



DRAWING ON DRAWDOWN: a global warming reversal handbook

By Jack Bradigan Spula

ROCHESTER REGIONAL GROUP—Explore, enjoy and protect the planet

SIERRA CLUB ECOLOGUE

Sales pitches with superlatives almost always strike me as, well, over the top. When I pick up something labeled “unique,” “unprecedented” or “the latest” this-or-that, I’m inclined to put it down swiftly. So when I opened a boastfully-labeled “New York Times Bestseller” that claimed to be “the most comprehensive plan ever proposed to reverse global warming,” I braced myself for a snow job.

A few days living with this new (2017) book left me feeling some hype was involved – but also convinced that the book can be a great educational tool.

Edited by activist-entrepreneur Paul Hawken, the large-format, generously illustrated 240-pager is less a plan than a compendium. Arranged in eight categories – wind, food, energy, etc. – are 80 “techniques and practices” that apparently run the full range of technological and practical strategies now being deployed against climate change, plus a number of “coming attractions” that are undergoing research and tentative development.

The compendium, however, is not merely a set of descriptions with illustrations and vague assessments. It attempts an objective ranking of the individual techniques and practices by their relative value over the next few decades in efforts to reduce global warming. Each item gets an overall rank (1-80); the projected amount of CO2 reduction is expressed in gigatons; and estimates of the net cost and net savings are given in dollars, unless those costs are deemed “too variable to be determined,” or it’s ethically inappropriate to weigh them by the numbers.

Examples at random: Within the category “Buildings and Cities,” you find number 58 in the ranking, “landfill methane” production, which is in essence capturing the fugitive gas emissions from decomposing organic wastes as an energy source. Improving and extending this technology, claims *Drawdown*, can result in a reduction of 2.5 gigatons of CO2 (the calculation represents “the degree to which a given solution has a bearing on greenhouse gases” in the atmosphere). The net cost of foreseeable increases in such methane capture is pegged at minus \$1.8 billion; in other words, this is a potentially profitable approach. And the net savings from the technique, with all possible ancillary benefits figured in, could amount to \$67.6 billion.

If you’re like me, your mind has already glommed onto the big questions: What’s number 1, the best? And what’s

number 100, the “least”? (Not to say any item is bad, of course.) Well, sports fans, the designated winner is among the most mundane: “refrigeration,” specifically, improvements in mechanical efficiencies, moving to safer and more natural refrigerants, capturing and destroying refrigerants at the end of their useful life, and – speaking of mundane – avoiding and plugging refrigerant leaks.

And lowly #100? The consolation prize goes to “retrofitting” of buildings and cities, admittedly an item difficult to rank fairly or maybe even quantify, since it cuts across so many tech categories. In fact, the editors don’t stick any numbers on it at all.

But is the ranking so important? And are the numbers – the estimated amounts, savings, etc., as well as the pecking order – really solid or do they all, like methane, melt into air?

I don’t have anything like the tech smarts necessary to judge. *Drawdown* does have an impressive number of certified contributors across a range of disciplines. Not to mention supporters along the spectrum from Norman Lear to the Andersen Corp. (think energy-efficient windows).

The book’s value – like the value of courses and discussions built around it, e.g. those offered by the Pachamama Alliance – lies in the way it gives both a snapshot and a comprehensive overview of ways to address climate change meaningfully.

Yes, the threat of global warming means we have to recycle, get on our bikes, develop solar power, preserve rainforests, farm organically, eat low on the food chain, and other obvious things. But there’s so much more to learn about. How about “marine permaculture,” “alternative cement” (who knew that ordinary cement production entails huge greenhouse-gas emissions?), “tree intercropping” and “silvopasture” (trees and cows actually can mix, it turns out) and many other under-the-radar techniques?

Intrigued? Read all about it in *Drawdown*.

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From the Chair: What Happened to the Environmental Forum? By Jessica Slaybaugh

We have received many inquiries from members as to why we did not hold an environmental forum this year, an event that has been an annual tradition for the past several years. I must say that it's flattering for us to hear that there's so much enthusiasm for these events, and we apologize to those of you who feel let down that one didn't take place this year. So why didn't it happen?

The short answer is that we simply didn't have enough time to devote to it. We love hosting our forums, but they require a lot of effort. I'd estimate that we spend five to six months planning them and an average of ten hours per week working on them, sometimes more, sometimes less, and always more when it gets close to showtime. The effort is always worth it, but for those who are working on a forum, it almost always means that those people have to set aside or greatly reduce their involvement in other activities/issues because, as you know, each of us only has so many hours that we can give, regardless of how much we want to help.

Last year, when the time came around for us to begin working on the 2018 forum, we were faced with three major challenges: 1) Our executive committee was smaller than usual and we didn't have volunteers outside of the committee who could help with the forum, 2) There were some major local issues that we were working on that we knew would be taking up a big chunk of our time over the next several months, and 3) There were a number of things we wanted to start doing in 2018 that would also require a lot of effort.

With all of that in mind, we had a long conversation about the forum and ultimately realized that it was an either-or decision. Either we continue working on these local issues and planning for the new things we'd like to do for our members and our community, or we host an environmental forum. We simply didn't have the manpower to do all of it. It was a tough decision to make, but we felt that we would best serve our members and community by continuing to concentrate on these other efforts instead of hosting another forum. We felt that continuing down the track we were on stood the chance to have a more lasting impact

and serve a significantly larger population than our forum could.

So what are the issues that were taking up so much of our time? The biggest ones are issues we've talked about quite extensively here and on our Facebook page: 1) Opposing the proposal to build multistory apartments in Cobbs Hill Park to replace the current one-story apartments, resulting in damage to the surrounding old-growth forest and the loss of much-needed housing for low-income seniors; and 2) Supporting the PLEX Neighborhood Association's efforts to ensure that the developer of the Vacuum Oil Refinery site, a highly polluted area that PLEX members have lived alongside for decades, adheres to the highest level of cleanup defined by New York State.

And what are the new things we wanted to start doing in 2018? We have a pretty long wish list, but the main ones are: 1) Relaunch the Climate Change Committee and get cranking on addressing some local issues and hosting activities, and thanks to Frank Regan, chair of this committee, we're seeing great success with this one; 2) Begin hosting all-members meetings, where we have a featured speaker followed by an open discussion, on at least a quarterly basis, something that we're hoping to launch later this year; and 3) Offer more outings and community activities, such as cleaning up parks or neighborhoods, something that we're gearing up for now that the weather is nice.

There is much more than this that we are doing now or have on our wish list for the future, and I hope that you understand and support our reasons for not hosting a forum this year. If you would like to get involved in any of the initiatives/activities I've listed here, or if there's something else you'd like to get involved in, please reach out to me or any other member of the committee, or to Frank if it's the Climate Change Committee you're interested in. We'd love to hear from you!

Jessica Slaybaugh

Jessica.a.slaybaugh@gmail.com

Project Drawdown Workshop: Game Over or GAME ON!

Through videos, presentations, individual research, and group interaction -- we will delve into the Drawdown solutions to reverse global warming. We'll explore new possibilities to be more educated, inspired, empowered -- and, collaborating with others, to act. Thursdays 6/7, 6/14, 6/21 and 7/19 If possible, please plan to attend all four sessions. 6:30 – 8:30 p.m. Church of the Assumption 20 East Avenue Fairport, NY 14450

Preparation: To gain the full benefits of this workshop, we recommend the following:

* Buy (or borrow from your local library) the book, Drawdown, edited by Paul Hawken. We will engage with the Drawdown material throughout the workshop (or we will have some copies available to purchase).

* Review the online version of Awakening the Dreamer, a self-guided two-hour workshop that provides the visionary framework from which the Pachamama Alliance Drawdown project emerges. Visit: www.pachamama.org/engage/awakening-the-dreamer (Look for the orange banner towards the bottom of the page.)

* When scheduling your participation in this workshop, please set aside time between sessions to research and engage with the material.

Facilitated by Rochester Pachamama Alliance and Church of the Assumption

RSVP:

<https://connect.pachamama.org/node/920> or contact Sue Staropoli at 585-734-2816 or suestar1@rochester.rr.com.

There is no charge for this workshop, though donations gratefully accepted.

ROC The Walk With Sierra Club, Saturday June 30

Climate Change is one of Sierra Club's top priorities so we're happy to support local climate change action with our knowledge, our passion, our time, our feet, and our fundraising. Won't you join our team in Rochester People's Climate Coalition's **Roc the Walk**?



- Saturday, June 30
- 10:30am-12:30pm
- Music starts at 10:30
- Easy 1-mile walk at 11:30
- Bagels & beverages provided
- Prizes for top fundraising teams
- Genesee Valley Park, 1000 E. River Rd., 14623
- To join our Sierra Club Team: Contact linda@rocpc.org, 585-703-1189, or
- See rocpc.org – green “Walk the Roc” guy. Follow directions to join Sierra Club team.

Our Rochester Sierra Club Group is proud to be a founding member of Rochester People's Climate Coalition (RPCC). Begun in 2014 by our volunteers and a few other grassroots climate leaders, 30 supporting organizations sent over 100 local people to the People's Climate March in New York City. RPCC has now grown into a local coalition of 130+ organizations, including non-profits like us plus businesses, faith communities, educational and academic groups, and civic and labor organizations. The common denominator is concern about climate change and the desire to see large-scale state and local solutions implemented. **RPCC aims for a carbon neutral greater Rochester area by 2027.** Bold? Sure, but it's what was needed yesterday, and it absolutely can be done, given the will and resources used intelligently.

Through RPCC, our Sierra Club Rochester Regional Group works with other member organizations. Together, we've done good work over the past few years, including successfully advocating for the City of Rochester

to take action. As a result, the City passed the Rochester Climate Action Plan, and Mayor Warren signed on as one of Sierra Club's Mayors for 100% Renewable Energy.

Currently, the Coalition is working on four Action Pathways that parallel the four largest local sources of carbon emissions: [transition to renewable] energy, [lack of] energy efficiency in buildings, transportation, and land use. Under the first pathway, Community Choice Aggregation (CCA) is poised to deliver 100% renewable energy to several local municipalities, with more coming on board over time. CCA is a community-wide solution that can not only create immediate large-scale demand for renewables – including *locally* generated solar -- but can help to bring about a just transition by making renewables affordable for everyone.



Representatives of RPCC, Sierra Club and Mothers Out Front stand with Mayor Warren and City Commissioner Norman Jones to announce 100% renewable energy goal.

Now, that's success for a small grassroots organization! The Coalition is growing in organizational members, individual supporters, collaborative initiatives, and public reputation for the ability to make change. Last year, RPCC became an official 501c3 nonprofit, making donations tax-deductible. With our support, RPCC will be able to more effectively identify and advocate for locally-beneficial climate solutions. RPCC and its members will be able to make faster progress in the four Action Pathways, and be better equipped to engage decision-makers (in local and state government, businesses and unions, our neighborhoods, more) to help them appreciate the benefits of climate action and see themselves as important change agents. Now that's worth walking and fundraising for!

By working and walking together, we WILL keep Rochester cool – carbon neutral by 2027!

Save Green By Going Green

By John Kastner

Every day I get at least 100 emails...save the whales, save the elephants, save the homeless animals, save the humans from themselves. Sifting through the list is exhausting, time consuming, overwhelming too. Even if you gave each one just a dollar, by the end of the week your paycheck, or a good portion of it, would be gone. You might want to just let the planet roll off a cliff, were it not for all the people and places you love so dearly.

You can do so much without spending a nickel, and so much more by being careful where you DO spend your nickels. Everything we buy - housing, transportation, energy, food, clothing, electronics and plastic doodles - has a carbon footprint, a water footprint, a toxic footprint, and a footprint in suffering, both human and non-human. For most things we buy it is very likely that someone's air was polluted, someone's water was poisoned, or someone lost their home. Consumption drives everything from climate change, to habitat loss, to violent struggles for dwindling resources around the globe.

We cannot hope for a planet capable of sustaining life, including human life, without looking at how we spend our money. We must start being honest about what we want as opposed to what we need. We need to stop defining ourselves by what we own. We need to BUY LESS, BUY USED, BUY LOCAL and spend the money we save to BUY ORGANIC. After all, what things you purchase are more important than what you put into your children's bodies and into your own body?

Following this philosophy will have a major impact on the economy, but the economy is just one of many things that will have to change if we are to avoid heating up the planet beyond repair. The earth has finite limits and we must learn to live within its budget, the way the best economies live within theirs, or perish. The economy is the business of the macrocosm. Apart from doing our part to make sure it's directed democratically, the only thing we have direct control over is our own behavior, which can be a powerful teaching tool.

There are so many ways of enjoying life and expressing ourselves without amassing mountains of yard sale inventory destined to contaminate landfills...like spending more time with (instead of money on) loved ones, being more social with neighbors, joining civic groups that support or create art, or working on improving society in other ways. Then there's hiking, paddling, biking, climbing, camping, singing, dancing, painting, making music, pursuing studies, etc. Some of these do, of course, require stuff, but it tends to be durable stuff that can be bought used or shared or made at home by hand if you're skilled or willing to become so.

I like to think that we were meant to be happy animals, rather than wage drones. I think we were meant to be an asset to this beautiful, fascinating planet in just pursuing the natural course of our lives. Too many of us

have lost our way looking for meaning on store shelves, filling empty lives with an endless array of gadgets, toys and clothing soon to be forgotten and added to the planet's toxic burden. Why not just cut to the chase, skip all the stuff, and turn on to what the earth already offers us for free. We could all be happier, couldn't we?

Cobbs Hill Update re: Elder Village issue

By Hugh Mitchell

At the time of this Ecologue deadline Rochester City government still has not made a final decision on the issue of tearing down 60 modest, very low rent units for limited income elderly. These one-story residences are snuggled inconspicuously within the confines of Cobbs Hill Park and are run by Rochester Management Inc (RMI). The company has succeeded in moving their plan along through most of the City's required approval steps. But opposition to the plan has built steadily for two years now after they first filed a flawed application to build what they call a "modernization" project. Their plan has now morphed into 104 new units including market rate apartments and townhouses which may, in the future, become valuable commercial property.

Sierra Club feels the RMI application is flawed because the City rapidly and without adequate hearings issued a "Negative Declaration" on the project. This means the City judged that RMI's large, new apartment project would have no environmental effect on the park or surrounding communities. In reaction 34 community groups formed a Coalition for Cobbs Hill Park and they agree with Sierra Club that the application is flawed. The Coalition has now backed up their multiple protest events by filing legal action against the City which states that the approval was "illegal, arbitrary, capacious, and an abuse of discretion". We are looking to the court to rule that a full Environment Review is needed.

Our local Sierra Club group has been continually involved, opposing the loss of those 60 very low rent units and we have been protesting the damage the project will do to Cobbs Hill park. The Ex-Com voted to back the case and we are in the process of seeking the required Atlantic Chapter and National approval to join it by filing an Amicus brief. But this has not stopped the RMI application from going forward. At this time the application has been approved by the City Planning Commission and has moved up to City Council's review committees. Currently the bill to secure City approval for financing the \$27 million-dollar project has been tabled. We expect a final vote by City Council may be taken at their Tuesday, June 19th meeting. If you wish to speak to Council on this, you should call the City Clerk at 428-7538. Further, you can support the Coalition case by contributing through Go Fund Me: <https://www.gofundme.com/save-our-village-save-our-park>.



In order to advocate for action to address the climate crisis we need to convince our representatives in government who may not grasp the scientific arguments. Doubt cast on the validity of measuring and predicting the effects of climate change is often the rationale (or excuse) for inaction. The root of the problem may be “bandwidth.” Science is too hard for some people. From the field of epidemiology there is a method to prove cause-and-effect relationships which will be useful in arguing our case without resorting to quantum mechanics. This methodology was used to support the claim that smoking tobacco causes cancer.

In the process of trying to demonstrate a cause-and-effect relationship between smoking and lung cancer in the 1950s Sir Austin Bradford Hill developed a system of 9 principles useful in establishing causality¹. Although each

step of the argument is based on data, the nature of the proof is logical, rather than scientific or mathematical, which may be more accessible for some. Hill’s methodology in addressing this question is used in a recent article by Seth Miller² which he applies to the climate change debate.

Hill’s method to prove cause-and-effect and Miller’s analysis are given here in condensed form.

Criterion 1: Strength: *How strong is the relationship?* There is a positive correlation between the concentration of CO₂ in the atmosphere and average global temperature. This only establishes a correlation but not a cause-and-effect relationship.

Criterion 2: Consistency. *Are the data consistent across multiple measurements, at multiple places and times?* Again, there are multiple studies that confirm the relationship, but do not demonstrate cause-and-effect.

Criterion 3: Specificity. *Is the change we are seeing specific to this point in history?* The rate of temperature increase since 1970 is unprecedented and correlates with increased consumption of fossil fuel.

Criterion 4: Temporality. *Which came first in modern times, the CO₂ or the warming?* The data are a little ambiguous around the beginning of the 20th century, but certainly since 1950 CO₂ emissions have been leading the temperature increase.

Criterion 5: Dose-response. *Does temperature increase scale with CO₂ increase?* Seasonal variations in CO₂ level track with the earth’s atmospheric albedo and do support a dose-response relationship.

Criterion 6: Plausibility. *Does the causal relationship make physical sense?* Modeling by mathematicians and physicists predating the industrial age (as well as scientists currently working in this area) predicted the capture of the sun’s energy as a function of CO₂ concentration. in the atmosphere.

Criterion 7: Coherence. *Do the data fit in with current theory and knowledge?* 97% of climate science papers support the idea that climate change is real and that it is caused by man’s activity.

Criterion 8: Experiment. *Can we alter, prevent, or improve the situation with an intervention?* A volcanic eruption in 1991 sent a large mass of SO₂ into the atmosphere, which formed an H₂SO₄ aerosol. Theory predicts that an aerosol will have the opposite effect of greenhouse gasses and result in cooling. A measurable decrease in average global temperature which lasted a few years did follow the volcanic emission.

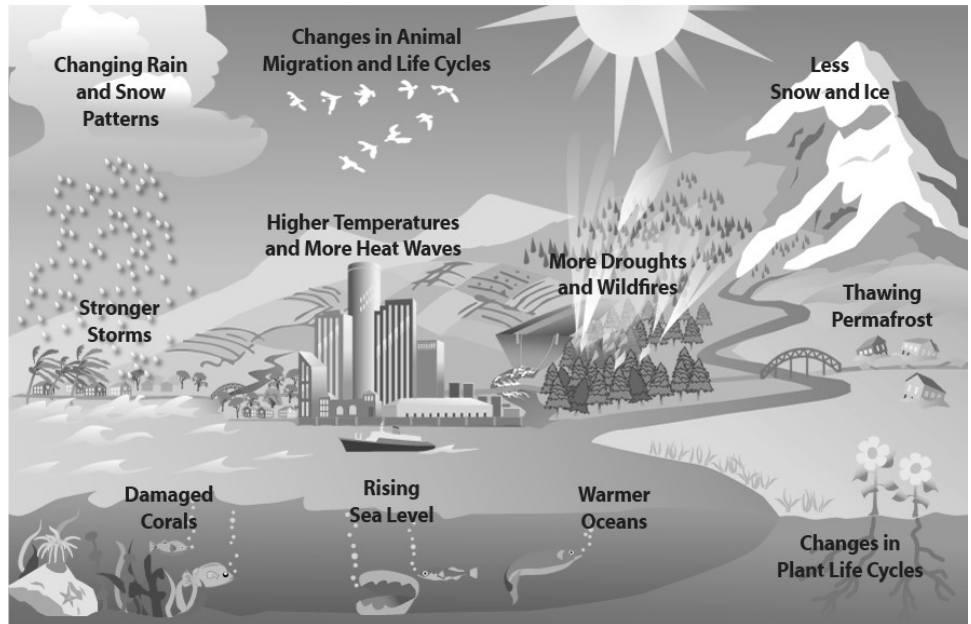
Criterion 9: Analogy. *Is there an analogous, better-understood system that makes the CO₂ climate hypothesis plausible?* Miller gives the example of a greenhouse.

Hill’s methodology is qualitative, compared with statistical proofs which result in quantitative conclusions qualified with a risk level. Looking at the nine criteria and supporting observations in aggregate it seems that there is no question that there is a cause and effect relationship.

We have here a tool to argue for action on climate change.

1. <https://www.edwardtufte.com/tufte/hill>

2. <https://perspicacity.xyz/2016/12/10/what-climate-skeptics-taught-me-about-global-warming/>



BACKYARD BEEKEEPING PART I

By Elizabeth Agte

This is my fifth year as a beekeeper. Discovering that I could keep bees in my backyard was exciting news for a person whose great-grandfather was a beekeeper in Montana. I jumped with no hesitation and have never regretted it.

Looking back, I realize how ill-prepared I was. Seasoned beekeepers suggest getting a mentor, mine was encouraging but was not particularly available, and I felt timid about bothering him. Fortunately, things have changed rapidly with the influx of new backyard beekeepers (beeks) and with that growth, a proliferation of Facebook pages, a wealth of first-hand knowledge.

For the last four years spring started with the anticipated email that announced the date to pick up bees I ordered in January. The drive to collect them is at



the end of day when the foraging bees [*per above image, loaded with pollen*] have returned to their hive. I move them into the hive first thing the next day. We postpone our first lawn mowing as the dandelions provide bees one of their most needed sources of early spring nectar and pollen.

During early spring the bee population grows rapidly as the queen lays about 1,500 eggs a day, and by Memorial Day the hive should be getting ready to reproduce itself by swarming. As the population increases, the nurses will select a few of the queen's eggs, enlarge their incubation cells and feed them a diet of royal jelly that turns the larvae into queens instead of workers. By the time the queens are ready to hatch, the original queen along with about a third of the workers leave in a giant cloud of roughly ten thousand bees in search of a new home.

Whichever queen hatches first will sting the other queens to death through their wax cells, before leaving for her mating flight. She will mate with many drones from other colonies to collect as much varied DNA as possible. The drones, distinguishable by their enormous eyes...useful for seeing a queen in flight, die immediately after the airborne mating.

When I see there are queen cells, which look like unshelled peanuts, I remove half the frames and put

them in a new hive, making sure that I have the queen cells, but not the queen. This is called a walk-away split, essentially dividing the hive just as the impending swarm would do. In about 30 days there should be signs in the new hive that the new queen emerged, mated and is laying eggs.

As summer comes to a close, honey and pollen has been stored for winter consumption. In September the female workers will kick the drones out of the hive to conserve food. The workers form a tight ball around the queen to keep her a toasty 90° all winter. Shortly after the winter solstice, as the days start to lengthen, the queen will start laying eggs to prepare her springtime workforce. If they haven't eaten all their honey before the maple trees bloom, the cycle begins again.

WITH A LITTLE HELP FROM OUR FRIENDS - An infrequent volunteer opportunity

By John Kastner

There's nothing like face to face contact with the public to make environmental challenges personal. That is why your Rochester regional Sierra Club tables at events like Roc the Land, the ADK expo, nature at the market place, the Native American festival at Ganondagan, and other opportunities for REAL face time with the public. We test their knowledge of current environmental issues, solicit membership, chat and listen to their concerns.

We've recently upgraded our show to include flashy new art, displays and banners. To offset the use of polluting plastic bags, we will also be offering 100% organic cotton, made in the USA, shopping totes, designed exclusively for the Rochester Regional Group, as a premium for \$20 donations to the Sierra Club.

We have two carts-full of gear, an easy up sunshade, chairs and assorted accessories to schlep around to and from events, plus the set up and take down of the same. It would make things a lot easier on our old backs (and I do mean old) if we had more help with these tasks. If you have time to help with transport and set up, and/or you want to learn the tabling trade, we would certainly be grateful for whatever help you could offer.

It's a good opportunity to take an active role in your local group without having to commit a huge amount of time and energy. Also, with more help, we could do more events, reach more people with vital news about our stressed planet and secure more members in the ongoing effort to preserve our beautiful home. **If you are interested, please contact John Kastner at (585) 461-4701 or jkastner@weeblax-uzzi.com.**

(Please accept our humble apology if you have responded to a volunteer request previously, as that list has disappeared. This time, we will have an online spreadsheet with your name, address, contact info, and preferences as to the type of help you can offer).

Notes from 14th Annual Symposium on Energy in the 21st Century
“Resiliency with Cleaner, More Affordable Renewable Energy”
April 20, 2018, E. Syracuse, NY

1st speaker **Jose Zayas**, VP Cube Hydro Partners, formerly a director at USDOE

- While hydropower is very reliable, only 3% of 80,000 dams in the US generate hydropower.
- His company promotes the optimization and upgrading of domestic hydro generation: clean, renewable energy
- Hydro Kinetic energy includes wave, current, and tidal, as well as dams

2nd speaker **Joe Martens**, Director NY Offshore Wind Alliance, ACE NY (formerly with NYSDEC)

- Offshore wind is BIG in Europe. NYS committed to another 2400MW
- Search in NYSERDA website for 18 E0071 for more info
- Need more public education re: energy efficiency, conservation
- Price is the biggest challenge for offshore wind (1/3 of Renewable Energy goal by 2050)
- May need new sensor technology to detect presence of migrators to inform operators when to shut down wind AND hydro
- National Grid already knows which customers have rooftop solar potential

3rd speaker **David Feldman**, Senior Financial Analyst for National Renewable Energy Laboratory, Washington, DC

- Goal of 40% GHG (greenhouse gas) reduction by 2030, compared to 1990 levels
- HUGE increase in PV (photovoltaic) capacity in past 10 years
- Projects 19,500 new skilled energy jobs with \$36,000,000 investment
- Much PV growth in developing areas of the world
- Challenge to ramp grid power sources up & down to accommodate greatest solar production during midday
- NYS Article 10 wind power process has only approved 1 installation so far

4th speaker **Ross Gould**, NYS Workforce Development Institute, energy sector

- WDI is a statewide non-profit with mission to grow & maintain good jobs
- Goal of 50% renewable energy by 2030
- Sustainable energy needs sustainable jobs

5th speaker **Arun Vedhathiri**, National Grid, New Energy Solutions

- REV = Reforming Energy Vision, with 80% RE goal by 2050
- DER = Distributed Energy Resources, fill in energy production gaps
- NWR – Non Wire Alternatives; also fills in gaps in energy
- Rate structure will be changing in the future
- Experience in Europe: “Reef effect” – new species are attracted to sites – fish, marine mammals, birds, etc.
- Some challenges with environmental impacts of RE: i.e. Altima wind site in CA was a mistake



Panel Discussion with morning speakers: Moderator **Kit Kennedy** of NRDC (Natural Resources Defense Council), Director of Energy & Transportation Programs,

Announced that Gov. Andrew Cuomo was to release an Energy Efficiency Mandate in NYS by Earth Day. Here's a link to the story from January: <https://www.governor.ny.gov/news/governor-cuomo-unveils-20th-proposal-2018-state-state-new-yorks-clean-energy-jobs-and-climate>

And another link: <https://www.energymanagertoday.com/ny-governor-andrew-cuomo-unveils-2018-climate-change-agenda-0174061/>

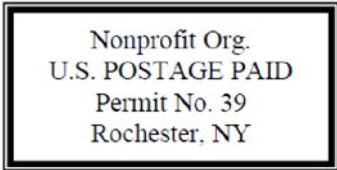
Press release of 4/20/2018: <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B972BCAD4-EFBE-4605-9988-E0003022A8DA%7D>

KEYNOTE speaker, **Alicia Barton**, President and CEO of NYSERDA (NYS Energy Research & Development Authority)

- Part of mission to get Renewable Energy to low income communities
- Bring jobs
- Have utility ownership of installations
- Continue energy efficiency education (this was one of my sustainability jobs as a NYSERDA EmPower Energy Educator, a few years ago)

Of the hundreds of people from all over the state, and the country, plus Canada, perhaps half were high school and college students! Our leaders and innovators of the future.

Rochester Regional Group of the Sierra Club
P.O. Box 10518
Rochester, NY 14610-0518
 Message line: 585-234-1056
 www.sierraclub.org/atlantic/rochester; Find us on **Facebook** and **LinkedIn!**



Executive Committee Members

Jessica Slaybaugh, Chair: Jessica.A.Slaybaugh@gmail.com
 Peter Debes, Secretary: phdebes@frontiernet.net
 Jeff Debes, Atlantic Delegate, Webmaster: jeff.debes@gmail.com
 Margie Campaigne, Ecologue Editor: mcampaigne@hotmail.com
 John Kastner: jkastner@weeblox-uzzl.com
 Jack Bradigan Spula: jbspula@gmail.com
 Frank Regan: frankregan@rochesterenvironment.com
 Joe Grinnan, Treasurer: fjgrinnan@aol.com
 Elizabeth Agte: ElizabethAgte@gmail.com

Committees & Projects- Leaders

Biodiversity/Vegetarian: Margie Campaigne
 mcampaigne@hotmail.com
 Climate Change: Frank Regan
 frankregan@rochesterenvironment.com
 Friends of Washington Grove:
 Peter Debes phdebes@frontiernet.net
 Open Space/Parks: Hugh Mitchell
 goshawk@twc.com
 Wetlands: Sara Rubin
 rubin150@aol.com

Summer 2018 Calendar			SIERRA CLUB and other environmental events	
DATE	DAY	TIME	MEETING/EVENT	LOCATION
June 7, 14, 21, July 19	Thursdays	6:30-8:30 pm	Drawdown Solutions: Getting Into Action Workshop—please come on all four dates	Church of the Assumption, 20 East Ave., Fairport, 14450 Info: Sue Staropoli suestar1@rochester.rr.com 585 734-2816
June 5	Tuesday	6:30-8:30 pm	Executive Committee Meeting	Harro East Bldg., 400 Andrews St., Suite 600
June 30	Saturday	10:30 am-12:30 pm	ROC The Walk with Sierra Club	Genesee Valley Park, 1000 E. River Rd., 14623
June/July/Aug	Any	Many	See www.RochesterEnvironment.com	Find details of many more events on this calendar
July 3 or TBD	TBD	Contact Jessica S.	Executive Committee Meeting	TBD, Jessica.A.Slaybaugh@gmail.com
6/21, 7/19, 8/16	3rd Thurs.	6:30—8 pm	Climate Change Committee meetings	Abundance Coop meeting room 571 South Ave. 14620
May 13 - Nov.18	Sundays	9 am-1 pm	Brighton Farmers Market ; + EcoFair 6/17	Brighton HS, 1150 Winton Rd. South, 14618
All year	Every day	M-F 8am-9pm Sat-Sun 9am-8pm	Abundance Coop Food Market: local, organic, sustainable food, open to public	571 South Ave., Rochester, NY in South Wedge (585) 454-2667 www.Abundance.coop
Aug. 7 or TBD	TBD	Contact Jessica S.	Executive Committee Meeting	TBD, Jessica.A.Slaybaugh@gmail.com

*****Watch our Facebook page and website for information on upcoming community meetings & other activities*****

All Committees are local volunteer groups of the Rochester Regional Group of the Sierra Club.

Follow us on Facebook to keep up-to-date on new events throughout the year—www.facebook.com/SierraROC

Executive Committee meetings are open to Sierra Club members. All other meetings are open to everyone.

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