Ancram Town News

Late Fall 2019

Historic Farming Community Moving Forward

A Note from the Editor

By Cathy Redlich

In this issue of the Town News, we are focusing on the many environmental challenges facing our community and what we can do to address them.

In addition to our regular staff reporter Bobbie Slonevsky, Ancram residents Colleen Lutz, who is an Assistant Biologist for the New York Natural Heritage Program and working toward her master's degree in Biodiversity and Conservation Biology from the University at Albany; Bob Moss, an enthusiastic backyard "birder" and conservationist; Jamie Purinton, a landscape architect and Chair of the Conservation Advisory Council; and Suzan Flamm, the Chair of the Climate Smart Task Force, all contributed articles in their areas of expertise.

In this issue

Town News Team

Cathy Redlich, *Editor*

Bobbie Slonevsky

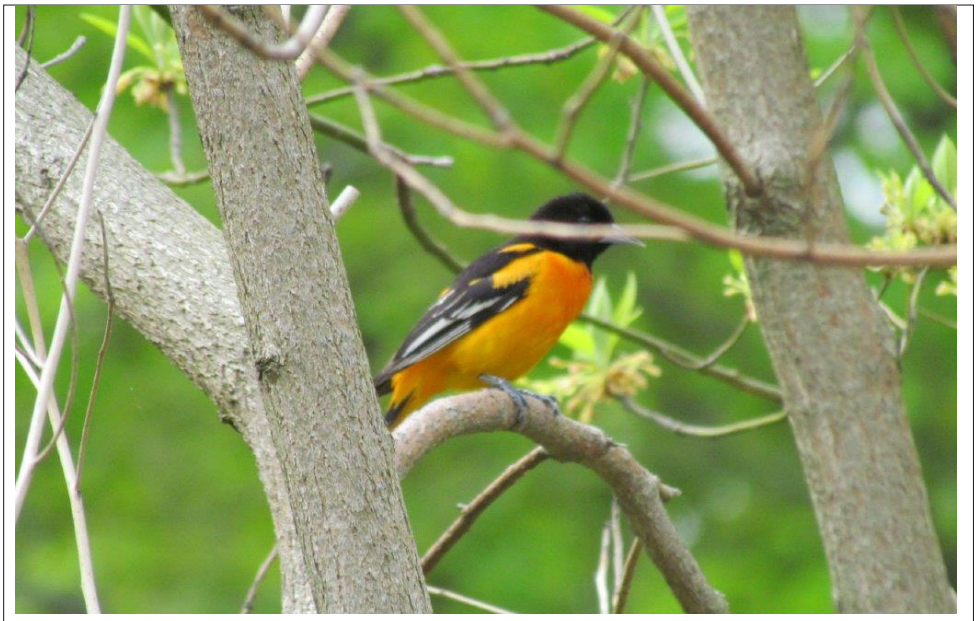
Marie-Claude Stockl

Madeleine Israel

Suzan Flamm

Brittany L. Morgan, *Layout*

We welcome your comments and suggestions. Send to Cathy Redlich at AncramTownNews@gmail.com



Saving the Birds of Paradise

By Bob Moss

We all know that Ancram is a spectacular place to live, with its stunning vistas and beautiful rolling farmlands. For my family, beyond the sheer beauty of the place, Ancram is actually a paradise—a bird-lovers' paradise, that is. Where else can you see Scarlet Tanagers, Baltimore Orioles (photo above), Yellow Warblers, Blue Birds and Indigo Buntings— all the colors of a rainbow – on a short walk around your house? Or spot nearly 50 species just from your front porch? Or be thrilled at the almost regular sight of Bald Eagles flying overhead?

As birders, we feel privileged to live here. With that privilege however, comes some responsibility. Birds are the proverbial canaries in the coal mine, and they are telling us that our land-scape could change markedly within the span of a singe lifetime. A recent study suggests a 25% drop – almost 3 billion birds – in the North American bird population in the last five decades.

Right here in Columbia County, Audubon has identified 55 to 75 species that could be endangered or pressured out of the area if the current rate of change continues for the next 50 years.

The dynamics underlying these changes are not fully understood, but there is no question that climate change, continued development and other human activities have a significant impact on wildlife ecosystems and food chains.

The news about birds is not all bad. Many species seem to be stable, and counts of waterfowl, raptors and turkeys have increased significantly. Focused conservation efforts by environmental and hunting groups, legal steps such as the Endangered Species Act and the banning of DDT, and other similar efforts are thought to have played an important role in the success of many targeted species.

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BIRDS OF PARADISE

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Scientists are confident that much more can be done. In addition to government and institutional actions, there is a tremendous amount that we as individual homeowners can do, particularly in efforts to combat bird habitat loss and the pressure on food supply. So for our family, part of the privilege of living in Ancram means taking whatever steps we can to ensure that those vulnerable 55 to 75 species are still here 50 years from now.

Audubon and others have lots of good advice (see resource list below) on steps that homeowners can do to help birds. Here are some steps that we are taking and why:

Plant Native

Planting native plants is one of the most important steps homeowners can take to support birds and other wildlife. Local species of plants and birds have evolved together over thousands of years. Generally speaking, birds in an area are dependent on the foods and nutritional mixes, and on the timing of their availability, that local plants are best able to provide. This is particularly important when it comes to insects, which a majority of bird species use to feed their young during the breeding season. Native plants support insects in abundance; non-natives generally do not. Research suggests that areas dense in native plants support more birds and higher levels of breeding success than do areas crowded with non-native plants.

On our property we are working to cut back on non-native invasive plants such as Rosa multiflora, Oriental Bittersweet, Russian Olive and Canadian Thistle, and we are aiming to plant as many native, bird-friendly plants as we can, including winterberries, elderberry, native viburnums, dogwoods, hazelnuts, sumacs, and a host of native grasses and wildflowers.

The bright red berries from the Ilex shrub (commonly called Winterberry) are an important food source for overwintering birds.

Less Lawn, More Meadow

Areas with a diversity of native grasses and flowers are much more beneficial to birds than are single species or frequently mowed lawns. Native meadows are easier to manage (less mowing, watering and weed maintenance) and they serve up a rich menu of seeds, berries and insects perfectly timed to coincide with the nutrition birds need during migration and breeding periods. In our case we plan to convert a portion of our existing lawn to a mini-meadow, and we have fields that will be maintained as a native grass and wildflower meadow.

Meadow and Field Management

Once established, a native plant meadow does not need to be mowed every year. We plan to mow about half of the meadow once every one or two years, leaving the other half to provide food and shelter for overwintering birds. Some of our fields are being hayed by Sarah Chase of Chaseholm Farm. We are working with Sarah to minimize the impact of mowing during the bird breeding season. Sarah is farming organically and using cover crops and diverse plantings to enhance soil health and with it the health of the all the ecosystems that depend on it. So Sarah's hay crop will be supporting our insects and birds as well as her cows!

Forest Management

Snags – the name for dead but still standing trees – are great for birds. The larger ones provide shelter for cavity nesting birds such as woodpeckers, bluebirds and tree swallows. They also host the (delicious) larvae of many beetles and other insects. Unless a dead tree is posing a danger to people, buildings, or power lines, we are inclined to leave them up as long as possible.

Reduce or Eliminate Use of Chemical Pesticides and Herbicides

Cutting back agricultural chemicals can be difficult for farmers whose livelihoods depend on producing high-yield, blemish-free crops. It is a less difficult issue for private landowners. Vulnerable amphibians, worms and insects are a critical part of the avian food chain. For birds, the less disruption to that chain, the better.

Given the immensity of the challenge, it may seem like a fool's errand for individual landowners to do what we are trying to do. But, as Stephen Kress, one of the country's leading ornithologists, writes, "with nearly 80 percent of wildlife habitat in the United States occurring on private lands…it is clear that what happens on private land will determine the fate of North American birds." Whether a property is large or small, why not take a step, even a tiny one, to help support the birds of our shared paradise? We would certainly welcome the company!

To learn more

Make your yard more bird friendly
https://www.audubon.org/news/how-make-your-yard-bird-friendly-0

Bird friendly native plants for our area
https://ny.audubon.org/get-outside/plants-for-birds

Alternatives to pesticides for lawns
https://ny.audubon.org/conservation/lawn-pesticides

The best book (I think) for managing your property to attract birds:
The Audubon Society Guide to Attracting Birds by Stephen Kress.

Let's Not Lose Ancram's Night Sky

By Bobbie Slonevsky

Less than 100 years ago, everyone everywhere on the globe could gaze upwards on a clear night and be dazzled by the shimmering stars of the night sky. Until some years ago, Ancram was still such a place. Today, though, according to the Ancram Conservation Advisory Council (CAC), our view of the night's natural luminescence has become at least partially obscured—as has the nighttime view of most of the industrial world. Why? Light pollution.

We keep adding lights to our community—to brighten streets, parking areas, homes, sheds, barns, and factories. The result is *sky glow*—artificially lighting up the dark sky, which decreases its contrast and eclipses natural starlight. Why is this bad? For one reason, it disrupts our circadian rhythm, the 24-hour day/night cycle that regulates the functioning of most living things.

In humans the lack of fully dark skies can interfere with the production of the hormone melatonin, which puts us to sleep. So it's not surprising that so many people these days suffer from some of the possible consequences of disturbed sleep, including increased risk of diabetes, mood changes, high blood pressure, weight gain, increased risk of heart disease and problems with memory and concentration.

Livestock, wildlife and **plants** are also negatively affected. They depend on the alternating brightness of day and darkness of night for growth, development, feeding, reproduction, hibernation, migration, etc. Mistiming any of these life-sustaining behaviors can have dire, sometimes fatal, repercussions. In addition, artificial light sources can disrupt nocturnal hunting among bats, foxes and owls and disorient such creatures as migrating birds and sea-bound turtle hatchlings, with lethal results.

And then there is the **environment**. It's not just that we are gradually losing the magnificent starry spectacle bequeathed to us by nature. Excessive electric light in the U.S. alone is reported by the International Dark Skies Association (IDA) to waste some $3.3 billion in energy costs. It also adds $21 million tons of carbon dioxide annually to the atmosphere.

This photo taken on Route 3 in Ancramdale shows how light pollution has diminished our once dark skies. Photo by Scott Tully.

Tremendous Room for Improvement

The fact is we could cut back 30% or more of our lighting in this country and never miss it, according to IDA. So much of it is light that: *trespasses,* meaning that it spills beyond the object or area we want to illuminate; or is so bright it causes *glare*, leading to eye discomfort; or is just plain ineffective. For example, the glare of too much light can actually make it harder to see our way along roads and walkways at night. And although we assume bright lighting keeps us safe from crime, research shows that it simply allows offenders to see more easily what they are doing and makes their activity less surreptitious and suspicious.

As the problem grows, big cities, towns like ours, and conservation groups are looking for solutions. It turns out the solution is *us*—because every single one of us can contribute toward more responsible night lighting.

Here are some recommendations from CAC and other authoritative sources:

1. Turn lights off when not in use. That means outdoor lights when you are home or going to sleep, and indoor lights when you've left a lit room, are going out, or are going to sleep.

2. Use the very minimum light needed. Check bulb packaging for *watts* if using incandescent light, or *lumens* for compact fluorescents and light emitting diodes (LEDs)**;** use the lowest brightness level that will do the job.

3. Use energy-efficient lights. Lower your electric bills; compact fluorescent and now the revolutionary new LED lights use significantly less electricity than incandescent light (and last longer). Our Climate Smart Community Task Force is already working on a plan to replace the street lights in town and the lights at Town Hall with LEDs. But be careful: choose LEDs that emit a warm-colored light (lower than 3000 Kelvins) rather than blue-white, short-wavelength lights that scatter into the atmosphere and can worsen light pollution.

4. Install fully shielded lights that point only downwards (see illustration on next page). Unshielded lamps "leak" light to the side and upwards—a complete waste. Target the exact space you are trying to illuminate. For example, low footlights will light up a walkway as well

LIGHT POLLUTION

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as tall lights, but without the risk of leakage.

5. Get certified light fixtures. IDA-certified "Dark Sky Lighting" is designed to limit glare, light trespass and sky glow.

6. Look for products with adaptive controls. Take advantage of light-saving dimmers, timers, and motion sensors.

7. Consult an up-to-date lighting expert for new installations or to modify old ones**.**

8. Become involved. Join the Globe at Night program, *www.globeatnight.org;* collect data on the night sky brightness in your neighborhood and contribute to a worldwide database on light pollution. Believe it or not, there is such a thing as "astrotourism"—astronomers, hobbyists and photographers who flock to view the star-filled heavens at sites with uncontaminated skies. It was just such a person, nature and landscape astro-photographer Scott Tully, who first brought CAC's attention to the encroaching veil of light in our conservation areas.

Sky glow can be controlled by installing lighting fixtures that are fully shielded and point downwards.

He used to love coming here to photograph our glittering dark sky and now says, "It would be beautiful to see the people of Ancram return to the dark skies of our ancestors, leaving our future generations with the wonder and beauty of the universe above and an unhindered ecosystem below."

With a little effort from everyone, we can do just that.

What's All the Buzz About Climate Change?

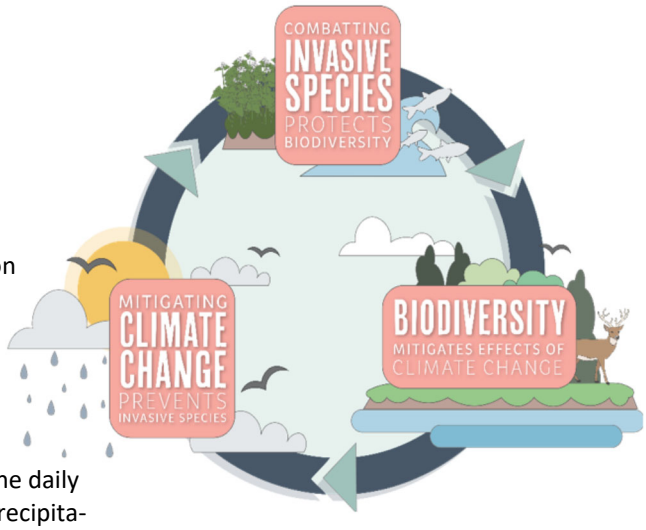
By Colleen Lutz

Climate change seems to be one of the most popular buzz phrases in the world today. Most people are concerned about why it is happening, when and where it will have the most impact, and what changes can be made to reduce or reverse its detrimental effects. By becoming informed about the science of climate change and how to combat it, we can all make climate and environmentally smart choices in everyday life to safeguard our planet's future.

What Is Climate Change?

Climate change is a naturally occurring phenomenon which historically has occurred very gradually over many millennia, thereby allowing ecosystems to evolve and adapt so that their continued existence is assured. "Climate" refers to the patterns of temperature and precipitation experienced in a geographic region over time. These patterns affect the species of plants and animals that can survive within a given area.

"Weather" generally refers to the daily observations of temperature, precipitation, wind, and dew point of local areas. Weather and climate can easily be confused because they refer to similar measurements, but the time scale of measurement is completely different. The short-term state of the atmosphere in a given location—whether today or a specific date hundreds of years ago—is weather. Climate, on the other hand, describes what the weather is like over a long period of time, generally a



The relationship between invasive species and climate change is a two-way street, where invasive species amplify the effects of climate change, and the effects of climate change can also compound the spread and impacts of invasive species.
Source: Invasive Species Centre, www.invasivespeciescentre.ca

minimum of thirty years. So, although you may love the *climate* in the mid-Hudson Valley with its changing seasons, you may not be happy when rainy *weather* ruins your summer picnic plans.

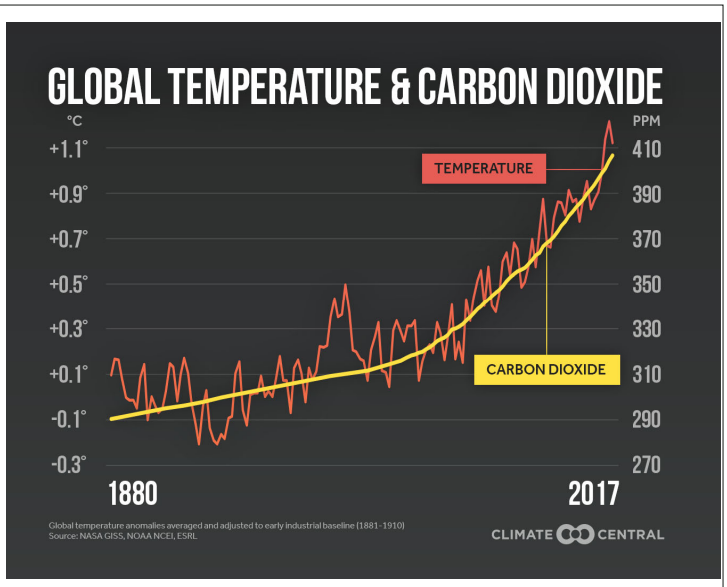
So Why Are We So Worried about Current Climate Change Conditions?

You may have heard the refrain, "Climate change is normal!" True, but not the pace of climate change today. Rather than experiencing the expected gradual change in temperature and climate, we have seen an alarming and significant increase in the rate of change since the beginning of the industrial revolution, around 1750. In fact, carbon dioxide and methane, both greenhouse gases, are higher than they have ever been in the last 800,000 years. A greenhouse gas is one that absorbs infrared radiation and thereby traps heat in the atmosphere, contributing to the so-called greenhouse effect. The earth is the warmest it has been in the last 1,000 years (Dow and Downing, 2011). It was estimated that in 2017, the global average air temperature was 1° C (or 1.8° F) warmer than in pre-industrial times, and moving steadily toward 1.5° C and above.

Is 1.5° C Really that Significant?

Yes! The acceleration of global warming is resulting in the melting of land-based glaciers which adds to overall sea level rise. Many coastal communities are now threatened with flooding of previously developed and now inhabited areas, with great cost to property and life. If nothing changes, climate impacts such as flooding, droughts, raging forest fires, and stifling heat waves will only continue to intensify. Climate change also has contributed to the proliferation of invasive species.

An invasive species is any kind of living organism—for example, a plant, insect, or fish-- that is not native to an ecosystem and causes harm to humans and the environment. Due to increased international trade, various species are transported around the globe, often unintentionally, such as aquatic organisms in a ship's ballast water or insects in the wood of shipping crates, and become established in areas that were not previously part of their range. Some habitats, such as temperate forests and freshwater systems that currently have thermal barriers limiting the establishment of invasive alien species, are becoming more suitable for alien species as the climate changes. These species cost *40 billion dollars* annually in lost revenue and management costs in the United States alone (Smithsonian 2016).



The dramatic increase in CO2 levels since the Industrial Revolution has led to an alarming rise in global temperatures. Each of us has the ability, with some simple changes in our daily lives, to reduce carbon dioxide emissions that contribute to the heating up of our planet.

What Can We Do?

There is a direct relationship between carbon dioxide (CO_2) and air temperature: as CO_2 concentration increases so does air temperature. Each of us has the ability to reduce carbon dioxide emissions that contribute to the heating up of our planet, for example, by using renewable energy sources such as solar and wind. Here are a few simple measures to consider:

- **Plant trees!** Trees absorb carbon dioxide and give off oxygen. A single tree will absorb approximately one ton of carbon dioxide during its lifetime. As they mature, they also provide shading to offset rising temperatures.

- **Use the "off" switch.** Save electricity and reduce global warming by turning off lights when you leave a room, and use only as much light as you need. Switch from incandescent bulbs to LED bulbs.

- **Use less heat and air conditioning.** Turn down the heat while you are sleeping or away from home during the day, and consider installing a programmable thermostat. Setting your thermostat just two degrees lower in the winter and two
degrees higher in the summer could save approximately 2,400 pounds of carbon dioxide annually!

- Support and learn about **sustainable agricultural practices** that encourage carbon accumulation in the soil and help reduce atmospheric carbon levels.

- **Drive Less and Drive Smart.** When you do drive, make sure your car is running efficiently. For example, keeping your tires properly inflated can improve your gas mileage by more than 3 percent, and every gallon of gas you save not only helps your budget, it also keeps 20 pounds of carbon dioxide out of the atmosphere.

Looking for More Information?

www.climatecentral.org (2019). *Rising Global Temperatures and CO2*. [online] Available at: *www.climatecentral.org/gallery/graphics/co2-and-rising-global-temperatures.*

IUCN. (2019). Invasive alien species and climate change. [online] Available at: *www.iucn.org/resources/issues-briefs/invasive-alien-species-and-climate-change.*

Noaa.gov. (2019). Climate | National Oceanic and Atmospheric Administration. [online] Available at: *www.noaa.gov/climate.*

Dow, K. and Downing, T. (2011). The atlas of climate change. 3rd ed. Brighton, UK: Earthscan. Myriad Editions.

A New Pollinator Meadow for Ancram's Overmountain Conservation Area

By Jamie Purinton

On the bright and cool fall morning of November 2, over 30 volunteers showed up at the Columbia County Land Conservancy (CLC) Overmountain Conservation Area in Ancram to seed a new pollinator meadow and grassland meadows. Native wildflowers like the New York Ironweed, Brown Eyed Susan, Early Goldenrod, Milkweed and Smooth Blue Aster will support a multitude of pollinators including butterflies, native bees, honeybees, hover flies, beetles, wasps, and moths. Together everyone made for light work, while also learning how to seed meadows so that they can do it on their own properties. And so this event had a wonderful ripple effect of accomplishing both the tasks of seeding this meadow and inspiring property owners to do the same.

The CLC worked with biologists from the Hawthorne Valley Farmscape Ecology Program and landscape architect Jamie Purinton to survey existing plants and pollinators, develop a management plan and create a custom seed mix. The biological assessment, conducted by Hudsonia Ltd. and the Hawthorne Valley Farmscape Ecology Program in 2017, notes that the upland meadows and hay fields have a "diverse butterfly fauna," as wells as diverse populations of damselflies and dragonflies. In mid-September Jim Yantz seeded the larger acreage hayfield areas while the volunteers hand seeded smaller areas. The tiny wildflower seeds are best carefully broadcasted by hand. Some seeds will germinate next spring, and some will flower next fall while others may take a few years to provide bloom and nectar. The core hayfields and old pasture lands are being managed primarily to support nesting bobolinks, eastern meadowlark and savannah sparrow. These birds need the upright airy grasses for their nesting sites. And they prefer the open middle field areas versus the tree-lined edges where predators may be perching in the tree tops. In order to increase the diversity and support even more pollinators in these large fields, the volunteers seeded tough native wildflowers that will establish themselves in the newly seeded hay mix, including Common Yarrow, Wild Bergamot and Narrowleaf Mountainmint.

CLC is implementing other long-term management strategies that promote wildlife habitat including delayed mowing to avoid destruction of eggs of ground-nesting birds, avoidance of all use of pesticides, and limited public access during the active breeding and hatching seasons.

So come have a look in the spring when the pollinator meadow and other wildflowers will begin to germinate. And in years to come expect a feast for your eyes and food for the moths, butterflies and bees. For directions, see: *https://clctrust.org/public-conservation-areas/overmountain-conservation-area/.*

Jamie Purinton demonstrates how to mix the delicate wildflower seeds with moistened sawdust as a carrier.

Volunteers then broadcast the seeds by hand to create the new pollinator meadow.

What to Do When Solar Panels Don't Work Where You Live

By Suzan Flamm

Your house is shaded by huge trees and you would never dream of cutting them down. Or your roof doesn't face south, the optimum angle to collect sunlight. Maybe the upfront cost of solar panels is more than you can comfortably spend, even with state and federal tax credits. Or, perhaps you are a tenant, and there's no talking your landlord into investing in solar.

If you fall into any of these categories, then you are like many other people in NY state, including me, who aren't good candidates for solar panels where they live. But does that mean we can't support solar power, or enjoy the financial benefits of renewable energy? Not at all! We have options.

Community Solar

One of those options is community solar, an array of panels typically owned and operated by a private company and installed in a sunny location. Depending on the business model, the company sells panels within the array to consumers in the region, or, more commonly, those consumers subscribe to the array, and are allocated a share of the electricity generated by all the panels. Depending on the size of the project, dozens, or even hundreds of community members can participate.

Energy produced at a community solar array is fed into our local power grid. Participants continue to receive electricity from their utility but see a credit on their utility bills for their share of the power produced by the array. In most cases, participants will also receive a second bill, this one from the solar developer. The credit on the utility bill will cover the costs on the developer's bill, either on a monthly or an annual basis, depending on the particular solar project.

Participating in community solar is a great way to support renewable energy. It can also be a way to save money. In the subscription model, many project developers guarantee a ten percent reduction off monthly utility bills. In the purchase model, savings would depend on tax credits available to the consumer, and on whether the consumer financed the purchase of the panels, and at what terms.

To be a part of a community solar project you just need to select a project in your area. One way to do that is by using the interactive map hosted by the NYS Energy Research and Development Authority (NYSERDA) at *www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Solar-for-Your-Home/Community-Solar/Community-Solar-Map.* Select your utility on the menu so you can see eligible projects, and the contact information for the operators. Once you find a project of interest, verify that the provider is registered on the NYS Department of Public Service list of Distributed Energy Resources.

Inclusion on the list means that a company has met NYS and utility requirements to provide residential energy in the state. Also, before you sign a contract, check online reviews and customer references for information on the company. And, of course, review the contract to understand the terms, including cancellation and late fees.

Case Study: Me

Having learned this much, I decided to see if there was a project that worked for our household. I started by reaching out to Ancram's Climate Smart Communities Coordinator, Tara Donadio of the Capital District Regional Planning Commission,

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The East Fishkill solar farm (pictured above) is available to customers of Central Hudson who wish to be part of a solar community project.

The Overmountain Conservation Area in Ancramdale will be blooming next spring with an array of wildflowers attractive to pollinators, thanks to local volunteers who gathered to spread seed mixes under the guidance of the Columbia Land Conservancy.

SOLAR PANELS

(Continued from page 7)

and learned about Common Energy. After a vetting process, this company was selected by Solarize Albany, a non-profit that promotes the use of renewable energy, to offer community solar subscriptions to residents of the Albany region.

I learned from a Common Energy representative that a 2.9-megawatt array in East Fishkill is operational and available to customers of Central Hudson. No deposits or upfront payments are required. If I subscribed, then needed to cancel, I would be able to do so without any penalty. According to the representative, electricity from the solar farm will always cost ten percent less than from the utility, whether electricity rates go up or down. After signing up, it takes about four to eight weeks before the savings begin. At that point, I would receive two bills. The one from Central Hudson would be for a basic service charge (currently about $20) and taxes. The bill would also show a negative charge for total electricity delivery and supply. The bill from Common Energy would be ten percent less than the total delivery and supply charge – the negative charge on the Central Hudson bill. The representative walked me through a recent utility bill so I would understand how the savings worked.

Before making a final decision, I followed my own advice and made sure the company is listed on the Public Service List. It is. I also checked consumer reviews and didn't see anything of concern. So, I'll be joining the ranks of those benefiting from solar energy generation. And I'll be saving money at the same time. Glad I wrote this article!

Interested in renewable energy?

Learn more about the Climate Smart Communities Task Force at *www.ancramsbrightidea.org/* and *www.ancramny.org/climate-smart-community-task-force/*.

Mark Your Calendar!

Ancram Winterfest: December 7, 3-6 PM. Santa arrives at 5:30 with gifts for kids! Free hamburgers and hot dogs, cookie decorating, face painting, holiday shopping from local vendors, and more!

The Snow Queen: December 6, 7, and 13 at 7 PM; December 8, 14, and 15 at 2 pm. The Ancram Opera House presents a new adaptation of the Hans Christian Anderson tale as a staged concert with stunning visuals. For adults and children, ages 9 up. Children 9-12 are free! Tickets at *www.ancramoperahouse.org/snow-queen*.

Town Board Meeting: December 19 at 7 PM. Ancram Town Hall.