropriate if the budgeted funds do not provide full funding for agreements. In this event, the Recipient and SGC's Agreement Manager will reach agreement on a reduced Scope of Work commensurate with available funding.

IV. ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

Researchers (including qualified scientists, engineers, and educators) affiliated with one of the following institutions:

- University of California,
- California State University,
- Federally-funded national laboratories located in California,
- Private, non-profit colleges and universities located in California, and
- Private, non-profit research organizations located in California.

There are no restrictions on who can serve as the Lead Principal Investigator (PI) within these Research Institutions; however, a Lead PI must have a substantial role in designing and conducting the proposed research. Employees can serve as a Lead PI or co-PI on up to two proposals. Additionally, researchers may appear as a contributor on other solicitations (no limit). In the event that an individual exceeds the Lead PI proposal limit, proposals received within the limit will be accepted based on earliest date and time of proposal submission (i.e., the first two proposals received prior to the deadline will be accepted and the remainder will be returned without review).

Researchers are required to include contributors and sub-recipients from community-based organizations, non-profit organizations, local or regional governments, tribal governments, and/or other institutions as an integral part of the research and as sub-recipients on research proposals. Furthermore,

given SGC's interest in co-production of research ideas and meaningful research partnerships, partner (non-research) organizations with capacity and expertise can serve as co-PIs, co-leads, or other large partnership roles. SGC also encourages research institutions to partner with each other to leverage varying expertise; for instance, a CSU lead with a UC partner. Entities located outside of California and for-profit businesses are eligible to serve as sub-recipients for proposed research, but they may not be the lead institution.

B. ELIGIBLE PROJECTS

Eligible research projects will focus on one or more of the SGC Climate Change Research Program's research priorities listed above and advance all seven program goals; facilitate the reduction of greenhouse gas emissions in California; benefit low-income or disadvantaged communities; and, include robust, diverse, multi-stakeholder partnerships featuring key stakeholders. Additional requirements around partnerships are included in the Threshold Requirements section. Partners may include, but are not limited to, community organizers, issue-based advocates, policymakers, and others that can transform research findings into action, and can lead to ongoing collaboration beyond the duration of the grant award.

As noted above, research awards are available to researchers ranging from $100,000 to $1,000,000.

C. ELIGIBLE COSTS

Administrative and direct costs, as described below, are reimbursable costs in this program.

1) Administrative costs that directly apply to the accomplishment of a project or partnership may account for up to five (5) percent of the awarded funds. "Administration of the grant" may include, but is not limited to: activities required for coordinating the Grant Recipient/Partner relationship, reporting, invoicing, etc. Administrative costs may include but are not limited to: staff salaries and benefits, supplies, and other resources used to administer the grant. This definition supersedes any definition of administrative costs provided by other California Climate Investment programs.

2) Direct costs defined as costs directly tied to the implementation of an awarded research proposal are reimbursable costs, with the exception of equipment purchases.[7] These costs will vary depending on the project but include the salaries and fringe benefits of project staff(including costs of staff conducting research, and/or implementing communications, translation and engagement efforts), partners and sub-recipients; travel, materials, supplies and miscellaneous costs that are attributed to the project(s).

3) Indirect costs that comply with the program's Research Investment Plan are reimbursable. Specifically, a maximum indirect cost rate of 25% was established for the Climate Change Research Program. Indirect cost rates may vary under these circumstances. Please note: cost effectiveness is one of the determinants for project awards.
   - **University of California and California State University** proposals can apply a negotiated rate that is lower than the maximum rate, if an agreement to apply that rate has been reached with a state agency or department.
   - **Federally-Funded National Lab** proposals can use a higher rate, as negotiated with the California Department of General Services in compliance with public resources code 12500-02 or a previously established rate agreement with a State agency or department (negotiated rates must be validated at part of the laboratory's proposal submission).
   - **Private Universities** may charge a negotiated rate other than the maximum rate listed to its research proposals if that rate agreement was previously established with a State agency or department is in place (negotiated rate must be validated as part of the university's proposal submission).

[7] Equipment is defined as an article or physical resource used to implement an operation or activity with a normal life expectancy of one year or more and an approximate unit price of $5,000 or more.

- **Private, Non-Profit Research Institutions** may charge a negotiated rate other than the maximum rate listed to its research proposals if that rate agreement was previously established with a State agency or department is in place (negotiated rate must be validated as part of the institution's proposal submission).

V. PROPOSAL ORGANIZATION AND SUBMISSION INSTRUCTIONS

A. RESEARCH PROPOSAL SUBMISSION FORMAT AND PAGE LIMITS

The following table summarizes formatting and page limit requirements:

Figure 2: Submission Formatting

Topic	Parameters
Format	Font: 11-point, Arial (excluding Excel spreadsheets, original template headers and footers, and commitment or support letters). Margins: No less than one inch on all sides (excluding headers and footers). Spacing: Single spaced, with a blank line between each paragraph. Pages: Numbered and printed double-sided (when determining page limits, each printed side of a page counts as one page). Signatures: Manual (i.e., not electronic). File Format: MS Word version 2007 or later (.doc or .docx format) or PDF files, excluding Excel spreadsheets and commitment or support letters. File Storage: Electronic files of the research proposal submission package must be submitted as part of the **GRanTS** web-based grant application submission tool.
Page Limits	Title Page: One page. Proposal Narrative: Ten pages, including figures, tables, graphics and charts (Attachment 2) References and Literature Citations: Additional two pages for annotating narrative (optional) Biographical Sketches for Key Personnel: Two pages for each senior researcher and significant partner participating in the research Letters of Support: One page for each reference, maximum of seven letters (multiple organizations that are part of a coalition may sign and submit a single letter of support) There are no page limits for the following items: – Submission Questionnaire (Attachment 1) – Budget Forms (Attachment 3) – Scope of Work (Attachment 4) – Collaborations and Other Affiliations [if applicable] – Partnerships and Engagement Strategies – Prior Research Summary [if applicable] – Quality Assurance Statement or Data Management Plan [if applicable]

B. METHOD FOR DELIVERY

The method of delivery for responding to this solicitation is through the Department of Water Resources' Grants Review and Tracking System (**GRanTS**), a web-based grants application tool, available at: https://www.water.ca.gov/Work-With-Us/Grants-And-Loans/GRanTS/. This online tool allows applicants to submit

their electronic documents to SGC prior to the date and time specified in this solicitation. Electronic files must be in Microsoft Word XP (.pdf format) and Excel Office Suite formats unless originally provided in the solicitation in another format. Attachments requiring signatures may be scanned and submitted in PDF format. Completed Budget Forms must be in Excel format. The system will not allow users to submit a research proposal after the due date and time.

First-time users of the **GRanTS** platform must register as a new user to access the system. Applicants will receive an email after documents have been submitted and received by the SGC. This email indicates that the SGC has received something from the proposer and is NOT a confirmation that all submitted or required documents were received. The proposer is solely responsible for ensuring all required documents are received by the SGC. A tutorial of the system is available online, and the system will be reviewed at the Pre-Submission Research Proposal Workshop, which will be recorded and made available on the SGC's website. The SGC staff person identified in Section II, H of the solicitation is available to provide additional assistance.

C. RESEARCH PROPOSAL SUBMISSION ORGANIZATION AND CONTENT

In addition to completing the Research Proposal Questionnaire (Attachment 1) in the GRanTS Application system, below is a description of each required section of the submission package. Completeness in submitting all the information required in each attachment will be factored into the scoring.

1. Title Page

The title page must include:

- The Lead PI's last name
- A brief (one sentence) project description
- Name, affiliation, and contact information (address, telephone, email) for each of the partner institutions
- Requested budget amount
- Proposed period for conducting research (start date/end date)
- Contact information for the following individuals responsible for executing a grant award:
  - Authorized Official: the individual with the authority to sign a contract or grant that makes it a legal binding agreement for the institution receiving a grant award.
  - Administrative Contact: the individual responsible for administrative and reporting duties related to the grant award.
  - Authorized Financial Contact: the individual responsible for any financial, accounting, or invoicing related inquiries.
- Lead PI's signature line (including printed/typed name and date)

2. Proposal Narrative (Attachment 2)

This narrative should detail the proposer's plan and approach to conducting research that will advance one or more of the Round 3 Research Priorities listed in Appendix C, the Research Investment Plan. The proposal narrative must include the three main elements (Description, Research Merits, and Meaningful Engagement) identified in Attachment 2. Additionally, the narrative should address applicable subjects (with clear headings), such as:

- Research Objectives
- Research Question(s) and Hypothesis(es)
- Research Approach and Methods
- Anticipated Policy Implications

Additionally, the narrative should incorporate how the proposed research addresses the elements described in the solicitation's Evaluation Criteria (section VI) for the following two elements:

- Research merits
- Meaningful engagement

3. Budget (Attachment 3)

The budget should outline how the funds will be invested. In addition, budgets should be scalable in the event that the SGC needs to scale selected awards due to limited funds.

The budget forms are in MS Excel format. Complete and submit information on all budget worksheets. The salaries, rates, and other costs entered on the worksheets will become a part of the final agreement.

- All project expenditures must be made within the approved agreement term. The entire term of the agreement and projected rate increases must be considered when preparing the budget.
- The budget must reflect estimates for actual costs to be incurred during the agreement term. The SGC may only approve and reimburse for actual costs that are properly documented in accordance with the grant terms and conditions. Rates and personnel shown must reflect the rates and personnel the proposer would include if selected as a Grant Recipient.
- The proposed rates are considered capped and may not change during the agreement term. The Grant Recipient will only be reimbursed for actual rates up to the rate caps.
- The budget must NOT include any Grant Recipient profit from the proposed project, either as a reimbursed item, match share, or as part of overhead or general and administrative expenses (subcontractor profit is allowable, though the maximum percentage allowed is ten percent of the total subcontractor rates for labor, and other direct and indirect costs as indicated in the Category Budget form). Please review the terms and conditions and budget forms for additional restrictions and requirements.
- The budget must allow for the expenses of all meetings and products described in the Scope of Work. Meetings may be conducted at the SGC's offices or by conference call, as determined by SGC Agreement Manager.
- Equipment purchases are not an allowable expense under this program.
- Applicants must provide budget details for any leverage funding, including in-kind, if applicable.
- Applicants must budget for open access publishing for all of the published materials that report on this research.
- The budget must NOT include program funds spent outside of the United States or for out of country travel.

4. Scope of Work (Attachment 4)

Proposers must include a completed Scope of Work. The Scope of Work identifies the tasks required to complete the project or portfolio of projects. It includes a project schedule that lists all products, meetings, and due dates. This should include a milestone/outcomes chart that includes major metrics and milestones to track success of the research; as well as outcomes and benefits that will derive from conducting the research. All work must be scheduled for completion by March 31, 2023.

5. Biographical Sketches for Key Personnel

Clearly describe the research interests and expertise of key personnel and their affiliated institution(s). Include the information required for each individual, as described below (maximum two pages, printed double-sided). A biographical sketch (limited to two pages) is required for each individual identified as senior project personnel (both academic and non-academic partners). The following information must be provided in the order and format specified below.

- Professional Preparation: List of the individual's undergraduate and graduate education and postdoctoral training.
- Appointments: List, in reverse chronological order, of all the individual's academic/professional appointments beginning with the current appointment.
- Publications: List of: (i) up to 5 publications most closely related to the proposed project; and (ii) up to 5 other significant publications, whether or not related to the proposed project. Each publication identified must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Patents, copyrights and software systems developed may be substituted for publications. Additional lists of publications, invited lectures, etc., must not be included. Only the list of 10 will be used in the review of the proposal.
- Synergistic Activities: List of up to five examples that demonstrate the broader impact of the individual's professional and scholarly activities that focuses on the integration and transfer of knowledge as well as its creation.
- Collaborators & Other Affiliations: List of all persons in alphabetical order (including their current organizational affiliations) who are currently, or who have been collaborators or co-authors with the individual on a project, book, article, report, abstract or paper during the 48 months preceding the submission of the proposal. Also include those individuals who are currently or have been co-editors of a journal, compendium, or conference proceedings during the 24 months preceding the submission of the proposal. This information can be moved from the individual biographical sketches and compiled into one separate document that provides all affiliate information for all senior personnel**.**

6. Partnerships and Engagement Strategies

Identify by name all personnel assigned to the project, including the project manager and/or principal investigator, and individuals employed by a proposed partner or sub-recipient that is listed in the project budget. Clearly describe their individual areas of responsibility and the roles of each partner through the different phases/tasks of the proposed research. Additionally, this document should include name of the contact person for each of the other institutions or organizations contributing to the project (non-paid committees, advisors, organizers, etc.).

7. Letters of Support

All applicants must include at least one support letter from a project stakeholder (i.e., an entity or individual that will benefit from and/or be involved in the research). In the letter the stakeholder(s) should (1) describe their interest or involvement in the project; (2) indicate the extent to which the project has the support of the relevant industry, community and/or organizations; (3) describe how they intend to support or contribute to the project; and, (4) if applicable, indicate how the research could result in benefits to a low-income or disadvantaged community. Applicants cannot submit letters of support from other California state agencies.

8. Prior Research Summary

Provide a list of past projects that includes the following information for each research project listed: project title, project status, the project's PI(s), the sponsoring research institution, contract number, and the name and contact information for the State's Agreement Manager.

9. **References and Literature Citations (two pages, optional)**
   Proposals can include a separate bibliography of references cited in the Proposal Narrative. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Only bibliographic citations should be included. This document should follow scholarly practices when citing source materials relied upon when preparing the research proposal

10. **Quality Assurance Statement or Data Management Plan**
    The QAS is required when research involves data collection or processing, conducting surveys, modeling, method development, or the development of tools or technology. The QAS outlines how internal processes are in place to ensure that research products satisfy the intended research objectives. Researchers may substitute a QAS with a lab or institution's Plan for data management or with a relevant NSF Data Management Plan.

D. ANTICIPATED ANNOUNCEMENT AND AWARD DATES

Final funding decisions will be made based on the results of the external expert review and the programmatic review, and are subject to the approval of the Council. In making the final funding decisions, the SGC's Executive Director and key staff may also consider program balance elements such as geographical representation, types of institutions funding, types of partnerships, research areas, types of projects, and climate themes; as well as, available funds.

If a proposal is recommended to the Council for award, SGC staff may contact the Lead PI for assistance in preparing the public award abstract and its title describing the project, as well as justifying the expenditure of California Climate Investment Program funds. Project award abstracts must articulate how the project reduces GHG emissions, has a clear and demonstrated connection to the State's climate change goals, and benefits low-income or disadvantaged communities.

An award recommendation by SGC staff does not constitute approval or obligation of funds. Applicants are cautioned that commitments, obligations or awards can only be made by a majority vote of the Council. No commitment on the part of the SGC or the State of California should be inferred from technical or budgetary discussions with SGC staff. A Lead PI or organization that makes financial or personnel commitments in the absence of a signed grant or cooperative agreement does so at its own risk.

Research project Grant Agreements may be forwarded to the Air Resources Board's California Climate Investment Program's Grant Agreement Management Division, and to the Department of General Services for review and approval in accordance with the State of California procedures.

VI. EVALUATION AND REVIEW PROCESS

A. RESEARCH PROPOSAL EVALUATION

Reviewers will evaluate proposals and score them based on responses to the information requested in this solicitation. To evaluate submissions, the SGC will form an Advisory Committee consisting of external panelists selected for disciplinary expertise, as well as a State Interagency Committee consisting of representatives from state agencies and departments. Each proposal is considered on its own merits without regard for institutional affiliation. Ranking is based on the project's Merit Review and Programmatic Review.

Note: Applicants will not be reimbursed for time spent answering clarifying questions throughout the evaluation process.

B. INTAKE AND SCREENING

SGC staff will screen submission packages for compliance with the screening criteria in part E of this section (Submission Screening Criteria). Submissions that fail any of the screening criteria will be rejected, **without** notice to the proposer. SGC staff may conduct optional in-person or telephone Clarification Interviews with applicants at their discretion during the screening process to clarify and/or verify information submitted in the Research Proposal Submission Package. However, these interviews may not be used to change or add to the content of the original submission.

C. MERIT REVIEW OF PROPOSED RESEARCH

Research proposals that successfully pass the screening process will be submitted to the program's Advisory Committee for review and scoring based on the scoring criteria specified in part F of this section (Merit Review Evaluation Criteria). Appropriate expert reviewers will review research proposals based on the criteria and process described in this section. This review process is designed to evaluate the scientific and meaningful community/partner engagement merits of each submission.

The Advisory Committee will be an interdisciplinary group of academic and technical experts representing the physical and social sciences, including climate and environmental scientists, engineers, planning and environmental justice scholars, public health practitioners, social scientists, business professionals, and/or economists who are accomplished in their respective disciplines and proficient in the technical subjects they are reviewing. Additionally, the committee will include members with expertise that advance the goals of this program concerning meaningful community engagement and equity integration.

Evaluation Criteria: The Advisory Committee will evaluate each submission based on the extent to which the proposal demonstrates its scientific merit as identified in the program's Research Investment Plan—specifically in the area of research merits, comprising 65 percent of the merit review score, and meaningful engagement, comprising the remaining 35 percent.

The Advisory Committee will assign two separate ratings reflecting its evaluation for the research merits and meaningful engagement of each submission using a rating of excellent, very good, good, fair, or poor. A final, cumulative rating for each research proposal will be used to determine which submissions undergo the next phase of internal programmatic review. Research proposals that receive a fair or poor rating will not continue to the next stage of the review process. SGC staff may, at their discretion, arrange a telephone interview with research applicants during the merit review evaluation process to assist the Advisory Committee with clarification and/or verification of information submitted in the proposal. However, these interviews may not be used to change or add to the content of the original submission.

D. PROGRAMMATIC REVIEW OF PROPOSED RESEARCH

Proposals receiving final ratings of good or better from the Advisory Committee will move on to a review of additional criteria, specifically regarding the institution's past performance, project management capacity, and policy considerations listed in part G of this section. The purpose of the programmatic review is to ensure an integrated research program portfolio that advances SGC's mission and to determine which submissions to recommend for award. In conducting the programmatic review, a State Interagency Committee will consider information provided by the research proposer and may consider information from other sources, including prior and current grantor and agency files.

E. SUBMISSION SCREENING CRITERIA

Figure 3: Screening Criteria

SCREENING CRITERIA *Research Proposal Submission Packages must pass ALL criteria to progress to Stage Two.*	YES/NO
1. The Research Proposal Submission package is received by SGC through the GRanTS web-based online application system by the due date and time specified in the "Key Activities Schedule" (Figure 1 of this solicitation).	☐ Yes ☐ No
2. The submission's Title Page includes the signature of the Lead PI.	☐ Yes ☐ No
3. The submission demonstrates how the proposed research will facilitate the reduction of GHG emissions in California.	☐ Yes ☐ No
4. The submission discusses how the research will directly or indirectly benefit low-income and/or disadvantaged communities.	☐ Yes ☐ No
5. The submission meets the threshold requirements for meaningful engagement; specifically, that at least one non-academic partner is funded in the budget, and that engagement is iterative and includes an outreach and communications strategy.	☐ Yes ☐ No

F. MERIT REVIEW EVALUATION CRITERIA

Proposals that pass all of the Screening Criteria will be evaluated based on the Merit Review Criteria using the Scoring Scale identified below (Figure 4). Each criterion has an assigned percentage and is divided into multiple sub-criteria. The sub-criteria are not equally weighted. The Proposal Narrative (Attachment 2) must respond to each sub-criterion, unless otherwise indicated.

Figure 4: Scoring Scale

Scale	Explanation for Ranking
Poor	– The response does not adequately address the criteria. – There are one or more omissions, flaws, or defects or the criteria are addressed in a limited way that results in a low degree of confidence in the proposed solution.
Fair	– The response adequately addresses the criteria. – Any omissions, flaws, or defects are inconsequential and acceptable.
Good	– The response fully addresses the criteria with a good degree of confidence in the proposer's response or proposed solution. – There are no identified omissions, flaws, or defects. Any identified weaknesses are minimal, inconsequential, and acceptable.
Very Good	– The response fully addresses the criteria with a high degree of confidence in the proposer's response or proposed solution. – The proposer offers one or more enhancing features, methods, or approaches that exceed basic expectations.
Excellent	– All criteria are addressed with the highest degree of confidence in the proposer's response or proposed solution. – The response exceeds the requirements in providing multiple enhancing features, a creative approach, or an exceptional solution.

G. TECHNICAL MERIT EVALUATION CRITERIA

The Proposal Narrative (Attachment 2) must respond to each criterion below, unless otherwise indicated. The responses must directly relate to the solicitation requirements and focus as stated in section I part A, Purpose of the Solicitation and section II B, Program Goals. Failure to comply with the solicitation requirements could be grounds for rejection of a research proposal as stated in Section VII C.

Figure 5: Technical Merit Criteria

Scoring Criteria	Scoring Weight
1. Research Merits a) The degree to which the proposed research will contribute to reaching the goals of the Climate Change Research Program as described in the Research Investment Plan, and the degree to which the proposed activity addresses the needs of important state, regional, or community constituencies. b) The degree to which the proposed research addresses one or more of the Research Priority Areas specified in the Solicitation for Round 3. As relevant, the degree to which the proposed research also addresses the crosscutting thematic lens described in the Solicitation. The applicant clearly describes the potential impact of the proposed research and why this topic is important to meeting partner and State goals. c) The degree to which the applicant has shown the impact that SGC funding and the proposed research would have on the relevant field and application. Specifically, the degree to which the proposed research will advance the state of the science or discipline within a research priority area through use of state-of-the-art methods; the degree to which the submission demonstrates that the project and approach are defensible and technically feasible, and uses appropriate and adequate research methods. d) The degree to which the applicant has clearly described the overall soundness, adequacy, and completeness of the proposed submission demonstrated through: • New or holistic approaches to solving problems and leveraging opportunities related to climate change and the research field; • A focus on important or potentially important ecosystem, economic, and/or community problems, resources and issues. • Approaches that challenge and seek to shift current paradigms by using innovative theoretical concepts or methodologies, instrumentation, or interventions applicable to one or more fields of research. e) The degree to which the applicant has shown how the proposed research will overcome any limitations and challenges in the relevant field and application, and the degree to which the applicant has identified risks and challenges, including possible mitigation strategies. f) The degree to which the applicant has clearly defined project milestones and metrics to track progress, and the objectivity, reliability, and validity of these metrics. These can be qualitative as well as quantitative metrics. g) The degree to which Investigators are qualified by education, training and/or experience to execute the proposed activity. Evidence of any record of achievement with previous funding.	**65%**

2. Meaningful Engagement a) The degree to which the project portfolio will provide direct and indirect benefits to the State's low-income and disadvantaged communities, and/or populations who are most vulnerable to the impacts of climate change b) The degree to which the submission demonstrates how the proposal incorporates well established strong and meaningful partnerships, by • Engaging with a diverse set of partners that include researchers, community-based organizations, businesses, local or regional government, tribal governments, tribal organizations, and other stakeholders at all stages of the program to ensure relevance and utility of research process, projects, and results. • Addressing a need identified by an audience of focus, such as vulnerable populations, to adapt to the impacts of climate change. c) The degree to which the submission describes how it will successfully build relationships with new partners that results in opportunities for input and feedback on the project's design and approach through delivery mechanisms and communication processes used to disseminate research findings, data, and recommendations. And, the extent to which the researchers directly involve the community in their research using methods such as, Community Based Participatory Research, community-based pilot projects, and community monitoring/data gathering. d) The degree to which the submission provides assistance and shares resources with others to advance the climate goals of engaged audiences. e) The degree to which the submission demonstrates an established multi-stakeholder or multi-institutional partnership, organized into a collaborative structure that will advise and oversee the project's progress, stakeholder rapport, and application of research findings/results. f) The degree to which the submission demonstrates an engagement plan that is iterative, includes communities or end-users, and includes a tailored outreach and communications strategy included in proposal. g) The degree to which users or potential end-users of the research results have been brought into the planning of the activity, will be brought into the execution of the activity, and will be kept apprised of progress and results.	**35%**

H. PROGRAMMATIC REVIEW RANKING CRITERIA

This review ensures that the SGC achieves its goal to invest in crosscutting research that builds community resilience, integrates land use and development considerations, and facilitates the transformation of California communities through outcome-based research. A State Interagency Committee organized by the SGC will review the Advisory Committee scores and institute a final ranking using the information provided in the solicitation, considering information from other sources, including prior and current grants and contracts administered by the State.

The Interagency Review Committee's final ranking includes reviewing the programmatic considerations listed in Figure 6, Programmatic Review Criteria that apply to each of the advancing proposals using the scoring scale identified in Figure 4. Together with the technical merit and meaningful engagement scores, the final ranking of proposed research ensures that the program is investing in an integrated research portfolio.

Figure 6: Programmatic Review Criteria

Ranking Criteria **Committee members will rank proposals (see Figure 4) based on all of the criteria listed below that apply to a proposal.**
1. **Project Management:** a) Management: The degree to which the submission demonstrates that the project portfolio will be adequately managed to ensure the timely and successful achievement of objectives using appropriate schedules and milestones. And the degree to which the submission demonstrates the applicant will adequately track and measure progress toward achieving expected results (outputs and outcomes). b) Quality Assurance: The degree to which the submission includes an appropriate and adequate Quality Assurance Statement. **c)** Resources and Cost Controls: The degree to which the submission demonstrates that the facilities, equipment, and budget are appropriate, adequate, and available. And the degree to which the submission demonstrates that well-defined and acceptable approaches, procedures, and controls are used to ensure timely and efficient expenditure of awarded grant funds.
2. **Past Performance and Reporting History.** Staff will review information related to the proposed Lead PI's Past Performance and Reporting History under prior state agency agreements (including interagency agreements, grants and cooperative agreements) for performance initiated within the last three years (of similar in size and scope to the proposed project) in terms of: i. Level of success in managing and completing each agreement. ii. History of meeting the reporting requirements under each agreement.
3. **Policy Considerations:** The degree to which it is deemed that the submission should be selected out-of-rank based upon one or more of the following factors, thereby awarding a project that may not necessarily have received the highest merit review score. i. Availability of funding ii. Balance and distribution of funds: – Geographically – By type of institutions – By type of partners – By research areas – By project types – By cost effectiveness – By climate theme iii. Duplication of other projects funded or considered for funding by the SGC or other State agencies iv. Proposer's prior award performance v. Partnerships and/or participation of targeted groups vi. Potential for increased employment and/or economic growth in low-income, disadvantaged, or underserved communities in California vii. Adequacy of information necessary for SGC staff to make a determination and draft necessary documentation before recommendations for funding are made to the Council viii. Cost effectiveness

VII. AWARD AND ADMINISTRATION INFORMATION

A. AGREEMENTS

Research proposals approved for funding by the Strategic Growth Council (SGC or Council) will be developed into grant agreements. Researchers may begin the project portfolio only after full execution of the grant agreement, signed by the Research Institution and the Office of Planning and Research, on behalf of the SGC.

- **Agreement Development:** SGC staff will send the Research Institution a grant agreement for approval and signature. The agreement will include the applicable terms and conditions and will incorporate this solicitation by reference. The SGC reserves the right to modify the award documents (including the terms and conditions) prior to executing any agreement.
- **Failure to Execute an Agreement:** If the SGC is unable to successfully execute an agreement with a Research Institution, it reserves the right to cancel the pending award and to fund another eligible research proposal.
- **Agreement Amendment:** The executed agreement may be amended by mutual written consent of the SGC and the Research Institution. The agreement may require an amendment as a result of project review, changes in project scope, and/or availability of funding.

B. RANKING, NOTICE OF RECOMMENDED RESEARCH AWARDS, AND AGREEMENT DEVELOPMENT

Ranking and List of Recommended Research Awards: For Research proposals recommended to receive funding, the SGC will post a list of recommended awards that includes: (1) the recommended funding amount; (2) the rank order of applicants; and (3) the amount of each proposed award. The SGC will post this list on its website. The members of the Council must vote to award funds to a recommended research project at a publicly noticed meeting in order for that project to receive funding.

Debriefings**:** Applicants that do not receive a Grant Award may request a debriefing after the Council votes to approve the awards by contacting the SGC staff person listed in Section II H. A request for debriefing must be received in writing **no later than 30 calendar days** after the Council approves awards.

The SGC reserves the right to allocate any additional funds to passing Research proposals and to negotiate with successful applicants to modify the project's scope, schedule, and/or level of funding.

C. GROUNDS TO REJECT A RESEARCH PROPOSAL OR CANCEL AN AWARD

Research proposals that do not pass the screening stage will be rejected. In addition, the SGC reserves the right to reject a submission and/or to cancel an award if any of the following circumstances are discovered at any time, including during the application review, agreement development process, or performance of the grant term:

- The submission contains false or intentionally misleading statements or references that do not support an attribute or condition contended by the proposer.
- The submission is intended to erroneously and fallaciously mislead the State in its evaluation and the attribute, condition, or capability is a requirement of this solicitation.
- The submission does not comply or contains caveats that conflict with the solicitation, and the variation or deviation is material.
- The submission does not contain sufficient information to enable a useful evaluation to be conducted.
- The submission has received unsatisfactory evaluations from the SGC or another California state agency.
- The research proposal is not submitted in the format specified in sections III through VI of the solicitation.
- The project end date extends past the anticipated agreement end date specified in Figure 1, "Key Activities Schedule".
- The Research Institution included a statement or otherwise indicated that it will not accept the terms and conditions or that acceptance is based on modifications to the terms and conditions.

- The research proposal contains confidential information or identifies portion(s) of the proposal as confidential.

D. MISCELLANEOUS

Solicitation Cancellation and Amendment: It is the policy of the SGC not to release a solicitation unless and until there is a bona fide intention to award an agreement. However, if it is in the State's best interest, the SGC reserves the right to do any of the following:

- Cancel this solicitation;
- Revise the amount of funds available under this solicitation;
- Amend this solicitation as needed; and/or
- Reject any or all Research proposals received in response to this solicitation.

If the solicitation is amended, the SGC will send an addendum to all parties who requested the solicitation, and will also post it on the SGC's website at: http://sgc.ca.gov/programs/climate-research/. The SGC will not reimburse the proposer for submission development expenses under any circumstances, including cancellation of the solicitation.

Modification or Withdrawal of Research Proposal Submission Package: Applicants may withdraw or modify a submission package before the deadline to submit by sending a letter to the SGC staff identified in Section II G of this solicitation. Research proposals cannot be changed after that date and time. A submission cannot be "timed" to expire on a specific date. For example, a statement such as the following is non-responsive to the solicitation: "This research proposal and the cost estimate are valid for 60 days."

Confidentiality: Though the entire evaluation process from receipt of research proposal submission package up until SGC staff posts the list of recommended awards is confidential, **all submitted documents will become public records** after the SGC posts this list or the solicitation is cancelled. **The SGC will not accept or retain Research Proposal Submission Packages that identify any portion as confidential.**

Solicitation Errors: If a proposer discovers any ambiguity, conflict, discrepancy, omission, or other error in the solicitation, the proposer should immediately notify the SGC of the error in writing and request modification or clarification of the solicitation. The SGC will provide modifications or clarifications by written notice to all parties who requested the solicitation, without divulging the source of the request for clarification. The SGC is not responsible for failure to correct errors.

Immaterial Defect: The SGC may waive any immaterial defect or deviation contained in a research proposal. This waiver will not modify the submission or excuse the successful research proposer from full compliance with solicitation requirements.

Disposition of Proposer's Document: Upon the posting of the recommended list of awards, all research proposals and related materials submitted in response to this solicitation will become property of the State and public records. Unsuccessful applicants who seek the return of any materials must make this request to the SGC staff listed in this solicitation.

E. AWARD NOTICES

Researchers will be notified if a research proposal is being recommended for funding as part of the SGC staff report containing research project recommendations, which the SGC staff anticipate posting online by June 15, 2020. This notification is not an authorization to begin performance of the project.

F. COMMUNICATIONS

All Grant Recipients must adhere to publicity guidelines detailed in their grant agreements, which include, but are not limited to, the following:

Branding: Grant Recipients must use SGC, CCR, and CCI names and/or logos on all published materials related to the research funded through this program.

Press/Media: Grant Recipients must identify a point of contact for all press inquiries and communications needs related to the project and provide the name, phone number, and email address of this individual to SGC.

Research Brief: Grant Recipients must prepare a two-page summary of the selected proposal, corresponding to the template provided by SGC for display on SGC's website and used for other communications purposes.

G. PUBLIC ACCESS TO SGC FUNDED RESEARCH

AB 2192 (Stone, 2017) requires that all state-funded research projects "shall provide, for free, public access to any publication of a peer-reviewed manuscript describing state agency-funded knowledge, a state agency-funded invention, or state agency-funded technology."[8] SGC will require all Climate Change Research Program funded research to submit any of the materials outlined in AB 2912 to be submitted to the Integrated Climate Adaptation and Resiliency Program's Adaptation Clearinghouse after acceptance, and no later than upon publication. The Governor's Office of Planning and Research shall make all such manuscripts publicly available through the Clearinghouse within one year of publication by the journal. Proposed research budgets are encouraged to include funding for disseminating research results and findings through an open-access publishing platform.

H. GRANT RECIPIENT ORIENTATION MEETING

Research proposals selected for funding are required to participate in a Grant Recipient orientation meeting after the grant agreement is executed. This meeting is an opportunity to review the terms of the grant agreement, to learn about expectations related to documentation and allowable costs rules that lead institutions, partners, and sub-recipients must adhere to, and to make any final refinements to the subtasks in the grant's work plan, schedule, and budget. Specifically, SGC administrative and program staff will review:

1) Overall work plan, timeline, and budget;
2) Collaborative structure of partners and sub-recipients being funded through the program, and Memorandum of Understanding;
3) Community engagement activities;
4) Eligible costs to be funded by the state, and any additional ineligible costs that will be funded by the Grant Recipients or partners;
5) Project accounting of funds;
6) Reporting process, including frequency and information;
7) Project review and performance/non-performance corrective action; and
8) Additional necessary project information or supporting documentation.

I. ADMINISTRATIVE AND GRANT AGREEMENT REQUIREMENTS

Grant Agreements will be executed between the State of California (State) and the Lead Research Institution only. The Lead Research Institution is referred to as the "Grant Recipient" and Sub-Recipients will be referred to as "Partners".

The Grant Recipient will be responsible for compiling and submitting all invoices and reporting documents for themselves and all Partners. Upon receipt of appropriate documentation, research funds will be paid to the Grant Recipient, which will be responsible for dispersing payment to Partners, as approved by the State.

[8] http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB2192

1) Grant Agreement Execution and Term

a. Grant Agreement Execution

i) The Grant Recipient will be notified by the State if they have been selected for a Research Grant award.

ii) After Grant Recipient selection, the Grant Recipients, Partners, and State will engage in a Pre-Grant Agreement Consultation phase to finalize the agreement. The State will assist the Grant Recipient and Partners to refine the agreement and all accompanying attachments to comply with all administrative, statutory, and Climate Change Research Program requirements.

iii) After the grant agreement and attachments have been finalized, the Grant Recipient will follow provided instructions for signing all required documents. The Grant Recipient must submit all supporting materials and a signed agreement within the timeline provided in the instructions or risk forfeiting the grant award.

b. Grant Agreement Term

i) The grant agreement term begins on the day the State and the Grant Recipient have both signed the completed agreement. The State will notify the Grant Recipient and Partners when work may proceed.

ii) The end of the grant agreement term will be determined by the State based on the availability of funds and the administrative requirements for liquidation. The agreement term is approximately three years from the date of proposal selection, unless extended. No grant agreement will go past March 31, 2023, under any circumstances.

2) Payment and Accounting of Grant Funds

a. Grant funds cannot be disbursed until the grant has been fully executed.

b. Only approved and eligible costs incurred during the grant term will be reimbursable.

c. On a quarterly basis, the Grant Recipient will submit project invoices to the SGC by electronic submission to AccountsPayable@opr.ca.gov, or by mail - C/O OPR Accounts Payable

d. Before submitting to the SGC, the Grant Recipient will be responsible for compiling all supporting documentation from Partners for a specific time-period. Invoices without adequate supporting documentation for all costs will not be paid.

e. Supporting documentation may include, but is not limited to: purchase orders, receipts, progress payments, subcontractor invoices, time cards, etc.

f. Each invoice must be accompanied by appropriate quarterly reporting materials.

g. Payments are made on a reimbursement basis; advance payments are not allowed. The Grant Recipient and Partners must have adequate cash flow to pay all grant-related expenses prior to requesting reimbursement from the SGC.

h. The disbursement process and acceptable forms of supporting documentation will be finalized during the Pre-contract Consultation.

i. Final invoices will be due to the SGC no later than 30 days after the end of the grant agreement term.

Per State of California policy, the SGC will withhold ten percent of all direct costs from each task to be reimbursed with Climate Change Research Program funds until the task is completed, and deliverables are received by the SGC. Indirect costs will be reimbursable, only if they comply with the direction provided in the program's Research Investment Plan. Refer to the definitions listed in Section IV, C.

J. REPORTING, REVIEW AND PERFORMANCE

1) Reporting Requirements

The Grant Recipient will be subject to the following reporting requirements:

a. California Air Resources Board (CARB): The Grant Recipients must adhere to the reporting requirements outlined by CARB in the Funding Guidelines to Agencies that Administer California Climate Investments.[9]

b. Progress Reports: The Grant Recipient must provide regular progress reports regarding the implementation of the approved research plan. Reporting will include, but is not limited to:

i) ***Quarterly progress updates***. The SGC staff will provide a template format that allows the Grant Recipient to report on the percentage of work completed and the percentage of budget spent in relation to the approved research plan and budget. Additionally, the template will request information about any project challenges, opportunities, or news occurring within a specific time period. Quarterly invoices will not be paid until a quarterly progress report has been received and approved by the SGC.

ii) ***Annual progress reports.*** The Grant Recipient is responsible to submit an annual narrative that features an in-depth discussion detailing how the research is advancing the program objectives of:

- Facilitating GHG emissions reductions in California
- Building innovative, outcome-driven partnerships with State agencies, local and regional communities, organizations within disadvantaged and low-income communities, and/or key stakeholders
- Delivering major economic, environmental, or public health benefits for Californians, including meaningful benefits to the most disadvantaged and low-income communities

iii) ***A final report***. Summarizing key findings, accomplishments and deliverables completed during the grant term.

All data and reports must be presented to the SGC in a format that can be posted to the program website and data tools. Reporting templates will be finalized prior to executing the grant agreement.

2) Review and Performance

a. Review and Audit Procedures

The State has the right to review project records, conduct audits, and perform site visits during the Grant Agreement Term. This right shall extend to all Partners and subcontractors, and the Grant Recipient shall include provisions ensuring such access in all contracts or subcontracts.

The Grant Recipient must have the proposal records, including the source documents and evidence of payment, readily available, and provide an employee with knowledge of the project to assist the auditor.

Grant Recipients need to maintain copies of project records for at least four (4) years after the "Project Closeout" report or final report is submitted.

b. Accounting Requirements

The Grant Recipient must maintain an accounting system that:

i) Accurately reflects fiscal transactions, with the necessary controls and safeguards;

ii) Provides a good audit trail, including original source documents such as purchase orders, receipts, progress payments, invoices, time cards, canceled checks, etc.; and

[9] Funding Guidelines for Administering Agencies. California Air Resources Board. https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/fundingguidelines.htm

iii) Provides accounting data according to generally accepted accounting principles so the total cost of each individual proposal can be readily determined.

c. Remedies for Non-Performance

The State has the discretion to determine if the Grant Recipient or Partners have performed in accordance with program requirements, the grant agreement, or any other legally binding agreements. Examples of non-performance include but are not limited to: misuse of funding for ineligible expenses, failure to comply with program guidelines or requirements, inability to meet performance requirements or schedule milestones, and failure to comply with the terms and conditions identified in legal agreements governing the grant award.

If the State determines that the Grant Recipient or Partners have not performed in accordance with program requirements, the grant agreement, or any other legally binding agreements governing the grant award, the Grant Recipient will be notified and provided instructions and a timeline to rectify all cases of non-performance. The State may withhold any payments due the Grant Recipient until the Grant Recipient brings the project back into full compliance. Should the Grant Recipient or Partners fail to come back into compliance, the State may terminate the grant agreement or any other legally binding agreement governing the grant award at any time upon 30 days of written notice to the Grant Recipient.

K. RECORDS RETENTION

Proposal records must be retained for a period of four (4) years after final payment is made by the State. All proposal records must be retained by the Grant Recipient at least one (1) year following an audit. Grant Recipients are required to keep source documents for all expenditures related to each grant for at least four (4) years following proposal completion and one year following an audit. A proposal is considered complete upon receipt of final grant payment from the State.

L. TERMS AND CONDITIONS

Each grant agreement resulting from this solicitation will include terms and conditions that set forth the recipient's rights and responsibilities. By signing the Submission Questionnaire (Attachment 1), each proposer agrees to enter into an agreement with the SGC to conduct the proposed project according to the standardized terms and conditions that correspond to its organization, without negotiation: (1) University of California/California State University terms and conditions; (2) U.S. Department of Energy terms and conditions; or (3) standard terms and conditions. Find more information at https://www.dgs.ca.gov/OLS/Resources/Page-Content/Office-of-Legal-Services-Resources-List-Folder/Standard-Contract-Language. Failure to agree to the terms and conditions by taking actions such as failing to sign the Submission Questionnaire or indicating that acceptance is based on modification of the terms will result in rejection of the proposal. Applicants must read the terms and conditions carefully. The SGC reserves the right to modify the terms and conditions prior to executing grant agreements.

M. CALIFORNIA SECRETARY OF STATE REGISTRATION

All corporations, limited liability companies (LLCs), limited partnerships (LPs) and limited liability partnerships (LLPs) that conduct intrastate business in California are required to be registered and in good standing with the California Secretary of State prior to its research proposal being recommended for approval at an SGC Public Meeting. If not currently registered with the California Secretary of State, Lead Research Institutions, partners and sub-recipients are encouraged to contact the Secretary of State's Office as soon as possible to avoid potential delays in beginning the proposed project(s) (should the Research Proposal be successful). For more information, contact the Secretary of State's Office via its website at www.sos.ca.gov. Sole proprietors using a fictitious business name must be registered with the appropriate county and provide evidence of registration to the SGC prior to their project being recommended for approval at an SGC Public Meeting.

N. Government Alliance on Race & Equity (GARE)

The SGC is a member of the Government Alliance on Race and Equity (GARE) California Capitol Cohort. In 2019 the Council adopted a racial equity action plan that outlines action steps toward increasing equity through organizational commitments, stakeholder engagement practices, workforce development, program planning, and other priorities. Staff continues to work with leadership and member agencies to operationalize and implement this action plan.

APPENDIX A: KEY WORDS/TERMS

Word/Term	Definition
Administrative Contact	The individual responsible for any administrative duties related to the proposed project(s).
Agreement Manager	The State's representative designated by the Strategic Growth Council to oversee the performance of an agreement resulting from this solicitation and to serve as the main point of contact for the Recipient.
Applicant	The respondent to this solicitation.
Authorized Financial Contact	The individual responsible for any financial, accounting, or invoicing related inquiries.
Authorized Official	The individual with the authority to sign a contract or grant that makes it a legal binding agreement between the State and their entity.
CalEnviroScreen [10]	The screening methodology used by all funding awarded through the California Climate Investments to identify California communities that are disproportionately burdened by multiple sources of pollution (classified as a disadvantaged community). The latest available version of the tool at the time of this solicitation is version 3.0.
CBO	Community Based Organizations.
CCI	California Climate Investments, the overarching funding program, administered by the California Air Resources Board, responsible for managing funds allocated from the proceeds of the State's Cap and Trade Auctions.
Contracts Manager	The individual responsible for satisfying the defined business and scientific objectives of the project.
Cost-reimbursement Award	The type of grant agreement that the State of California executes to fund grant awards. It specifies that the State agrees to reimburse the Grant Recipient for work performed and/or costs incurred by the Grant Recipient up to the total amount specified in the grant. Such costs must be allowable in accordance with the applicable cost principles. Accountability is primarily based on technical progress, financial accounting and fiscal reporting. Except under certain programs and under special circumstances, SGC grants and cooperative agreements are normally cost-reimbursement type awards.
Days	Days refers to calendar days.
Disadvantaged Community	These communities are identified by census tracts that rank high on a combination of metrics gauging pollution burden and vulnerability, as defined and implemented by the latest version of CalEnviroScreen. For more information, see the Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act (Health and Safety Code § 39500 – 39944).[11]
Grant Agreement	A legal instrument of financial assistance between the State and a Grant Recipient.
Grant Recipient	The recipient of a grant award under this solicitation.
Low-Income Community	As specified in Assembly Bill 1550[3] (2016, Gomez) and codified in the Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act (Health and Safety Code § 39500 – 39944)[11]:

[10] OEHHA Site for CalEnviroScreen 3.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

[11] http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=HSC&division=26.&title=&part=2.&chapter=4.1.&article=

	1) A household income at or below 80 percent of the statewide median income, or 2) A household income at or below the threshold designated as low-income by HCD's list of 2019 State Income Limits Low-income threshold by county and household size are available on ARB's disadvantaged and low-income communities investments web page, https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm
Low Income Households	As specified in Assembly Bill 1550[12] (2016, Gomez), census tracts that are either at or below 80 percent of the statewide median income, or at or below the threshold designated as low-income by the California Department of Housing and Community Development's (HCD) 2019 State Income Limits[13].
Research Partners	Project partners (see below) not affiliated with the lead research institution. Examples of possible research partners include, but are not limited to: Community-based organizations – including civic, community, and advocacy groups; Federal research agencies and departments – such as NOAA, USGS, etc.; Tribal governments and/or tribal organizations; Local land use agencies, departments, and organizations; Local health agencies, departments, and organizations; Non-profit organizations – including conservation, environmental justice and natural resources; Open space landowners and recreation providers; Private sector businesses; Regional agencies – focused on transportation, resources, and infrastructure; and, Regional climate collaboratives.
Partners	An organization, institution, or individual that is associated with the proposed research but not affiliated with the lead research institution. The association can provide complementary expertise and skills to the research, expand collective capacity among stakeholders, and create collaborative knowledge sharing while meeting time, inquiry, and funding commitments. Partners can include sub-recipients.
Principal Investigator	The lead researcher designated in the proposal and approved by the lead research institution to conduct the proposed research. This individual is responsible for the scientific or technical direction of the project. The SGC does not infer any distinction in scientific stature among multiple PIs, whether referred to as PI or co-PI. If more than one, the first one listed will serve as the contact PI, with whom all communications between SGC staff and the project relating to the scientific, technical, and budgetary aspects of the project should take place. The PI and any identified co-PIs, however, will be jointly responsible for submission of the requisite project reports. In most instances, the Principal Investigator and the Project Manager will be the same person; however, a research proposal may include both roles.
Project Manager	This person is designated in the proposal submission package to oversee the project and serve as the main point of contact for the Strategic Growth Council.
Project Partner	An entity or individual that contributes to the successful completion of a research grant project. Partners can be a recipient of funding on the project budget.
Research Investment Plan	The document that outlines program goals, research priorities, program structure, program review and award process, and other administrative items.
Research Proposal	An applicant's formal written response to this solicitation.
SGC	Strategic Growth Council – the administrative and implementing authority for program funds.

[12] AB 1550: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB1550

[13] HCD - State Income Limits for 2016: http://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/inc2k16.pdf
HCD - State Income Limits for 2019: https://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/Income-Limits-2019.pdf

Solicitation	This entire document, including all attachments and exhibits ("solicitation" may be used interchangeably with "Grant Funding Opportunity").
State	State of California.
Sub-recipient	A sub-recipient is an additional research department or contractor that is identified in the project proposal as providing a service or product to the completion of the proposed research.

APPENDIX B: APPLICABLE LAWS, POLICIES AND BACKGROUND DOCUMENTS

LAWS/REGULATIONS

- *Assembly Bill 32 (Nunez, 2006) - Global Warming Solutions Act of 2006*
  AB 32 created a comprehensive program to reduce greenhouse gas (GHG) emissions in California. GHG reduction strategies include a reduction mandate of 1990 levels by 2020 and a cap-and-trade program. AB 32 also required the California Air Resources Board (ARB) to develop a Scoping Plan that describes the approach California will take to reduce GHGs. ARB must update the plan every five years.
  Additional information: http://www.arb.ca.gov/cc/ab32/ab32.htm

- *Assembly Bill 285 (Friedman,2019) - California Transportation Plan*
  Direct emissions from the tailpipes of cars, trucks, off-road transportation sources, intrastate aviation, and more, accounted for 39% of California's greenhouse gas emissions inventory. This bill requires Caltrans to address in future updates to the California Transportation Plan how the state will achieve its greenhouse gas emissions reductions goals consistent with recently passed SB 32 (Pavley, 2016) and Governor Brown's Executive Order (B-55-18) on carbon neutrality.
  Additional information: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB285

- *Assembly Bill 617 (Garcia, 2017) - Nonvehicular Air Pollution*
  AB 617 established mandates to more effectively reduce exposure to air pollution and preserve public health, including: community-level air monitoring, a state strategy and community specific emission reduction plans, accelerated review of retrofit pollution control technologies on industrial facilities subject to Cap-and-Trade, enhanced emission reporting requirements, and increased penalty provisions for polluters.
  Additional information:
  http://leginfo.legislature.ca.gov/faces/billPdf.xhtml?bill_id=201720180AB617&version=20170AB61794CHP

- *Assembly Bill 1383 (Lara,2016) – Short-lived Climate Pollutants: Methane Emissions: Dairy and Livestock: Organic Waste: Landfills.*
  AB 1383 required the ARB to approve and begin implementing the comprehensive strategy to reduce short-lived Climate Pollutants in the State to achieve, from 2013 levels, a 40% reduction in methane, a 40% reduction in hydrofluorocarbon gases, and a 50% reduction in anthropogenic black carbon, by 2030.
  Additional information: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB1383

- *Assembly Bill 1482 (Gordon, 2015) – Climate Adaptation Strategy*
  AB 1482 requires the California Natural Resources Agency (CNRA) to update the state's climate adaptation strategy by July 1, 2017, and every 3 years thereafter. As part of the update, the CNRA will coordinate with other state agencies to identify the agency or agencies to lead adaptation efforts in each sector. The updates to the plan are to include climate change vulnerabilities by sector and the priority actions needed to reduce risks, for at least the following sectors: water, energy, transportation, public health, agriculture, emergency services, forestry, biodiversity and habitat, ocean and coastal resources.
  Additional information: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1482

- *Senate Bill 32 (Pavley, 2016) - State Targets for Climate Pollution*
  SB32 requires the state board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030.
  Additional information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32

- *Senate Bill 100 (De León, 2018) - California Renewables Portfolio Standard Program*
  Accelerated program targets to achieve the 50% renewable resources target by December 31, 2026, and a 60% target by December 31, 2030. Requires retail sellers and local publicly owned electric utilities to procure a minimum quantity of electricity products from eligible renewable energy resources.

Additional information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

- *Senate Bill 246 (Wieckowski, 2015) - Climate Adaptation*
  SB 246 establishes an Integrated Climate Adaptation and Resiliency Program for California in the Office of Planning and Research (OPR) to coordinate regional and local efforts with state climate adaptation strategies and to adapt to the impacts of climate change, emphasizing climate equity considerations across sectors and regions and strategies that benefit both GHG emissions reductions and adaptation efforts.
  Additional information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB246

- *Senate Bill 576 (Umberg, 2019) - Coastal Resources: Climate Ready Program*
  Established the State Coastal Conservancy's Climate Ready Program and requires the Ocean Protection Council to develop and implement a coastal climate change adaptation, infrastructure, and readiness program to recommend best practices and strategies to improve the climate change resiliency of the state's coastal communities, infrastructure, and habitat.
  Additional information: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200SB576

- *Senate Bill 1386 (Wolk, 2016) - Resource Conservation: Working and Natural Lands*
  Established policy to protect and manage natural and working lands a key strategy for meeting the State's greenhouse gas emissions reduction goals, resulting in a variety of outcomes that contribute to carbon sequestration and delivers multiple public benefits. It requires that all state agencies, departments, boards, and commissions consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.
  Additional information: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1386

POLICIES/PLANS

- *Climate Change Research Plan for California (2015)*
  Developed by the Climate Action Team's Research Working Group, this Plan presents priorities for the next 3 - 5 years for policy-relevant, California-specific research.

- *California's Climate Change Scoping Plan (2017)*
  The California Air Resources Board is required to regularly update the State's Climate Change Scoping Plan, describing California's approach to reducing emissions to 40 percent below 1990 levels by 2030. This latest plan update articulates the State's strategy; building on past successes, strengthening major carbon mitigation programs, and further integrating efforts to reduce GHGs and air pollution.

- *Vibrant Communities and Landscapes and Potential State-Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (Appendix C of the Scoping Plan, 2017)*
  An interagency vision for land use, and for discussion, Potential State-Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (VMT).

- *Safeguarding California Plan: 2018 Update – California's Climate Adaptation Strategy (2018)*
  This plan serves as the State's roadmap for everything state agencies are doing and will do to protect communities, infrastructure, services, and the natural environment from climate change impacts. It features a strategy that covers programmatic and policy responses across different policy areas and discusses ongoing related work that coordinates local and regional adaptation action with developments in climate impact science.

- *DRAFT - California 2030 Natural and Working Lands Climate Change Implementation Plan (2019)*
  Poses an increase in State-led conservation, restoration, and management activities from two to five times above current levels, to achieve a level of effort commensurate with that invested in other sectors of California's climate change portfolio.

EXECUTIVE ORDERS

- *Executive Order B-30-15 (2015)*
  Established a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

- *Executive Order B-48-18 (2018)*
  Directs state entities to work with the private sector and all appropriate levels of government to put at least 5 million ZEVs on California roads by 2030, and to continue partnering with regional and local governments to streamline ZEV infrastructure installation processes wherever possible.

- *Executive Order B-52-18 (2018)*
  Mobilizes State resources to protect forests and ensure they absorb maximum amounts of carbon. Combats dangerous tree mortality, increases the ability of our forests to capture carbon and systematically improves forest management

- *Executive Order B-55-18 (2018)*
  Established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions.

- *Executive Order N-19-19 (2019)*
  Requires the redoubling of the state's "efforts to reduce greenhouse gas emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy

RESEARCH REFERENCES

Refer to the links below for information about past Climate Change research projects and activities funded by the State:

- Cal-Adapt's Research Catalog: http://v1.cal-adapt.org/research/
- California Air Resources Board's Research Catalog: https://www.arb.ca.gov/research/projects.htm
- California Department of Food and Agriculture's Office of Environmental Farming and Innovation: https://www.cdfa.ca.gov/oefi/
- California Department of Health's Climate Change and Health Equity Program: https://www.cdph.ca.gov/Programs/OHE/Pages/CCHEP.aspx
- California Energy Commission's Research and Development Web Page: http://www.energy.ca.gov/research/
- Caltrans Division of Research, Innovation and System Information's Data Library: http://www.dot.ca.gov/drisi/library.html
- Fourth California Climate Change Assessment: http://resources.ca.gov/climate/safeguarding/research/

APPENDIX C: 2019-2020 RESEARCH INVESTMENT AREAS

The 2019-2020 Solicitation for the Climate Change Research Program will focus investment on the following research topics. The focus on these Research Priority Areas intends to maximize benefits of investments through this program, avoid redundancy with other State grant programs and with past rounds of SGC funding, and to focus investment in areas with high potential for near-term impact.

Researchers are invited to develop proposals that address one or more topics through a thoughtfully designed research approach that integrates relevant disciplines, research methods, and that actively incorporates non-academic research partners. The areas of inquiry are designed to provide direction to the proposer, but do not impose a given academic discipline or research methodology. Evaluations will also consider the integration of one or more of the identified crosscutting thematic lenses, described below, into addressing one or more of these Research Priority Areas.

ROUND 3 RESEARCH PRIORITY AREAS

Supporting and Protecting Vulnerable Communities from the Impacts of Climate Change
In addition to what is included in the Research Investment Plan, specific topics of interest include, but are not limited, to the following:

- Research that will improve planning and implementation at a local and regional level. This can include implementation of adaptation strategies to address climate vulnerability – helping decision-makers and governments move from planning to action, as well as adaptation and mitigation actions taken together, and how to evaluate cost effectiveness/cost-benefits of joint strategies.
- Research targeted at addressing the climate-related needs of underserved communities (including tribal, disadvantaged, low-income, and rural); including how to build capacity in these communities.
- Research examining how existing community climate vulnerabilities are affected (positively and negatively) through state, regional, or local policy and planning decisions.
- Research into broader community resilience and community strength (social dimensions of resilience); for instance, the impacts of investment on community strength.
- Research addressing wildfire or other disaster resilience needs, and recovering in a way that addresses adaptation and mitigation needs together.

Social dimensions of resilience should be considered and integrated when possible, as well as consideration of creating or piloting collaborative structures comprised of communities, neighborhoods, and constituencies that implement research findings and best practices to benefit and build capacity around anticipated disaster resilience needs.

Accelerating and Supporting Transitions to Climate Smart Communities
In this research area, SGC is seeking proposals that examine the social and technological dimensions of creating more sustainable and resilient communities in California, with a focus on achieving outcomes and changing behavior. Research in this area should include interdisciplinary approaches to understanding technological and societal change to meet climate change goals, including economic and sociological studies. Specific topics of interest include, but are not limited to, the following:

- Research that addresses sustainable and equitable development in a variety of communities, e.g., how to plan and implement location efficient, affordable, climate resilient, and low carbon housing and infrastructure in rural and/or underserved communities.
    - Consider needs of underserved urban and rural areas, and tribal and indigenous communities in helping meet the State's climate and housing/affordability goals.
    - Consider critical factors to advance wildfire community resilience, including population growth and development projections.

- Integration of resilience needs, recognizing that climate change is a threat multiplier for more extreme natural disasters, as well as a driver for non-disaster events.
  - Consideration of these needs along with transitioning to clean energy, low carbon transportation, etc.
  - Research that considers alignment of the State's need for infill development with climate risk and hazards.
  - How can climate change risk and community resilience be integrated into development strategies, planning, policies, investments, and/or programs that lower GHG emissions?
- Integrated research into transportation challenges, strategies, and pilots for climate-smart communities:
  - Addressing needs and implications of increased investments and adoption of low-carbon transportation technologies, active transportation, and public transportation, that also considers housing and other community development needs.
  - Consideration of social determinants of change when making transportation choices.
  - Emerging technologies that support climate-smart communities, equity, and other considerations described in research interests above.

Integrating Land Use, Conservation, and Management into California Climate Change Programs
Land management, conversion, and conservation have important implications for meeting the State's climate change goals. Research in this area will examine the interconnections across development planning and the conservation and management of natural and working lands.

Specific topics of interest broadly include, but are not limited, to the following:

- Climate impacts on agricultural, rangelands, and natural lands, and adaptive management strategies that incorporate building resilience, use of natural infrastructure, and reducing greenhouse gas emissions and sequestering carbon. Including consideration of economic impacts, analyses, and strategies that promote both resilience and reducing emissions.
- Pilots and models for scale up and replication of land conservation strategies and adaptive management techniques to achieve climate change mitigation and adaptation goals. Intersection of land conservation and building resilience for communities, economies, and ecosystems

CROSSCUTTING THEMATIC LENSES

Within and across the three Research Priority Areas described above, the SGC has identified two crosscutting research themes that reflect the SGC's mission of supporting and developing sustainable communities. A research project can address one or both of these research themes. A project that addresses needs identified in the three Research Priority Areas, but not these research themes, may still be awarded a research grant.

Research integrating climate vulnerability/adaptation and climate-smart: Research into understanding climate vulnerability (or vulnerability in an adaptation context) and implementing pilot practices that contribute to creating climate-smart communities; research that advances both climate adaptation and mitigation, including how local governments can plan and implement actions for both. Researchers, along with key partners, community groups, and other stakeholders, should consider research moving beyond vulnerability assessments to developing pilot projects, studying the economics of addressing climate adaptation and mitigation, and other related topics that are key needs identified by non-academic research partners.

Social dimensions of change: Research that explicitly supports the advancement of best practices identified through prior research, *with a focus on social dimensions/determinants of change and social elements of climate adaptation and mitigation*. This can be addressed in any Research Priority Area; it is an important consideration for developing an interdisciplinary/cross-sectoral research project that will move beyond identifying vulnerabilities to activating change in communities.

ATTACHMENT 1: RESEARCH PROPOSAL QUESTIONNAIRE

The method of delivery for responding to the Climate Change Research Program solicitation is through the Department of Water Resources' Grants Review and Tracking System (GRanTS), a web-based grants application tool, available at: https://www.water.ca.gov/Work-With-Us/Grants-And-Loans/GRanTS/. This online tool allows proposers to submit their electronic documents to the SGC. Electronic files must be in Microsoft Word XP (.pdf format) and Excel Office Suite formats. Attachments requiring signatures may be scanned and submitted in PDF format.

This attachment provides the information that proposers are required to complete in the Submission Questionnaire. The first two sections of the questionnaire are pages that are required by the GRanTS tool application platform.

Proposers only need to complete the information highlighted in sections I and II to satisfy the requirements of the application platform.

SECTION I - APPLICANT INFORMATION PAGE: THIS SECTION ASKS FOR BASIC INFORMATION ABOUT THE APPLICANT AND THE LEAD RESEARCH INSTITUTION.

Question	Answer Type	Answer Options				Required?
APPLICANT INFORMATION						
Organization Name	Dropdown					X
Point of Contact	Drop Down	Existing User	Add new user			X
Point of Contact Position Title	Text Box	50 characters				X
Proposal Name	Text Box	150 characters				X
Proposal Objective	Text Box	2000 characters				X
BUDGET						
Other Contribution	Number Box					
Local Contribution	Number Box					
Federal Contribution	Number Box					
In-kind Contribution	Number Box					
Amount Requested	Number Box					X
Total Proposal Costs	Number Box					X
GEOGRAPHIC INFORMATION (for GEO information, visit https://www.census.gov/geo/maps-data/data/geocoder.html)						
Latitude	Number Box	DD(+/-)	MM	SS		X
Longitude	Number Box	DD(+/-)	MM	SS		X
Longitude/Latitude Clarification	Text Box	250 characters				
Location	Text Box	100 characters				
County	Drop Down	CA Counties				X
Ground Water Basin	Drop Down	Basins				
Hydrologic Region	Drop Down	Regions				
Watershed	Text Box	250 characters				
LEGISLATIVE INFORMATION (for LEG information, visit http://findyourrep.legislature.ca.gov/ and https://www.govtrack.us/)						
Assembly District	Drop Down	Districts				X
Senate District	Drop Down	Districts				X
US Congressional District	Drop Down	Districts				X

SECTION II – RESEARCH PROPOSAL INFORMATION: THIS SECTION IS ANOTHER MANDATORY PAGE ON THE TOOL. USERS MAY USE THE ADDRESS OF THE RESEARCH INSTITUTION RATHER THAN A PROJECT LOCATION TO COMPLETE THE MANDATORY QUESTIONS IN THIS SECTION

Question	Answer Type	Answer Options				Required?
PROJECT INFORMATION						
Project Name	Text Box	150 characters				X
Implementing Organization	Drop Down					
Secondary Implementing Org.	Text Box	125 characters				
Proposed Start Date	Date Box	dd/mm/yyyy				
Proposed End Date	Date Box	dd/mm/yyyy				
Scope of Work	Text Box	500 characters				
Project Description	Text Box	2000 characters				
Project Objective	Text Box	500 characters				
PROJECT BENEFIT INFORMATION						
Benefit Level	Drop Down	Primary/ Secondary	Tertiary/ Quaternary	Quniary	Septary	
Benefit Type	Drop Down	Research/ Planning				
Benefit	Drop Down	Clean Air (only)				
Description	Text Box	2000 characters				
Measurement	Number Box					
BUDGET *(copies budget data from the Application Page)*						
Other Contribution	Number Box					
Local Contribution	Number Box					
Federal Contribution	Number Box					
In-kind Contribution	Number Box					
Amount Requested	Number Box					X
Total Proposal Costs	Number Box					X
GEOGRAPHIC INFORMATION (copies geographic data from the Application Page)						
Latitude	Number Box	DD(+/-)	MM	SS		X
Longitude	Number Box	DD(+/-)	MM	SS		X
Longitude/Latitude Clarification	Text Box	250 characters				
Location	Text Box	100 characters				
County	Drop Down	CA Counties				X
Ground Water Basin	Drop Down	Basins				
Hydrologic Region	Drop Down	Regions				
Watershed	Text Box	250 characters				
LEGISLATIVE INFORMATION (copies legislative data from the Application Page)						
Assembly District	Drop Down	Districts				X
Senate District	Drop Down	Districts				X
US Congressional District	Drop Down	Districts				X

Proposers must complete all required fields *(indicated with an "X" under the required fields column)* ***for each of the remaining sections*** *(III through VII)* ***to successfully submit a Research Proposal Package.***

SECTION III – RESEARCH PROPOSAL SUMMARY: THIS PAGE FEATURES AN ABSTRACT OF THE PROPOSED WORK AND IDENTIFIES SPECIFIC INFORMATION SUCH AS THE PROJECT TYPE, THE RESEARCH TEAM, AND INFORMATION THAT CATEGORIZES THE TYPE OF WORK BEING PROPOSED.

Question	Answer Type	Answer Options		Required?
RESEARCH PROPOSAL ABSTRACT: The Research Proposal Abstract must not be more than 3500 characters (approximately one page) in length and must clearly address in separate statements: (1) an overview of the proposal and any project(s) or pilot(s) therein, including partnerships; (2) the intellectual merit of the proposed activity; and (3) a clear description of how the proposed project(s) supports the Strategic Growth Council's (SGC) mission to support sustainable, equitable, and resilient community development in California. The overview should include a description of the activity that would result if the proposal were funded and a statement of objectives and methods to be employed. The description of how the proposed research supports SGC's mission should describe how the proposed research will help California promote sustainability, economic prosperity, and quality of life for low-income and disadvantaged communities, or populations that are vulnerable to the impacts of climate change. The abstract should be written in the third person, informative to other persons working in the same or related fields, and, insofar as possible, understandable to a scientifically or technically literate lay reader.				
Provide a research abstract:	Text Box	3,500 characters		**X**
PRINCIPAL INVESTIGATOR: The individual responsible for the scientific or technical direction of the research. All Lead Investigators and co-Leads are expected to have significant intellectual input to the project. Co-Leads can be from partner organizations and are not limited to the lead institution. The Lead Investigator directs the project and is responsible for submission of the requisite project reports.				
Principal Investigator's Name	Text Box	30 characters		**X**
Principal Investigator's Title	Text Box	50 characters		**X**
Principal Investigator's Address (Institution, Department, Street Address, City, State, ZIP)	Text Box	50 characters		**X**
Principal Investigator's Telephone Number	Text Box	10 characters		**X**
Principal Investigator's Email Address	Text Box	90 characters		**X**
CONTRACTS MANAGER (CM) (optional): The individual responsible for satisfying the defined business and scientific objectives of the project.				
Contracts Manager's Name	Text Box	30 characters		
Contracts Manager's Title	Text Box	50 characters		
Contracts Manager's Address (Institution, Department, Street Address, City, State, ZIP)	Text Box	50 characters		
Contracts Manager's Telephone Number	Text Box	10 characters		
Contracts Manager's Email Address	Text Box	90 characters		

Question	Answer Type	Answer Options				Required?
AUTHORIZED OFFICIAL: The individual with the authority to sign a contract or grant that makes it a legal binding agreement for their entity.						
Authorized Official's Name	Text Box	30 characters				
Authorized Official's Title	Text Box	50 characters				
ADMINISTRATIVE CONTACT: The individual responsible for any administrative duties related to the proposed project(s).						
Administrative Contact's Name	Text Box	30 characters				
Administrative Contact's Title	Text Box	50 characters				
AUTHORIZED FINANCIAL CONTACT: The individual responsible for any financial, accounting, or invoicing related inquiries.						
Authorized Financial Contact's Name	Text Box	30 characters				
Authorized Financial Contact's Title	Text Box	50 characters				
GRANT DURATION: The anticipated number of months to complete the proposed research.						
Number of months to conduct and closeout the research *(36 months maximum*).	Text Box	25 characters				X
FUNDING REQUEST: Note the amount being requested for performing this research.						
Funding amount being requested to conduct this research	Text Box	25 characters				X
MATCH FUNDING: If applicable, note the amount and percentage of total budget that will be committed as match funding for performing this research.						
Committed match funding to conduct this research	Text Box	25 characters				
Description of the efforts supported with match funding.	Text Box	250 characters				
RESEARCH PRIORITY AREAS - 2019 INVESTMENTS: The Council approved funding for this program to be directed to research that supports three of the research priority areas described in the program's Research Investment Plan. Identify which of the program's three research priority areas are addressed in this proposal (one answer required, may choose multiple areas).						
Identify the research priority area(s) that is/are addressed in this research:	Drop Down Box	(1) Supporting and Protecting Vulnerable Communities from the Impacts of Climate Change	(2) Accelerating and Supporting Transitions to Climate Smart Communities	(3) Integrating Land Use, Conservation, and Management into California Climate Change Programs		**X**
CLIMATE THEMES: Funding for this program was allocated to address climate issues and specifically calls out conducting research on reducing carbon emissions, including clean energy, adaptation, and resiliency, with an emphasis on California. Additionally, the Council approved the addition two crosscutting thematic lenses for consideration in approaching your research. Below, please note how this research aligns with these objectives.						
Check if this research addresses any or all of the following issues:	Check Box (Yes, No)	Carbon emissions reduction	Clean Energy	Adaptation	Resiliency	**X**

Question	Answer Type		Answer Options		Required?
If none of the issues above were checked, please describe other climate themes that addressed by this research.	Text Box	30 characters			**X**
Identify if one or both of the program's crosscutting thematic lenses were applied to this research (optional):	Drop Down Box	(1) Research integrating climate vulnerability/adaptation and climate-smart communities	(2) Social dimensions of change		X
Confirm that the following research components will occur in California:					
Lead institution is housed in CA.	Check Box	Yes	No		**X**
Any study areas or pilot will be located in CA.	Check Box	Yes	No	N/A	**X**
INDIRECT COST RATE (ICR): Identify if this research proposal is using the maximum allowable ICR of a 25% Modified Total Direct Cost Base. If the research proposal is using a different rate, please check other and describe (1) the rate being used and (2) the State agency or department that has negotiated the alternative rate with the research institution.					
This project is using the following Indirect Cost Rate:	Drop Down Box	(1) 25% MTDC	(2) Other		**X**
If Other:					
List the alternative ICR that will be used.	Text Box	50 characters			
Name the State agency or department that has established this rate with your research institution (proof must accompany this proposal).	Text Box	50 characters			

SECTION IV – THRESHOLD REQUIREMENTS: THIS PAGE ASKS THE RESEARCHER TO DESCRIBE HOW THE PROPOSED RESEARCH MEETS THE PROGRAM'S THRESHOLD REQUIREMENTS.

QUESTION	ANSWER TYPE	ANSWER OPTIONS				REQUIRED?
GHG EMISSIONS REDUCTION: For purposes of meeting the threshold of facilitating the reduction in greenhouse gas (GHG) emissions, the proposer should discuss how this research, over time, can enable, assist, or accelerate the reduction of GHG emissions in California. A quantifiable result is not required here, but rather a description of how the research finding will detail how the known qualities around emissions reductions are verified or advanced.						
The proposed research facilitates the reduction of greenhouse gas emissions.	Check Box	Yes	No			**X**
Discuss the role of this research in contributing to the facilitation of reducing of greenhouse gas emissions.	Text Box	500 characters				X
ADDRESSES BENEFITS TO DISADVANTAGED OR LOW-INCOME COMMUNITIES: Reading the definitions for these communities listed in Appendix A of the solicitation (specified in Chapter 4.1. of the Health and Safety Code § 39719, the Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act), discuss how this research could result in, if applied in these communities, benefits to a community's residents and/or businesses. Quantifiable measures are not required here, but rather a description of how the research will consider and respond to potential benefits for these communities.						
This proposal could provide benefits to low-income households, low-income communities or disadvantaged communities as defined in chapter 4.1 of the Health and Safety Code, the Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act.	Check Box	Yes	No			**X**
Discuss how the research could benefit low-income or disadvantaged communities:	Text Box	1,000 characters				X
PROGRAM GOALS: Describe how this research) contributes to the seven program goals defined in the Research Investment Plan and the Program's Grant Solicitation. This narrative does not need to single out/respond to each goal individually. Instead, the proposer should identify key principles of the research and discuss how particular program goals can be advanced through examination in this research.						
The proposed research aligns with the seven goals identified in the Climate Change Research Program's Research Investment Plan	Check Box	Yes	No			**X**
Briefly discuss how the research aligns with the Climate Change Research Program's seven Program Goals:	Text Box	1,700 characters				**X**
MEANINGFUL COMMUNITY ENGAGEMENT: Briefly discuss the proposer's approach for engaging with members of a community, decision makers, and/or other stakeholders to ensure actionable, high-impact research. The proposed research must integrate meaningful engagement throughout all phases of the research; this must be described, and requirements met below. The optional boxes below are encouraged, as relevant to the research being proposed.						
Required: Funds at least one non-academic research partner in the proposed budget.	Check Box	Yes	No			**X**
Describe how this research integrates meaningful engagement from research idea conception throughout the life of the grant award. If no partners are funded, describe why not, and how they are meaningfully engaged throughout the course of the research with their own resources.	Text Box	1,700 characters				**X**
Required: Engagement for the proposed research is iterative, with a tailored outreach and communications strategy included in proposal.	Check Box	Yes	No			**X**
Recommended: Was the research concept co-produced with a partner, community group, or other stakeholder or end user?	Check Box	Yes	No			**X**
Describe how the research idea was generated and what input was received from stakeholders.	Text Box	1,000 characters				**X**
Optional: Professional research specialists responsible for developing and delivering information, education, and building coalitions are involved in outreach and communication of this research project (e.g., Cooperative Extension Agents).	Check Box	Yes	No			**X**
Optional: Partners from communities of concern, including tribal communities, are included, and traditional knowledge is incorporated into the research.	Check Box	Yes	No			**X**

SECTION V – PARTNERSHIPS: IN THIS SECTION, PROPOSERS WILL IDENTIFY KEY ACTORS THAT WILL SERVE AS PARTNERS IN THE PROPOSAL.

Question	Answer Type	Answer Options				Required?
Established Collaborative Partnership Team: The Climate Change Research Program will prioritize funding research that demonstrates robust and meaningful partnerships with a diverse set of entities, including research institutions; philanthropic entities; federal, state, and local governments; tribal governments and organizations; community-based organizations; and for-profit institutions. Successful collaborations support research that provides benefits to low-income and disadvantaged communities, and/or climate vulnerable communities, and that advances the State's climate goals. All partners can and should be integrated into the research so that stakeholder needs and priorities are addressed						
The proposal includes an established collaborative partnership team, comprised of the organizations/individuals indicated below	Check Box	Yes	No			X
Discuss specifics about the establishment of this team and past collaborative works/efforts.	Text Box	250 characters				X
PARTNER #1: An institution or organization participating in this research that will supply a letter of support for this submission identifying (1) the degree of participation and (2) any support being provided to the project.						
Name of the Partnership Organization or Institution:	Text Box	30 characters				X
Partner #1: Contact Person's Name:	Text Box	30 characters				X
Partner #1: Contact Person's Title:	Text Box	50 characters				X
Partner #1: Contact Person's Telephone Number:	Text Box	15 characters				X
Partner #1: Contact Person's Address (street number and street name or PO Box, City, State, ZIP):	Text Box	100 characters				X
Partner#1: Contact Person's Email Address:	Text Box	90 characters				X
Describe the roles/responsibilities of this partner in the proposed research:	Text Box	250 characters				X
Is this partner funded in the proposed research budget?	Check Box	Yes	No			X
PARTNER #2: An institution or organization participating in this research that will supply a letter of support for this submission identifying (1) the degree of participation and (2) any support being provided to the project.						
Name of the Partnership Organization or Institution:	Text Box	30 characters				X
Partner #2: Contact Person's Name:	Text Box	30 characters				X
Partner #2: Contact Person's Title:	Text Box	50 characters				X
Partner #2: Contact Person's Telephone Number:	Text Box	15 characters				X
Partner #2: Contact Person's Address (street number and street name or PO Box, City, State, ZIP):	Text Box	100 characters				X
Partner #2: Contact Person's Email Address:	Text Box	90 characters				X
Describe the role/responsibilities of this partner in the proposed research:	Text Box	250 characters				X
Is this partner funded in the proposed research budget?	Check Box	Yes	No			X

Question	Answer Type	Answer Options			Required?
PARTNER #3: An institution or organization participating in this research that will supply a letter of support for this submission identifying (1) the degree of participation and (2) any support being provided to the project.					
Name of the Partnership Organization or Institution:	Text Box	30 characters			
Partner #3: Contact Person's Name:	Text Box	30 characters			
Partner #3: Contact Person's Title:	Text Box	50 characters			
Partner#3: Contact Person's Telephone Number:	Text Box	15 characters			
Partner #3: Contact Person's Address (street number and street name or PO Box, City, State, ZIP):	Text Box	100 characters			
Partner #3: Contact Person's Email Address:	Text Box	90 characters			
Describe the role/responsibilities of this partner in the proposed research:	Text Box	250 characters			
Is this partner funded in the proposed research budget?	Check Box	Yes	No		
PARTNER #4: An institution or organization participating in this research that will supply a letter of support for this submission identifying (1) the degree of participation and (2) any support being provided to the project:					
Name of the Partnership Organization or Institution:	Text Box	30 characters			
Partner #4: Contact Person's Name:	Text Box	30 characters			
Partner #4: Contact Person's Title:	Text Box	50 characters			
Partner #4: Contact Person's Telephone Number:	Text Box	15 characters			
Partner #4: Contact Person's Address (street number and street name or PO Box, City, State, ZIP):	Text Box	100 characters			
Partner #4: Contact Person's Email Address:	Text Box	90 characters			
Describe the role/responsibilities of this partner in the proposed research:	Text Box	250 characters			
Is this partner funded in the proposed research budget?	Check Box	Yes	No		
PARTNER #5: An institution or organization participating in this research that will supply a letter of support for this submission identifying (1) the degree of participation and (2) any support being provided to the project:					
Name of the Partnership Organization or Institution:	Text Box	30 characters			
Partner #5: Contact Person's Name:	Text Box	30 characters			
Partner #5: Contact Person's Title:	Text Box	50 characters			
Partner #5: Contact Person's Telephone Number:	Text Box	15 characters			
Partner #5: Contact Person's Address (street number and street name or PO Box, City, State, ZIP):	Text Box	100 characters			
Partner #5: Contact Person's Email Address:	Text Box	90 characters			
Describe the role/responsibilities of this partner in the proposed research:	Text Box	250 characters			
Is this partner funded in the proposed research budget?	Check Box	Yes	No		

SECTION VI – TERMS AND CONDITIONS: AWARDED INSTITUTIONS ARE REQUIRED TO REVIEW AND AGREE TO THE FOLLOWING REQUIREMENTS GOVERNING THE EXECUTION OF A RESEARCH PROJECT AND THE ADMINISTRATION OF THE GRANT.

Question	Answer Type	Answer Options		Required?
CONFIDENTIALITY: The proposing research institution understands that though the entire evaluation process from receipt of applications up to the posting of the SGC staff's recommended list of projects is confidential, all submitted documents will become public records after the Council awards funding to research projects or if the solicitation is cancelled. The SGC will not accept or retain applications that identify any portion as confidential.				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
SOLICITATION ERRORS: If the proposer discovers any ambiguity, conflict, discrepancy, omission, or other errors in the solicitation, the applicant should immediately notify the SGC of the error in writing and request modification or clarification of the solicitation. The SGC will provide modifications or clarifications by written notice to all parties who requested the solicitation, without divulging the source of the request for clarification. The SGC is not responsible for failure to correct errors.				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
PROPOSAL MODIFICATION OR WITHDRAWAL: Proposers may withdraw or modify a research submission before the solicitation deadline by sending a letter to the SGC Contracts Manager. Applications cannot be changed after that date and time. A proposal cannot be "timed" to expire on a specific date. For example, a statement such as the following is non-responsive to the solicitation: "This application and the cost estimate are valid for 60 days."				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
COMMUNICATIONS: The Grant Recipients are required to use the SGC and CCI names and/or logos for all published materials related to the research funded through this program. All press releases, fact sheets, talking points and press interviews related to this research must include the phrase "administered by the Strategic Growth Council and funded through the California Climate Investments," and logos should be included where applicable. Additionally, a point of contact for all press inquiries and communications needs regarding awarded research must be submitted to the SGC (name, phone number and email address). Finally, Grant Recipients will be required to prepare a two-page summary of the awarded research, corresponding to the template provided by the SGC for display on the SGC's website and use for other communications purposes.				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
CALIFORNIA AIR RESOURCES BOARD (CARB) REPORTING REQUIREMENTS: Grant Recipients must adhere to the reporting requirements outlined by CARB in their Funding Guidelines to Agencies that Administer California Climate Investments. CARB approved this update to the Funding Guidelines in August 2018. Future guidance may include changes to reporting requirements for this research project.				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
OPEN ACCESS PUBLISHING: AB 2192 (Stone, 2017) requires that state-funded research projects "shall provide for free public access to any publication of a peer-reviewed manuscript describing the state-agency-funded knowledge, a state-agency-funded invention, or state-agency-funded technology." Grant Recipients are responsible to budget for open access publishing for all of the published materials that relate to the awarded research. Free and open access is required to final manuscripts of scholarly articles, reports, and other products produced entirely or primarily with program funding. These and additional published materials will be required to be submitted to Integrated Climate Adaptation and Resiliency Program's Adaptation Clearinghouse after acceptance, and no later than upon publication. Such manuscripts shall be made publicly available through the Clearinghouse by the Governor's Office of Planning and Research one year after publication by the journal.				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
INTELLECTUAL PROPERTY: Grant Recipients must possess their intellectual property or a legal right to develop the technology (e.g. through a contractual/license agreement). The California Model Agreement and the associated patent rights attachment (#4) are the appropriate vehicles for addressing technology commercialization intellectual property ownership.				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
RESEARCH COMPLIANCE STATEMENT: The proposing institution agrees to comply with all state and federal laws, if applicable, that apply to the proposed research including, but not limited to, human subject research, research misconduct and conflict of interest regulations.				
Check here to indicate that the proposer has read and understands this disclaimer.	Check Box	Yes	No	X
Indicate if any of the following statements apply to the research or to the proposing institution:				
The proposed research involves human subjects.	Check Box	Yes	No	
The proposing institution has developed a scientific integrity policy.	Check Box	Yes	No	
The proposing institution has developed a data sharing policy.	Check Box	Yes	No	

Section VII – Attachments: Researchers can attach up to ten separate files. Each attachment file size must be 2 GB or less. The following list of attachments are required as part of the submission package.

1. Title Page (one page)

2. Proposal Narrative (ten pages, including charts, figures, or diagrams)
3. Budget Forms (use template)
4. Scope of Work (use template)
5. Biographical Sketches for Key Personnel (two pages each, use template)
   a) Collaborations and Other Affiliations (no limit)
6. Partnerships and Engagement Strategies (use template)
7. Letters of Support (one page for each reference, maximum of seven letters)
8. Prior Research Summary (past projects managed by proposal's PI(s) within the past three years)
9. References and Literature Citations (two pages, optional)
10. Quality Assurance Statement or Data Management Plan (optional)

ATTACHMENT 2: PROPOSAL NARRATIVE

The Proposal Narrative should detail the applicant's plan and approach for conducting research that will advance one of the three Round 3 Research Priority Areas (see Appendix C). This narrative should be 5-10 pages in length (11-pt font and 1" margins). It should concisely address each of the five sections below using the headings provided, without sacrificing sufficient details requested. The narrative should be written in straightforward language, keeping in mind that the members of the Advisory Committee possess an understanding of the content knowledge but not necessarily expertise in the specific area of study. Proposals should avoid the use of technical or discipline-specific jargon. Spell out any acronyms that are not universally understood.

The Proposal Narrative should consider the criteria developed in Figure 5, Technical Merit Criteria and must consist of the following three (or four, as applicable) sections, and include the topics, (with clear headings and subheadings,) identified below:

1. **Description.** Provide the following elements for the research being proposed:

   Research Aims and Objectives. A concise description of what the research proposal intends to do. Describe the overall goal of the project portfolio, and then the individual aims and objectives. Specified objectives should enable comparison to project results.

   Research Question(s) and Hypothesis.

   Research Approach, and Methods. Information about research subjects (inclusion/exclusion criteria, recruitment methods, informed consent procedures, research sites). Discuss methods being applied. Explanation of data collection protocols (how subject privacy and data confidentiality will be addressed, benefits and risks of this research and risk minimization actions being employed; Describe how research findings will be translated and disseminated to support climate-action; and, state any anticipated problems or barriers and the approach for resolution.

   Summary of Anticipated Impact and Outcomes.

2. **Research Merits**

   Significance/Importance. Provide a clear and compelling rationale for why the proposed research matters. Indicate how the research proposal will advance knowledge, address an important scientific, scholarly, or society-wide problem, demonstrate intellectual or creative significance, and/or benefit society in meaningful ways. If applicable, include hypotheses to be tested, specific goals/aims, and relevant background/information or preliminary data in support of the project portfolio.

   Innovation/Novelty. Outline the ways in which project's work is new/innovative in its approach, methods, or techniques in comparison to previous work in the field.

   Impact and Outcomes. Indicate the value or impact of the proposed project portfolio, once completed. How do the projects holistically reflect the Research Investment Plan's Program Goals, address the specific Research Priority Areas and/or crosscutting thematic lenses (Appendix C), and advance the State's Climate Goals? In what ways will the results of this work be transformative within its discipline and beyond? What broader societal benefits or climate action outcomes does it promise? Broader impacts can include the research itself, activities related to specific research projects, or complimentary activities that advance the research.

3. **Meaningful Engagement.** Review the questions identified in item #2 of Figure 6, Technical Merit Criteria, to develop this component of the narrative.

   Improving Research Quality, Validity and Sensitivity. Provide a clear and compelling rationale for how the proposed research will use meaningful engagement to draw upon the wisdom of a larger body of stakeholders, promote trust

among interested parties, improve how research findings are translated into policy and practice, and accelerate the uptake of research findings into climate action.

Capacity for Meaningful Engagement. Discuss the history and expertise of the research proposal project team at engaging other research institutions, multi-stakeholder partnerships, key stakeholders, community-based organizers, policymakers, and others as relevant to transform research findings into action, and to maintain a meaningful level of ongoing collaboration throughout and beyond the duration of a specific project. Provide examples of how this engagement was consistently applied throughout all phases of a research endeavor. Demonstrate how these efforts resulted in innovative and meaningful policies, programs, or practices built upon the input and expertise of different partners (i.e., the State, Tribes, or local public agency staff; advocacy groups, student associations, or community-based organizations; industry trade groups, business associations or workforce development boards; overburdened individuals, businesses and groups; etc.). If a proposal project team does not have prior history with meaningful engagement, please outline here the plan to incorporate engagement and collaboration throughout the duration of this grant.

Structure for Engagement. Describe the framework that will be used to structure the partnerships identified in this submission to ensure a diverse representation from policy professionals, academic experts in various physical and social science fields of study, community-based organizations, economic leaders, and/or other key stakeholders. Explain how partners in this structure will enrich the structure and help to achieve the goals of the proposed research. How does this structure ensure that the proposed research better addresses concrete needs and delivers direct benefits?

Innovation/Originality. Discuss how the proposed engagement and partnership structure will support and advance the project's relevance and the utility of the proposed research process, methodology, and results. How will this engagement build relationships that result in opportunities for input and feedback on the project's design and approach through delivery mechanisms? Will new or original communication processes be applied to disseminate research findings, data, and/or recommendations to non-traditional audiences?

Impact and Outcomes. Identify how the intended engagement approach and structure described in this section will contribute to the intended impacts and outcomes of the proposed research. How will the project's research findings or results give rise to distribution of the findings, data, and recommendations; support opportunities for community-based investigations or studies that reproduce methods such as, Community Based Participatory Research and community monitoring/data gathering; assist and share resources with others to engage audiences and advance the climate goals?

ATTACHMENT 3: PROJECT BUDGET

Overall Budget Organization

Additional information regarding budget organization can be found in Exhibit B of the University of California's California Model Agreement including STD 213 word document.

Principal Investigator (Last, First): _____

COMPOSITE BUDGET FOR ENTIRE PROPOSED PROJECT PERIOD

07/01/2020 to 06/30/2023

BUDGET CATEGORY	From: To:	7/1/2020 6/30/2021 Year 1	7/1/2021 6/30/2022 Year 2	7/1/2022 6/30/2023 Year 3	TOTAL
PERSONNEL: *Salary and fringe benefits.*		$0	$0	$0	$0
TRAVEL		$0	$0	$0	$0
MATERIALS & SUPPLIES		$0	$0	$0	$0
EQUIPMENT		$0	$0	$0	$0
CONSULTANT		$0	$0	$0	$0
SUBRECIPIENT		$0	$0	$0	$0
OTHER DIRECT COSTS (ODC)	*Subject to IDC Calc*				
ODC #1	*Y*	$0	$0	$0	$0
ODC #2	*Y*	$0	$0	$0	$0
ODC #3	*Y*	$0	$0	$0	$0
ODC #4	*Y*	$0	$0	$0	$0
ODC #5	*Y*	$0	$0	$0	$0
ODC #6	*Y*	$0	$0	$0	$0
TOTAL DIRECT COSTS		**$0**	**$0**	**$0**	**$0**
Indirect (F&A) Costs	**F&A Base**				
Rate	*MTDC **	*$0*	*$0*	*$0*	*$0*
		$0	**$0**	**$0**	**$0**
TOTAL COSTS PER YEAR		**$0**	**$0**	**$0**	
TOTAL COSTS FOR PROPOSED PROJECT PERIOD					**$0**

* MTDC = Modified Total Direct Cost

Subawardee Name: _____

Principal Investigator (Last, First): _____

COMPOSITE SUBAWARDEE BUDGET FOR ENTIRE PROPOSED PROJECT PERIOD

07/01/2020 to 06/30/2023

BUDGET CATEGORY	From: To:	7/1/2020 6/30/2021 Year 1	7/1/2021 6/30/2022 Year 2	7/1/2022 6/30/2023 Year 3	TOTAL
PERSONNEL: *Salary and fringe benefits.*		$0	$0	$0	$0
TRAVEL		$0	$0	$0	$0
MATERIALS & SUPPLIES		$0	$0	$0	$0
EQUIPMENT		$0	$0	$0	$0
CONSULTANT		$0	$0	$0	$0
SUBRECIPIENT		$0	$0	$0	$0
OTHER DIRECT COSTS (ODC)	***Subject to IDC Calc***				
ODC #1	***Y***	$0	$0	$0	$0
ODC #2	***Y***	$0	$0	$0	$0
ODC #3	***Y***	$0	$0	$0	$0
TOTAL DIRECT COSTS		**$0**	**$0**	**$0**	**$0**
Indirect (F&A) Costs	**F&A Base**				
Rate	***MTDC ****	*$0*	*$0*	*$0*	*$0*
		$0	**$0**	**$0**	**$0**
TOTAL COSTS PER YEAR		**$0**	**$0**	**$0**	
TOTAL COSTS FOR PROPOSED PROJECT PERIOD					**$0**

* MTDC = Modified Total Direct Cost

JUSTIFICATION. *Follow the budget justification instructions.*

Annual Budget Flexibility (lesser of % or Amount)

Prior approval required for budget changes between approved budget categories above the thresholds identified.

%	**10.00%** or
Amount	*$10,000*

A Budget Justification document is a required component of the project budget. It must include the following items in this format.

PERSONNEL

Name**.** Starting with the Principal Investigator list the names of all known personnel who will be involved on the project for each year of the proposed project period. Include all collaborating investigators, individuals in training, technical and support staff or include as "to be determined" (TBD).

Role on Project**.** For all personnel by name, position, function, and a percentage level of effort (as appropriate), including "to-be-determined" positions.

Fringe Benefits**.** In accordance with University policy, explain the costs included in the budgeted fringe benefit percentages used, which could include tuition/fee remission for qualifying personnel to the extent that such costs are provided for by University policy, to estimate the fringe benefit expenses on Exhibit B.

TRAVEL

Itemize all travel requests separately by trip and justify in Exhibit B1, in accordance with University travel guidelines. Provide the purpose, destination, travelers (name or position/role), and duration of each trip. Include detail on airfare, lodging and mileage expenses, if applicable. Should the application include a request for travel outside of the state of California, justify the need for those out-of-state trips separately and completely.

MATERIALS AND SUPPLIES

Itemize materials supplies in separate categories. Include a complete justification of the project's need for these items. Theft sensitive equipment (under $5,000) must be justified and tracked separately in accordance with State Contracting Manual Section 7.29.

EQUIPMENT

List each item of equipment (greater than or equal to $5,000 with a useful life of more than one year) with amount requested separately and justify each.

CONSULTANT COSTS

Consultants are individuals/organizations who provide expert advisory or other services for brief or limited periods and do not provide a percentage of effort to the project or program. Consultants are not involved in the scientific or technical direction of the project as a whole.

Provide the names and organizational affiliations of all consultants. Describe the services to be performed, and include the number of days of anticipated consultation, the expected rate of compensation, travel, per diem, and other related costs.

SUBAWARDEE (CONSORTIUM/SUBRECIPIENT) COSTS

Each participating consortium organization must submit a separate detailed budget for every year in the project period in Exhibit B2 Subcontracts. Include a complete justification for the need for any subawardee listed in the application.

OTHER DIRECT COSTS

Itemize any other expenses by category and cost. Specifically justify costs that may typically be treated as indirect costs. For example, if insurance, telecommunication, or IT costs are charged as a direct expense, explain reason and methodology.

RENT

If the Scope of Work will be performed in an off-campus facility rented from a third party for a specific project or projects, then rent may be charged as a direct expense to the award.

INDIRECT (F&A) COSTS

Indirect costs are calculated in accordance with the budgeted indirect cost rate in the project budget.

ATTACHMENT 4: SCOPE OF WORK

The Scope of Work (or work plan) should provide sufficient detail for a reader to understand how the proposed research will progress. The scope must identify specific information about the flow of work, breakdown how the research stages (or tasks) will occur, define a list of expected deliverables, and propose a timeline that anticipates the timing of each stage and when milestones or outcomes are expected to transpire. This document should present information in a segmented fashion that contains a graphic timeline as well as a table of objectives, activities, and responsibilities. The elements of the Scope of Work should include:

Background. Provide overarching statements that characterize the goals, objectives, and actions related to the purpose of this research, as well as any practical and policy information, technological requirements or specifications, and legal limitations that may apply.

Specific Tasks or Phases of Work. Outline the specific tasks (or phases) that are being proposed in a third-person narrative, breaking down the order of how each stage will occur, and tying each segment to objectives, approaches, methodologies and/or strategies that will be employed:

- Describe the items, products, or results to be delivered.
- Discuss the roles of the research institution, partners, and/or sub-recipients.
- Identify any planned engagement or outreach.
- Provide information about delivery of completed progress reports and final report, or other applicable materials.

Timeline & Schedule of Deliverables. Submit a chart that identifies performance timelines or completion dates and includes anticipated start and completion times for each task/phase of the project. In addition, include a schedule of deliverables that indicates the expected completion date for each task deliverable. Please use the below template for the schedule of deliverables.

Deliverable	Description	Due Date

The following Deliverables are subject to Section 19. Copyrights, paragraph B of Exhibit C in CMA (AB20) California State Universities Model Agreement Terms & Conditions

Deliverable	Description	Due Date

ATTACHMENT 5: QUALITY ASSURANCE STATEMENT

A Quality Assurance Statement (QAS) is required for research proposals that involves data collection or processing, conducting surveys, modeling, method development, or the development of tools or technology (whether hardware-based or via new techniques). The QAS should state how processes would be used to ensure that the products of the research satisfy the intended research objectives.

The QAS should address each of the applicable sections below by discussing key points or referencing the specific location of the information in the Project Narrative (not all will apply). A lab or institution may substitute its own data management plan or an NSF Data Management Plan in place of the Quality Assurance Statement.

(1) Identify the individual(s) who will be responsible for the quality assurance (QA) and quality control (QC) aspects of the research along with a brief description of this person's functions, experience, and authority within the research organization. Describe the general approach for conducting quality research. (QA is a system of management activities to ensure that a process or item is of the type and quality needed for the research. QC is a system of activities that measures the attributes and performance of a process or item against the standards defined in the research documentation to verify that they meet those stated requirements.)

(2) Discuss the quantitative and/or qualitative procedures that will be used to evaluate the success of the research proposal's objectives, including quality objectives, and hypotheses to be tested. Include any plans for peer or other reviews of the study design or analytical methods.

(3) Address each of the following research elements, as applicable:

- (a) Collection of new/primary data.
- (b) Use of existing/secondary data (e.g., data previously collected for other purposes or from other sources).
- (c) Method development: describe the scope and application of methods, tests, or measurements to be conducted to support the method development, the type of instrumentation that will be used and any required instrument conditions (e.g., calibration frequency), planned QC checks and associated criteria (e.g., spikes, replicates, blanks), and tests to verify the method's performance.
- (d) Development or refinement of models.
- (e) Development or operation of tools/technology.
- (f) Conducting surveys: discuss the justification for both the overall research project and all sub-samples for specific treatments or tests. Identify and explain the rational for the proposed statistical techniques (e.g., evaluation of statistical power).

(4) Discuss data management activities (e.g., record-keeping procedures, data-handling procedures, and the approach used for data storage and retrieval on electronic media). Include any required computer hardware and software and address any specific performance requirements for the hardware/software.

NOTE: *If selected for award, the researcher will be expected to provide additional quality assurance documentation, if requested by the terms and conditions of the agreement.*