The Truth about Global Warming
We environmentalists are struggling with global warming. Not just the issue of global warming but with the term: “global warming.” Several years ago, we stopped calling the issue “global warming” and began calling it “climate change.” It was an effort to make the public understand why they should care that the planet is warming. We should care because it will change our climate.

Now, the National Sierra Club has coined a new phrase: “climate disruption.” The new term introduces the element of confusion and disorder that global warming is creating. Tornadoes, hurricanes and droughts are definitely creating chaos and hardship for those who are in the path of a tornado or hurricane or own a farm drought area.

Yet, I cannot help but think that these terms are meant to save us from having to educate people on global warming. Taking these shortcuts might be easy but it shifts the attention from the root cause of the problem. Our climate is changing and our lives are disrupted because our planet is warming. We can stop the warming if we stop burning of fossil fuels, but perhaps not soon enough.

In this issue of the Sylvanian, we are talking about global warming and the campaigns that the Club has developed to stop the burning of fossil fuels. And we have included some good news – that within the next 20 years we can rely on renewable energy to power our country – and some bad news – that it is too late to stop the catastrophic effects of global warming.

Whatever we decide to call this problem, we have to do whatever we can get this on the national political agenda.

WENDI TAYLOR AND PHIL COLEMAN
Co-editors of The Sylvanian

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GLOBAL WARMING

Special Report
13 Introduction
14 Time to Take Climate Action to a New Level
16 One Coal Plant Retired Each Month in 2012
18 No Hope for Averting Catastrophic Climate Change
20 Message Boxes
21 Beyond Oil Campaign
22 Beyond Natural Gas
23 The Natural Gas Message Boards
24 The Governor Superspeaks on Marcellus Shale
25 National Club Election this Spring
26 Renewable Energy Could Meet 99.9% of Power Demands by 2030
27 News Briefs

Landmarks
4 The View From Harrisburg
9 Coleman’s Lantern
11 Explore Enjoy Pennsylvania
28 Meetings and Outings
31 Chapter Directory
33 Crossword

News
2 From the Editors
7 Nature and Decency
10 Rally in Washington D.C.

New Feature! Click on any Table of Contents listing to go directly to that page.
by Jeff Schmidt

2012 ELECTION RESULTS: VICTORY AT THE TOP OF THE TICKET

Sierra Club volunteers and staff worked hard to make sure that the results of the 2012 election will improve our collective ability to protect the environment and public health. Thanks for all you did to help elect our candidates! We were delighted that President Obama was re-elected, and that U.S. Senator Bob Casey beat back a challenge from a coal company owner who accused both Casey and Obama of waging a “war on coal.”

In our Congressional races, all of our endorsed incumbents won, while none of the endorsed challengers were able to defeat anti-environmental incumbents. One big (we hope) improvement was the election of Matt Cartwright in the 17th Congressional District, who defeated incumbent Tim Holden in the Democratic primary. Holden was a classic “blue dog Democrat,” voting with the Republicans on many environmental issues, especially energy. Cartwright announced his opposition to Marcellus gas drilling in the Delaware River basin, supporting the current moratorium imposed by the Delaware River Basin Commission. Cartwright’s environmental positions were highlighted during the campaign with his three-day canoe trip on the Delaware, accompanied by environmental supporters including Sierra Club members.

At the PA state level, Sierra Club helped elect Eugene DePasquale as Auditor General. This is the first time the PA Chapter has endorsed in an Auditor General race. Mr. DePasquale campaigned with a pledge “on day one” to audit how DEP is monitoring water pollution caused by Marcellus Shale drilling. This is critical because there need to be some checks and balances on the Corbett administration’s anti-environmental actions. With both the PA Senate and House controlled by conservative Republican leadership, having an Auditor General willing to challenge Corbett’s DEP and its “go soft on polluters” policies will be important. Several Sierra Club officials have met with Mr. DePasquale, following the election and are excited by his plans to hold the Corbett administration accountable.

PENNSYLVANIA GENERAL ASSEMBLY TO SEE SLIGHT IMPROVEMENT

In the PA Senate, the best news is that three Sierra Club-endorsed Democratic Senate candidates won, replacing three retiring Republicans. Sierra Club helped elect: Rob Teplitz (Dauphin County / Governor Pinchot Group), Sean Wiley (Erie County / Lake Erie Group) and Matt Smith (Allegheny County / Allegheny Group). A few weeks after the General Election, Chapter Chair Wendi Taylor and I had an opportunity to meet with each of the new Senators-elect to congratulate them and present them with a 2013 Sierra Club calendar. They each told us how they appreciated the support of Sierra Club, and pledged to work with us in the future.

With their elections, the Republican majority in the PA Senate narrowed from 30 - 20 to 27 - 23. With this narrower margin, it will be more difficult for the conservative Senate leadership to force through Corbett administration anti-environmental initiatives. The moderate Republican Senators from southeastern PA will have more leverage on their leadership. If three of them choose to side with the Democrats on an environmental issue, the Republicans would no longer have a majority (assuming the Democrats all stick together).
In the PA House, the short story is: “status quo.” We were successful in defending our incumbent friends, and elected several candidates to replace retiring friends. However, the balance of power in the PA House remains Republicans 111, Democrats 92. The biggest disappointment for us was the failure to re-elect Dave Levdansky (Allegheny and Washington counties). He was a long-time House champion who lost his seat to Rick Saccone in 2010. The margin of Levdanky’s defeat was so close at one point that a recount was planned. The Republican House leadership will continue to be conservative, and with their margin of control, prospects of passing good legislation in the House continue to be limited.

OPEN COMMITTEE CHAIRS

Three important Committee Chairs retired at the end of 2012. Their replacements will be an indication of the direction their leadership wants the committees to take. In the House, Environmental Resources and Energy (ER&E) Chair Scott Hutchinson (R, Venango) resigned, and has been elected to the PA Senate. He will represent the Senate district of retiring Senator Mary Jo White, who was the Chair of the Senate Environmental Resources and Energy Committee. Minority Chair of the House ER&E Committee, Camille “Bud” George (D, Clearfield), has retired after 30 years as the Democratic Chair of the House Conservation Committee and later the ER&E Committee. The only environmental chair who is not leaving is Senator John Yudichak (D, Luzerne) who will continue as Minority Chair of the Senate ER&E Committee.

There are rumors in the Capitol that Republican Senator Gene Yaw is jockeying for the Senate ER&E Committee Chair position. Yaw, who represents prime Marcellus gas drilling territory in Lycoming, Bradford, Sullivan, and Susquehanna Counties, is an unabashed champion of the drilling industry. It is unclear who will become the Republican and Democratic Chairs of the House ER&E Committee.

CORBETT ADMINISTRATION WILL ROLL OUT NEW PA ENERGY POLICY: EXPECTED TO BE HEAVY ON PROMOTING FOSSIL FUELS AND WEAK ON RENEWABLES

In his first two years in office, Gov. Corbett has been a champion for natural gas drilling in PA. At the same time, he has opposed modest efforts to increase solar energy and has allowed state purchases of renewable energy to plummet.

In 2013, we can expect the Corbett administration to roll out a new Pennsylvania Energy Policy that will emphasize fossil fuels while downplaying the role of renewable energy and efficiency. All the signs are there. Department of Community and Economic Development (DCED) Secretary Alan Walker, a coal company CEO, announced that a new energy policy was coming, and suggests that the federal government should emulate PA’s energy blueprint. The Manufacturing Advisory Council, whose members were handpicked by Gov. Corbett, released a series of recommendations, including one that calls for Pennsylvania to reject any energy mandates that weren’t required by the federal government; Finally, Gov. Corbett’s Energy Executive Patrick Henderson is working on an energy policy behind closed doors, which has been referred to as an “all of the above” approach.

A new PA energy policy will likely have several components: changes to regulations and policies that could be implemented by state agencies under the control of the Governor (i.e. DEP, DCNR, DCED,
Transportation), changes that could be implemented through Executive Order (with no public input), changes that require a new law or amendments to an existing law. The latter would require passage by the PA General Assembly, who in 2012, passed the Governor's gas drillers' wish list, Act 13.

Already, Senate Majority Leader Pileggi (R, Delaware) and Senator Gene Yaw (R, Lycoming, Sullivan) have announced plans to introduce legislation to promote the rapid expansion of natural gas use in Pennsylvania that include: converting public buildings to natural gas, funding the expansion of natural gas service to areas currently un-served or under-served, and easing requirements to become a public utility. This may be introduced early in 2013.

PA SUPREME COURT MUM ON GAS DRILLING ACT 13 RULING

A number of local governments brought suit against Act 13, claiming that the provisions that eliminated local government's zoning authority over gas drilling are unconstitutional. PA Commonwealth Court agreed with the local governments, and struck down the local government pre-emption provisions. The Corbett administration immediately appealed Commonwealth Court’s decision, insisting that local governments had no constitutional right to limit whether drilling could occur in a residential neighborhood. The PA Supreme Court heard arguments from both the Corbett administration, as well as the municipal government plaintiffs. Sierra Club filed an Amicus brief in support of the plaintiffs. As this is written, there has been no word from the Supreme Court.

If the Commonwealth Court ruling is overturned, then Act 13 would be upheld and fully in effect. If the Supreme Court upholds Commonwealth Court, it will be seen as a major defeat for the drilling industry, which made local pre-emption a “must-have” in Act 13. A Supreme Court ruling to uphold Commonwealth Court might also include hints at what kind of “scaled-back” pre-emption language the Court would be willing to accept. We expect legislative action on amendments to Act 13, if the Supreme Court upholds Commonwealth Court’s decision.
Nature and Decency
by Shavar Thompson

To say that I remember the exact dates of my active membership with the Harrisburg Inner City Outings program would be lying. To claim I remember every member on every trip would be exaggerating. A lot of time has passed and friendships have become distant to the point that telescopes may be needed to reclaim them, similar to astronomers making sense of familiar patterns in our universe. What I can claim with confidence is the feelings associated with the memories of humbling, motivating, informative, character-building, and spirit enriching trips with folks that I consider family to this day, no matter how far apart our walks of life take us.

Some of my fondest memories of the past are from the heart of Cumberland Courts. It is where I always enjoyed playing my favorite sport (football), where I first encountered lifelong friendships, love, and camaraderie; where wrestling matches and ring-up would last until after the twilight zone came on at night, and where truth or dare ruled the night. Anyone who grew up at Cumberland Courts with me would tell you that its heart is our hearts. And forever imprinted in our hearts will be Messiah Lutheran Church.

For me the church couldn’t have become active in our lives in a timelier manner. I was a kid who felt like the world hated me and was desperately looking for direction. And it was delivered. We called the angels of Messiah Lutheran Church “THE CHURCH PEOPLE.” Members of the church would come tell us Bible stories and bring enough refreshments to feed the whole complex.

As the years rolled along, members of Messiah Lutheran Church took it upon themselves to introduce us children to the Inner City Outings program through Sierra Club. The pioneers of this initiation have slipped from my memory but I do remember we were the first set of kids from our neighborhood to join the program. Along with the first set of children came the servants to guide us. A few names I remember are Ms. Deb, Mr. Brian, Mr. Brook, and Mr. Pat.

Some of the first trips I can recall going on are the haunted hay ride at Fort Hunter, fossil digging, and the Christmas tree farm. Trips like The Haunted Hay ride instilled courage into our hearts at a young age. They also allowed us to build camaraderie amongst each other on a level equivalent to what organized sports accomplish. I learned a deeper understanding of the importance of qualities like teamwork, honesty, integrity, strong will, forgiveness, sacrifice, determination, and faithfulness.

If not for the Inner City Outings program I wouldn’t know how to navigate the Appalachian trail. I remember being instructed to follow the white markers with awareness of my surroundings. I know the differ-
ence between plants that are edible and non-edible. I know the delicacy it takes to preserve fossils. I know how much a small act, like planting a tree, can create life. I was able to build leadership skills while in the ICO program.

One of the most valuable assets of the ICO program is the cultural diversity. As a kid in the program I was able to see the love and intelligence instilled in all people. The admiration of these folks allowed me to respect people of different colors and circumstances. The love they gave me reversed the concept of the world hating me and allowed me to love others too (even folks I do not know). Through preservation I learned to love inanimate objects as much as animate. Without the ICO program I may not have ever gotten over my youthful frustrations, or even built the necessary comprehension skills to make sense of the world.

Over time in the ICO program the challenges the staff put us through became more complex and physically demanding. We were not allowed to be content with outings that were just fun-filled. The ICO program trained us early to be able to adjust to adversity. Through backpacking, canoe trips, and kayaking I learned that sometimes you have to work beyond exhaustion to reach a goal. Better yet, I learned the joy of reaching goals that you work hard for. I also learned that along the way to those goals, you will need people who care for you. To this day I draw motivational strength from my peers. Inner City Outings taught me not to be afraid to ask for help or seek guidance. I credit my will power to the times when I wanted to give in and quit but the staff of the ICO program cheered me on to continue. For them giving up wasn’t an option, conquering one’s doubts was priority. Together we accomplished the goal. The love of each other and of nature created decency.

The Inner City Outings program allowed me to temporarily escape the madness that goes on every day in urban neighborhoods. I was not only allowed to see more, but I was shown that there were alternatives to what I knew as truth. I tested water, built pots out of clay with manure I helped collect, dug fossils, navigated some of the most dangerous trails in the U.S., built reefs, made birdfeeders, snorkeled, caught crabs in the middle of the ocean, etc. (the list could go on forever if my hands didn’t tire) -- all in the name of conservation. In the name of what God wants us to be: servants. Without ICO I wouldn’t be as open-minded, passionate, humble, grateful, caring, and loving as I am today. I wouldn’t love my environment and all the creatures in it. I wouldn’t care about picking up the garbage I see floating around. I wouldn’t have had an opportunity to witness God’s love on Earth and I wouldn’t have wanted to give back the same. May the giving start here.

Thank you Inner City Outings!!!!
Conserving our Energy
by Phil Coleman

When Attila the Hun sacked European cities, it was not Attila himself who raped, pillaged and destroyed. It was the “hordes,” his armies of lancers and archers who did the damage. Consider us: we object to Big Oil, Big Coal and Big Gas, who are combining to poison and warm our globe. But we, every one of us, are participating in the destruction. The Big Guys are Attila; we are the hordes.

We drive our cars prodigiously. We over-heat our homes and workplaces. We over-cool our homes and workplaces. We use water as though the supply were endless and flowing free. We consume the energy products we blame the Big Guys for purveying. Pogo was and continues to be right.

For this next year, I am going to work on a small correction. Some of you may want to try something similar. I am collecting my electric bill and my water bill, and I am checking my car odometer. I am going to use these as a guide with a resolution to use five percent less this coming year. I will raise my thermostat two degrees in summer and lower it two degrees in winter. Hardly a sacrifice. I will think about each car trip I make. Is this trip necessary? Could I combine it with other, essential trips? It should be easy to drive 500 fewer miles. I will shower slightly less often and keep showers short, with the water warm but not hot. I will run the dishwasher only when it is full, same for the clothes washer. Five percent less water should be easy.

Note: I am not the worst energy waster. I have neighbors who seem to live in their cars. I have neighbors who aren’t comfortable unless their homes are refrigerated in summer and sweat inducing in winter. And I am not the best conserver. I know two members of the chapter ex com who don’t drive at all. I know another Sierra Clubber who doesn’t heat his home above 55 degrees and who doesn’t air condition at all. But I will ignore both extremes for now. My object is not to compare myself to others. I will compare myself to me. Also, I am not making a jump off the cliff. Crash diets don’t work because they are too extreme. They try to do too much at once, so we give them up. I’m not doing the extreme. Just five percent. Can I improve myself by five percent? I think I can.

What would happen if consumption of coal, oil, gas, gasoline, and water dropped five percent nationwide? I won’t answer. Think on it.

Some astute historian will have objected to my Attila metaphor by now. It doesn’t quite fit. Attila made incursions throughout much of Europe. He destroyed several Roman outposts. But he never sacked Rome. The Huns didn’t destroy Rome. Romans did. Today, we are the Romans destroying our globe in spite of ourselves. Surely we can do a little bit better.

Some related and unrelated details:

Why have I put water on this energy list? Short answer: Water supply requires a lot of energy.

A century ago, my grandparents dug a fifty foot well and used a hand pump to get a plentiful supply of clean water. There is hardly any place left where people can do that today. Energy is required to
pump water from deep wells or dirty rivers. Energy is required to clean it up and make it drinkable. More energy pumps it to homes where more energy heats it. Then energy is required to pump the sewage away and clean it up. Water is precious. The water cycle is an energy sink.

Add agriculture to the list of miners and drillers, and you begin to get a list of the industries we have all enjoyed the benefits from that have destroyed and/or poisoned our water.

Why haven't I mentioned all the things drivers can do to conserve gasoline? Drivers can obey speed limits, keep tires inflated, quit using air conditioning, and even keep their cars maintained. I've done some of these things, but I can't quantify the fruits of my labor. Reducing miles traveled is easy to quantify. And the careless driver – the guy who doesn't check air pressure, etc. – saves more by reducing miles driven than the careful driver does. So I keep it simple.

Why don't I include fluorescents and LED? Those are good. I approve. But again, reducing the electric bill is easier and surer as a standard. I guess that I am not, for the purposes of this effort, interested in actions that come under the heading of “efficiency.” I want to stick with conservation, actions that mean the actor is giving up a little bit.

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**Rally in Washington D.C. - Sunday, February 17**

Millions of Americans are already feeling the disastrous effects of the climate crisis in their own lives. Families have been hit by monster storms like Sandy have experienced flooding and fires on the East Coast, farmers in the Midwest have been stricken by the worst drought in decades, residents on the West Coast have experienced some record rainfalls, and the list goes on.

It’s never been clearer that we need bold and immediate climate leadership -- that’s why this Presidents Day weekend, Sunday, February 17, thousands of activists will head to the White House and tell President Obama to shut down the climate-killing Keystone XL pipeline once and for all.

The last time we stood up against Keystone XL, thousands of us surrounded the White House -- and it worked. Right when every political and energy “expert” said the tar sands pipeline was a done deal, we beat the odds and convinced President Obama to take a year to study it.

Now that year is over, and Mother Nature has filed her public comments: the hottest year in American history, a horrible ongoing drought, and superstorm Sandy. And still Big Oil is pushing as hard as ever for their pet project, looking for even more private profit at public expense.

There is also good news: Together, we’ve proven time and time again that grassroots voices can speak louder than Big Oil’s dollars. So this Presidents Day, the Sierra Club, 350.org, and other environmental groups are working with our partners across the progressive community to organize the largest climate demonstration yet.

Our goal for Presidents Day is to form a massive human pipeline through Washington and then transform it into a giant symbol of the renewable energy future we need and are ready to build, starting right away.

We’ll have more details soon about the rally and how you can make your voice heard, but for now, start making travel plans and circle February 17 on your calendar. Together, we can show the president that the year’s delay didn’t lull us to sleep. Instead, we’re more fired up than ever, and determined to help him do the right thing.
Black Forest Vistas

by Gary Thornbloom

Hiking on a plateau should be easy, right? Well, the Black Forest Trail (BFT) on the Allegheny Plateau runs across ridges between drainages cut by streams, then drops into those drainages and climbs back out only to repeat this multiple times. When you are feeling rested by walking on the plateau, get ready for the next descent, and know that you will be climbing one more time.

The rewards are silence, streams in the hollows, and the subtle beauty of the many mountains receding in the distance from the numerous vistas. At times you will also be walking through thick, dark, coniferous forest - the black forest.

Numerous trails throughout this area make it possible to hike a loop that is less than the 42.1 miles of the entire BFT. The 11 mile loop I will describe includes many great vistas of the Pine Creek Gorge, mountains throughout the area, and on a clear day a vista that recedes all the way to Bald Eagle Mountain.

The trailhead is in Lycoming County 12.6 miles north of Haneyville, just off of PA44, in the Tiadgh- ton State Forest, Manor Fork Road parking lot. Begin hiking on the blue blazed Gasline Trail. This section of trail is what you would expect on a plateau, and the going is easy.

After about one mile the orange blazed BFT comes in from the left. Follow the orange blazes to your right. The short walk out to each of the vistas - White Birch, Moss Hollow, Canyon, and the additional unnamed vistas - are highlights of this trek. As the ridge narrows numerous views through the trees complement the more expansive vistas. There are great views of Pine Creek Gorge, Half Dome (the highest direct rise from Pine Creek to the rim) and Hemlock Mountain, which is where you will be standing later on this hike. See if you can identify Pyramid Mountain, which is visible in many of the downstream views.

Hiking the entire 11 mile loop is strenuous, and includes a steep descent and a steep climb. Hiking about 3.5 miles from the trailhead and then retracing is an easy hike, and includes several of the vistas.

If you are prepared for the tough part of this hike continue on the BFT as it drops over the edge and into Naval Run. Take a moment to appreciate the trail work that reopened the path through the tangled mess of wind felled trees. Trail maintenance is primarily done by volunteers, and every hiker should consider giving back by helping to maintain the wonderful network of trails throughout Pennsylvania. Not all maintenance is done with a chainsaw, some is with a paintbrush!

Naval Run flows through a beautiful steep sided hollow with numerous campsites. The stream has a few small drops with one nice falls not far from its mouth. At low water levels it is easy to rock hop across and continue up the other side.
Eventually a steep ascent through thick hemlocks - part of the black forest - mitigated by switchbacks ends with a gentle walk to the top of Hemlock Mountain. Approaching the top there is a view up Pine Creek Gorge that includes several of the ridges that the BFT follows. A little further and there is a campsite, and here is one of the best views: downstream, flat plateau topped ridge after ridge dropping into Pine Creek Gorge and Bald Eagle Mountain at the horizon.

After a lunch stop or break, continue west. There is a short, steep, rocky drop to a saddle between Naval Run and Callahan Run. On our recent hike we encountered a surveyor’s stake and “CCG Veritas” flagging. This is one of the many out of state - in this case Texas - companies that are engaged in carving up our State Forests for natural gas development. This trail, and this State Forest, as well as many other trails and State Forests are being severely impacted by the Marcellus Shale gas drilling boom. Nearby the Golden Eagle Trail is threatened, and further east the Old Loggers Path is threatened.

At the point where the BFT turns sharply to the south continue walking straight ahead on the Old Cutoff Trail - yellow blazes. This trail ends at Big Trail Scenic Road. Follow the road to the right to Trout Run Road, and then follow this road to the right. Both roads are State Forest gravel roads, and are plateau flat.

In a short distance the BFT returns onto Trout Run Road from the left. Continue on to PA44. Manor Run Road, where you parked, is a short distance north from here. Either follow the highway or walk a short section of the Ruth Will Trail - blue blazes - which parallels the left side of the highway. After the trail passes the fire tower it approaches PA44, follow PA44 north to Manor Run Road.

Hikers with a wide range of abilities will be able to enjoy the first part of this hike. Hiking the entire 11 mile loop will provide a challenging day in the woods, enjoying and exploring one of Pennsylvania’s finest trails. The black forest, the hollows, and most of all the vistas, are worth the walk. They are also worth fighting to protect!
Global Warming

We Have Been Working on Global Warming
by Wendi Taylor

Global Warming is back on the nation’s radar. Why? Because we are beginning to experience the effects of a warming planet. We are learning that we are no match for the awesome power of wind, water and sun when they align against us. We can predict and prepare for storms but we cannot stop them. In the last 10 years, we have seen record floods, droughts, hurricanes and tornadoes and it has only just begun.

Some members believe that the Sierra Club has dropped the ball on global warming. Nothing could be further from the truth. For years, the Sierra Club has been working to abate global warming through its many campaigns, including Beyond Coal, Beyond Natural Gas and Beyond Oil. The Club is also working to encourage energy conservation and the development of clean, renewable energy sources. All five initiatives have been developed with one goal in mind – to abate global warming by reducing the burning of fossil fuel. But our efforts do not stop there. The Water Issues Committee and the Air Issue chair have also been working on key protections that also abate global warming.

We are not the only group working on global warming. Many groups, like the Union of Concerned Scientists, Green Peace, 350.org, and others, are working on the problem of global warming. Each group has its own unique methods, skills, and appeal but the goal is the same. We are not in competition with each other. To succeed, we need to work together as allies. Why? Because we are up against the interests of the most profitable businesses in the history of the world. We need to build a movement in which tens of millions of people demand that we end the burning of fossil fuel and convert to clean, infinite energy sources. That is our challenge and the more groups working on this single goal the better.
Editor’s Note: When Climate Change first became a public concern and when carbon emissions from coal burning were identified as the central problem, the industry began to talk about carbon sequestration – pumping CO2 deep underground so it wouldn’t become a greenhouse gas. It is difficult to tell whether the industry ever took this plan seriously. What is clear is that it developed a public relations campaign around the slogan “Clean Coal.” Ignoring all the other problems with coal burning (including those pollutants that make people sick), the industry just claimed that if we could sequester the carbon there would be no problem. Sequestration is technically possible, but in reality it is a pipe dream. It could only be done on a large scale if massive amounts of federal dollars were pumped in to fund it. Further, the sequestration process consumes so much energy that the net gain is small. The PR campaign has lasted longer than the process. Here is Club professional Tom Schuster’s take on the situation.

I have been worrying about global warming since middle school. I’ve long considered it the most pressing environmental issue we face, and it has been the driving force behind the educational and professional choices that have led me to work for the Sierra Club. So I had been frustrated that until recently, the public seemed uninterested in hearing about climate change. Our Communications team read the polling data and concluded that we would have more success with our target audiences if we talk about the human health toll exacted by fossil fuels rather than focus on their climate changing potential.

We have had fair success with this approach to this point. Since the beginning of the Beyond Coal Campaign, we have been able to kill 174 out of 200 proposed new coal plants nationally, and, in 2012, for the third year in a row, no new coal plants broke ground. This year saw 54 more coal plants, eight of which are in Pennsylvania, announce retirement dates. This brings the total to 126 since 2010, representing 25 percent of the national coal fleet. Meanwhile, the nation has added over 57,000 million watts (MW) of wind and solar capacity, an amount greater than the coal capacity set to retire, and enough to power 10 percent of the homes in the US.

In Pennsylvania, our clean energy policies are starting to be fully implemented. By 2020, our state will be saving 7.7 million MW of electricity annually, and generating another 10.5 million MW from renewable energy, which is enough to not only make up for the lost generation from the ten coal plants set to retire by then, but also offset the generation from three additional coal plants. These successes, coupled with improvements to vehicle fuel efficiency, have put national greenhouse gas emissions on a negative trajectory for the first time ever, which was thought impossible in the absence of federal policy to put a price on carbon.

We have made a great deal of progress, but we have a LONG way to go. We are not yet on track to reduce our emissions to levels considered sustainable. And further reductions will be harder to achieve than recent successes. We are implementing the least expensive efficiency measures first, and although much more energy savings are possible and cost effective, they will require more than just changing light bulbs. As renewable energy becomes more prevalent, fossil fuel interests are seeing it as a threat and are attacking policies that promote them. And the remaining coal plants have better air pollution controls that those that have retired, making them less susceptible to attack using the Clean Air Act.
We will get to a point where the old arguments won’t work as well, and we will need to use global warming mitigation as the explicit justification for the policies we promote.

Superstorm Sandy opened a lot of eyes to what a changed climate looks like. We need to build this newfound concern into a movement. Congress is nowhere near meaningful action to control carbon emissions, and it will take nothing short of a sustained effort on the scale of the Civil Rights movement of the 1960’s to spur them to action. We’ll have to engage more than the usual suspects to do this. To begin this effort, Sierra Club has launched the Climate Comes Home initiative (http://content.sierraclub.org/climatecomeshome/), which encourages everyone to share their stories about how climate disruption has impacted their everyday lives. The intent is to expand the discussion beyond traditional environmentalists to the kitchen tables of America.

President Obama recently told Time magazine that dealing with climate change was one of his top three priorities in his second term, which gives our movement an opening to galvanize around. Between his inauguration and Earth Day 2013, we will be launching our 100 Days of Climate Action campaign, which will highlight specific administrative actions the President can take on his own, through Environmental Protection Agency, the Department of Interior and State and other departments, to address the issue. This comprehensive suite of measures is organized into five pillars: 1) hold fossil fuel polluters accountable for their pollution; 2) reject proposals to import dirty fuels and stop the rush of fossil fuel exports, 3) double down on clean energy, 4) protect communities from future climate disasters and ready a robust and just response, and 5) protect our lands, water and wildlife from the impacts of fossil fuel development and climate change. If we are successful, we will not only have a significant direct impact, we will demonstrate to Congress that we mean business on this issue. But we’ll need your help to make it happen.

We should be heartened that in recent years clean energy has moved from future hypothetical to reality. Unfortunately, climate disruption is clearly also a reality, and we have very little time left to get on a path to avoid a very inhospitable future. The time to build a strong movement is now.
Over the past twelve months, the nationwide campaign to phase out coal burning in the United States continued to win victories from coast to coast, including securing dozens of coal plant retirements and record investments in wind and solar. Facing unprecedented public opposition, the coal industry experienced numerous setbacks in 2012 as its market share fell and stock prices tanked.

With an overarching goal to move America off coal and slash carbon pollution, an unprecedented coalition including Sierra Club and more than a hundred local, regional and national organizations has helped to secure the largest drop in U.S. coal burning ever. The campaign now includes legal and grassroots fights targeting every stage of the coal lifecycle in more than forty states and has grown to become one of the largest and broadest grassroots environmental campaigns in the nation’s history.

The year saw 54 existing coal plants retired or announced to retire, an average of one plant per week. Meanwhile, no new coal plants broke ground this year, marking the end of the coal industry’s decade-long “coal rush,” a highly controversial Bush-era plan to build more than 200 new coal plants and lock the nation into a dirty, coal-fueled future. Opposition from community members nationwide prevented the construction of 174 proposed coal plants, including 13 in 2012 alone.

The decline of the coal industry’s fortunes was evident in the marketplace as well. In 2012, many investors lost big on coal, with numerous bankruptcies of coal mining companies and coal-burning utilities including Midwest Generation in Illinois, Patriot in West Virginia, and Dynegy in Texas. After declaring bankruptcy, Patriot – Appalachia’s third largest coal company – reached an agreement with the Sierra Club and its allies to end the practice of mountaintop removal coal mining and retire much of its large scale surface mining equipment. The poor economics of coal were epitomized by the news that the Great River Energy Spiritwood coal plant in North Dakota has sat idle since it was completed at a cost of $440 million earlier this year.

But coal’s downward spiral in 2012 is only half the story. With help from the Beyond Coal campaign and its allies, the wind industry hit 50,000 megawatts of installed capacity nationwide, and today more than ten states get at least ten percent of their electricity from clean, renewable wind power. Similarly, solar made significant headway, and in the first nine months of 2012 solar power increased 80 percent over the same period in 2011. By year’s end the solar industry is projected to install 3,200 megawatts. Through September 2012, the U.S. now has enough solar and wind installed to power more than 12 million homes.

“This grassroots campaign is doing something no one thought was possible,” said Bruce Nilles, Senior Director of the Sierra Club’s Beyond Coal campaign. “At this pace, we are on track to end the scourge of coal burning in the United States within the next two decades. Every coal plant retired means less mining destruction, less air and water pollution, and a better chance to prevent runaway climate disruption.”

“The health of our families and our children are the big winners.
in 2012,” said Mary Anne Hitt, Director of the Sierra Club’s Beyond Coal campaign. “Through landmark pollution standards and a decline in coal power, millions of Americans have cleaner air and water, our children are safer from toxic chemicals, and we’ve laid the building blocks for averting future climate disasters.”

“The Beyond Coal campaign succeeded in 2012 by moving our nation toward a cleaner energy future, benefitting both the public health and the public good,” said philanthropist and Mayor Michael R. Bloomberg, whose Bloomberg Philanthropies has committed $50 million to the Sierra Club’s Beyond Coal campaign.

Launched in 2002, the Sierra Club’s Beyond Coal campaign is working to 1) stop the construction of new coal-fired power plants, 2) retire the country’s existing coal plants and replace them with clean energy no later than 2030, and 3) keep US coal reserves underground and out of world markets.

Beyond Coal 2012 - By The Numbers

- 0 new coal plants broke ground – the third year in a row that the campaign prevented any new coal plants from starting construction
- 0 new coal export facilities broke ground in the Pacific Northwest
- 13 proposed coal plants abandoned or defeated
- 54 coal plants retired or announced to retire, with a grand total of 126 coal plants announced for retirement since January 2010
- 18,789 megawatts of coal retired or announced to retire, with a grand total of 46,904 megawatts retired or announced to retire since January 2010
- 90 percent of mercury pollution from existing coal plants - our nation’s biggest source of mercury pollution - will be eliminated, thanks to national mercury protections finalized by Environmental Protections Agency this year
- 1,992 megawatts of solar power installed as of September 2012 – bringing the total amount of solar operating in the U.S. to 5,900 megawatts
- 4,728 megawatts of wind power installed through Sept 2012 – an increase of 40 percent from Sept 2011. In total there is now 51,630 megawatts of wind power operating in the US
- 12 million homes – about 10 percent of the country – could be powered by the amount of solar and wind generated in the first nine months of 2012 alone
- 13,872 workers added to the solar industry in 2012 – a growth of 13.2 percent over 2011
- 8 percent decrease in overall electric sector carbon dioxide emissions – a twenty year low in US carbon emissions – mainly due to a decline in coal-fired generation
- 38 percent of overall electricity generation provided by coal through September 2012, a historic decline from 50 percent less than five years ago
- 10,000+ citizens turned out to oppose new coal export facilities in the Northwest
- 1,773,027 emails and comments sent calling on EPA and national leaders to curb coal plant pollution and invest in clean energy

[Back to TOC]
Of all the findings in the 2012 edition of the World Energy Outlook, the one that merits the greatest international attention is the one that received the least. Even if governments take vigorous steps to curb greenhouse gas emissions, the report concluded, the continuing increase in fossil fuel consumption will result in “a long-term average global temperature increase of 3.6 degrees C.”

This should stop everyone in their tracks. Most scientists believe that an increase of 2 degrees Celsius is about all the planet can accommodate without unimaginably catastrophic consequences: sea-level increases that will wipe out many coastal cities, persistent droughts that will destroy farmland on which hundreds of millions of people depend for their survival, the collapse of vital ecosystems, and far more. An increase of 3.6 degrees C essentially suggests the end of human civilization as we know it.

To put this in context, human activity has already warmed the planet by about 0.8 degrees C -- enough to produce severe droughts around the world, trigger or intensify intense storms like Hurricane Sandy, and drastically reduce the Arctic ice cap. “Given those impacts,” writes noted environmental author and activist Bill McKibben, “many scientists have come to think that two degrees is far too lenient a target.” Among those cited by McKibben is Kerry Emanuel of MIT, a leading authority on hurricanes. “Any number much above one degree involves a gamble,” Emanuel writes, “and the odds become less and less favorable as the temperature goes up.” Thomas Lovejoy, once the World Bank’s chief biodiversity adviser, puts it this way: “If we’re seeing what we’re seeing today at 0.8 degrees Celsius, two degrees is simply too much.”

At this point, it’s hard even to imagine what a planet that’s 3.6 degrees C hotter would be like, though some climate-change scholars and prophets -- like former Vice President Al Gore in An Inconvenient Truth -- have tried. In all likelihood, the Greenland and Antarctica ice sheets would melt entirely, raising sea levels by several dozen feet and completely inundating coastal cities like New
York and Shanghai. Large parts of Africa, Central Asia, the Middle East, and the American Southwest would be rendered uninhabitable thanks to lack of water and desertification, while wildfires of a sort that we can’t imagine today would consume the parched forests of the temperate latitudes.

In a report that leads with the “good news” of impending U.S. oil supremacy, to calmly suggest that the world is headed for that 3.6 degree C mark is like placing a thermonuclear bomb in a gaudily-wrapped Christmas present. In fact, the “good news” is really the bad news: the energy industry’s ability to boost production of oil, coal, and natural gas in North America is feeding a global surge in demand for these commodities, ensuring ever higher levels of carbon emissions. As long as these trends persist -- and the IEA report provides no evidence that they will be reversed in the coming years -- we are all in a race to see who gets to the Apocalypse first.


This article is published with the permission of TomDispatch.com, where it first appeared. The article is part of a longer piece, which can be found at: http://www.tomdispatch.com/blog/175621/

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**Answers to Crossword Puzzle**

(from page 33)

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Find us on Facebook: http://www.facebook.com/PASierraClub

Follow us on Twitter: @SierraClubPA
Message Boxes
The Sierra Club has come out with a new resource to help club members talk about environmental issues in a simple, non-technical way – Message Boxes.
Message boxes are being developed on a variety of topics, which can be found on Club House. As an example, here is the message box on Hurricane Sandy and Climate, which is used by staff to talk to the press and the general public.

PROBLEM
Superstorm Sandy is a tragic example of the more-extreme weather patterns caused by climate disruption. Leaders at all levels must do more to protect our families from increasingly severe and frequent climate disasters.
- Extreme weather events like Sandy are more frequent and dangerous due to climate disruption — it’s like putting our weather on steroids.
- Unless we continue reducing carbon pollution, storms like Sandy might become the new normal.

SOLUTIONS
We are already making real progress in the fight against climate disruption by progressively reducing America’s dependence on fossil fuels like coal and oil while encouraging innovation in wind, solar, and other clean energy sources — but we can do still more to limit climate disruption.

a) Today, the United States has its lowest levels of carbon pollution in 20 years, leading the world in reducing dangerous carbon pollution.

b) In the past four years, solar-energy production has increased by a factor of five and wind-energy production has doubled.

c) We need to cut our use of dirty fossil fuels, limit dangerous carbon pollution, and move our states and our nation toward clean, renewable energy like wind and solar power.

BENEFITS
Switching to clean, renewable energy reduces the carbon pollution that causes the climate disruption that fuels monster storms like Sandy.

a) Investing in clean, renewable energy will cut energy costs, create millions of new American jobs, and keep our families safer and healthier.

b) Making our buildings and homes more energy-efficient cuts waste, saves money, and makes communities more resilient during power disruptions.

c) Limiting pollution from fossil fuels like coal, oil, and gas will mean cleaner air for our kids to breathe as well as reduce the threat of extreme weather events like superstorms, droughts, and wildfires that hurt people and destroy communities.
The Sierra Club’s Beyond Oil Campaign goal is to cut U.S. oil consumption in half by 2030. To achieve that goal, we will need to dramatically reduce the oil used to get from place to place, which currently drives our addiction to oil. This addiction not only contributes to climate change but also threatens the economy, national security, and public health. In 2011, the United States burned over 14 million barrels of petroleum products every day for transportation, with cars and light trucks guzzling 8.8 million barrels of gasoline daily. Cars and trucks generate 20 percent of U.S. carbon dioxide emissions.

Oil is a leading source of smog and other toxic pollutants that contribute to tens of thousands of deaths each year. Our thirst for oil threatens our coasts, our Arctic, and our most precious places with catastrophic spills. It disrupts our climate, poisons our drinking water sources, and pollutes our neighborhoods — with lower-income communities suffering a disproportionate share of the health and environmental harm.

We send nearly $1 billion overseas every day to pay for oil, threatening our economy and national security.

While the new vehicle fuel efficiency and greenhouse gas standards will ensure cars and trucks burn significantly less oil, these standards alone will not be enough to meet the goal for reducing oil consumption that is essential to climate protection. To meet that goal, Americans must have access to transportation options that do not rely on driving and oil to travel between home, work, school and errands, and we must rapidly turn to zero-emissions electric vehicles for remaining car uses.

The Sierra Club seeks to organize a coordinated effort to expand convenient, affordable, oil-free transportation options to Americans.

After decades of sprawl and neglect, many Americans lack access to clean, convenient, and affordable transportation options, such as public transit, and safe biking and walking.

Without transportation choices, many Americans are effectively shackled to the gas pump, left at the mercy of spiking gas prices. Our own analysis shows that not having access to transit can cost as much as $500 per person in added gasoline costs for transportation. Our current road system is in dire need of repair. More than 25 percent of our bridges are structurally deficient or functionally obsolete, and roughly 50 percent of the miles on our highway system are in need of repair.

Earlier this year, Congress passed the Moving Ahead for Progress in the 21st Century Act (MAP-21), a transportation bill that funds the nation’s roads, bridges and transit systems over the next two years. The new law offers Sierra Club activists specific opportunities to provide local communities with transportation options that will make our cities cleaner and more livable. Conversely, MAP-21 also makes it easier for state Departments of Transportation (DOT’s) to build boondoggle projects that will strengthen the nation’s reliance on fossil fuels.

Grassroots opposition at the state level will be key to stopping further sprawl that will only deepen our addiction to oil. Cities are already beginning to lead the way with innovative transportation projects, and Sierra Club is helping by supporting transit, implementing complete streets, and promoting bike
sharing. Importantly, younger generations are increasingly viewing life in vibrant, walkable communities and without a car as desirable. A recent poll of the Natural Resources Defense Council (NRDC) shows that 60 percent of Americans want more choices so they can leave the car at home. Building a strong, unified campaign around transportation solutions influence transportation planning, increase spending on clean transportation choices, and hold state DOTs accountable for spending funds to enable safe bike and pedestrian travel.

The Sierra Club's Beyond Oil campaign includes the Green Fleets Initiative, which will reward Fortune 500 companies that commit to reducing their use of tar sands oil products and their overall oil consumption by 25 percent in five years. In this initiative we will also target those companies that refuse to make these commitments.

Beyond Natural Gas
Compiled by Wendi Taylor

The Sierra Club has established its Beyond Natural Gas campaign to fight back against the dangerous drilling practice known as fracking. Pennsylvania is among the ten key states on the frontlines of this struggle. Natural gas drillers exploit government loopholes, ignore decades-old environmental protections, and disregard the health of entire communities. “Fracking,” a violent process that dislodges gas deposits from shale rock formations is known to contaminate drinking water, pollute the air, and cause earthquakes. If drillers can’t extract natural gas without destroying landscapes and endangering the health of families, then we should not drill for natural gas.

The club is working to ensure that natural gas companies are held accountable for their pollution and that strong national and state safeguards are put in place to protect our air, water, and communities. Efforts are being made to protect the public’s health, treasured landscapes and the climate from the dangers of fracking, while scaling up clean, safe energy sources such as wind, solar, and geothermal. “The emergence of natural gas as a significant part of our energy mix is particularly frightening because it dangerously postpones investment in clean energy at a time when we should be doubling down on wind, solar and energy efficiency,” noted Robin Mann, former Sierra Club President.

Here in Pennsylvania, we have had some success in holding the line on the steady progression of fracking. So far, there has been no fracking, water withdrawals, or gas development in the Delaware River Basin. Further, there has been no new leases to drill on Pennsylvania State Forest Land and no drilling on Pennsylvania State parks since the Corbett Administration took over. While there have been some reforms to the gas drilling laws in Pennsylvania, they are not the strong measures that are needed to protect the air, land and water.

Nationally, the club and its allies have made more progress. Rigorous rules have been adopted for drilling on federal lands: Bureau of Land Management requires full public disclosure, reporting and tracking of all fracking fluids and bans the most toxic substances used in fracking.

The Environmental Protection Agency (EPA) adopted strong regulations on air pollution, including volatile organic compounds (VOC’s), that reduce emissions by at least 90 percent from new and modified oil and natural gas production, processing, transmission, and distribution operations. In addition, the EPA is using its authority to ban use of diesel fuel for fracking under the Safe Drinking Water Act. Finally, the industry’s waste and toxic products are being regulated under the federal Toxic Substance Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA).
The Sierra Club is currently opposing three proposed potential Liquid Natural Gas export facilities in Oregon, Maryland, and Louisiana. It is submitting detailed legal and expert testimony in an effort to stop the exportation of natural gas to other countries.

The national goals established are:

- Pass strong gas reforms or moratoria in ten key gas states by 2016.
- Ban gas exploration and development in at least ten high priority areas and watersheds across the country, such as state parks and forests, key federal lands and the Delaware River Basin. Ensure sound management on Federal lands.
- Reduce air pollution, including methane and greenhouse gas emissions from all existing oil and natural gas production, processing, transmission and distribution operations by at least 90 percent over 2010 levels by 2016.
- Begin to close natural gas industry exemptions in federal, state, and local environmental laws.
- Stop proposed Liquid Natural Gas (LNG) export terminals and prevent conversion of LNG import terminals.

The Natural Gas Message Board

**STATE AND FEDERAL AGENCIES MUST TAKE ACTION**

Safe drilling practices need to be put in place to protect our health and health of our children.

Start with closing the loopholes that exempt fracking from the Clean Air, Water and Drinking Water Acts, and require frackers to disclose the chemicals they are using – we have the right to know.

**WE NEED SAFEGUARDS**

Fracking can’t be done safely under current conditions.

Where needed safeguards aren’t in place, we need to advocate for moratoria until they are.

There must be strong air and water quality controls.

There must be universal disclosure requirements.

We must fight to close industry loopholes. The natural gas industry exploits loopholes and disregards common sense environmental and health standards.

Clean up drilling. Natural gas fracking poisons our water and air, tears up landscapes, and threatens the health of entire communities.

Stop Liquid Natural Gas Exports. Exporting Liquefied Natural Gas (LNG) to overseas markets is a dirty, dangerous practice that lets the industry make a killing at the expense of human health.

Protect our Parks. Imagine hiking your favorite park, or fishing your favorite stream – only to have your peace destroyed by polluted water, or an earsplittingly loud drilling operation.
The Governor Superspeaks on Marcellus Shale
by Phil Coleman

When Mike Krancer, the secretary of the Department of Environmental Protection (DEP), and Governor Corbett’s “energy executive” Patrick Henderson announced “that Pennsylvania’s Marcellus Shale formation is the global superstar of natural gas formation” (see Post-Gazette published press release, Oct. 29, 2012), they made themselves the stars of superspeak. It’s not that they innocently misinterpreted; they deliberately distorted in order to persuade the public that it should go along with the industry misstatements about the potential of Marcellus shale.

Let’s look carefully at what they said. They said, “Recent reports from Standard & Poor’s and ITG Investment Research show the amount of recoverable gas in the Marcellus Shale play may be much greater than any previous government estimate.”

Krancer and Henderson were surely aware of the paper released by Penn State University in February, 2012, that described carefully how natural gas estimates differ. That paper pointed out that five different reports on Marcellus gas used five different terms, each with a different meaning. If you want to report a small amount of gas, you report “unproved technically recoverable reserves.” If you want to report a large amount, you “choose any of several other terms, extending to the original government report of original gas in place” or “technically recoverable reserves.”

The simple – or not so simple – fact is that there is much more gas in any formation than can ever be extracted. That is a truism that has prevailed for both oil and natural gas since the first wells were drilled. Over the decades, oil and gas drillers have developed techniques to get a greater portion of the deposit, but usually less than half. If you assume that techniques will be developed to extract more or all of the gas, then you can assume riches and a resource that will last for decades (or “a century,” a president said in a State of the Union address).

Developing technologies that enabled drilling over five miles deep, followed by horizontal drilling, followed by infusion of fracturing materials, has given us access to gas that wasn’t previously accessible – both because of its depth and because it is locked in shale. However, using the present methods, wells can extract only a small portion of what is there. The experience with Barnett shale is instructive. Mark Anthony has studied Barnett shale production and developed a mathematical model of its past, present and future production. His answer is that shale gas production from horizontal drilling and fracking (Barnett wells are fracked and refracked several times) begins to fall off dramatically after the first year. Wells go unproductive in a very few years. Arthur E. Berman reaches similar conclusions: shale gas declines in productivity quickly; only energy-sponsored (paid) experts find reason to report optimistic futures.

These articles are too long to include here, or even to summarize meaningfully. I invite readers to check them out:
http://petroleumtruthreport.blogspot.com/
The annual election for the Club’s Board of Directors is now underway. Those eligible to vote in the national Sierra Club election will receive in the mail (or by internet if you chose the electronic delivery option) a national Sierra Club ballot. This will include information on the candidates and where you can find additional information on the Club’s website.

The Sierra Club is a democratically structured organization at all levels. The Club requires the regular flow of views on policy and priorities from its grassroots membership in order to function well. Yearly participation in elections at all Club levels is a major membership obligation. Your Board of Directors is required to stand for election by the membership. This Board sets Club policy and budgets at the national level and works closely with the Executive Director and staff to operate the Club. Voting for candidates who express your views on how the Club should grow and change is both a privilege and responsibility of membership.

Unfortunately, only about 10 percent of the membership bother to vote. Those who don’t know the candidates often feel that voting is a meaningless exercise. You can learn about the candidates by asking questions of your group and chapter leadership and other experienced members you know. And you can visit the Club’s election website: http://www.sierraclub.org/bod/2013election

This site provides links to additional information about candidates, and their views on a variety of issues facing the Club and the environment.


Marcellus shale gas will go through a similar process: good production for the first year or two, then a decline. Production can be maintained by refracking and/or by drilling more wells. But the expectations created by Krancer and Henderson will never be met.

It goes without saying that in spite of their positions Krancer and Henderson are not objective guardians of the environment. Krancer, a former Environmental Hearing Board judge, contributed extensively to Governor Corbett’s election campaign and ended up with the position as DEP secretary. Henderson came to the executive branch after serving in Senator Mary Jo White’s office for some years. White was an oil and gas lobbyist before she was elected to the Senate. As a senator, she continued her support for the extraction industries above all else. Henderson learned from the best. Krancer and Henderson are industry advocates without regard for environmental consequences.

By the way, they are not alone. The Standard & Poor’s and ITG Investment Research they cite are two seemingly responsible agency reports which are in fact paid for by the industry. It is interesting that the energy companies invested in Marcellus development are more interested their stock ratings than they are in immediate profits. Wall Street is exclusively interested in stock market activity, which is how it makes its money.

The Corbett administration is doing all in its power to promote gas drilling and production in Pennsylvania, including tax breaks and lax regulation of the industry. Sadly, the kinds of breaks being given the industry create very few jobs, in spite of industry claims, and they create a situation in which the state has only one kind of option: either cut back on services or raise taxes. See a recent study reported in by the New York Times, “As Companies Seek Tax Deal, Governments Pay High Price” (Dec. 1, 2012).
Renewable energy could fully power a large electric grid 99.9 percent of the time by 2030 at costs comparable to today’s electricity expenses, according to new research by the University of Delaware (UD) and Delaware Technical Community College.

A well-designed combination of wind power, solar power and storage in batteries and fuel cells would nearly always exceed electricity demands while keeping costs low, the scientists found.

“These results break the conventional wisdom that renewable energy is too unreliable and expensive,” said co-author Willett Kempton, professor in the School of Marine Science and Policy in UD’s College of Earth, Ocean and Environment. The authors developed a computer model to consider 28 billion combinations of renewable energy sources and storage mechanisms, each tested over four years of historical hourly weather data and electricity demands. The model incorporated data from within a large regional grid called PJM (Pennsylvania-New Jersey-Maryland) Interconnection, which includes 13 states from New Jersey to Illinois and represents one-fifth of the United States’ total electric grid.

Unlike other studies, the model focused on minimizing costs instead of the traditional approach of matching generation to electricity use. The researchers found that generating more electricity than needed during average hours — in order to meet needs on high-demand but low-wind power hours — would be cheaper than storing excess power for later high demand.

One of several new findings is that a very large electric system can be run almost entirely on renewable energy.

The study sheds light on what an electric system might look like with heavy reliance on renewable energy sources. Wind speeds and sun exposure vary with weather and seasons, requiring ways to improve reliability. In this study, reliability was achieved by: expanding the geographic area of renewable generation, using diverse sources, employing storage systems, and for the last few percent of the time, burning fossil fuels as a backup.

The study used estimates of technology costs in 2030 without government subsidies, comparing them to costs of fossil fuel generation in wide use today. The cost of fossil fuels includes both the fuel cost itself and the documented external costs such as human health effects caused by power plant air pollution. The projected capital costs for wind and solar in 2030 are about half of today’s wind and solar costs, whereas maintenance costs are projected to be approximately the same.

“Aiming for 90 percent or more renewable energy in 2030, in order to achieve climate change targets of 80 to 90 percent reduction of the greenhouse gas carbon dioxide from the power sector, leads to economic savings,” the authors observe.

The research was published in November online in the Journal of Power Sources. http://www.udel.edu/udaily/2013/dec/renewable-energy-121012.html
In its first foray into the world of the Pennsylvania Public Utility Commission (PUC), the Sierra Club made its point and won. The Sierra Club challenged the efforts of PECO and four First Energy companies to reduce their goals for conservation programs.

The PUC oversees the Energy Efficiency and Conservation (EEC) Plans, which were established by Act 129 in 2008. The law calls for electric companies to conduct programs that reduce energy consumption. While both PECO and First Energy met or exceeded their targets in Phase I, they sought to reduce their targets in Phase II. The Sierra Club, which supports conservation efforts as a way of combatting carbon pollution, intervened and became a major player in the hearings. The club provided testimony and evidence that both companies could meet higher targets. In December the PUC unanimously adopted the targets proposed by the Sierra Club. The plans for Phase II will run from June 2013 through May 2016.

In December, Lisa Jackson, administrator of the Environmental Protection Agency (EPA), signed off on a new regulation limiting soot, which has been found to be particularly harmful to people.

Soot, microscopic particles can penetrate deep into the lungs, have been linked to a wide range of serious health effects, including premature death, heart attacks, and strokes, as well as acute bronchitis and aggravated asthma among children. A federal court ruling required EPA to update the standard based on best available science. The new requirement builds on smart steps already taken by the EPA to slash dangerous pollution in communities across the country.

The Clean Air Act requires EPA to review its standards for particle pollution every five years to determine whether the standards should be revised. The law requires the agency to ensure the standards are “requisite to protect public health with an adequate margin of safety” and “requisite to protect the public welfare.” A federal court ordered EPA to review its standards for particle pollution standards after the agency did not meet its five-year legal deadline.

The EPA received comments from 420,000 Americans urging the agency to act to restrict soot. Many industries resisted efforts to regulate soot because of the cost to prevent these small particles from being released into the air.

Ms. Jackson announced that she would be stepping down as EPA administrator in January.
Meetings & Outings

For up-to-date information, start times, meeting points, & directions, please see your Group's website or newsletter, or contact the Sierra Club members listed below.

Groups may plan events & outings after *The Sylvanian* goes to press & those listed here may change. Participants on outings must sign a liability waiver, available from www.sierraclub.org/outings/chapter/forms or from the Outings Department at 415-977-5528.

Sierra Club does not have insurance for carpooling & assumes no liability.

Chapter Executive Committee
http://pennsylvania.sierraclub.org/

**MEETINGS**

The Chapter Executive Committee (ExCom) meets between four and six times a year in locations near the middle of the state. Our meeting schedule for 2013 is:

- Saturday, January 12, 2013 – from 10 a.m. to 5 p.m. ExCom meeting at the community room of the Gander Mountain Store, 5005 Jonestown Road, Harrisburg, 17109.
- Saturday, March 9 - from 10 a.m. to 5 p.m. tentative ExCom meeting in the Harrisburg area
- Saturday, May 4 - from 10 a.m. to 5 p.m. tentative ExCom meeting in the Harrisburg area
- Saturday, May 4 - from 6 p.m. to 9 p.m. the Annual Awards Dinner at the Bongiorno Conference Center in Carlisle
- Sunday, May 5 - from 10 a.m. to 5 p.m. training session at the Bongiorno Conference Center in Carlisle
- Friday, Saturday, and Sunday, July 12, 13, and 14 - Annual Outing and Retreat at Susquehannock State Park, 1880 Park Drive; Drums, PA 17518-9751, hosted by the Lancaster Group, featuring an optional kayak trip downriver to see petroglyphs.
- Saturday October 5 - from 10 a.m. to 5 p.m. ExCom meeting in the Centre County Solid Waste Authority Building, 253 Transfer Road Bellefonte, PA 16823

**Allegheny Group**
www.alleghenysc.org

**MEETINGS**

The Allegheny group meets the 2nd Monday of the month from 7-9 p.m. at the Sierra Club Office, 425 North Craig St., Pittsburgh, PA

For more information, see the Web site: www.alleghenysc.org

**Governor Pinchot Group**
pennsylvania.sierraclub.org/pinchot

**MEETINGS**

The Governor Pinchot group meets the last Tuesday of the month at 6:30. For the meeting location, please check the Web site above.

**OUTINGS & PROGRAMS**

Interested in leading outings? Contact Bruce Sundquist, 724-327-8737 or bsundquist1@windstream.net

**Kittatinny Group**
pennsylvania.sierraclub.org/berks

**MEETINGS**

Kittatinny Executive Committee meets monthly. All members welcome. For more information, contact Kathy Stoica at 610-916-2928 or katstoica@yahoo.com
OUTINGS & PROGRAMS

For up-to-date listings of activities, see pennsylvaniasierraclub.org/berks/calendar.htm.

Saturdays in March - Macroinvertebrate Sampling, if interested in participating please contact Kathy Stoica at katstoica@yahoo.com or call 610-916-2928. Exact sampling date depends on weather conditions.

Sunday, April 21 - Berks County Earth Day Celebration in Reading, PA, Riverfront Park. For more information on the event visit www.earthdayberks.org. Volunteers are needed to man the Kittatinny Group Education Table. If interested, please contact Kathy Stoica at katstoica@yahoo.com or call 610-916-2928.

Lake Erie Group

MEETINGS

Business meetings are held the second Thursday of every other month at the Asbury Wood Education Center, on Asbury Road in Erie, starting at 6:30 p.m. to 8 p.m.

OUTINGS & PROGRAMS

Sunday, January 20 – 1 p.m. Free Cascade Creek Restoration Family Walking Tour. This 1 ½ hour walking tour is will show the methods being used to restore native creeks and streams in the Lake Erie Watershed to prevent erosion and enhance habitat for wildlife. This tour is limited to 20 hikers and is an easy walk at a comfortable pace. Dress warmly for rain or snow. To participate, meet at the new headquarters of the Lake Erie Arboretum at Frontier Park (LEAf); 1501 W 6th Street, Erie 16505; next to the tennis courts on West 6th Street. The standard waiver will be required. The event will be hosted by Dave Skellie, Coastal land use & economic specialist, PA sea grant. For more information, contact Outing leader: Tom Hiegel, Netwrkinc@aol.com

For information on Lake Erie Group activities, contact Chuck Benson at bensonville@aol.com

Lancaster Group

pennsylvaniasierraclub.org/lancaster

MEETINGS

General meetings of the Lancaster Group of the Sierra Club are scheduled for January 16, March 20, and June 19. All meetings are open to the public and begin at 6:30 p.m. They are held (unless otherwise noted on the website) in Lancaster Country Day School (LCDS), 725 Hamilton Rd., Lancaster. Parking is available in the school’s parking lot.

OUTINGS & PROGRAMS

The Sierra Club - Lancaster Group also has slated several outings or events, to which all people are invited.

Saturday, January 19 - 10 a.m., 3rd Annual Sierra Club Polar Bear 5K Trail Run/Hike in Lancaster County Central Park, starting and ending at Pavilion 22.

Saturday, February 9 – 9:30 a.m., Family Hike at Manheim Township’s Landis Woods Park, just off Lititz Pike near Neffsville.

Wednesday, February 20 - 7 p.m., Presentation on Organic Home Gardening at LCDS.

Wednesday, April 10 - 6:30 p.m., Tour of Oregon Dairy, 2900 Oregon Pike, Lititz, to identify ways this operation is green.

Saturday, April 20 - 8:30 a.m., Earth Day Removal of Invasive Plant Species from Landis Woods Park, just off Lititz Pike near Neffsville.

Saturday, May 4 - 9:30 a.m., Family Spring Wildflower Hike in Landis Woods Park, just off Lititz Pike near Neffsville.

Wednesday, May 15 - 7 p.m., Presentation on Composting at Lancaster County Central Park’s Environmental Education Center.

Visit the website www.lancastersierraclub.org for more details about these events, as well as others that are now in planning stages, or contact Jennifer Ericson at jericson@ezsolution.com or 717-892-2026

Lehigh Valley Group

pennsylvaniasierraclub.org/lv

MEETINGS

The Lehigh Valley Group Executive Committee meets at 7 p.m. on the first Monday of each month (except July) in Room 638, Fowler Family Center, Northampton Community College, Third and Buchanan Streets, (south) Bethlehem, Pennsylvania 18015. All members are welcome. This meeting is where we do our organizational planning and discuss environmental issues.

For updated information, please visit our Website: http://pennsylvaniasierraclub.org/lv/

For more information about Lehigh Valley Group, contact: Donald Miles, Lehigh Valley Group chair, at donmiles@rcn.com or 610-730-2514 or Matt MacConnell, vice-chair, at mattmacconnell@gmail.com or 610-657-2707.
OUTINGS & PROGRAMS
ifar you’d like to join us for outdoor fun, please consider
joining our outings MeetUp: http://www.meetup.com/
Sierra-Club-Lehigh-Valley-Group/

Moshannon Group
pennsylvania.sierraclub.org/moshannon

MEETINGS
Moshannon Group meetings are on the first Tuesday
of month at 7 p.m. at Clear Water Conservancy, State
College. All members & guests welcome. For more info,
contact Gary Thornbloom at 814-353-3466 or by email at:
bearknob@verizon.net.

OUTINGS
All outings open to general public & members. All levels
of ability and interest are encouraged to participate.
Moshannon Group’s outings are listed at: http://pennsyl-
vania.sierraclub.org/moshannon/outings.html

Northeastern Group
pennsylvania.sierraclub.org/northeastern

MEETINGS
Members are always welcomed and encouraged to join
us each month for our executive committee meetings,
where we plan activities & group priorities. Meetings
held on first Tuesday of each month, usually at 7 p.m. and
meeting sites vary. For more information, contact Jen
Lavery at JenLavery@aol.com.

OUTINGS
For more information, please visit the website above.

Otzinachson Group
pennsylvania.sierraclub.org/otzinachson

MEETINGS
Meetings are held the first Wednesday of every other
month. For more information, please visit the website.

OUTINGS
For more information contact:

Paul Shaw, Outings Chair
155 Mowery Lane
Sunbury PA 17801
717-215-8339
pshaw@ptd.net

Southeastern Group
pennsylvania.sierraclub.org/southeastern

MEETINGS
Executive Committee meets the second Thursday of the
month at 7 p.m. at Whole Foods Community Room, 20th
& Callowhill Sts, Philadelphia. To confirm the meeting date
and location, contact 215-820-7872.

OUTINGS & PROGRAMS
Please visit the website for updated outing information.
For more information on any event, contact Bill Brainerd
at 610-325-3127 or billbrainerd@gmail.com.

[Back to TOC]
SIERRA CLUB PENNSYLVANIA CHAPTER OFFICE
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Chapter Coordinator: Lindsay Delp .................................................... lindsay.delp@sierraclub.org

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Regional Representative: Rachel Martin
Associate Representative: Randy Francisco

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Secretary: Bill Brainerd ........................................................................... (610) 325-3127, billbrainerd@gmail.com
Treasurer: Brian Brown ........................................................................... (570) 412-9260; brianpetebrown@gmail.com
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vice Chair: Jack Miller ............................................................................ (570) 837-6546, jmiller1018@yahoo.com
Associate representative: randy francisco
Regional representative: rachel Martin

COUNCIL
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Alternate: Arthur Clark ............................................................................ (717) 774-3015, fsck100@gmail.com

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POLITICAL
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POLITICAL ACTION FUND
Chair: David Byman ............................................................................... (570) 963-2586, dxb14@psu.edu
Treasurer: Tom Anderson ........................................................................ (717) 432-4177, tandkindillsburg@aol.com

OUTINGS
Chair: Vacant

COMPUTER
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Dan Schreffler ....................................................................................... (570) 343-4056, webmaster@pennsylvania.sierraclub.org

SIERRA STUDENT COALITION
Vacant

GROUP LEADERS
ALLEGHENY GROUP (ALG)
Chair: Barbara Grover ........................................................................... (412) 521-9526; bdgrover1@verizon.net

GOVERNOR PINCHOT (GVP)
Chair: Robin Broderick ........................................................................ (717) 221-8590, rbroderick1@email.com
KITTATINNY (KIT)
Chair: Kathy Stoica ................................................................................ (610) 916-2928, katstoica@yahoo.com

LAKE ERIE (LKE)
Chair: Chuck Benson ........................................................................... (814) 868-9476, bensonville@aol.com

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LEHIGH VALLEY (LVH)
Chair: Donald Miles ............................................................................. (610) 865-3844, donmiles@rcn.com

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NORTHEASTERN (NEA)
Chair: Doug Heller ................................................................................ (570) 241-8244, dheller2@yahoo.com

OTZINACHSON (OTZ)
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SOUTHEASTERN (SPG)
Chair: Mathew Himmelein .................................................................. (215) 815-7757, mathew.himmelein@gmail.com
## CONSERVATION ISSUES

### AIR QUALITY
Chair: Nancy Parks  
(814) 349-5151, nfparks2@verizon.net

### COMMITTEE ON RADIATION AND THE ENVIRONMENT
Chair: Open

### ENERGY
Co-Chair: Justina Wasicek  
(717) 234-7445, jmwasicek@gmail.com
Co-Chair: Wayne Kenton  
waynekenton@comcast.net

### GLOBAL WARMING/CLIMATE CHANGE
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### INTERNATIONAL TRADE
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### LAND USE
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### MINING
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### PUBLIC LANDS
Co-chair: Cathy Pedler
Co-chair: Gary Thornbloom

### SUSTAINABLE AGRICULTURE
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### TRANSPORTATION
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### SOLID WASTE
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### WATER QUALITY
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### WILDERNESS
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### FIELD STAFF PITTSBURGH
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(412) 802-6161
Rachel Martin  
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### FIELD STAFF PHILADELPHIA
William Kramer  
(215) 253-5890

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**Bear in mind the consequences.**

The Yellowstone grizzly bear is an irreplaceable part of America’s natural heritage, a symbol of the independence that defines the American character and an icon of all that is wild and free. The Bush administration set forth a proposal that would remove federal protection for the Yellowstone grizzly bear. Since it was first listed as "threatened" under the Endangered Species Act in 1975, the grizzly bear has made a strong recover, but there is still more work to be done. Help Sierra Club protect our forest friends; they prefer the woods than being on display.

Get grizzly and JOIN Sierra Club.
Winter Crossword

Across
2  Former Club president, Robin _________
4  American wind power capacity: 50,000 _____
5  Beyond ____ Campaign
10 A particulate harmful to people
12 An occasion for environmental demonstrations
13 ______ Creek Gorge
14 A program for urban kids: Inner City ________

Down
1  Retiring Coal Plants: one a _____
2  Energy analyst who warns us about global warming
3  What 3.6 C temperature rise that will bring
6  A violent process that extracts gas from shale
7  Corbett’s energy executive, Patrick _______
8  New term: Climate __________
9  The Hun who sacked Europe
11 Lancaster Group Outing: Polar _____ Run

Answers can be found on Page 19