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Missouri Sierran

One Earth



One Chance

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<http://missouri.sierraclub.org>

Vote “Yes” on Prop C: for renewable energy, green jobs, and consumer protection.

by Henry Robertson

When you get your ballot on November 4, don't stop at the top. Go down past the candidates to where the issues are and vote “Yes” for renewable energy.

The Clean Energy Initiative will enact a Renewable Energy Standard (RES) — a requirement that electric utilities get an increasing percentage of their sales from renewable sources like wind, solar, biomass and small hydro. This is a tried and tested method that is already in place in half the states.

In Missouri the four investor-owned utilities (AmerenUE, KCPL, Aquila and Empire District Electric) will have to reach 2% renewable electricity by 2011, 4% by 2014, 10% by 2018 and 15% beginning in 2021.

The RES will displace coal-fired generation that is the biggest single contributor to global warming. Missouri now gets 85% of its electricity from coal, compared to the national average of 50%. Coal is twice as bad as oil or natural gas at releasing heat-trapping carbon-dioxide when burned; coal is nearly all carbon, except for impurities which are themselves pollutants, like mercury. Combustion produces sulfur dioxide and nitrogen oxides that cause smog and acid rain.

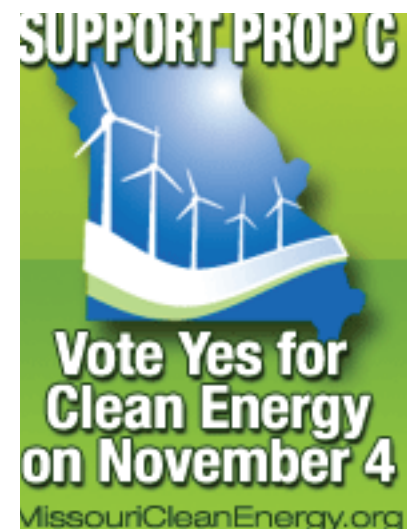
The RES will also give a boost to the renewable energy industries, helping them achieve economies of scale and bringing down their prices.

Colorado passed an RES in 2004 with a modest goal of 10% renewable electricity. In 2006 the legislature doubled the goal to 20%. Now there are two factories in

Colorado making blades for wind turbines. That's the kind of economic development we like to see.

The cost of fossil fuel and nuclear generation is going up (see “This CWIP isn't funny,” this issue) while renewables are becoming more competitive all the time.

The RES pays special attention to solar power. The utilities are otherwise free to choose whatever mix of renewables is



cheapest, but 2% of the goal must be met with solar. They must also offer a \$2 per watt rebate to customers who want help installing their own solar panels. Solar is the most promising form of electric generation but still prohibitively expensive for most companies and individuals. We'd love to see the day when every building is

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Look inside!

- State/Federal candidate endorsements.
- Your Sierra Club ballot.

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Prop C

equipped with solar panels.

Missouri's RES also comes with a guarantee that it will never increase your bills more than 1% on average over what they would be with all-nonrenewable generation. This will be the strongest consumer protection of any RES in the nation. Indeed, the RES campaign, of which the Sierra Club is a part, commissioned a Rate Impact Study. It found that over the first decade 2011–2020 the extra cost of the RES to the average residential customer would be 36¢ a month, while over the

second decade the typical household would save 86¢ per month with the RES. Over the entire 20-year study period the average net savings would be 25¢ a month.

The study used conservative assumptions: it included only the operating and maintenance costs of fossil fuel generation, not capital costs; it did not include the cost of installing new pollution controls on fossil power plants; it allowed a 20-year lifetime for wind turbines, which may prove to be too short. Voting "Yes" for the RES is the best thing you can do this election day to advance the cause of clean energy and the fight against global warming.

Missouri's touch-screen vote-counting ("DRE") machines are perfectly FREE!

Free of any public oversight

No public official or independent body has reviewed the proprietary code on these machines.

Free of any independent record of the vote

The "paper trail" is not an independent record of voters' intentions. It can be tampered with.

Free of any way to catch ballot tampering

With no record of voters' intentions that is independent of the software code, there is nothing to independently verify the accuracy of electronically generated totals. A candidate who recently experienced a re-count in Missouri found that the tallies from DREs could not be truly verified with the paper trails under current rules for recounts. Missouri is a close swing state where a recount may be needed in November.

So if you want your vote to count for your candidate or issue, ask for a paper ballot at the polls, which will be counted by an optical scanner. (If voting absentee in St. Louis County, apply for an absentee ballot to be sent to your home; if voting at St. Louis County Election office, you'll be forced to vote on a "DRE.")

If you want to assure election results that can be verified and re-counted, call Secretary of State Robin Carnahan at 1-800-669-8683, and ask her to withdraw her authorization of the use of DREs in the November election, except for disabled voters who choose to use them.

[for more information, contact Ginger Harris, gingerharris@charter.net or 314-503-1320]

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We strongly prefer to receive material by email. All submissions must include name, address, and phone number of the author. Hard-working, All-volunteer Editorial and Production Staff: **Caroline Pufalt, Editor, Heather Kemper, Cheryl Hammond production monkeys.**

2008 Executive Committee

New 2008 officer information is available online.

Ginger Harris, Chair, gingerharris@charter.net, (314) 994-710

Henry Robertson, Vice-Chair, hrbtn@aol.com, (314) 647-5603

Cheryl Hammond, *Treasurer*, info@todaydata.com, (314) 210-4054

James Turner, jlasturner@socket.net, (660) 665-6256

Byron Combs, byroncom@sbcglobal.net, (816) 587-9363

Leslie Lihou, leslielihou@brick.net, (314) 726-2140

David Mitchell, david5483@sbcglobal.net

Gloria Sennert, sennert@msn.com, (636) 271-3515

Becky Denney, dardenney@sbcglobal.net, (314) 645-3394

Eastern Missouri Group: Rick Haeseler, rhinoric@hotmail.com, (636) 938-9729

Osage Group: vacant

Thomas Hart Benton Group: **Claus Wawrzinek**, claus@missouri.sierraclub.org, (816) 517-5244

Trail of Tears Group: *Secretary,* **Bob Zeller**, rzeller@semo.edu,

(573) 334-9965

White River Group: **Cynthia Andre**, csandre1@aol.com, (417) 581-8318

Committees

Conservation Chair: **Ginger Harris**, gingerharris@charter.net, (314) 994-7106

Deferred Gifts Officer, Legal Chair: **Roger Hershey**, roger.hershey@sierraclub.org, (816) 842-3636

Fund-raising Chair: **Diane Albright**, dianealbright@hotmail.com (314) 729-7629

Legislative Chair: **Byron Combs**, byroncom@sbcglobal.net, (816) 587-9363

Membership Chair: **Becky Denney**, dardenne@charter.net, (314) 645-3394

Newsletter Editor: **Carolina Pufalt**, cpufalt@sbcglobal.net, (314) 721-7207

Newsletter Production: Heather Kemper, hlkemper@yahoo.com

Sierra Club Council Delegate: **Cheryl Hammond**, info@todaydata.com, (314) 210-4054

Transportation Chair: **Ron McLinden**, ronmclinden@yahoo.com, (816) 931-0498

Website Chair: **Cheryl Hammond**, info@todaydata.com, (314) 210-4054

Staff

7164 Manchester Avenue, Maplewood, MO 63143
(314) 644-1011 Local St. Louis area

(800) 628-5333 Toll Free

Roy Hengerson, *Legislative Director*, roy.hengerson@sierraclub.org,

Sue King, *Chapter Finance*, sue.king55@yahoo.com

Melissa Hope, *contact Midwest Coal Campaign*, melissa.hope@sierraclub.org,

Sierra Club Endorsements

By Rick Haeseler, Political Chair

During each election members of Sierra Club Political Committees at the Group, Chapter and National levels work to determine which candidates deserve the Club's support. In this issue are endorsements for offices from state legislature to the President. The Political Committees have assessed incumbents based on their voting records in office, and challengers based on their stated positions, gathered from questionnaires and interviews. Issues addressed in the process included global warming, renewable energy, enforcement of regulations and local control over CAFOs.

The recommendations are normally voted on by Political and Executive Committees at both the Group and Missouri Chapter level. In the case of endorsements for Federal office the National Sierra Club Political Committee makes the final decision. This process is continuing and there will be more endorsements in the near future. Please check the Missouri Chapter website, <http://missouri.sierraclub.org/Political/2008/> for late additions.

With 700,000 members and well over 100 years of protecting the environment, the Sierra Club is recognized as a major force in the environmental movement. The Club's endorsement is valued by candidates and gives them credibility with environmentally oriented voters.

If you're volunteering your time for a candidates campaign please call 1-800-628-5333 and let us know who you're working for and how much time you've donated to their campaign. This information is needed to determine how much Sierra Club and its volunteers can impact election.

As of press-time, these are the candidates who have received Sierra Club endorsements:

Barack Obama	US President
William Lacy Clay	US Representative, 1-MO
Russ Carnahan	US Representative, 3-MO
Emanuel Cleaver	US Representative, 5-MO
Kay Barnes	US Representative, 6-MO
Jay Nixon	MO Governor
James Trout	MO Senate, 15
Kristy Manning	MO Rep, 16
Chris Kelly	MO Rep, 24
T.D. El Amin	MO Rep, 57
Jeanette Mott Oxford	MO Rep, 59
Rachel Storch	MO Rep, 64
Gina Walsh	MO Rep, 69
Steve Brown	MO Rep, 73
Michael Spreng	MO Rep, 76
Margo McNeil	MO Rep, 78
Jill Schupp	MO Rep, 82
Jake Zimmerman	MO Rep, 83
Vicki Lorenz Englund	MO Rep, 85
Martha Ott	MO Rep, 86
Jeanne Kirkton	MO Rep, 91
Deb Lavender	MO Rep, 94
Jan Polizzi	MO Rep, 97
Jim Mense	MO Rep, 98
Sue Schoemehl	MO Rep, 100
Tim Meadows	MO Rep, 101
Jeff Roorda	MO Rep, 102
Belinda Harris	MO Rep, 110
Nancy Pope	MO Rep, 155

Jim Young: Uncommon Commitment

by Cheryl Hammond

Jim Young's annual, year-end party to thank lemonade volunteers takes place in November as lemonade duty volunteers spread out over Jim and Phyllis Young's rehabbed, three story Victorian on the near south side of the City of St. Louis, in the historic Soulard neighborhood. But we all know Jim is the chief lemonade volunteer. Averaging \$30,000 net sales per year over 25 years, Jim and his team of lemon squeezers have made a major contribution to the work of the Eastern Missouri Group (EMG) and the Missouri Chapter.

Bevo Day had the first Sierra Club St. Louis lemonade stand in 1979. From there the effort spread to the Festival of the Little Hills, Strassenfest, Earth Day, the St. Louis County Fair, Fair St. Louis, and other venues. Besides lemonade, the Sierra Club booth has over time sold several other items, including veggie burgers, apple fritters, salsa and corn chips, quesadillas, pretzels, and citrus coolers, orange or grapefruit. In fact, the initial idea to sell apple fritters at Bevo Day was quashed by the Bevo Day festival organizers and lemonade came in serendipitously as a substitute sales item. However, the apple fritter was still gold and the Sierra Club booth had people lined up from across the street for three days at Strassenfest. In recent years, Jim has added Hurricanes and Margueritas for sale at Mardi Gras.

Jim grew up in Maplewood Heights, a suburb of St. Louis, and developed an interest in nature by exploring undeveloped areas of the neighborhood and by participating in Explorer Scouts. He spent most of his career in St. Louis working as a pharmacist, but frequently backpacking in Missouri and in western states.

Jim and Phyllis, his wife of 35 years, joined



the Sierra Club in 1975, being drawn to the club campaigns against the Meramec Dam and for Missouri Wilderness. Jim chaired EMG's wilderness committee and helped bring about wilderness designation for several natural areas, including Piney Creek,

Paddy Creek, Bell Mountain, and Rock Pile Mountain. As an outings leader, he led outings to enjoy and learn. The wilderness campaign linked up with fundraising when EMG created the 1978 Wilderness Calendar, raising \$9,000. However, no further calendars followed this successful enterprise after the national Sierra Club calendar publisher, Scribners, threatened an injunction to prohibit further publication of calendars.

Jim is best known for his leadership on fundraising, but he is also an activist on energy issues. As a tour guide and volunteer at the St. Louis Earth Ways Center, he introduces many people to home energy conservation. An active member of the energy committee, he has been extending his reach on energy issues, developing materials on home energy conservation and was active this summer in collecting signatures for the Renewable Energy Standard ballot initiative.

Many Sierrans remember when Jim traveled to the Cuivre River Chapter Reunion by bicycle. Recently Jim took the Amtrak to Joplin, MO and rode his bicycle back to St. Louis. Jim has also been active on population issues and is formerly a chair of EMG Excom. Being active runs in the family. Phyllis Young has been an alderwoman in the city of St. Louis since 1985. #####

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Candidate Statements

that were developing in the environment. Various readings, combined with personal observation, led me to greater knowledge of these dangers. The world's ecosystems are on the verge of being, at minimum, seriously compromised, and it is vitally important that actions be taken at all levels to re-

duce humanity's footprint. Global warming is the greatest danger at this time, and our fossil fuel based societies must transform themselves to another kind of energy generation. and our fossil fuel based societies must transform themselves to another kind of energy generation.

It is personally very important to be involved, at some level, with working towards a society that can live within the confines of the ecological systems of which it is a part. Being an active volunteer with the Sierra Club is a way to join the efforts of millions of others around the world working on the same goals.

These are increasingly dangerous times, ecologically speaking, and it is vital that political action be a fundamental tool through which change begins to be made. There is, in my perception, a groundswell of changes beginning to take place, and I would support in every way possible the Sierra Club's efforts to develop political influence. I look forward to the privilege of working with the Missouri Chapter of the Executive Committee.

Hidden Destruction of the Appalachian Mts.

In Virginia, West Virginia and eastern Kentucky, coal companies blast as much as 600 feet off the top of the mountains, then dump the rock and debris into mountain streams. Over 300,000 acres of the most beautiful and productive hardwood forests in America have been turned into barren grasslands. Mountaintop removal mining increases flooding, contaminates drinking water supplies, cracks foundations of nearby homes, and showers towns with dust and noise from blasting.

The Mountaintop Removal Road Show features a beautiful and thought-provoking multimedia show with traditional Appalachian music and culture. Lexington, Kentucky environmental activist Dave Cooper will explain what it is like to live near a mountaintop removal mine, and answer questions.

Date: Tuesday, October 28, 2008

Time: 7:00 pm-8:30 pm

Location: Wyoming St Church Building
(4th block S. of Arsenal, turn right, 1 block W. of Grand)

3617 Wyoming St

St. Louis, MO 63116

Free and open to the public

Building the East Coast Trail, Newfoundland

Robert Zeller, Trail of Tears Group

If you have read *The Shipping News* (or seen the film adaptation of E. Annie Proulx's novel), then you have some idea of life in Newfoundland. The past two summers I traveled there on Sierra Club service trips to help work on the East Coast Trail.

The Trail, the easternmost hiking trail in North America, is still a work in progress, with one stretch of well over 200 kilometers already open and other sections being worked on. When completed, it will begin at Topsail, proceed north along the west coast of the Avalon Peninsula, then south along the east coast to Cape Race, ending at Trepassey. (The Avalon, at the southeast corner of the island, is home to St. John's, the provincial capital and the major population center. The completed section of the

trail is mostly south of St. John's.)

The trail work the fourteen of us (two leaders and twelve participants) engaged in involved cutting and removing overgrowth—mainly alder, balsam fir, and larch—from existing trails, though in some cases there was so much of it that we were essentially clearing new trail. Not only did we have to remove the slash, we had to hide it where it would not be easily visible from the trail. We would be transported to the trailhead from the b and b where we were staying and hike in with tools. This year we worked three of the four work days on the same trail, starting from where we had quit the day before. This meant that by the third day we were walking well over an hour each way, over fairly rough terrain.

We were assisting members of the East Coast Trail Association, for whom trail maintenance is a regular task, with crews going out every Sunday from spring to fall, weather permitting. They were all very hard workers, and kept us busy. They were also uniformly congenial.

On the days we didn't work, there were other activities planned. We hiked on completed sections of the Trail, including one beginning at the lighthouse at Cape Spear, the eastern tip of North America. Our leaders pointed out some of the local flora, including the pitcher plant (the provincial flower of Newfoundland and Labrador), bakeapples (local berries commonly used for jam), and various orchids. There was also a whale watching excursion in a zodiac on Witless Bay, which also gave us close-up views of seabirds (such as puffins, murrelets, and kittiwakes) at the Witless Bay Ecological Reserve. Even on working days, we could usually enjoy great scenery and occasional wildlife sightings.

We learned a lot about the history of Newfoundland, which did not join Canada until 1949. (One can still see the old pink, white, and green flag of independent Newfoundland flying in a lot of places.) For centuries, fishing was the mainstay of the economy, but eventually—and inevitably, given the

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Gros Morne National Park,

National Heritage Site

Robert Zeller, Photographer

This CWIP Isn't Funny

Ameren seeks to shift risk of new nuke to ratepayers

By Henry Robertson

AmerenUE recently announced plans to build a second unit at its Callaway nuclear power plant. It's not a done deal, they caution. They had to get in line for federal tax credits that are now available only to the first few new nukes. A final decision won't be made for some time.

Still, Ameren shows every sign of being serious. On July 28 they filed an 8,000-page combined construction and operating license application with the Nuclear Regulatory Commission.

Actually, we've been here before. In the 1970s Union Electric, as AmerenUE then was, planned Callaway as a 2-unit plant. The second unit got canceled, a semi-victory for citizens opposed to nuclear power. Those citizens went for the Achilles heel of nuclear power — its cost. UE wanted to finance the plant using CWIP.

CWIP stands for “construction work in progress,” which means a utility has the right to bill its customers for the cost of a plant while it's being built. Ordinarily the capital costs of a plant can only be recovered in rates after it starts generating power — after it becomes “used and useful,” in utility jargon.

Public utilities are public-private hybrids. They are regulated monopolies. AmerenUE has the exclusive franchise to provide electrical service in its defined service territory. In exchange for that privilege, it submits to heavy regulation by the Missouri Public Service Commission (PSC). At the same time, it is a for-profit company answerable to shareholders who expect it to pay steady dividends. Like stockholders in any other company, investors entrust their capital to management knowing that there's risk involved.

CWIP shifts the risk of building power plants from the shareholders to the ratepayers. The utility is saying, in effect, the risk is too great for the company and its shareholders; we'll put it on the customers.

In 1976 Missouri voters by a 2–1 margin passed a ballot initiative banning CWIP financing. Now Ameren wants to overturn that law in next year's legislative session. We don't intend to let that happen.

AmerenUE initially thought Callaway 2, version 2, would cost \$6 billion, equivalent to the company's entire worth. It's far more likely to cost at least \$9 billion. Estimates for the cost of new nuclear plants are running as high as \$12 billion. Ameren has publicly said that unless the no-CWIP law is repealed, it will not be able to build Callaway 2.

You may wonder why Ameren chose to go nuclear. Coal is still relatively cheap, even though the global demand for new plants has driven up the costs of materials and labor, and of coal itself.

The answer is carbon risk. Congress is expected to pass a cap-and-trade law. Carbon-dioxide-emitting companies (and none emit more than coal-burning utilities) would have to buy allowances at auction, giving them permission to keep producing greenhouse gases at a price per ton, with prices subsequently being controlled by the market. Those industries that are capable of reducing their greenhouse gas emissions would have the incentive to do so; they could sell their unneeded allowances for a nice profit. Companies that remained carbon-intensive would have to buy.

The mere expectation of carbon regulation has utilities rushing into energy efficiency programs, renewable energy — and nuclear power.

Pros and cons

Even without CWIP, don't customers still end up paying for new plants? Yes, but if the risk is on us, Ameren could be less concerned about cost overruns and about

holding down costs generally. With CWIP, we could end up paying even if construction starts but is later abandoned.

Even with CWIP, the PSC would still review utility expenditures and allow them to go into the rate base only if they were “prudent.” But audits after the fact tend to be less exacting, and it's hard to unbuild something once it's built.

There's a debate over nuclear power within the environmental movement. Nuclear is undeniably more benign for the climate than fossil fuels. Maybe we should drop our longstanding opposition. The risks of climate change are even greater than the unresolved risks of nuclear waste, accidents, weapons proliferation and terrorist attack.

I sympathize with this argument, but I agree with Amory Lovins of the Rocky Mountain Institute: nuclear buys less solution per dollar than any other alternative to fossil fuels. \$9 billion will buy a lot of wind turbines, solar panels, and energy efficiency improvements.

Over to you

Ameren has begun rolling out a modest set of energy efficiency programs. They will advance money to customers by bearing the initial costs to improve their energy efficiency. The costs will be paid off in rates, of course, but if we save energy we'll still come out ahead.

But Ameren argues that they'll still need to build Callaway 2. It's not their business, nor is it in their power, to change people's behavior. Ameren expects demand for electricity to grow inexorably despite these efficiency programs, and they're legally obligated to supply all the power their customers may require.

Good points, but we'll see. With energy prices rising across the board, people may be more receptive than before to conserving energy through greater efficiency.

It comes down to you. Prove that we don't need Callaway 2. Conserve energy.

The Potential Impact of Climate Change on Missouri Biodiversity

MOSCB Workshop at MONRC

by Alan Journet, MOSCB President

Part One

During the annual Missouri Natural Resources Conference held January 30 – Feb 1 2008, The Missouri Chapter of the Society for Conservation Biology (MOSCB) organized a workshop entitled “The Potential Impact of Climate Change on Missouri Biodiversity” featuring a series of presentation and an open forum question/answer session. The following summary was written for ‘The Glade’, the newsletter of MOSCB and is reprinted here by permission of the Executive Board.

The Intergovernmental Panel on Climate Change (IPCC) started releasing its Fourth Assessment Report (AR-4) in February 2007 with the Summary for Policymakers. Three statements contained in the report are of relevance to this workshop: “Warming of the climate system is unequivocal.” “Most of the observed increase in globally averaged temperatures since the mid 20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.” Very likely is defined as > 90%. “The understanding of anthropogenic warming and cooling influences on climate has improved since the Third Assessment Report [TAR 2001] leading to very high confidence that the globally averaged net effect of human activities since 1750 has been one of warming, with a radiative forcing of + 1.6 (range 0.6 – 2.4).” Again very high confidence is defined as > 90%. Considering that this report was subject to the review and modification of politicians – who tend to minimize the risks, the likelihood is that these levels of probability represent underestimates of the confidence of the climate and atmospheric

science community concerning these conclusions.

With the 2006 release of Al Gore’s award-winning movie ‘An Inconvenient Truth’ and his gaining a Nobel Prize for the effort, the fourth Assessment Report of the IPCC could not have been released at a more timely moment. As a result, the chapter decided at its 2007 Annual Meeting to organize a workshop at the 2008 Missouri Natural Resources Conference entitled “The Potential Impact of Climate Change on Missouri Biodiversity.” The session, featuring an introduction on Missouri climate history and predictions featured state climatologist Pat Guinan of the University of Missouri-Columbia, was followed by Bill Eddleman from Southeast Missouri State University discussing the possible consequences for birds, John Landosky from the University of Missouri- St Louis discussing insect responses, Bethany Williams of the University of Missouri-Columbia discussing herp responses and Nadia Navarrete-Tndall exploring the same for plants. Tim Nigh of Missouri’s Conservation Department then discussed the consequences for Missouri’s ecological land types, and Dennis Figg (for whom Rick Thom was pinch-hitter since Dennis was unfortunately sick), also of MDC, discussed the Missouri Comprehensive Wildlife Strategy in relation to climate change consequences. These presentations were followed by a lively question-and answer panel discussion with audience members offering their thoughts and questions regarding the issue.

Pat Guinan started the workshop by pointing out that Missouri’s long term temperature history indicated a slight warming over the last decade compared to the long term (100 year app.) average. However, he noted that the current warming is no greater to date than has been experienced in the past. Indeed, he pointed out that periods in the 1930s and 1950s were actually warmer than recent overall temperatures. However, in breaking the pattern down into climatic seasons, Guinan pointed out the warming we are currently experiencing is largely a consequence of our enjoying warmer winters (Dec – Feb) and springs (Mar – May),

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with no detectable warming occurring during summers (Jun – Aug) and only slight warming during falls (Sep – Nov). Guinan concluded his historical temperature account by noting that Missouri’s warming trend began only as recently as 1998 compared to the global trend – which began in 1977. He noted that four of the five warmest Missouri winters on record have occurred since 1991. Not surprisingly, winter snowfall has thus declined. Meanwhile, in terms of precipitation, Guinan indicated that from the early 1980s to three years ago, Missouri enjoyed an unprecedented wet period with 17 of the 24 years experiencing above normal precipitation. He closed with the cautionary warning that maybe a redressing drought period is on the near horizon.

In addressing the future, Guinan noted that Missouri has no independent predictive data, but that he based his estimate on data computed by the Illinois State Water Survey using IPCC data, suggesting that Missouri will probably be equivalent. These models suggest that Missouri will experience over the next 100 years a temperature increase of 30F – 70F but no clear trend in precipitation – suggesting it may not change from current patterns. In terms of the widely accepted dominant driving force of climate change, carbon dioxide concentration, Guinan offered three models that vary in accordance with the assumed extent to which humanity responds to the problem. These estimates range from just under 550 ppm to 850 ppm by the end of the century. It is worth comparing this to the current value of just over 380 ppm and the pre-industrial revolution value of about 270 ppm. (e.g. Wigley 1983). The one hundred year prediction, therefore, is between 2 and over 3 times the eighteenth century concentration.

In summary, by 2050, the climate of southeast Missouri may well emulate that currently evident in Central Arkansas, while by 2100 the southern tier of Missouri counties may be experiencing the current climate of Northern or Central Louisiana.

Bill Eddleman introduced the topic of possible bird consequences by reporting an

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Op-ed: No Drilling

Time to Draw a Line in the Sand

By Melissa Hope, Sierra Club Assoc Regional Representative in Missouri and Jill DeWitt, Audubon Missouri Community Outreach Policy Coordinator

With each passing day, hardworking Americans are watching the price of gas climb higher and higher as oil executives watch their profits soar.

The oil industry and its allies are capitalizing on the pain at the pump that we're all feeling. They're using it to get their hands on more of our public lands and coastlines. On every front, they are pushing to lift the federal offshore drilling moratorium that has been supported by consecutive Congresses and presidents—including George Bush, Sr.—since 1981.

The oil industry claims that drilling off pristine beaches in Florida and Virginia will reduce the cost of gas for all of us who are struggling to drive to work and pick the kids up at school.

That's simply not true.

The government's own research shows that drilling our coasts won't do anything to ease pain at the pump or create energy independence. New coastal drilling would not even reach peak production for twenty years, and even then, it would amount to a drop in the bucket on the world market, and would have an insignificant effect on gas prices.

It's time to draw a line in the sand. We need to stop the giveaways to Big Oil and start investing in real solutions -- clean, renewable energy and efficiency which will save us money and create jobs all across America. And it won't require us to put the livelihoods of folks in our coastal communities on the chopping block.

The oil industry wants us to believe that offshore drilling is harmless. Nothing could be farther from the truth. To see what drilling would look like on our favorite beaches, we have to look no farther than Louisiana.

Thanks to drilling operations, Louisiana is losing 25 square miles of coastal wetlands each year, eating away at natural storm barriers that protect inland communities from hurricanes. Offshore drilling is particularly vulnerable to storms. The U.S. Coast Guard found that during Hurricanes Katrina and Rita, nearly 9 million gallons of oil spilled from offshore drilling operations. There is no effective method for cleaning up large oil spills.

The honest answer to our oil problem is to use less of it, and that means better fuel efficiency and renewable energy. Americans need real energy choices that will bring down our energy costs, fight global warming, and secure the economic future of our families and the security of our country. By making the right choices now, we can be on the path to energy independence. The time is now to put America to work building a clean energy economy with jobs that can never be outsourced and benefit communities all across our nation.

The Great Missouri Oil Rush

By Henry Robertson

The energy follies keep getting stranger and more desperate. Only wishful thinking could insist that vast supplies of cheap oil still lie waiting beneath the tapped-out U.S., but our oil-addicted society, egged on by political demagoguery, goes madly searching for a new fix.

In August, Republican gubernatorial candidate Kenny Hulshof ratcheted up the insanity level when he announced his energy plan. He too wants to drill for oil — in Missouri. And he wants to build the state's first oil refinery.

Just what we need, another reeking hydro-Missouri Sierran Oct/Dec '08 PAGE 8

carbon facility spewing chemical pollutants into the air and water, spilling oil and pumping out greenhouse gases. But oil in Missouri?

There are indeed small deposits of sluggish, high-sulfur "heavy oil" in the far western part of the state, concentrated in Vernon County. Estimates of reserves vary widely, but Hulshof uses a 2007 MDNR estimate of 1.4–1.9 billion barrels of recoverable oil. That's enough to supply the U.S. for 70–95 days; 1.4 billion barrels would last Missouri alone for more than 10 years. In 2005 Missouri ranked 29th out of the 31 states that produced any oil at all.

The heavy oil deposits are extremely shallow, lying just 160 feet below the surface on average. That might seem like an advantage, but it isn't. In deeper geological formations there's enough pressure to force oil up a well.

Oil production in Missouri requires steam injection. It takes fossil fuel (natural gas or oil) to heat steam to 400°, so the drillers have to spend energy to get energy. Because of its low quality, the heavy oil only fetches 80–85% of the price of light crude. Still, it's profitable as long as the price of oil remains high.

What a brilliant future for Missouri — as a marginal, last-gasp oil producer!

Hulshof wants to invest money in oil exploration and recovery technologies. I've got a better idea. Let's invest in energy efficient buildings. Let's get in the game of making wind turbine components and solar panels. Let's figure out how to get around without oil.

An addict may sincerely want to break his habit, but he'll never do it as long as he keeps a supply of his drug on hand.

Vote Yes Prop C

Continued from Page 5.

East Coast Trail

heavy toll taken by the fishing fleets—the fishery collapsed. Now, tourism is an important element of the local economy, hence the desire to develop attractions such as the East Coast Trail. There is a long history of interaction between Newfoundlanders and Americans. In fact, I met a woman whose father was an American GI stationed there during the war. She introduced herself when she noticed the Missouri plates on my car and asked if I knew where Sikeston was, since that’s where he was from. (I assured her I did.)

Last year we enjoyed good weather, except for one day that was a total washout when the remnants of a tropical storm hit. This year it was cooler and cloudier, which made tourist activities less enjoyable but at least made for more pleasant working conditions. We were warned about the blackflies and mosquitoes, but they weren’t a major problem.

With outings such as this, you meet a mixed bag of people. Last year I was one of the younger people in the group at age 56; this year I was one of the older ones. In both cases, we literally came from coast to coast.

At the end of the week, members of the Association threw a party for us and presented



Fox on Cape Spear, Robert Zeller, photographer

us with t-shirts and certificates in appreciation of our help. They were impressed (and rather incredulous) that people would actually pay substantial sums of money to go there and work.

Gros Morne

Last year I flew to St. John’s (much the saner choice), but this year I decided that I wanted to see more of the island, so I

drove, taking the ferry from North Sydney, Nova Scotia, to Port aux Basques. When the trip leader found out that I’d be driving, she invited me to join a group at Gros Morne National Park on the western side of the island to do some hiking prior to the service trip. So I hooked up with them for several days. Gros Morne is spectacular. It is a World Heritage area listed for its “exceptional natural beauty” (to which I can attest) and “outstanding examples [of geological features] representing major stages in earth’s history.” The mountains there are actually the most northern extension of the Appalachians. Aside from seeing lots of moose (not native to Newfoundland, but imported near the end of the 19th century), the highlights of the visit were hikes to Baker Brook Falls (easy) and to the top of Gros Morne Mountain (not easy). In addition to the leader and a couple who would also be on this year’s service trip, I met other Sierra Club members who had been on the service trip previously. The fact that people want to return year after year says something about the trip leader (Marleen Fouché of Berkeley, California), but it also results from the special nature of the place and the friendliness of the people.



Hikers at Cape Spear
Robert Zeller, photographer

Continued on Page 7.
Climate Change

American Bird Conservancy prediction that the range of the American Goldfinch may be, under the climate induced by a doubling of carbon dioxide, such that Missouri is no longer included – the range having shifted north – except for a refuge in the Rocky Mountains. Eddleman then suggested that the mechanism impacting birds could be: range shifts, productivity changes (with greater, equal, or lower productivity having been suggested as consequences), habitat loss or alteration, shift in migration timing. Of 96 migrant species in Manitoba, he reported, fully 27 arrive significantly earlier, while only 2 arrive later. Meanwhile, of 13 North American species studies, 6 depart later; some species are even foregoing migration altogether at higher rates than previously. An additional mechanism involves a change in clutch initiation; among a multiplicity of examples, Eddleman selected the tree swallow which has advanced clutch initiation 9 days during the last 30 years. This led to a discussion of the problem that climate change is inducing asynchronicity between the migratory behavior – particularly arrival and clutch initiation of birds – and the availability of food. Thus long distance migrants (the behavior of which is probably induced by photoperiod – an environmental cue unaffected by climate change) seems less likely to adjust their patterns, while food availability (in many cases such as insects – is dependent on day-degrees and thus temperature for its development) shifts earlier in the season. Thus migrants may miss the peak food availability upon which successful nesting depends. In addition to average temperatures impacting birds, Eddleman noted that increases in the frequency of climatic extremes (such as drought) may well tip the scale against some species. In the category of synergistic effects – where climate change consequences combine to generate unfavorable conditions, Eddleman pointed out that some species already in decline may well be ‘pushed over the edge.’ In reviewing the possible consequences for Missouri’s birds, Eddleman suggested responses will likely comprise: little change in breeding range, contraction of the breed-

ing range possibly to the point of exclusion, and of course, expansion of breeding range, with the addition of species to the state. Eddleman then reported on what the evidence, from such assessments as the Breeding Bird Survey, indicates has already occurred. He identified species according to the likelihood that their future range will be little influenced, may contract or result in their exclusion from the state, or may expand and result in their appearance in Missouri.

In closing, Eddleman suggested that the evidence on patterns to date indicates minimal impact, but that it would be difficult to separate effects of climate change (whether direct or indirect) from impacts of factors other than climate change that may be independently decreasing habitat.

See part two in next issue of the MO Sierran for continuing information on how climate change may impact Missouri’s insects, amphibians, reptiles, forests and a consideration of shifting ecoregions.

Vote Yes Prop C

Vote
Nov. 4

Vote Yes Prop C

Invest in Missouri’s Future

- Guardian \$1,000+
- Protector \$500 - \$999
- Steward \$100 - \$499
- Advocate \$50 - \$99
- Other \$ _____

- Check
- Visa
- MasterCard

Amount _____

Credit Card Account # _____

Exp Date _____

Signature _____

Name on Card _____

Contributions payable to: *

- Missouri Sierra Club (not tax deductible)*
- Sierra Club Foundation, Missouri Chapter**

Address _____

City _____ State _____ Zip _____

Email _____

Phone _____

Mail to:

Missouri Chapter
7164 Manchester Ave.
St. Louis, MO 63143

On-line donations: <http://missouri.sierraclub.org>. Only non-taxdeductible donations are available on-line. *Contributions to the Missouri Sierra Club are not tax-deductible; they support our effective citizen-based advocacy and lobbying efforts in Missouri. This type of gift is preferred as it provides maximum flexibility for our work in Missouri.

Contributions or gifts to “The Sierra Club Foundation, Missouri Chapter” are tax-deductible as charitable contributions as they support grants for public education, research and public interest litigation to further the Club’s goals in Missouri.

- Please send me information on how to plan a bequest from my will or living trust.
- I am specifically interested in supporting Missouri Sierra Club with a planned gift.
- Please do not publish my name as a donor.

Candidate Statements

Rick Haeseler

In the prior issue of this newsletter I wrote an article about the development of my activism within the Sierra Club. I wrote that article to help inspire others to participate and make a difference through volunteerism. As a member of the MO Chapter Executive Committee I will continue to emphasize the importance of reaching out to our membership. I believe that Sierra Club can become a much greater force for saving Missouri's and the world's environment if we can find ways for all members to participate and express themselves.

I 'activated' myself about a year ago when I ran for and was elected to the Eastern MO Group Executive Committee. As part of my role on the group executive committee, I became a representative to the Chapter Executive Committee. Because I found both roles interesting and challenging, I have decided to run as a general member of the Chapter Executive Committee.

As Sierrans we are concerned and working on many issues. In my role within the club I have become very involved in our political efforts. In May I became Chapter Political Chair and have been very busy trying to bring order to our chapter's endorsement process in this Presidential Election year. Please see the results of the chapter and group endorsement process on page 3 of this issue. I want to make sure we have a political presence even in non-election years. I am also very interested in energy related topics. I look forward to continuing to work with my fellow Sierrans to continue making a difference beyond Nov 4.

Ginger Harris

Important changes are ahead for the Sierra Club nationally. I would like to be in a position as a chapter leader to help national Club leaders make choices that build upon the Club's historic reputation for both integrity and effectiveness.

Missouri Chapter ExCom Ballot INSTRUCTIONS

To vote:

- 1) Vote for up to four (4) people, including a write-in candidate of your choice.
- 2) If yours is a joint membership, two (2) members may vote, each in their own column
- 3) Insert ballot into an envelope and address to:
Elections Committee
MO Chapter Sierra Club Office
7164 Manchester Ave.
Maplewood, MO 63143
- 4) Write your **membership number** (the 8 digit number above the address label of your *Sierran* newsletter - upper left corner) in the return address space of your envelope.
- 5) Mail it to us to arrive by Dec. 5, 2008. Note the earlier return date.

MO EXCOM ELECTION BALLOT FALL 2008

I vote for ...

Rick Haeseler

Ginger Harris

David Mitchell

.....

.....

Use this ballot if there is a second Sierra Club member in the household.

MO EXCOM ELECTION BALLOT FALL 2008

I vote for ...

Rick Haeseler

Ginger Harris

David Mitchell

.....

.....

I have been a member since 1993 and became involved in committee activities right away. I am constantly grateful for what I have been able to learn -- through these activities -- about how to protect the environment and how to enable others to do so, too. There are many mentors within the Club. I am still learning from them, and still grateful for the opportunities.

When I joined the Club, I focused on transportation and smart growth, and eventually chaired the Eastern Missouri Group's committee on this issue. Over the past almost dozen years I have also served on the Chapter Conservation Committee, Executive Committee, Legislative Committee and Political Committee, and a few ad hoc committees. I also served on Metropolitan St. Louis Sewer District's Rate Commission as a representative of the Sierra Club, another huge learning experience.

This year I accepted the position of Chapter Chair and have again been grateful for the help and support from fellow activists and staff. If elected, I hope to enable other budding environmental activists to take advantage of the amazing opportunities the Club provides to enjoy nature, serve our communities and protect our environment.

David Mitchell

My name is David Mitchell, and I have had the honor of being asked to join the Missouri Chapter Executive Committee. For the last 2 years, I have been working with the Thomas Hart Benton Sierra Club in Kansas City, as a member of their Executive Committee. This has been a volunteer experience I have enjoyed very much, including working on the 2007 Step It Up Rally, and the Clean Energy Petition drive in Spring of 2008. I have also been on the Political Committee of the THB group during this period of time.

What brought me to the Sierra Club was my concern about global warming. Prior to joining Sierra Club, it was becoming increasingly obvious to me the great dangers

Continued on Page 4

MISSOURI CHAPTER SIERRA CLUB OUTINGS

Thomas Hart Benton Group

<http://missouri.sierraclub.org/thb/outings>

October 4 (Saturday) Backcountry Hike at the Tallgrass Prairie National Preserve, Strong City, KS. We'll enjoy the beauty of the Flint Hills with an easy, 6 mile hike, and explore the historic barn and ranch house. We'll finish up with a casual dinner at the Hays House in nearby Council Grove before heading back to KC. \$5 donation requested. Renee Andriani 913-341-4753 randri@kc.rr.com

October 11 - 12 (Saturday - Sunday) Easy Backpack, Clinton Lake, KS. This short 4.5 mile loop passes through wooded hills and fields with good views of the lake. \$5 donation requested. Eileen McManus, 816-523-7823 eileen4250@sbcglobal.net

October 25 - 26 (Saturday - Sunday) Car Camping at Tuttle Creek State Park, Manhattan, KS. We'll set up camp in the state park, then day hike in the nearby Flint Hills and reminisce around the campfire Saturday evening. \$10 donation requested. Anne McDonald 913-384-6645 pamcdonald@kc.rr.com

November 8 (Saturday) Perry Lake Trail Maintenance, Perry, KS. Join us as we begin our 18th season of trail maintenance by refurbishing the part of the trail between Old Military Trail and 94th Street that flanks a new stream bridge to be built this fall. Steve Hassler 913-707-3296 hassler@planetkc.com

November 14 - 16 (Friday - Sunday) Car Camping at Indian Cave State Park, Brownville, NE

Indian Cave State Park is located within a majestic hardwood forest that overlooks the Missouri River in southeast Nebraska. There are 22 miles of hiking trails in the park. \$10 donation requested.

Anne McDonald
913-384-6645 pamcdonald@kc.rr.com

November 20 - 23

(Thursday - Sunday) Backpacking on the Ozark Trail, Shannon County, MO. We'll hike a 30 mile contiguous portion of the Blair Creek and Current River sections of the OT, \$10 donation requested. Dave Patton, 816-461-6091 davedahiker@yahoo.com

November 29 (Saturday) Annual Squaw Creek NWR Bird watching Trip, Mound City, MO. Nearly a half million ducks & geese stop at Squaw Creek on their way south each winter. 200 Bald and Golden eagles pass through or winter here as well. We'll spend the afternoon at this 7,000 acre wetlands and welcome them all to Missouri. Great for kids of all ages. \$5 donation requested. Dave Patton, 816-461-6091 davedahiker@yahoo.com

December 12 - 14 (Friday - Sunday) Winter Backpacking at Hercules Glades Wilderness, Forsyth MO. Yes, it might be cold but Hercules Glades in the winter can be quite spectacular. Cold weather won't stop us, but hazardous driving conditions will cause us to cancel. \$10 donation requested. Dave Patton, 816-461-6091 davedahiker@yahoo.com

January 3 (Saturday) Day Hiking at Fleming Park, Jackson County, MO. Enjoy the crisp winter air as we hike and explore some off trail ravines and woodlands. Bring your lunch, and we'll provide the hot chocolate. \$5 donation requested. Paul Gross, 816-228-6563 wildwoodp@hotmail.com

January 16 - 18 (Friday - Sunday) Winter Backpack at Devil's Backbone Wilderness, Missouri Sierran Oct/Dec '08 PAGE 12

West Plains, MO. et winter weave its magic spell and enjoy the solitude of the wilderness in cold weather. Dress warm and you won't run any icy fingers (or toes) up and down the Devil's Backbone. Cold weather won't stop us, but hazardous driving conditions will cause us to cancel. \$10 donation requested. Bob Wilshire 913-384-6645 rjwilshire@kc.rr.com

Jan 31 (Saturday) Day Hike and Geocaching Adventure, Shawnee Mission Park, KS Get out of the cabin and stretch your legs on this high tech scavenger hunt. Great fun for kids too. \$5 donation requested. Dave Patton, 816-461-6091 davedahiker@yahoo.com

Trail of Tears Group

<http://missouri.sierraclub.org/trailoftears/>

For Trail of Tears Group outings contact the groups' website at: <http://missouri.sierraclub.org/trailoftears/> or outings chair, Adam Gohn, 573 270 0553

White River Group

<http://whiteriver.sierraclub.org>

For White River Group outings contact the group's website at: <http://whiteriver.sierraclub.org/> or contact outings chair, Jennifer Ailor, at jailor65721@yahoo.com or at 417-581-4018.

Osage Group

<http://missouri.sierraclub.org/osage>

For Osage group outings contact the group's website at: <http://whiteriver.sierraclub.org/> or contact outings chair, Greg Leonard, 573 443-8263

Eastern Missouri Group

<http://missouri.sierraclub.org/emg/outings.aspx>

For Eastern Missouri group outings contact the group's website at: <http://missouri.sierraclub.org/emg/outings.aspx> or contact outings chair, Wayne Miller, (314) 628-9084, millwy@aol.com