

# Reducing Virginia's carbon footprint one community at a time

By MICHELLE WYMAN

**W**HILE PUBLIC CONCERN about climate change skyrocketed and federal climate legislation remained in limbo this past year, local government leaders have continued to identify and implement solutions.

We are excited to share that ICLEI – Local Governments for Sustainability (ICLEI) – is engaging nine cities, towns and counties in Virginia to quantify and reduce their greenhouse gas emissions. In addition, ICLEI's Virginia network provides a forum for local leaders to share best practices and local climate protection resources and engage in and drive regional sustainability efforts.

While most ICLEI members in Virginia are still in the beginning stages of their work, ICLEI's Five Milestone Framework will guide them straight through to implementation and quantification of solutions. This process of assessing and reducing emissions is outlined here, along with a brief overview of the climate protection activities in the ICLEI member communities across Virginia.

ICLEI members follow the Five Milestone Methodology:

- Milestone 1: Conduct a baseline emissions inventory
- Milestone 2: Adopt an emissions reduction target
- Milestone 3: Develop a local Climate Action Plan
- Milestone 4: Implement policies and measures
- Milestone 5: Monitor and evaluate progress

**Conduct a baseline emissions inventory.** Conducting a baseline emissions inventory is the first step in facilitating a Climate Action Plan designed to curb pollution dramatically

and increase community livability for current and future generations of Virginians.

Why conduct a greenhouse gas emissions inventory? The act of quantifying greenhouse gas emissions through extensive inventory enables local governments to identify priorities and better manage their energy use to build a solid foundation for all climate protection work. ICLEI members use the Clean Air Climate Protection (CACAP) Software tool, which is supported by the U.S. Environmental Protection Agency. ICLEI provides the software, ongoing technical assistance, and Web-based software trainings to its members.

The overall inventory includes all sectors – commercial, industrial, residential, transportation, waste – and lends a big picture perspective as to the main sources of pollution within a jurisdiction's limits. A sector-by-sector approach also helps us focus on problem areas by revealing a detailed map of emissions sources. The resulting total count of quantified emissions gives local government officials an understanding of the kinds of reduction levels they must consider.

**Adopt an emissions reduction target.** The reduction target is the specific greenhouse gas emissions reduction goal that a local government aims to achieve by a designated year. It is usually expressed as a percentage reduction below the quantity of emissions released in the baseline

year. Setting a target year helps local governments strive for goals that are healthy for their communities and the planet. ICLEI generally advises developing short and long-term target years such as 2012 and 2050.

**Develop a local Climate Action Plan.** With an understanding of emissions sources, quantities, and reduction targets, ICLEI helps guide local governments toward the best

practices for their communities with a Climate Action Plan – the policies, programs, and projects that a local government will implement to meet its emissions reduction goals. Many cities choose to mark and celebrate the announcement of a Climate Action Plan and use it as a community outreach and awareness tool. For example, Blacksburg held a celebration during the city's



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“Sustainability Week” to announce its Climate Action Plan, which provided an excellent opportunity to engage the city's different sectors.

**Implement policies and measures.** Implementation is the most important step that a local government takes because this is where the reductions actually happen. It is an on-going process that will probably last through the target date – but the key point is to keep taking action until the greenhouse gas reduction goal is reached.

**Monitoring and evaluating progress.** Annual or biennial inventories are essential to monitor progress to adapt Climate Action Plans and shift target levels based on realistic progress. This continual process is built into the implementation of the local Climate Action Plan, and tracking progress usually creates a sense of community pride.

Virginia is taking concrete strides forward as many ICLEI members in

the state head toward major reductions in greenhouse gases.

Here are some highlights from the front lines of Virginia's local climate action:

**Charlottesville** just completed the first draft of its baseline study and has plans to create a "green team" for the implementation of their plan. With 17 percent of their total greenhouse gas emissions coming from streetlights, Charlottesville is looking to quickly replace street lights with energy efficient LEDs (light-emitting diodes) to save money and energy.

**Albemarle County** is just getting its feet on the ground with plans to partner with Charlottesville to lighten the load.

**Blacksburg** is in the final draft stages of its inventory with help from a Virginia Tech professor and a slew of environmentally minded students. The professor offered two semester courses on the inventory and students worked hard to inventory not only the town, but also the university itself. They found that about 35 percent of emissions in Blacksburg are attributable to Virginia Tech, and are now in the process of proposing a Climate Action Plan.

Last year, **Warrenton** Mayor George Fitch announced plans for construction of a large biomass plant. Since then, the town has replaced its traffic lights with energy efficient LEDs and is in the beginning phases of setting up a town energy committee. With their inventory partially complete, Warrenton is already moving forward with the design of a new "green" town Web site for citizens to learn about the changes in their community.

Students from James Madison University and Virginia Tech have teamed up to tackle the City of Roanoke's inventory and are progressing quickly. The **City of Roanoke** already has replaced part of the city fleet with hybrid vehicles, switched other city vehicles (such as school buses and fire trucks) to low sulfur and ultra low sulfur diesel, and upgraded municipal buildings with more energy efficient lighting and heating.

**Arlington County** began energy efficiency and green building

programs in 2000. Since then, it has achieved reductions by improving energy efficiency in buildings and infrastructure, purchasing wind energy credits to offset some electricity use, using bio-diesel fuel in all diesel trucks, purchasing energy-efficient hybrid vehicles for the county fleet, and planting trees throughout the county.

The path forward for these Virginia local governments holds exciting opportunities to push the envelope and demonstrate that local action and leadership offer the greatest opportunity to effectively fight climate change. We hope you will join us in supporting these advances in sustainability for our communities and generations to come.

ICLEI USA is welcoming new members every day, building a robust network of local governments advancing climate protection and sustainability. Currently, ICLEI members in the state of Virginia include: The cities of Charlottesville, Harrisonburg, Norfolk and Roanoke; the counties of Albemarle, Arlington and Roanoke; and the towns of Blacksburg and Warrenton.

To inquire about membership, visit [www.iclei.org/usa](http://www.iclei.org/usa), e-mail [membership-usa@iclei.org](mailto:membership-usa@iclei.org) or call 510/844-0699.

#### About the author

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**ICLEI - Local Governments for Sustainability** is a non-profit association of local governments – more than 350 cities, towns and counties in the U.S. and close to 1,000 worldwide – dedicated to solving environmental problems through local action. ICLEI works with its members to design and implement performance-based, results-oriented programs to address climate protection and sustainability.



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