

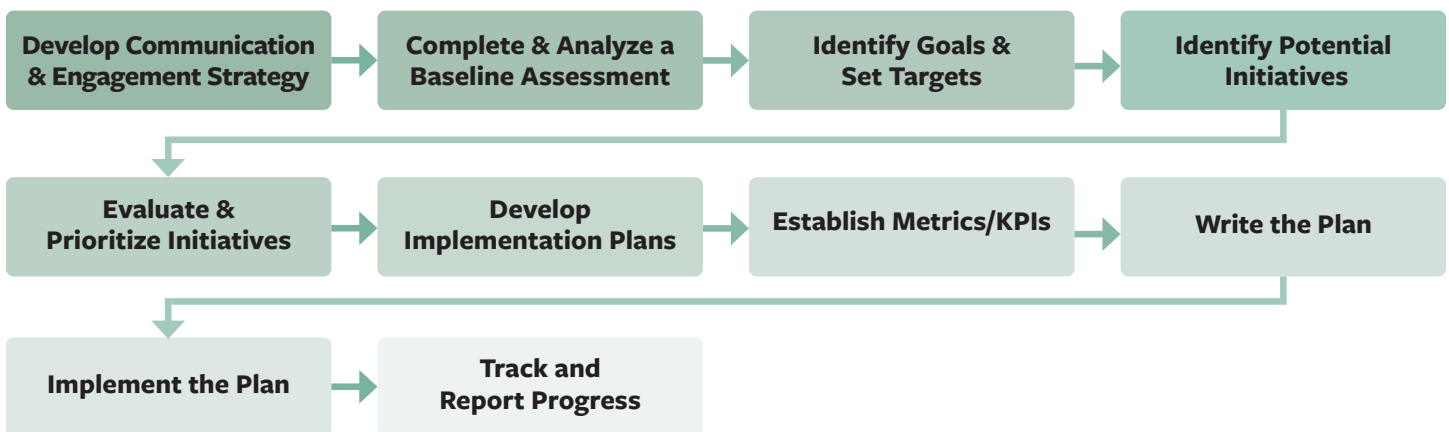


# SCOPE OF SERVICES

Our Team has deep experience helping clients develop GHG emission goals. We have worked with cities, counties, universities, airports, and community energy agencies across the country to perform GHG inventories, forecast emissions, derive reduction goals and formulate strategies to meet those goals. While our process is rooted in experience, we maintain intimate knowledge of best practices in setting reduction targets and achieving them.

For this project, our team will build on the Town’s existing efforts to create a Climate Action Plan which will include a set of GHG mitigation goals, policies and objectives. The following approach highlight’s our team’s approach to Climate Action Planning:

**Figure B: Approach to Climate Action Planning**



## 1 GREENHOUSE GAS (GHG) EMISSIONS INVENTORIES

Our team builds sophisticated scenario analysis tools related to GHG reduction and carbon neutrality planning for public and private clients. For this project, an updated GHG inventory and forecast will be developed using ICLEI’s ClearPath tool. Methodologies or categories that are inconsistent with ICLEI will be reconciled in order to provide accurate year-over-year comparisons, which may include updating the prior inventory and/or describing methodological differences and their potential impacts.

Not all GHG emissions are under the direct financial or operational control of local governments, and therefore care must be taken to draw an appropriate organization boundary for the GHG inventory while also leveraging the unique powers of government to influence actions at the community-wide scale. Sources of GHG emissions are separated into a uniformly recognized categorization of emission ‘Scopes’:

#### WORK EXHIBITS CONTINUED

- Scope 1: Direct, on-site burning of fossil fuels, such as natural gas consumption
- Scope 2: Emissions from purchased electricity
- Scope 3: Indirect emissions over which the Town may have limited control

Our Team will work with the Town staff and the Sustainability Committee to gather all relevant emissions data for Scopes 1-3, and incorporate new data or proxy data related to relevant Scope 3 emissions. Examples of relevant data include but are not limited to the following:

- Electricity usage
- Onsite renewable generation (if any)
- Natural gas usage
- Liquid fuel usage in Town fleet vehicles
- Annual solid waste volume
- Fertilizer usage
- Employee travel information
- Employee commute data
- Capital Improvement Plan

#### **Deliverables:**

- Data request forms
- Municipal and community greenhouse gas inventories (in ClearPath)
- Description of inventory methodologies

#### **Timeline:**

- March - April 2023

#### **Role of the Town:**

- Collection of data, using data request forms
- Provide all requested plans and information in a timely manner
- Become ICLEI member (in order to gain access to the ClearPath platform)

## **2 COMMUNITY ENGAGEMENT PLAN**

Climate action can only be achieved with community-wide support and action. We envision the Town's CAP initiatives to be eventually carried out by three categories of stakeholders: 1) community and representative organizations, 2) businesses/corporations, and 3) Town/agencies/public facilities.

Our Team will work closely with Town staff and the Sustainability Committee to develop and implement a Community Engagement Plan that builds upon past work conducted by the Town. The purpose is to solicit feedback and mobilize the broader town around climate actions. We view public engagement as more than simply one in a series of tasks; we see it as integral to CAP design. Further, aligning community values with environmental and economic outcomes must be a priority. A successful CAP can only be achieved by a collaborative community that crosses boundaries to find solutions and promote change.

To harness the full participation of the community, we envision stakeholder engagement as taking place throughout the process, building on the efforts of the Town

## WORK EXHIBITS CONTINUED

by inviting the participation and input of key community groups, government officials, representatives, business associations, schools, etc. To develop the list of stakeholder groups, we will work closely with the Town Staff and the Sustainability Committee to determine the right representative groups along with an engagement plan. Discussions will then be held at strategic intervals. This can be an important part of the goal and strategy vetting process and will help to galvanize community-wide support.

In developing a Community Engagement Plan, our team is committed to a process that will:

- Ensure the community feels ownership over the CAP's development
- Prioritize solutions and input offered by the community
- Engage with members of the community who have not typically been involved in planning processes in the past
- Special consideration will be given to make sure traditionally underrepresented populations are engaged, and that their needs, priorities, and values are incorporated into updated CAP measures

### **Deliverables:**

- Draft and Final Engagement Plans
- Up to two (2) facilitated online community engagement events
- Up to two (2) community survey designs

### **Timeline:**

- April - October 2023

### **Role of the Town:**

- Review Draft Engagement Plan and provide one (1) set of non-conflicting recommendations
- Coordinate logistics for engagement events (invitee lists, announcements, locations or technical assistance, etc.)
- Distribute community survey(s) through Town channels (using SurveyMonkey, Google Forms, or similar software)

## **3 CLIMATE-RELATED ACTIONS/INITIATIVES**

Through quantitative and qualitative analysis, stakeholder engagement, and a survey of best practices, a list of up to 20 potential revised and new CAP actions will be identified. Some of the actions may build off existing efforts within the Town and/or constituent jurisdictions. Others may be new strategies adopted or altered from other CAPs. Still others may be developed based on discussions with different stakeholder groups.

**Prioritizing actions.** A framework to prioritize the mitigation actions will then be developed. The framework will enable the Town to continue adding actions over time and use a standardized process to prioritize. We recommend six prioritization criteria, each with a set of metrics and associated weights and scoring, be used to prioritize each strategy. Each strategy will have a prioritization score calculated, and ultimately a total project ranking.

*WORK EXHIBITS CONTINUED*

- **Benefits** – Avoided losses to include risk reduction and address criticality of assets/functions
- **Cost** – Existing adaptation measure costs will be leveraged; if not provided by the installation/community/Town, qualitative ratings (i.e., high, medium, low) will be used with corresponding cost thresholds
- **Climate Resiliency** – Reduction in climate risk or level of protection of the adaptation strategy, and future adaptability to changing conditions
- **Social Resiliency** – Inclusive of social and cultural benefits, social equity, and community input
- **Integration and Capacity** – Alignment with existing programs/policies, dependencies, adaptive capacity to implement and maintain, funding availability
- **Timeline** – Sense of urgency to implement the adaptation measure/project

This type of scoring and ranking process will allow the Town to determine the most relevant actions and initiatives to meet its unique goals and characteristics and align with its priorities. For example, we will consider the following non-exhaustive list of areas in our analysis:

- Building electrification
- Streamlining of retrofitting permit process
- Community composting programs
- Fuel switching programs for vehicles and buildings
- Residential solar and solar + storage programs
- Programs to speed up EV adoption
- Programs to promote alternative means of transportation
- Expansion in the number of EV charging stations
- Development of community resiliency centers at schools, fire stations, and community centers for use in times of climate emergency.
- Opportunities for co-benefits (health and mobility, clean energy and cost savings, synergies between Town divisions and community partners)
- The potential for microgrid/community resiliency projects

We will then provide a 1–2-page evaluation of the top climate actions/initiatives that includes our analysis.

**Deliverables:**

- Up to twenty (20) potential climate mitigation and resiliency actions/initiatives
- Scoring matrix used to prioritize actions/initiatives
- Brief memo (1-2 pages) describing the climate action/initiative selection process

**Timeline:**

- May - September 2023

**Role of the Town:**

- Provide non-conflicting written feedback on draft actions/initiatives
- Provide non-conflicting feedback on action/initiative prioritization factors

## 4 CLIMATE ACTION GOALS AND MEASURABLE OBJECTIVES

Our team will identify goals and measurable objectives (targets) for both the Davidson community and municipal operations. Emission reductions for each proposed action will be evaluated, maintaining consistency with past methodologies as much as possible. Once quantified, each proposed objective will be re-evaluated to determine its role within the CAP, and modeling will be conducted to assess the combined effect within the context of the Town’s operations and community-wide climate goals.

Our team will work closely with the Town to consider several factors in the planning process, including the appropriateness of each measure, the use of “SMART” goals (specific, measurable, achievable, relevant, and time-bound), and additional considerations such as:

- Regulatory and technical feasibility, including barriers and resources
- The prioritization of each measure, including potential starting date and duration
- The relevant quantitative metrics (kWh of energy, tons GHG, etc.) of each measure
- The milestones for verification and evaluation of the CAP over its lifetime
- Involvement of community groups to promote climate goals and progress during local community-wide events
- Leveraging of co-programming opportunities to promote the CAP’s goals and development

Once the menu of targets is completed, our team will assist the Town in refining the list into a final set of targets designed to help the Town meet the established climate goals and timelines. This will include the identification of policies, programs, measures, and projects, as well as the calculation of expected GHG emission reductions. An example of the organization of targets is below:

**Figure C: Example of Target and Measure Organization**

STRATEGIES BY FOCUS AREA	
Focus Area	Strategies
Transportation	Reduce City-Wide Vehicle Miles Traveled by 25% by 2035 Electrify Transportation Electrify Off-Road Mobile Sources
Energy	Reduce Emissions from Energy Consumption Facilitate Building Decarbonization Increase Solar Energy Production
Resource Conservation	Reduce Consumption and Waste
Municipal Operations	Operate Sustainable Municipal Buildings Promote Green Municipal Practices Reduce Municipal VMT Integrate Climate Action and Adaptation into City Functions
Green Community	Develop Nature-Based Solutions
Climate Risk	Understand and Reduce Physical Risk
Emergency Management	Integrate Adaptation into Emergency Preparedness and Response
Resilient Community	Educate and Protect Residents

#### WORK EXHIBITS CONTINUED

Timelines will also be established based on the feasibility of the proposed targets, availability of technology, stakeholder input, and the overall target and pathway developed to meet the Plan's goals. The establishment of a timeline can be a consequential matter since earlier targets may require increased up-front spending. Our team will test the costs and benefits of a few timelines based on rough order of magnitude costs through an initial modeling run.

**Challenges and opportunities in meeting GHG reduction and climate adaptation goals.** Our Team will clearly articulate challenges and opportunities in meeting GHG reduction and climate adaptation goals. We will work closely with the Town to align the chosen actions and set GHG emission reduction targets with the county and state-level climate action goals, like the Executive Order 246. Our team will also identify any barriers that may impede progress towards these targets.

#### **Deliverables:**

- Set of climate action goals and targets for specific GHG reduction amounts/target years
- Set of key performance indicators (KPIs) used to track action/initiative progress
- Written summary of challenges and opportunities in meeting goals and targets

#### **Timeline:**

- July - August 2023

#### **Role of the Town:**

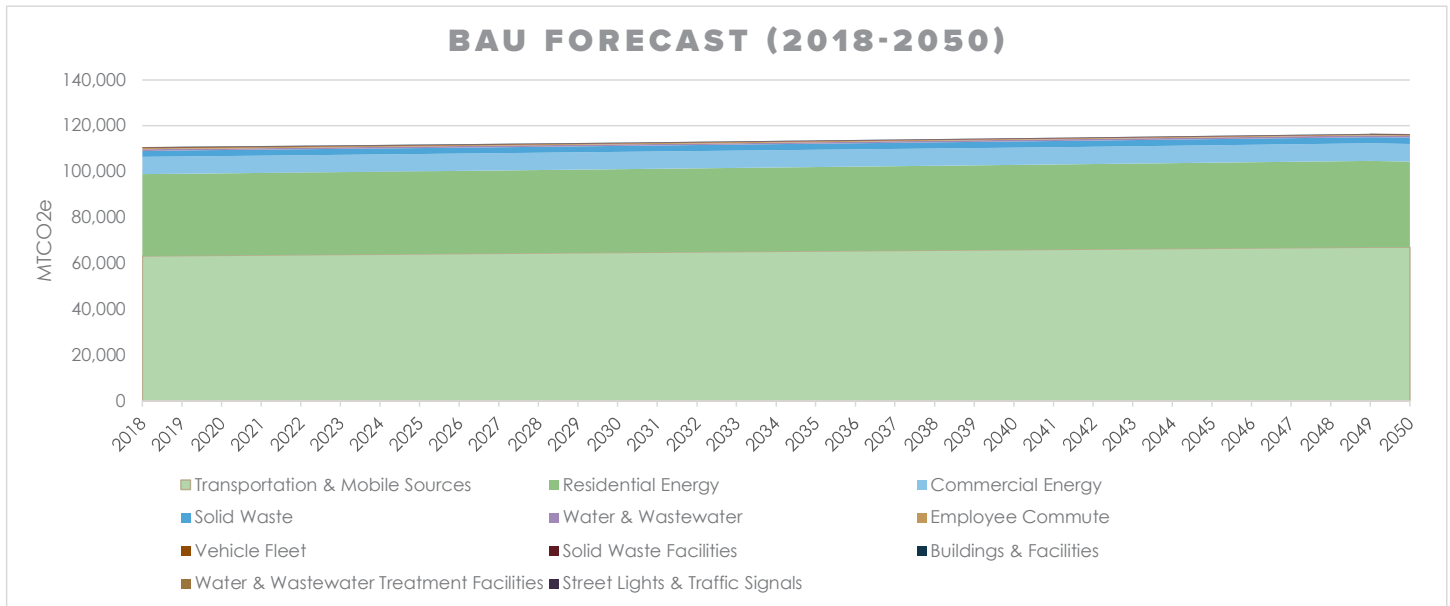
- Approval of climate action goals and targets

## 5 GHG PROJECTIONS

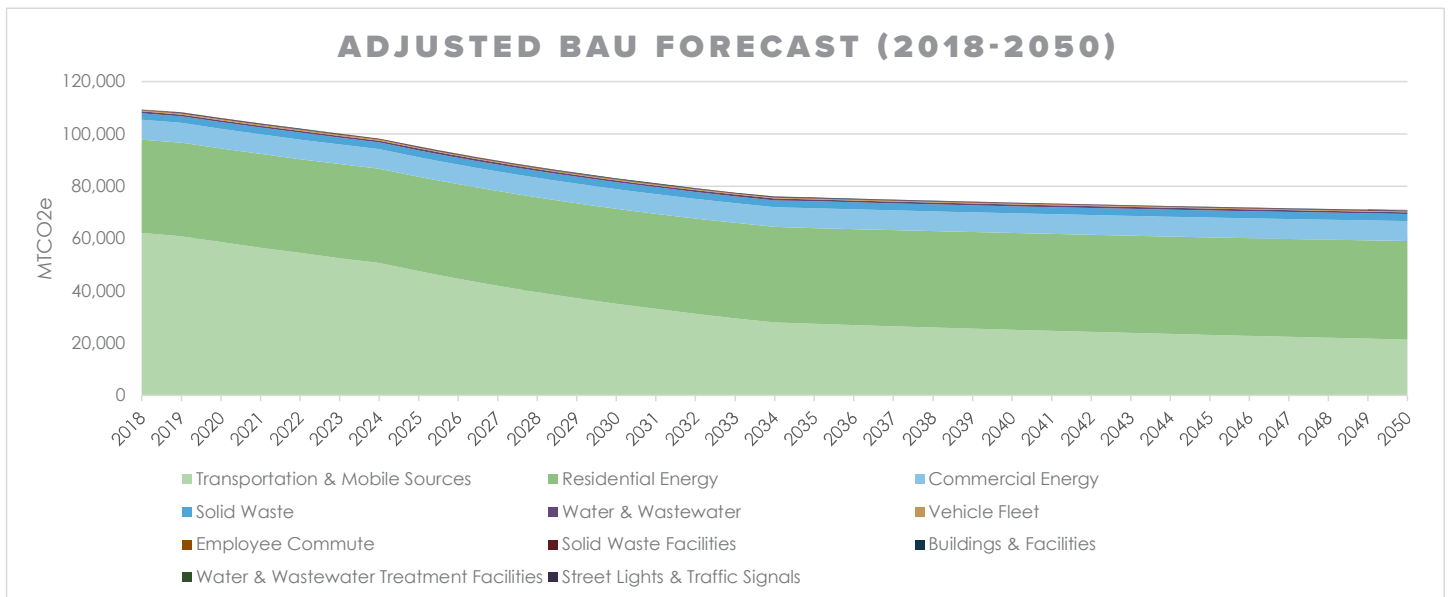
Our team has extensive experience using ICLEI's ClearPath's Forecasting Module to develop emissions forecasts. GHG projections for both the Davidson community and municipal operations will be conducted. Emissions reduction targets will be inputted to produce emission projections, including a Business-as-Usual (BAU) case forecasting emissions assuming no changes in federal, State or local policies and an Adjusted Business-as-Usual (ABAU) case including the expected impacts of federal, State and local actions. The projections will be expressed in a Global Covenant of Mayors compliant manner.

Our team will rely on its extensive experience with local, state, and federal climate and energy policies to determine the policies and measures that will affect the Business-As-Usual (BAU) scenario, as well as methods for quantifying those effects for integration into the scenario. Modeling runs will align with and support the Town's goal of Carbon Neutrality by 2037. Figures D and E display sample BAU and ABAU scenarios.

**Figure D: Sample Business-as-Usual forecast**



**Figure E: Sample Adjusted Business-as-Usual forecast**



**Deliverables:**

- BAU and ABAU forecasts for municipal and community emissions

**Timeline:**

- August - September 2023

**Role of the Town:**

- Provide requested information (such as population and economic growth projections) in a timely manner

## 6 FINAL CLIMATE ACTION PLAN

Our team will finally deliver a comprehensive and robust Climate Action Plan that relies on graphs, charts, infographics, and other data visualization tools to convey information rather than large blocks of text. The final plan will be designed to be complementary to existing policies, and will be up to fifty (50) pages in length. Specific sections will address implementation, ongoing tracking and community involvement, potential costs and funding, and a timeline for updating the plan.

All CAP documents will first be presented to the Town in preliminary draft format. The preliminary draft will be followed by a comment period from the Town staff, the Sustainability Committee and relevant stakeholders, after which our team will incorporate all recommended changes. A final version will then be prepared incorporating comments and feedback. Elements of the CAP will include guidance for implementing the plan and metrics for tracking progress over time. Key performance indicators may include:

- Vehicle Miles Traveled (VMT)
- Energy Use
- Waste Generated
- Number of City Trees
- Housing Density
- Number and Frequency of Transit Routes
- Miles of Bike and Pedestrian Paths
- Number and Type of Public EV Charging Stations
- Community Organizations Engaged

### **Deliverables:**

- Draft Climate Action Plan
- Final Climate Action Plan

### **Timeline:**

- September - October 2023

### **Role of the Town:**

- Provide one (1) set of written non-conflicting comments on Draft CAP





# PROPOSED BUDGET & TIMEFRAME

The following budget and timeline represent our team’s suggested approach to this project:

## Budget Proposal

TASKS	Ben Fordham	Rich Swanson	Krisin Cushman	Sol Shepherd	Sandrine Mallet	COSTS	
	Project Lead	Senior Advisor	Senior Advisor	Climate Analyst	Climate Analyst	Total Hours	Total Costs
	\$205.00	\$205.00	\$205.00	\$125.00	\$125.00		
<b>1- Greenhouse gas (GHG) emissions inventories</b>	10	2	0	25	0	37	\$5,585.00
<b>2- Community Engagement Plan</b>	0	0	10	0	25	35	\$5,175.00
<b>3- Climate related actions/initiatives</b>	25	2	0	30	0	57	\$9,285.00
<b>4- Climate action goals and measurable objectives</b>	5	2	0	50	0	57	\$7,685.00
<b>5- GHG projections</b>	10	2	0	25	0	37	\$5,585.00
<b>6- Final Climate Action Plan</b>	10	2	0	20	35	67	\$9,335.00
<b>Fixed costs (project management, travel, graphic design)</b>							\$6,000.00
<b>Contingency Fund</b>							\$1,000.00
						<b>TOTAL</b>	<b>\$49,650.00</b>

## Proposed Timeline

TASKS	SCHEDULE							
	2023							
TASK TITLE	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
<b>1- Greenhouse gas (GHG) emissions inventories</b>	█	█						
<b>2- Community Engagement Plan</b>		█	█	█	█	█	█	█
<b>3- Climate related actions/initiatives</b>			█	█	█	█	█	
<b>5- GHG projections</b>					█	█		
<b>4- Climate action goals and measurable objectives</b>						█	█	
<b>6- Final Climate Action Plan</b>							█	█



# SNAPSHOT, ENGAGEMENT, DASHBOARD, AND IMPLEMENTATION REPORTS

In addition to the services described above, our team also performs the following services that may be of use to the Town under a separate scope of work:

## **Sustainability Plan Dashboard**

This task includes the creation of a Sustainability Plan Dashboard created using Microsoft Power BI displaying targets, progress, and key success metrics related to the plan's implementation. The dashboard can be presented on the Town's website to engage and inform stakeholders and the public, and can be updated over time as the Town moves towards its goals.

## **Ongoing Monitoring Updates**

This task includes periodic public-facing status updates on CAP progress, including progress on KPI's, current projects underway, and community partnerships. Our team would provide a 1-2 page summary of current status, including relevant graphics and data visualization, based on updates provided in coordination with the Town.

## **Funding Plan**

A comprehensive plan to fund the Sustainability Plan's strategies will be developed. This work may include identifying local, State, and federal grants, rebate and incentive programs, and internal funding mechanisms. Funding sources will be linked to the Plan's strategies to create a comprehensive plan to fund the Plan's implementation.

## **Additional Stakeholder Engagement Services**

This task includes the planning and hosting of additional stakeholder and community events related to CAP implementation, beyond what is included in the CAP's Scope of Work. Events may include workshops or focus groups, either by invite or open to the public, designed to engage stakeholders and coordinate CAP efforts. The fee would be on a per-event basis.

Sub-tasks:

- Event planning and coordination (planning invitee lists, email updates, etc.)
- Development of presentation materials for the event (PowerPoint slides, flyers and handouts, etc.)
- Facilitation of event
- Summary report describing event feedback and outcomes