



Roadmap for Climate Protection

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Climate Smart Communities Program

In 2008, New York State established the Climate Smart Communities (CSC) program as a unique state and local partnership to reduce greenhouse gas emissions, adapt to a changing climate, save taxpayer dollars and advance community goals for health and safety, economic vitality, energy independence and quality of life. To accomplish these goals, local governments adopt the Climate Smart Communities Pledge. This voluntary Pledge is comprised of 10 Pledge Elements that include climate mitigation and adaptation strategies. The framework guides local governments in the development and implementation of successful local climate action programs.

In 2012, the New York State Energy Research and Development Authority (NYSERDA) established the CSC Regional Coordinator Pilot Program to provide support to local governments as they work to carry out the CSC 10 Pledge Elements. To help serve the Climate Smart Communities participants in the Capital District, NYSERDA contracted with the Capital District Regional Planning Commission (CDRPC). CDRPC contracted with VHB Engineering, Surveying and Landscape Architecture, P.C. (VHB) to create this Strategy for the Town of Niskayuna.

Niskayuna Climate Smart Communities Custom Service Strategy

As the CSC Regional Coordinator for the Capital District, CDRPC is working with the Town of Niskayuna to address *Pledge Element 1: Pledge to Combat Climate Change by Becoming a Climate Smart Community*. In addition to adopting the Pledge, the CSC Program recommends that local governments support the planning and implementation of climate protection strategies by creating a taskforce dedicated to climate change mitigation and adaptation. During the CSC In-Person Consultation on January 28, 2013, the Niskayuna staff expressed interest in boosting their climate protection work, but like many municipalities, Niskayuna needs a champion to initiate and manage climate smart initiatives.

To support this need, CDRPC recommended that the Town's Custom Service Strategy focus on how to expand the scope of the Conservation Advisory Council (CAC) to manage the Town's climate protection actions as part of their mission to protect the overall quality of the environment in Niskayuna. The following CAC Roadmap for Climate Protection outlines the steps necessary for the CAC to expand their role as the primary vehicle for achieving the Town's climate protection goals and a workplan to guide the CAC's efforts over the next year and beyond.

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CSC 10 Pledge Elements

Capital Region CSC Program Execution Plan

Capital Region Sustainability Plan

Capital District 2010 Regional GHG Inventory

CAC Workplan





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Welcome to your Roadmap for Climate Protection!

This Workbook format reads from left to right just as you would read a normal book. By *clicking* on the tabs above, you can switch to different chapters of the workbook. The current chapter is indicated by the bolded letters and color of the tab heading. For example, *Instructions* is in bold with a purple border. If you ever have difficulty navigating using the tabs in the heading, the same tabs are listed at the bottom of the Workbook. You will notice additional tabs at the bottom of the Workbook. These are for your reference and are linked to chapters throughout the Workbook.



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Workbook Contents:

Overview

Provides an explanation of Climate Smart Communities and the Custom Service Strategy developed for Niskayuna's Conservation Advisory Council.

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➤ Identifies support needed from Town Board or Town Manager and examples of other CAC support documents.

Climate Goals

➤ Describes recommended climate protection activities for Year 1 and potential next steps for Year 2, plus additional resources for funding and assistance.

Outreach

> Recommends methods to engage the community and promote climate protection efforts and activities.

CAC Workplan

Provides an overview for the CAC's first year of climate protection efforts.

Technical Support:

Resources Require Internet Access

This document includes online links to existing resources and will require internet connection in order to be a fully functional resource. You will notice Blue Icons throughout the Workbook, such as the CSC 10 Pledge Elements Icon to the right. These icons indicate that more information is available by clicking on the resource.

Printing

This document is formatted for printing. It can be printed either as a Workbook or you can print an Active Sheet. Please note: this in your printer settings when you are making your printing selections.





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Climate Smart Niskayuna

The Town of Niskayuna adopted the Climate Smart Communities Pledge on July 26, 2011 (Resolution 2011-140) to demonstrate their commitment to reduce greenhouse gas (GHG) emissions and prepare for a changing climate. The Town has taken great strides to address climate and energy priorities from energy efficiency upgrades in Town Hall to solar power installations. As Niskayuna plans to continue and sustain their climate protection efforts, we recommend that the Town Board or Supervisor appoint the Niskayuna Conservation Advisory Council to be the leader of climate-related activities so that the community will have a central platform through which staff can coordinate efforts to promote sustainability and generate cost savings. The following steps recommend how the CAC can get started as the Town's climate protection champion.

CAC W Step 1. Update CAC Mission

The Town of Niskayuna formally established a Conservation Advisory Council (CAC) by Resolution in 1971 whose stated mission is to, "Advise in the promotion, development, management and protection of the community's natural resources." It is important to make it clear to the Town Board, Supervisor, and the entire community, that the CAC will be the primary point of contact for climate and energy issues. This can be accomplished by amending the CAC Resolution to update the CAC mission. Other CACs have requested formal recognition from the Town Board or Town Manager through a Letter of Appointment that is then uploaded to the Town Website. Click on the Sample CAC Resolution Icon to see how the Kingston CAC worded their resolution to include climate protection efforts.

Step 2. Reinvigorate the Town's Climate Smart Communities Pledge

It has been 2 years since the Town Board adopted the CSC Pledge, so it is likely the Town Board could benefit from an overview of the program and the current progress made under each of the 10 Pledge Elements. The Town could use Niskayuna's Community Profile (see link on the right) and the Capital District Regional GHG Inventory to highlight climate efforts. Prior to the meeting, the CAC should decide if they want to formalize the scope of the CAC's work by amending their mission statement or request that the Town Board or Supervisor issue a Letter of Appointment to formally designate the CAC as the Climate Smart Leader. Either approach will clarify the CAC's role in climate protection efforts and empower the CAC to keep the community moving forward.

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Step 3. Report Climate Protection Progress

By Resolution, the CAC is required to report annually on activities conducted, formally or informally. Some CACs provide outlines of initiatives and presentations to the Town Board, while other CACs complete a published annual report. This report could also be used as a marketing piece to promote climate protection activities to the community at large. Whether it is a formal or informal report, the annual report will help the CAC assess and communicate past accomplishments and determine future goals. At the end of the year the annual report can be posted to the Town's website to highlight achievements. For this year, the report could include the Town's Community Profile to celebrate the actions that have been achieved to-date and potential projects for 2014.

Additional Considerations:

Post a CAC Membership Application

Many CACs have an informal application process, but discussions with CAC chairs and members have indicated that it is important to the success of the CAC to set clear expectations and attendance policies before CAC members are appointed. The best way to convey CAC membership responsibilities is to ask potential members to complete an application for a membership position, along with a resume, to help the CAC chair identify the strengths of new CAC members. The CAC membership application could be posted directly to the Town website. Niskayuna's Community Profile could be attached to the CAC application and distributed at volunteer events or other professional networking events.

Request an Annual Budget

Not all towns will be able to support a CAC budget, however some communities establish a small budget to cover membership fees, internship costs, event sponsorship and general printing of promotional materials. A modest budget of \$500 per year has been sufficient for other CACs to conduct climate-related activities.





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Pledge Element #2: Set Goals, Inventory Emissions, and Move to Action.

The Climate Smart Communities (CSC) Program provides a framework for climate mitigation and adaptation using the 10 Pledge Elements. In the beginning stages of planning for climate protection, it is important to take understand where limited resources and time can be focused. The first step is to establish a baseline of the Town's current activities and associated greenhouse gas (GHG) emissions. This is covered under *Pledge Element #2: Set Goals, Inventory Emissions, and Move to Action*. The first year should build off of the existing accomplishments, such as the Community GHG Inventory that is found in the Capita District Regional GHG Inventory (see icon on the right) and focus on developing a Local Government Operations GHG Inventory.

Steps Forward in Year 1

Step 1. Review Niskayuna Community Profile

A summary of the CSC Program, Pledge Elements, and climate achievements are readily available in Niskayuna's Community Profile. The CAC can use this document to review what specific climate actions have been accomplished, identify partnerships that enabled those projects and determine how the CAC would like to help facilitate ongoing climate activities.

Step 2. Review Capital District Regional GHG Emissions Inventory (2010)

In 2012, the Capital District 2010 Regional GHG Inventory was developed. This regional GHG inventory provides results of GHG emissions for each local government in the Capital District, including Niskayuna. The CAC can review Niskayuna's GHG emissions by sector, which are reported in Appendix B (Table B 1). We recommend that the CAC members review the report to gain insight to inventory process and to determine which sectors of the community are the largest contributors of GHG emissions. With this information, the CAC can begin to identify strategies for reducing GHG emissions in the community as a whole.

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Step 3. Conduct Local Government Operations GHG Inventory

Municipalities are encouraged to prepare a Local Government Operations GHG inventory to establish a baseline from which to measure progress and track performance of their own facilities and operations. The results of the Local Government Operations GHG inventory will help the Town prioritize actions that will offer the best return on investment, including reducing municipal costs, energy consumption, or GHG emissions. Local governments can begin conducting a GHG Inventory by selecting an appropriate baseline year, gathering the data, and developing an inventory report. This analysis creates the platform to adopt realistic GHG, energy use, and cost saving goals.





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How to Get Started - Methodology and Human Resources

Conducting a GHG emissions inventory of government operations can take from a few months to over a year depending on the complexity of the local government structure, data availability and quality, and human resources available. The Local Government Operations GHG Inventory Protocol can assist municipalities with getting started. Local Government GHG Inventory examples are also provided for the **Town of Red Hook and Somers** (see icons on the right).

Engaging an intern or assigning specific hours of existing staff to support this will be key to timely completion of the inventory. Many CSCs have hired student interns to conduct a GHG Inventory for Local Government Operations. The responsibilities of the intern include gathering and analyzing data for determined baseline year and summarizing the results in a written report. Please select the *Internship Criteria* icon for more information.

Steps Forward in Year 2

Using the results of the GHG inventories for Local Government Operations and the Community, in the second year the CAC Members can reconvene with the Climate Smart Communities Regional Coordinators for support in developing GHG Reduction Targets and a Climate Action Plan.

Step 1. Develop GHG Reduction Targets

To help drive action and measure progress, many local governments choose to establish short-term and long-term targets to set more immediate and far-reaching goals for reducing GHG emissions. Niskayuna can set the stage for major planning initiatives and investments designed to dramatically reduce energy use and emissions by setting local GHG Reductions Targets. For instance:

 New York State has established goals to reduce GHG emissions by 80 percent from 1990 levels, by the year 2050.

Step 2. Develop a Climate Action Plan

Compiling a Climate Action Plan (CAP) is a strategic way to publicize the results of the Government and Community-wide GHG Inventory and to gather support from the municipal staff, community members and key stakeholders to reduce GHG emissions. This plan should outline the policies, programs, and projects needed to achieve the community's emissions reduction target(s). A successful climate action plan provides implementation plans on specific strategies aimed at reducing emissions.

The process for climate action planning for the community can take up to 12 months based on staff capacity, availability of data and information, and level of public engagement. The CAP should include the results of the local government operations and community-wide GHG emissions inventory, the GHG emissions reduction targets, and how the combined GHG reductions from plans, policies, and actions will achieve the GHG reduction goals. The Climate Smart Communities Regional Coordinator program offers technical assistance and guidance throughout the Climate Action Planning process and can help Niskayuna achieve this goal in the second year of





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Additional Resources to Achieve Climate Goals

After the CAC members have read the Capital District 2010 GHG Inventory, the CAC may want to investigate opportunities to reduce GHG emissions and energy demand. The New York State Energy and Research Development Authority (NYSERDA) offers funding and technical assistance to local governments for a host of projects, including energy efficiency and renewable energy projects.

NYSERDA Funding Opportunities

The New York State Energy and Research Development Authority (NYSERDA) developed the Economic Development Growth Extension (EDGE) Program to help municipal, commercial, institutional, industrial and residential customers identify funding opportunities for energy efficiency and renewable energy projects. At no cost the CAC can work with a NYSERDA Regional Outreach Coordinator to match energy projects with funding and receive assistance in completing the Consolidated Funding Application (CFA). Niskayuna's CFA Rating is automatically enhanced for being a Climate Smart Community.

Climate Smart Community Resources

The Capital District Climate Smart Communities Website features a resource page that highlights how other communities in New York State are taking action under the 10 Pledge Elements. Visit the Capital District Climate Smart Communities website to view highlights from the Capital District 2010 Regional GHG Inventory and other resources provided on the website. Click the *Capital District CSC Website Icon* for more information.





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CAC Community Outreach in Year 1

An important role of the Conservation Advisory Council (CAC) as the climate protection champion can also be to engage the public in achieving the Town's climate goals. The CACs that were interviewed as a part of this process indicated that high levels of engagement across members, volunteers, and the community is critical to carrying out the 10 CSC Pledge Elements. Establishing a relationship with community stakeholders is essential in generating interest and support for the planning and implementation of climate protection strategies. The first step is to promote what the community has already accomplished which is conveniently highlighted in **Niskayuna's Community Profile** (see icon on the right).

1. Promote Niskayuna Community Profile

A summary of the CSC Program, Pledge Elements, and climate achievements are readily available in **Niskayuna's Community Profile**. The CAC can use this document to present the CSC Program to the Town Board and highlight the community's achievements. As mentioned on the Get Started tab, this Community Profile could also be included in an Annual Report for Year 1. Action has already been taken to achieve *Pledge Elements 3: Decrease Energy Demand* and *Pledge Element 4: Increase Renewable Energy for Local Government Operations*. The CAC can generate interest by publicizing how the Town is taking cost-effective measures to save tax payer dollars and increase energy independence.

2. Update the Town Website

The internet is a convenient and low-cost way for the public to access information about the local government's energy and climate efforts. Residents, businesses and other stakeholders can learn about local government's climate protection efforts, review progress reports, see who is involved in the planning process, understand their role in achieving the local government's climate protection goals, and learn about upcoming educational events and meetings from websites.

There are opportunities to create free or low-cost websites that are professional in design and easy to navigate, such as Weebly.com or Wordpress.com. This effort could be supervised by a CAC member and carried out by a student intern. Please click on the **Internship Criteria** icon for more information. Other CACs have hired local web designers to create a CAC webpage, such as KingstonCAC.org. Click the **Kingston CAC Website** icon to view how other CSCs promote climate protection efforts.

Click Icon to View















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3. Partner with Local Institutions

Partnering with local institutions to engage students can be a mutually beneficial relationship. The CAC can benefit from students who are looking to develop skills and build resumes through free or low-cost internship programs. Engaging young people can result in new approaches to public outreach and tap the next generation of stakeholders in a community who may serve on the CAC after graduation.

Union College has a *U-Sustain Program* that consists of approximately 70 students, faculty and staff who are committed to sustainability initiatives and volunteer to educate other students on how to live and work in an eco-friendly manner. The CAC can tap into this resource of environmentally minded students and staff for support. There is no cost for posting internship positions at Union College. If the student is required to do the internship for credit, they will work with an advisor to be sure they are completing their hours and any paperwork needed on their end. The CAC is not responsible for managing this piece. If the internship is not taken for academic credit, then nothing is needed. Checking in weekly is encouraged and students should be required to attend monthly meetings. However, most of the internship project work can be completed independently by the student and open communication over email.

4. Engage in Professional Networks

Members of the CAC can stay informed about current climate protection efforts and activities by attending professional networking events. Attending relevant conferences, workshops and seminars can inform CAC members and create opportunities to find guest speakers for CAC Meetings and share information with the council as a whole. VHB recommends becoming a free member of the New York State Association of Conservation Commissions (NYSACC) to stay up to date on recommendations being made and gain insight to different approaches. CAC Members who attend events can briefly report back to the CAC in oral or written form, about the lessons learned from the conference or interaction with other like-minded organizations.

5. Join Climate Smart Community Webinars

The New York State Department of Environmental Conservation (NYSDEC) regularly hosts Climate Smart Communities Webinars. Click on the *CSC Webinar Series* to find out about upcoming Webinars and download PDF versions of past webinars.





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Pledge Element #2: Set Goals, Inventory Emissions and Move to Action

Pledge Element #9: Inform and Inspire the Public

Internship Project - GHG Inventory

One of the first steps in the climate protection process is establishing a baseline from which to measure progress. Local governments should develop a GHG emissions inventory for their government operations, by selecting an appropriate baseline year, gathering the data, and developing an inventory report. Many CSCs have hired Student Interns to conduct a GHG Inventory for Local Government Operations. The responsibilities of the intern include gathering and analyzing data for determined baseline year and summarizing the results in a written report. The posting criteria for Union College is below and a Sample Internship Description is listed on the following page.

Click Icon to View





Posting Internships at Union College

The following information is helpful for creating an Internship Posting. Please review the following pages for internship descriptions of a greenhouse gas emissions inventory for local governments and recommendations for a website or social media internship project.

- Title
- Job Description
- Required Application Materials (e.g. resume, cover letter, transcript)
- Application Method (e.g. email, online application link)
- Desired/Required Qualifications (e.g. GPA, class year, major)
- Period of Employment (e.g. Winter Term, Winter Break, Spring Term, Summer, or specified dates)
- Location of Internship (city, state)
- Desired Number of Hours/Week Student is Expected to Work
- Compensation Details
- Application Deadline
- Contact Person's Information (e.g. name, phone number, email, work address)
- Organizational Website













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SAMPLE Municipal GHG Internship Description from Rhinebeck, NY

Job Title: Intern – Greenhouse Gas Emissions Inventory

Reports to: Energy & Resilience Task Force

Location: Rhinebeck, NY

Begins: June/July 2012 – 30 hours/week for 4 months

Energy & Resilience Task Force

In 2010, the Town and Village of Rhinebeck signed the Climate Smart Communities Pledge, joining 73 other New York local governments in combating climate change by making their communities more energy efficient and working toward a sustainable future. The Village and Town authorized the creation of a task force to identify the greenhouse gas (GHG) emissions of both communities and to then advise them on strategies to reduce emissions and adapt to climate change.

In determining how to best conserve energy and reduce emissions, the task force needs to establish an inventory of GHG emissions of government operations. That inventory will be guided by The Climate Registry, http://www.theclimateregistry.org/, a non-profit organization that "sets consistent and transparent standards to calculate, verify and publicly report greenhouse gas emissions into a single registry."

Job Activities/Scope:

The task force seeks a dynamic self-starter with a background in environmental science, or similar education, to complete the Town & Village of Rhinebeck's GHG emissions inventory of government operations. With the support of the Energy & Resilience Task Force Chair as well as the staff at The Climate Registry and VHB Engineering, Surveying and Landscape Architecture, P.C., the intern will gather and analyze data from 2010 and 2011 related to local government operations and summarize the results in a written report. In conjunction with the Chair, the intern will develop and present a formal presentation to the Town and Village on the results of the inventory and the strategies the Town and Village can take to reduce GHG emissions. The intern will attend monthly task force meetings and some village and town meetings. A potential second internship could entail developing a climate action plan for the Town and Village of Rhinebeck.

Knowledge and Skills:

Detail-oriented

A background in Environmental Science, Business, Engineering, Environmental Policy, Chemistry, etc.

A willingness and ability to work independently

Demonstrated interest in climate change/environmental management

An interest in local government

Excellent computer, organizational and communication skills

Expertise in Excel





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Social Media or Website Internship Projects

Community Outreach Internship Projects

Internship projects can help to generate community interest in the CAC. Social media platforms such as Facebook, Twitter, YouTube and Tumblr are used to connect audiences of all demographics, and to inform and engage the public. Facebook has been an effective, yet inexpensive channel used by other CACs to provide information about the community's energy, climate, and sustainability efforts. A student project could include the creation of a Facebook Page for the CAC to promote climate protection efforts and engage the public. At the monthly CAC meetings the Intern can give updates, such as connections made or number of likes, make recommendations or highlight like-minded organizations in the community.

Using social media to engage the community can be a low-cost and effective method, but it is important for local governments to consider which platform will best serve their needs as well as their capacity to build and maintain the account(s). Local governments should take the following considerations into account when deciding how to use social media:

- Who is the target audience? Which social media platforms are they most likely to use?
- What type of information needs to be communicated?
- Which platform(s) provide the framework to do what the local government wants to do (e.g., If the local government wants to get information out quickly in real-time, a platform such as Twitter may be useful)
- What is the staff capacity to build and maintain the accounts?
- What local, regional, or national organizations' or individuals' accounts should the local government connect to for the greatest exposure?
- At what frequency does the local government want to post content (e.g., a couple times a day, once a day, every couple days)?
- Does the press office have any requirements or policies around using social media that need to be taken into account?

Local governments should consider developing guidelines for using and managing the selected social media accounts. The guidelines should cover the process for updating the accounts, any necessary approvals for posting certain types of updates, and any standard language or communications policies relevant to using the account.





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Climate Smart Communities 10 Pledge Elements

1. Pledge to Combat Climate Change by Becoming a Climate Smart Community

Set goals to reduce greenhouse gas (GHG) emissions and adapt to predicted climatic changes. Establish a task force. Designate a point person. Join a national climate campaign such as ICLEI - Local Governments for Sustainability.

2. Set Goals, Inventory Emissions, Move to Action

Gather data about local GHG emission sources. Inventory emissions. Establish baselines. Develop quantifiable interim GHG emission targets. Propose emission reduction schedule and financing strategy. Develop a Local Action Plan for reducing emissions.

3. Decrease Energy Demand for Local Government Operations

Adopt the state's goal of reducing electricity use by 15 percent from projected levels no later than 2015. Take into account existing public facilities, new public buildings, community infrastructure, vehicle fleet and commuting. Improve waste management in government operations.

4. Encourage Renewable Energy for Local Government Operations

Set a goal to maximize the use of public energy generated from renewable sources (e.g. solar, wind, small hydro).

5. Realize Benefits of Recycling and Other Climate Smart Solid Waste Management Practices

Promote reuse and ensure access to comprehensive recycling. Adopt a green purchasing program.

6. Promote Climate Protection Through Community Land Use Tools

Keep development low-carbon-intensity and resilient to climatic change. Update land use policies, building codes, community plans in ways that reduce sprawl, minimize development in floodplains, and protect forests.

7. Plan for Adaptation to Unavoidable Climate Change

Identify risks to government facilities and functions (e.g. water supply, sewers), and factor into long-term investments and decision-making. Develop a Climate Adaptation Plan, with priority to the most vulnerable areas.

8. Support a Green Innovation Economy

Incorporate climate protection and sustainability into economic development plans. Encourage work force training and public education for energy efficiency and renewable energy.

9. Inform and Inspire the Public

Lead by example. Publicize local government commitment to reducing energy use, saving tax dollars, and adapting to changing conditions. Encourage citizens to follow suit.

10. Commit to an Evolving Process

Be willing to consider new ideas and adapt existing approaches. Compare successes and cooperate with neighboring communities.





