2. Scope of Work

Task 1 – Project Management

ICF will oversee this project with high standards and administrative agility, values that are well-proven after 5 decades of successfully managing complex projects of every scale. ICF's oversight and due diligence will ensure that the team provides timely, high-quality work that is responsive to the Town of Truckee's needs and in alignment with the scope and budget. ICF will also fulfill all requisite administrative activities, including hosting an in-person kick-off meeting within one month of contract execution, participating in monthly progress meetings, delivering quarterly progress reports to support the Town's grant reporting obligations, and invoicing monthly for services performed in the previous calendar month. The team will prepare meeting materials in advance to support informed discussion and decision-making. The Project Manager, Hazelle Tomlin (ICF) will attend meetings in person when required.

Task 1 Outputs:

- **1.1 –** In person kick-off meeting with related preparation and summary materials, attended by up to 2 staff in person and up to 4 additional staff virtually
- **1.2 –** Up to 12 progress check-in meetings, attended by up to 2 staff in person and 2 virtually
- **1.3 –** 4 quarterly progress reports

Task 2 – Research and Preparation

Task 2.1 – Document Review

The ICF team will review existing Town, utility, and regional plans foundational to an effective energy resilience strategy, including Climate Ready Truckee, the Nevada County Hazard Mitigation Plan, the Town's Climate Action Plan (CAP), and the Existing Building Decarbonization Roadmap. This analysis will identify gaps, leverage best practices, and ensure alignment across ongoing adaptation, hazard mitigation, and decarbonization efforts. By leveraging existing data and employing a coordinated approach, the team will minimize new data collection, reduce costs, and avoid disruption. The review will incorporate relevant climate hazards (e.g., declining snowpack, hotter summers, increased wildfire risk) and community engagement principles from Climate Ready Truckee (e.g., "Whole Community"), mitigation strategies from the Nevada County Hazard Mitigation Plan, and decarbonization pathways from the Town's CAP and Roadmap. Findings will inform the vulnerability assessment and priority areas for resilience investment.

Task 2.2 – Goals and Objectives

Building on this review, the ICF team will work closely with Town staff to develop goals and objectives that frame Truckee's vision for energy resilience. These goals and objectives will align with the Town's climate action and decarbonization strategies, reflect local infrastructure and community needs, and thoughtfully incorporate equity considerations. By grounding objectives in local context and measurable outcomes, this task will set a clear direction for subsequent analysis and stakeholder engagement, ensuring recommended measures are actionable and impactful.

Task 2 Outputs:

- **2.1 –** Memo synthesizing key findings, lessons learned, and data and information gaps identified after reviewing existing documents
- **2.2 –** Draft and final list of specific goals and objectives

Task 3 – Community Engagement

The ICF team will leverage its extensive experience with stakeholder engagement and ties to the Truckee community to ensure that the voices of residents, businesses, and key stakeholders are amplified and integrated into the planning process. SBC has been headquartered in Truckee for 30 years, resulting in longstanding relationships (e.g., through Truckee-based programs like the Climate Transformation Alliance and Go Electric Truckee Tahoe) and a

deep understanding of the community's needs and opportunities for improved climate and economic resilience. To inform Tasks 4 and 5, we will distribute a community-wide survey, leveraging the Town's existing text and email lists and along with the ICF team's local network, to:

- **Gather anecdotes about local climate impacts** to identify the types of climate hazards that have had the greatest effect on the community and how these threats may be changing over time.
- **Identify critical services and facilities**, the most important community lifelines during business-as-usual and emergency situations. This will yield a portfolio of facilities that are key for the overall well-being of Truckee's community (including permanent residents and visitors) and will identify interdependencies between services that might be impacted during power outages.
- **Identify climate impacts to and needs within underserved groups** in Truckee, and document existing adaptation efforts at the individual, neighborhood, and town levels, to inform our equitable and accessible resilience strategy.
- **Provide stakeholders with a space to reflect** on how their insight has been accounted for, and to provide input on the proposed resilience strategies and Draft Energy Resilience Plan.

The team will also host four focus groups throughout the project to engage the following groups of stakeholders directly:

1. Residents, with a focus on residents from climate- and energy-vulnerable communities (e.g., renters, seniors, non-English speakers, low-income households, very rural/hard-to-reach)
2. Service providers (e.g., TTUSD, TFHD, Town of Truckee, TDPUD, Liberty Utilities)
3. CBOs supporting vulnerable communities and small businesses
4. Property managers, STR-owners, visitor-facing entities like Visit Truckee Tahoe

The ICF team will also leverage established community engagement touchpoints to share results and proposed actions. These preexisting touchpoints include the Climate Transformation Alliance (CTA), Town Council meetings, Citizen's Climate Lobby, TTUSD school board meetings, Contractors Association meetings, and Chamber meetings. We will prepare materials to be shared by community organizers' mailing lists and posted in various locales where the community gathers, and we will translate printed materials and surveys into Spanish, to ensure broad accessibility. We will show our thanks to the attendees by offering vulnerable community stipends in the form of gift cards for up to 50 participants. The ICF team will facilitate hybrid engagement by leveraging online polling forms and collaboration tools (i.e., MS Mural, MS Forms) and allow participants to view questions and materials ahead of time. Finally, we will memorialize and integrate all feedback into the narrative of the Energy Resilience Plan developed through Tasks 7 and 8. As specified in the Request for Proposal, the team assumes that the costs associated with food and interpretation services will be covered by the Town of Truckee.

Task 3 Outputs:

- **3.0 –** Draft and final engagement framework
- **3.0 –** 4 focus group memos and one community workshop memo

Task 4 – Vulnerability Assessment

Task 4.1 – Determine Climate Hazard Exposure

This task focuses on identifying climate hazards most relevant to energy reliability in the Town of Truckee. The vulnerability assessment will leverage the existing documents reviewed in Task 2, local and regional datasets (e.g., California LOCA2 and Cal-Adapt Climate Analytics Engine), and our proprietary ClimateSight platform to establish a scope centered on power reliability across the community. Consistent with local priorities, the team will prioritize up to three climate hazards (e.g., extreme heat, wildfire, and winter storms) that pose the greatest risk to local electricity supply and continuity of key services, are associated with power outages, and have been identified as top threats in prior Town assessments. Climate hazard exposure will be evaluated for the Town as a whole rather than at a fine spatial scale, as climate conditions are not expected to vary significantly across such a small geographic area.

Task 4.2 – Identify Communities of Focus and Affected Resources

In this task, the ICF team will work closely with Town staff, businesses, residents, and other stakeholders to identify key focus areas and critical resources. This includes critical infrastructure and community lifelines (e.g., emergency health services, health facilities), essential services (e.g., water/wastewater), and vulnerable communities (e.g., neighborhoods with higher social sensitivity or limited DER access)[1]. In coordination with stakeholders, the ICF team will establish a set of prioritization metrics which may include factors such as community lifelines, service criticality, equity considerations, and alignment with existing Town plans, among others. Using the agreed-upon metrics, the team will score all candidate focus areas to produce a refined list of priority locations and infrastructure (e.g., specific neighborhoods, communities, facilities, etc.).

Exhibit 1 is an illustrative example of the output of Task 4.2, using synthetic data and weighting healthcare and medical dimensions more heavily.

Exhibit 1. Illustrative community rankings based on prioritization metrics

	Healthcare & Critical Care Footprint	Medical & Socioeconomic. Vulnerable Residents	Wastewater & Pumping Dependence	Residential Heating Electrification & Winter Exposure	Backup Power & Communications Resilience	Weighted Composite	Sensitivity Index
Downtown	5	3	3	2	2	3.6	72
The Rock	3	4	4	3	3	3.4	68
Tahoe Donner	2	3	4	3	3	2.8	56
Prosser Area	1	2	3	2	4	2	40
Northstar	1	2	3	2	4	2	40
Glenshire Area	1	2	2	2	3	1.7	34

Task 4.3 – Identify Potential Impacts

This task focuses on the potential impacts of climate hazards on the Town's electricity supply and the communities it supports. The ICF team will first map electrical infrastructure to the communities that the infrastructure serves. Using utility-supplied data from NV Energy, Truckee Donner Public Utility District (TPUD), and Liberty Utilities, the ICF team will develop a mapping of NV Energy transmission lines to the substations owned by TPUD and Liberty Utilities and a mapping of those substations to the communities they serve, as well as the distribution feeders fed by each substation. This mapping will allow ICF to identify the specific communities that would be impacted by electric outages on specific lines, whether due to PSOM or other causes. An illustrative outcome of this task might resemble the following: "*TPUD transmission line 1 feeds Liberty substation 5 which in turn feeds the Prosser Heights area.*"

Leveraging climate hazard exposure data from Task 4.1, the ICF team will model the historical relationships (i.e., regression models) between weather hazard exposure and outages at the community level and by climate hazard type to determine which hazards most often cause outages and how long they typically last.

Using these models, the ICF team will quantify the projected likelihood and severity of the selected climate hazards under one future climate scenario (e.g., SSP3-7.0) and up to two time-horizons (e.g., 2050, 2080). These projections will estimate outage likelihood and duration under future climate conditions calculated in Task 4.1, with uncertainty bounds derived from the regression analysis. All findings will incorporate insights from Climate Ready Truckee to avoid duplication and ensure consistency. Exhibit 2 displays a representative structure of the output of Task 4.3 using synthetic data.

[1] This task will draw on data sets such as the community and stakeholder outreach done as part of the Climate Ready Truckee effort, which mapped disadvantaged populations, and the Tahoe Truckee Community Foundation, which develops community scorecards on socioeconomic indicators such as poverty rates, transportation, health, etc.

Exhibit 2. Customer interruption hours relative to weather exposure, historical and 2050

	Historical			Projected		
	Downtown	Tahoe Donner	Northstar	Downtown	Tahoe Donner	Northstar
Extreme Heat	0.05	0.1	0.05	0.15	0.2	0.15
PSOM	0.1	0.15	0.2	0.15	0.22	0.31
Winter Storm	0.35	0.4	0.3	0.35	0.28	0.25

Task 4.4 – Assess Adaptive Capacity

Adaptive capacity is defined as "the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities or to respond to consequences."[2] Our adaptive capacity analysis will consider existing or planned infrastructure *and* policies and programs. The ICF team will work with Truckee staff to identify existing or planned infrastructure such as microgrids, resilience hubs, energy efficiency deployments, solar + storage installations, etc. ICF will also identify policies and programs that will support adaptive capacity, such as reducing the time and complexity for permitting solar + storage projects, supporting the development of resilience hubs and community centers for emergency shelter, and mandating multi-lingual outage alerts, among others. ICF will then rank the adaptive capacity dimensions of infrastructure, policies, and programs via a weighted ranking model that considers factors such as the level of effort to achieve (time, resources, complexity) effectiveness of the policy, degree of accessibility to residents, and their future improvement potential.

Task 4.5 – Characterize Risk and Onset

This task documents the assessment of risk and onset by drawing directly from prior tasks. Probability and timing of outage-related impacts from prioritized climate hazards are addressed in Task 4.3 through modeling of outage occurrence and duration under future conditions. The estimated climate change impact is addressed in Task 4.1 through climate hazard exposure. This task will compile and clearly present a concise statement of risk consistent with the RFP definition, the probability that a given magnitude or extent of potential impact will occur. The final deliverable will be a narrative summary that references the underlying analysis.

Task 4 Outputs:

- **4.1 –** Draft and final lists of focus areas and prioritization metrics
- **4.5 –** Memo synthesizing exposure, sensitivity and adaptive capacity of each focus area

Task 5 – Resilience Strategy

Task 5.1 – Prioritize Resilience Needs

Drawing on the results of the desk research, stakeholder engagement, and vulnerability assessment (Tasks 2, 3, and 4), ICF will develop a comprehensive resilience strategy that addresses both short- and long-term needs. This strategy will include a list of policies, programs, and measures designed to improve energy resilience for residents, businesses, and visitors. The ICF team will prioritize these strategies using the findings from Task 4, including the communities of focus and affected resources, the probability of exposure and impact, and insight on adaptive capacity.

Task 5.2 – Identify Resilience Measures

The RFP enumerates 13 distinct considerations for this task, each of which includes one or more resilience measures. ICF's approach will address all 13 topics through a combination of bottom-up analysis (when Truckee-specific data are readily available and actionable) and top-down analysis (when credible, actionable Truckee-specific data are

[2] IPCC, 2023: Annex I: Glossary [Reisinger, A., D. Cammarano, A. Fischlin, J.S. Fuglestvedt, G. Hansen, Y. Jung, C. Ludden, V. Masson-Delmotte, R. Matthews, J.B.K Mintenbeck, D.J. Orendain, A. Pirani, E. Poloczanskaa, and J. Romero (eds.)]. In: *Climate Change 2023: Synthesis Report*. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 119-130, doi: 10.59327/IPCC/AR6-9789291691647.002.

not readily available). Bottom-up analysis relies on site-specific data (e.g., data on particular local energy assets, buildings, etc.). Top-down analysis applies analogues from similar markets, informed by Truckee-specific characteristics and extensive use of the ICF team's SME knowledge. The ICF team regularly uses hybrid methods as the most time- and cost-efficient way to specify resilience measures. For example, our team took this approach in executing a programmatic roadmap project for a western U.S. municipal utility in a mountain vacation region that covered many of the same measures that Truckee is reviewing, including building electrification, community resilience centers and microgrids, back-up power, and solar and battery storage. A summary of our approach is as follows:

- **Use credible, available datasets, where obtainable.** For example, to **identify existing DER** and understand the **feasibility of new DER**, we will reference DOE laboratory and other geospatial sources. To **estimate the number of backup generators**, we propose referencing Nevada County Assessor property data, Northern Sierra Air Quality Management District permits, and CARB portable/permanent engine registration data, then scaling using statewide generator trends from M.Cubed's California backup generator study. When such bottom-up data are available, we will review and adjust them against industry norms where warranted.
- **Use case studies from similar communities.** For example, to **assess the potential for passive resilience measures,** we will calibrate against case studies from similar mountain towns with cold climates and tourism-driven housing with published resilience and weatherization program results.
- **Use industry best practices.** For example, to **identify cost-effective measures** that can **maintain power** to essential equipment and household devices, we will use our extensive experience in climate vulnerability and resilience projects. We will also employ our robust knowledge base of resilience measures, best practices, and calculators of power required at start-up and for steady-state operation of essential devices.
- **Leverage ICF SME knowledge and experience**. For example, our extensive experience executing resilience planning projects includes **identifying cost-effective measures** that can **maintain power to essential equipment** during outages. This work includes outlining strategies for integrating battery storage, vehicle-to-home charging, and DER.

Task 5.3 – Evaluate and Prioritize Resilience Measures

The ICF team will apply a structured, stakeholder-informed process to evaluate resilience measures identified in Task 5.2 using criteria such as effectiveness, cost, feasibility, equity, and co-benefits (e.g., emission reductions). We will employ a multicriteria scoring and ranking methodology, followed by stakeholder review to validate priorities and incorporate local insights. The output will be an actionable list of priority measures categorized by implementation timeframe, with considerations for cost, lead agencies, and potential funding sources.

Task 5.4 – Guidance on Phasing and Implementation Pathways

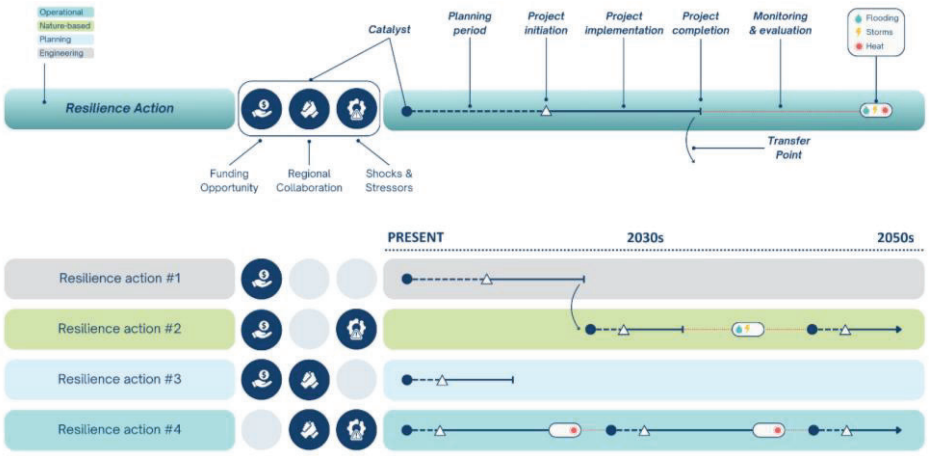
The ICF team is well versed in strategically planning the phasing and implementation of resilience projects by developing flexible "adaptation pathways" that are informed by stakeholder input and local priorities. Unlike traditional adaptation pathway techniques, our approach uniquely accounts for the fact that the social and economic context for adaptation will inevitably change over time, rather than assuming that the best solutions for today will necessarily be the best solutions for tomorrow.

Our team will input the final list of resilience measures developed in Task 5.3 into a graphic like the small, illustrative one displayed in Exhibit 3. Each resilience measure ("action") is a building block in the final pathway. Actions are stacked in a strategic order that allows the ICF team to draw critical links between them, and the starting point of each action is phased from left (sooner) to right (later). Each action begins with a "catalyst," a key external factor that may initiate Truckee's pursual of that action. Catalysts may include externalities like funding opportunities, regional collaboration, and climate shocks and stressors, and will be determined through desk research and collaboration with the Town and stakeholders. Catalysts may also arise at any time throughout the duration of a project. In other words, external circumstances may change enough to prompt Truckee to shift its focus to a new action entirely (e.g., a new, compelling funding opportunity becomes available). We refer to these mid-action shifts as "transfer points."

Community and Town input, plus our team's SME knowledge, will ultimately inform the specific sequence and details of these pathways. We will gather stakeholder input at our established community touchpoints by conducting a proprietary, interactive engagement exercise designed to identify community priorities and inform project phasing.

The result will be an innovative, locally literate pathway and accompanying narrative that actionably guides implementation and charts a realistic course towards Truckee's short- and long-term resilience goals.

Exhibit 3. Adaptation pathway anatomy (top) and illustrative example (bottom)



Task 5 Outputs:

- **5.1 –** Draft and final list of prioritized resilience measures
- **5.1 –** Draft and final adaptation pathway and supporting narrative guidance

Task 7 – Develop Draft Energy Resilience Plan

Building upon the findings and deliverables from Tasks 2-5, the ICF team will prepare a **Draft Energy Resilience Plan** ("the Draft Plan") for review by Town staff. The Draft Plan will translate high-level strategies into specific programs and policies, detailing implementation mechanisms such as rebates, direct install programs, and recommended changes to building codes or permitting processes. It will include clear objectives, actionable steps, and measurable outcomes, providing a practical guide for improving energy resilience in Truckee. We will submit the Draft Plan for one round of review of between 10 to 20 business days, to be agreed upon with the Town of Truckee staff at the kick-off meeting.

Task 7 Outputs:

- **7.1 –** Draft Plan

Task 8 – Develop Final Energy Resilience Plan

The **Final Energy Resilience Plan** ("the Final Plan") will integrate feedback on the Draft Plan from Town staff, stakeholders, and the community. We will deliver the Final Plan 10 business days after the Draft Plan review period ends and all feedback is received. The team will additionally support Town staff in developing a **presentation for the Town Council**, that highlights key findings, recommended measures, and implementation strategies. Up to two ICF and SBC staff will assist in presenting the plan at a Town Council meeting, either in-person or remotely.

Task 8 Outputs:

- **8.1 –** Final Plan
- **8.2 –** Slide deck and presentation support for Town Council presentation

3. Proposed Schedule

		2026									2027			
TASK	**SUBTASK**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**
Task 1	*Kick-off meeting prep*													
	Monthly progress meeting													
	Quarterly reporting													
	Monthly invoicing													
Task 2	*Document review*													
	Goals													
Task 3	*Engagement plan*													
	Focus groups and outreach													
	Community workshop													
	Engagement summary													
Task 4	*Vulnerability assessment*													
	Exposure analysis													
	Equity assessment													
	Adaptive capacity													
	Risk profile													
Task 5	*Resilience needs*													
	Measures portfolio													
	Evaluation framework													
	Phasing & implementation pathways													
Task 7	*Draft plan*													
Task 8	*Final plan*													
	Town Council presentation													