Introduction and Background

Vermont's Act 153(2020) – the Global Warming Solutions Act, or GWSA – establishes an ambitious timeframe and scope of for the Vermont Climate Council ('the Council') that culminates with the adoption of the Vermont Climate Action Plan ('the Plan') on or before December 1, 2021. The Plan will identify specific initiatives, programs and strategies necessary to achieve the State's greenhouse gas (GHG) emission reduction requirements. In order to achieve the outcomes proscribed by Act 153, the Council needs to develop a Climate Action Plan informed by the best available science. These analyses will inform and support the implementation of the most cost-effective and equitable strategies to reducing our greenhouse gas emissions.

The Vermont Agency of Natural Resources ('the Agency') is requesting formal written proposals and qualifications from consultants to provide related technical support services to the Agency, the Vermont Climate Council and its Subcommittees in the work necessary to develop the Vermont Climate Action Plan, as required by the Global Warming Solutions Act.

The Global Warming Solutions Act

The Global Warming Solutions Act was enacted by the Vermont Legislature in September 2020. Core elements of the GWSA include:

- Codifying Vermont's greenhouse gas (GHG) emission reductions goals as statutory requirements, and provides an explicit cause of action should the State fail to adopt sufficient measures to achieve the statutory requirements. The requirements are:
    - Not less than 26% from 2005 greenhouse gas emissions by January 1, 2025;
    - Not less than 40% from 1990 greenhouse gas emissions by January 1, 2030; and,
    - Not less than 80% from 1990 greenhouse gas emissions by January 1, 2050.
- Establishing the Vermont Climate Council.

The Vermont Climate Council

The Vermont Climate Council (VCC) is comprised of 23 members – including eight members of the Administration, eight members appointed by the Speaker of the House, and seven members appointed by the Senate Committee on Committees. The GWSA charges the VCC with the following responsibilities:

- Developing strategies and programs to achieve the greenhouse gas emissions reduction requirements and adopting them in the Vermont Climate Action Plan by December 1, 2021;
- Identifying the current and plausible range of climate change impacts and evaluating strategies and programs that build resilience and the capacity of individuals, communities, and natural and built systems to withstand and recover from the current and anticipated effects of climate change;
- Identifying means to measure the State's progress towards meeting the greenhouse gas emissions requirements; and,
- Providing guidance to the Vermont General Assembly and the Secretary of Natural Resources on legislative and regulatory changes necessary to implement the Plan.

The Vermont Climate Action Plan

The Vermont Climate Action Plan ('the Plan') must be adopted by the VCC by December 1, 2021, and is required to be updated by July 1 every four years thereafter. The Plan will identify the specific initiatives, programs and strategies to achieve the greenhouse gas emissions requirements of the GWSA. This is anticipated to include a range of regulatory, legislative, educational, and incentive-based approaches. Specifically, the Plan is to include specific initiatives, programs and strategies that:

- Reduce greenhouse gas emissions from the transportation, building, regulated utility, industrial, commercial, and agricultural sectors;
- Encourage smart growth, improve efficiency and related strategies;
- Achieve long-term sequestration and storage of carbon and promote best management practices to achieve climate mitigation, adaption, and resilience on natural working lands;
- Achieve net zero emissions by 2050 across all sectors;
- Reduce energy burdens for rural and marginalized communities;
- Limit the use of chemicals, substances, or products that change atmospheric chemistry and otherwise contribute to climate change; and
- Build and encourage climate adaptation and resilience of Vermont communities and natural systems.

General Specifications

The State of Vermont Agency of Natural Resources is requesting proposals for technical support services, including but not limited to environmental and economic modeling to support the Agency and the Vermont Climate Council in the work necessary to develop the Vermont Climate Action Plan. It is envisioned that this work will occur largely between now and the spring of 2022. A more detailed description of the range of services being sought is provided in the 'Scope of Services' section below.

The Agency is seeking the enter into contracts with one or more entities that can provide the services outlines below in the Scope of Services section of this RFP. The contract form will be the State of Vermont Standard Contract for Personal Services, with attachments. Appendix A contains the customary State contract provisions. Please refrain from bidding if the contract and provisions are not acceptable to your organization. The State will not negotiate changes in the contract or in these provisions.

The Agency prefers, but it not strictly limited to selecting, a single bid covering the entire Scope of Services from a single bidder. However, the Agency recognizes that the distinct areas of subject matter contemplated in items (1) – (6), below, require an in depth knowledge of each applicable source and sector that may not all be possessed in full by a single individual or entity. If the bidder proposes to meet the performance requirements of this RFP by an arrangement involving a lead contractor and one or more subcontractors, the lead contractor must be the bidder, and the lead contractor's bid must clearly identify any and all subcontractors. Similarly, if a bidder proposes to meet the performance requirements of this RFP by a form of joint venture, the bidder must very clearly explain the proposed entity type and structure of the joint venture in detail, must clearly identify all participants in the joint venture, must describe how the scope, roles, and responsibilities will be allocated among and across entities, and must provide a substantiation of the specific relevant experience and qualifications of any and all participants in the joint venture.

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The Agency reserves the right, in its sole discretion, to award separate sub-portions of the Scope of Services covered by this RFP to separate bidders. The Agency reserves the right, in its sole discretion, to use a Best and Final Offer (BAFO) process to explore and negotiate such a potential award of different sub-portions of the Scope of Services to separate bidders, the Agency's ability to explore and negotiate multiple awards in that manner shall not be limited to the BAFO process, nor shall the BAFO process be limited to the potential allocation of work across multiple bidders.

Contact

All communications concerning this Request for Proposals (RFP) are to be in submitted in writing, via email, to Jane Lazorchak at the Vermont Agency of Natural Resources (jane.lazorchak@vermont.gov).

Scope of Services

The contractor will support the Council, including the VCC Steering Committee and VCC Subcommittees, in informing the Vermont Climate Action Plan consistent with the requirements of the GWSA. The contractor will report to the GWSA Director. The work of the contractor will be further refined through its relationship with the Science and Data (S&D) Subcommittee and Agency technical staff. This will include bi-monthly meetings with the S&D Subcommittee to develop the workplan needed to meet the milestones of the Climate Action Plan, inform methodologies and communicate preliminary findings. Input from the S&D Subcommittee and Agency technical staff will be considered in the development of deliverables for the work contracted. In addition, the contractor will also coordinate with the Cross-Sector Mitigation and Agriculture and Ecosystems Subcommittees where necessary and highlighted below. This may include additional meetings with these Subcommittees.

For the technical analyses, we are prioritizing the identification and evaluation of specific, near-term programs, initiatives and strategies necessary to achieve the 2025 greenhouse gas emissions reductions requirements. In addition, support will be needed in framing a strategic approach to achieving the medium-term requirements (2030); and strategies will be articulated that need further refinement for complying with the long-term requirements (2050). Specifically, the contractor will:

1) In collaboration with state agency staff, review data inputs and other necessary factors for emissions quantifications in Vermont's existing GHG emissions inventory methodologies and review entire sector methodologies where appropriate (i.e. where methodologies differ significantly from methods used by other states in the region. Where updates are warranted suggest alternative methodologies or publicly available input datasets or factors to ensure, to the extent possible, the ability to continue with the suggested modifications in future inventories. Evaluate whether current methodologies adhere to the IPCC guidelines for greenhouse gas inventories and EPA guidance where existing methodologies differ from those provided by EPA. Recommend any suggested improvements or changes to current data sources, factors, or methodologies, in a memo (and short presentation), including but not limited to the following:
    a. Review of current Inventory data and factor inputs for tools and methodologies and methodological choices where appropriate, including:
        - Emissions factors and datasets utilized for each source of emissions;
        - The choice of GWP value (i.e. GWP20; GWP100); and
        - Emissions calculations methodologies used for each sector as appropriate (see above).

b. Assess the feasibility and appropriateness of supplementing our in-boundary/ sector-based inventory methodology with a lifecycle and/or consumption-based emissions inventory.

The deliverables for Task 1 including the following:

- Present GHG inventory review and proposed changes in a complete written report, for review by the VCC, Agency technical staff, its subcommittees, and during public engagement activities. After initial review and suggested changes, a final draft should be prepared, including an executive summary.

2) Develop tools and methodologies for a Land-use, Land Use Change, and Forestry sector ('carbon budget') that provides quantitative estimates of total carbon stocks and mean annual flux (both emissions and sequestration) in carbon dioxide equivalent (CO_2e) by natural and anthropogenic sources for Vermont in back to 1990 (Note: actual number of years and range of years may need to be defined based on data availability) that is easy to interpret. Consultant should look closely at what other states in the region are doing and coordinate an approach with Agency technical staff and the Agriculture and Ecosystems Subcommittee before proceeding. If data allow, include estimates of variability around annual mean fluxes and other GHGs converted to CO_2e. Provide detailed and replicable methodology for stock and flux computations, raw and compiled datasets, data sources, and description of assumptions, caveats, or uncertainty. This 'carbon budget' will need to be closely coordinated with the GHG inventory in order to ensure the state can replicate it going forward.

List of possible stocks and fluxes to include if data allow:

Stocks

- Forests – all pools (live and dead biomass (both above- and belowground, soils)
- Wetlands – all pools
- Grasslands/shrublands – all pools
- Agriculture – soils, other pools on perennial agricultural areas if applicable
- Urban/developed -- live biomass and soils
- Waterbodies – soil?

Fluxes

- Anthropogenic -- fossil fuel emissions
- Anthropogenic -- land change emissions
- Forests – net biomass and soil sequestration, sedimentation export
- Anthropogenic -- timber harvest removals and emissions through decay in landfill and combustion
- Agriculture – soil and other emissions, sedimentation export
- Wetlands – net biomass and soil sequestration, sedimentation export
- Grasslands/shrublands – net biomass and soil sequestration, sedimentation export
- Waterbodies – emissions via outgassing, sedimentation (sequestration), sedimentation export

        - Urban/developed – net biomass and soil sequestration, sedimentation export

The deliverables for Task 2 including the following:

- Complete the 'carbon budget' for Vermont and include in report a detailed and replicable methodology for stock and flux computations, raw and compiled datasets, data sources, and description of assumptions, caveats, or uncertainty.

3) Identify and analyze emissions reduction pathways for achieving the GWSA targets, which include percent reductions relative to each sector, for 2025, 2030, and 2050. Pathways should be developed for each of the following four sectors: Thermal (Buildings and Heat), Electricity, Transportation, and Non-Energy Emissions (Agriculture, Industrial and other). Efficiency, technology, and behavioral measures should be included in the pathways. The analysis should include the following:
    a. Cost Effectiveness:
        - Review and suggest improvements to the Public Service Department's "Cost of Carbon" model (Page 8 and Appendix B here: https://publicservice.vermont.gov/sites/dps/files/documents/Pubs_Plans_Reports/Legislative_Reports/2021%20Annual%20Energy%20Report%20Final.pdf) , including consideration of a GHG mitigation "supply curve" identifying and measuring the cost and potential for reductions in Vermont;
        - Economic considerations beyond direct costs (social and environmental costs and benefits, including health benefits); and
        - An appropriate Social Cost of Carbon (SCC) value, based on a literature review, (including the key choice of discount rate) that can be used to inform cost effectiveness analysis based on a marginal damage and marginal abatement approach. This could include surveying Climate Councilors and Subcommittee members to gain insight to an appropriate discount rate.
    b. Economic Impact Analysis:
        - Utilizing the "business as usual" base case developed by the Public Service Department as part of the 2021 Comprehensive Energy Plan modeling using LEAP, compare "business as usual" to achieving the GWSA targets modeled for each of the sectoral pathways (Thermal (Buildings/Heat), Transportation, Electricity, and Non-energy) evaluate:
            - Impact on Vermont consumers (savings and costs and other metrics such as real disposable income) of modeled sectoral pathways and identify and measure any differential impacts across Vermont's geography and demographic groups (including by income and race);
            - Impact of modeled sectoral pathways and identified measures on Vermont's "macro economy", including:
                - Vermont Gross State Product (including in and out of state dollar flows);
                - Direct, indirect, and induced jobs impacts; and

        - Net changes to State revenue (personal income tax, gasoline tax, etc.);
    - Net effects on public health of modeled sectoral pathways and identified measures (including costs and benefits); and,
    - Secondary environmental impacts of failing to reduce greenhouse gas emissions consistent with requirements of the GWSA, such as waterway acidification.

The deliverables for Task 3 including the following:

- Report on recommendations to the Public Service Department's "Cost of Carbon".
- Development of the appropriate Social Cost of Carbon and supporting literature review.
- Report on economic analysis of sectoral pathways in a complete report with input from the Vermont Climate Council (VCC), its Subcommittees and Agency technical staff incorporated in final report.

4) Research and recommend specific strategies, programs, and initiatives for achieving the GWSA reduction targets for 2025, 20303, and 2050 and for achieving the pathways identified in Task 3 above. Strategies, programs, and initiatives should be identified for each of the four sectors (Thermal (Buildings/Heat), Transportation, Electricity, and Agriculture as well as the financing, funding, and other approaches needed to scale current and new efforts to reach the targets. This should be done in a way that is consistent with the requirements of Act 153 and specifically along the lines of the modeled sectoral pathways identified by SEI/NESCAUM in the LEAP modeling exercise for the CEP. A range of approaches should be researched and recommended including potential regulatory and policy actions as well as programmatic and implementation activities such as (but not limited to:
    - Rules and regulations
    - Codes and standards
    - Conservation/ efficiency programs
    - Market transformation incentives
    - Subsidies and/or incentives
    - Other market, finance, and/or investment mechanisms

    These policy mechanisms may be modeled exogenously as to their costs and impact on technology adoption rates, with outputs available in a format that can inform broader sectoral models as completed with LEAP modeling.

The deliverables for Task 4 including the following:

- **2025 Pathway** – The immediate and short-term "must-" have policies, programs, and initiatives needed to meet (or exceed) the GWSA 2025 emissions targets. This pathway should be comprehensive and address the range of current and future activities needed in each of the four sectors (Thermal, Transportation, Electricity, and Agriculture. to meet the targets for each sector.
- **2030 Pathway** —This pathway should leverage the activities proposed in the 2025 Pathway as well as identify additional new activities needed to continue to scale activities to achieve the 2030 emissions targets.

- **2050 Pathway** – This pathway will presumably be less detailed and less specific than the 2025 and 2030 Pathways and should at a minimum, identify new strategies that will need further refinement in future Climate Action Plans and recommend new analyses that will be needed in the future to identify future strategies beyond 2030 for achieving the 2030 emission targets.
- The **Pathways** should be presented in a complete written report, for review by the VCC, its subcommittees, and during public engagement activities. After initial review and suggested changes, a proposal final draft should be prepared, including a 5-10 page Executive Summary for distribution to legislators, stakeholders, and other key influencers throughout Vermont.

5) Propose and develop an emissions tracking and reporting framework for actions, both current and prospective, included in the preferred emissions control scenario that integrate with Vermont's existing (or as updated) emissions inventory methodology.

The deliverables for Task 5 including the following:

- Create and deliver to the state an emissions tracking and reporting tool for ongoing use by the Agency in meeting its GWSA requirements.

Performance Measures

The performance measures for this contract are the successful analyses needed to inform the Vermont Climate Action Plan, including meeting the necessary milestones to deliver a Climate Action Plan by December 1, 2021. Some of the tasks described in detail in the preceding section are standalone tasks which can begin immediately upon the delivery of a signed contract. However, 3 (b) and 4 above are contingent on completion of the LEAP model being developed for the 2021 Comprehensive Energy Plan. The "business as usual" case will be ready by mid-May to inform the work while the complete sectoral analysis will not be complete till August of 2021. Timing and completion of tasks associate with those are therefore contingent on those inputs being completed. Please develop a proposal that incorporates the phases below and propose the most aggressive timeline possible considering the inputs.

Phase	Performance Measure	Deliverable	Timeframe
1	Tasks 1, 2 and 3 from above	1) Present GHG inventory review and proposed changes in a complete written report, for review by the VCC, Agency technical staff, its subcommittees, and during public engagement activities. After initial review and suggested changes, a final draft should be prepared, including an executive summary. 2) Complete the 'carbon budget' for Vermont and include in report a detailed and replicable methodology for stock and flux computations, raw and compiled datasets, data sources, and description of assumptions, caveats, or uncertainty. 3) Report on recommendations to the Public Service Department's "Cost of Carbon". 4) Development of the appropriate Social Cost of Carbon and supporting literature review.	Preparations will begin immediately upon receipt of award approval Deliverables by June 2021.
2	Tasks 3, 4, 5	1) Initial economic analysis of sectoral pathways 2) Initial pathways analysis for 2025, 2030 and 2050 prepared. 3) Draft emissions tracking and reporting tool for ongoing use by the Agency in meeting its GWSA requirements.	Deliverables by August 2021.
3	Tasks 3, 4, 5	1) Report on economic analysis of sectoral pathways in a complete report with input from the Vermont Climate Council (VCC), its Subcommittees and Agency technical staff incorporated in final report. 2) The Pathways (described in task 4) should be presented in a complete written report, for review by the VCC, its subcommittees, and during public engagement activities. After initial review and suggested changes, a proposal final draft should be prepared, including a 5-10 page Executive Summary for	Deliverables by November 2021.

Phase	Performance Measure	Deliverable	Timeframe
		distribution to legislators, stakeholders, and other key influencers throughout Vermont. 3) Create and deliver to the state an emissions tracking and reporting tool for ongoing use by the Agency in meeting its GWSA requirements.	

Proposal Format

All response to this RFP shall include the following elements:

1. **Qualifications of the Project Team**: Provide qualifications of the persons who are anticipated work under this contract ("project team") and identify the individual that will serve as the primary point of contact for the GWSA Director. For each member of the project team, please include the following information:
    - Name and title
    - Project team role
    - Representative project experience (no more than 5 projects)
2. **Approach to Completing the Work:** Discuss in detail your approach to completing each of the six tasks described above. Provide a work plan for completing each task. Capacity to complete all components of the analyses through one contract either through the assemblage of a team of consultants or as a single consultant will be given a heavier weight.
3. **Experience supporting development of climate action work**: Please describe familiarity and past involvement with climate action work at a state or provincial level, highlighting any specific experience related to greenhouse gas emissions reduction strategies, and including the roles performed by Project Team members, within the last five (5) years. If no such experience, please indicate so.
4. **Experience with Low Emissions Analysis Platform (LEAP) model developed by the Stockholm Environment Institute (SEI)**: The LEAP model is being utilized by the Vermont Public Service Department as part of the bi-decadal update to Vermont's Comprehensive Energy Plan (CEP) and will inform the Vermont Climate Action Plan. Also speak to the extent that you propose using modeling tools and their transparency, accessibility, and long-term usefulness to the State of Vermont for ongoing analysis (i.e. no "black boxes" that have hidden assumptions or that can't be used by the State going forward).
5. **Capacity to accomplish the work:** Please describe the extent and proposed methods with which many diverse opinions and interests will be addressed through the stakeholder process, and how such will occur. Include relevant examples from previous work experience, including one or more samples of writing similar reports. Please comment on the availability of project members as well as the ease of scheduling and coordinating based on existing relationships.
6. **Cost proposal:** Please provide an estimated budget for the Scope of Services detailed above. The estimated budget must include cost breakdown by major task and budget categories (i.e.,

Commented [OM2]: Could provide respondents with a bid proposal form, that allows them to assign costs to each performance measure.

personnel, materials and supplies, travel etc.), linking costs to specific tasks/deliverables wherever possible. In addition, please show the following:

- Personnel: include projected hours, by individual, by task with billing rates, for each task identified in the Scope of Services;
- Materials and supplies: estimate cost, by task, for all materials, supplies or other incidentals that will be required to fulfill the Scope of Services;
- Travel: estimate costs for travel, if any, and per diem (meals and lodging) that may be incurred under this contract, including the number of on-site days, weekly/monthly trips, over-night stays, mileage, etc.

7. **Certificate of Compliance** (Appendix C) A complete proposal shall include a signed Certificate of Compliance. This form must be completed in its entirety and submitted as part of the response for the proposal to be considered valid, and indicates the applicant agrees to required contract terms for the State including tax, insurance, and all other applicable contract terms.

Selection Criteria:

All proposals will be evaluated for completeness, including all elements identified in the Scope of Services. Incomplete proposals will not be evaluated. In the event an insufficient number of proposals are considered complete, bidders may be given extra time to submit addendums.

Complete proposals will be judged by the following weighted criteria:

- Qualifications of the Project Team – 15%
- Approach to the work – 25%
- Experience supporting development of climate action work at a state level, including both greenhouse gas emissions reduction strategies and efforts to build resilience – 20%
- Experience with LEAP model – 15%
- Capacity to accomplish the work – 10%
- Cost – 15%

The State may conduct interviews with the finalists at its discretion.

Deadline for Questions:

Potential respondents may submit questions regarding this RFP. Questions must be submitted in writing, via e-mail, to Jane Lazorchak (jane.lazorchak@vermont.gov) and must be received by 4:00PM April 19, 2021. Responses to any questions received will be published on the Vermont Climate Council website (https://aoa.vermont.gov/content/vermont-climate-council) on a rolling basis, with all responses posted by 2:00PM on April 21, 2021.

RFP Response Submission:

The closing date for the receipt of RFP responses is 4:00PM Eastern Time on April 23, 2021. Responses must be delivered via e-mail to jane.lazorchak@vermont.gov prior to that time. Responses should be labeled, "Response to RFP – Vermont Climate Council Technical Services" The responses received by ANR will be reviewed by ANR staff and members the Vermont Climate Council.

Contractor Selection Schedule:

It is anticipated that the contract award will be issued by May 1, 2021, and bidders no longer being considered will be notified by mail or email.

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Bidder Confidentiality and Access to Public Records

All responses and other information disclosed in connection with this RFP become the property of the State and, once the resulting Contract is finalized, may be subject to disclosure under the State's Access to Public Records Law, 1 V.S.A. § 315 et seq. Bidders must identify any material included in their response that is considered by the bidder to be proprietary or otherwise exempt from public disclosure in the event of a Public Records request, pursuant to 1 V.S.A. § 317(c). Bidders must include a written explanation for each marked section that would support a reasonable claim of exemption, such as, for example, a description of the proprietary nature of the information and the harm that would occur should the material be disclosed. The bidder must include a redacted copy of its response. Redactions must be limited so that the reviewer may understand the nature of the information being withheld. It is typically inappropriate to redact entire pages, or to redact the titles/captions of tables and figures. Under no circumstances can the entire response or price information be marked confidential. Should the Agency have concerns about the submitted redactions/explanations or lack thereof, the Agency may invite the bidder to provide sufficient explanation and/or appropriate redaction rights.

Reservations of State's Rights

The State reserves the right to:

1. Accept or reject any and all bids, in whole or in part, with or without cause in the best interest of the State;

2. Waive technicalities in submissions; (A technicality is a minor deviation from the requirements of an RFP that does not impact the substantive terms of the bid/RFP and can be considered without a material impact on the RFP process, etc.). If uncertain of whether a condition qualifies as a technicality, consult with the OPC or AGO for clarification. For example, a late bid is NOT considered a technicality;

3. Conform the selection process, award and/or proposed contract language, at any time during the procurement, to comply with state or federal statute, regulation or grant requirements;

4. Make purchases outside of the awarded Contracts where it is deemed in the best interest of the State; and

5. Obtain clarification or additional information.

Appendix A. Contract Elements

Appendix B. Bid proposal form

Appendix C. Certificate of Compliance

Commented [OM4]: This should include the standard Attachment C and D contract provisions, and any other contract provisions that you envision being necessary for this work. I'm happy to discuss what those might be and draft them, if that would be helpful.

Commented [OM5]: Consider adding a form that allows the respondent to explain its proposed cost for all services, and then a breakdown of the general work related to the contract and each deliverable, as outlined above. This would be an alternative to the cost estimate language above.