

Winter 2009 / 2010

SEASONAL NEWSLETTER

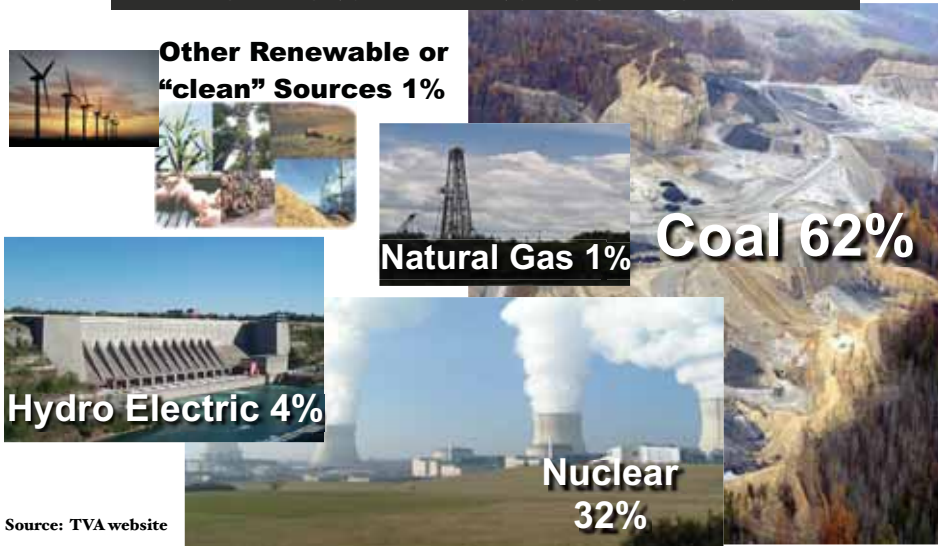
CHRIST CHURCH CATHEDRAL

Earth Ministry

ISSUE 2 - THE MOUNTAIN TOP REMOVAL EDITION

DO YOU KNOW WHERE YOUR ELECTRICITY COMES FROM?

HOW DOES IT AFFECT OUR WORLD?



Source: TVA website

Considering the impact our energy choices has on others is new to our spiritual journeys.

BY BARBARA DENEKE

Our appalachian mountains are incredibly rich in bio-diversity, culture, and beauty. To behold them is to marvel at the paradise we have been provided. They are called the seed bank of the world because they will be critical to repopulating the earth's plant life if devastation occurs.

When we turn on a light, a coal fired plant provides us that convenience. Most of us have not thought about the ecologic and human cost of producing the coal for the power plant.

We have all learned about underground coal mining and have seen photographs of coal miners covered in coal dust. We remember mining disasters such as cave ins of underground mines and we

may have even learned a bit about strip mining in the course of our lives.

Today's reality is far different. Dynamite blows the tops off of entire mountains and large machines fill verdant valleys with rubble. Few jobs remain for local residents. Entire communities are turned into toxic wastelands where health, land, water, and economy are all devastated, leaving many no choice but to leave their ancestral homelands.

Demand for cheap electricity causes this devastation. The true cost of our electricity includes the impact of its production on humans and nature. This series will provide you with a perspective to consider when making choices in your electricity usage.

Events

Mountaintop Removal Road Show

January 6, Wednesday

Program at 6:30, Dinner at 5:30
(Reservations required for dinner)

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.

Contemplative Book Group

January 28, 2010

11:30 am - 1 pm, Wheeler Room

Read the book profiled in the book review and join us to discuss the book and how it has affected us. Bring a brown bag lunch. Cookies, hot tea, and water will be provided.

Hike a threatened area

We are hoping to provide an organized hike to a mountaintop removal area and are working with several organizations to try to make that happen. However, if we are unable to find a suitable location and guide, a list of suggested hikes will be available in January at the Mountaintop Removal Road Show event.

FOLLOW UP - TAKE IT FURTHER

Black Diamonds

Bullfrog Films

This film provides an in depth look at mountaintop removal coal mining in West Virginia. It has been described as "A searing documentary, vividly depicting the catastrophic ecological and cultural effects by mountaintop removal." Review by Michael Yockel of Baltimore Magazine.

The documentary makes clear what is at stake in terms of bio-diversity, lifestyles, culture, job loss and economics.

This film can be shown to CCC members or a Diocese of Tennessee group if sufficient interest exists.

Shop Interfaith Power and Light

www.shopipl.org

This website not only provides a one stop shopping experience for numerous energy saving items but also provides a discounted price. Items available range from batteries to light bulbs to major appliances that are Energy Star rated.

When checking out on this webpage, use the code **shopIPL** for an additional 10% discount

Sierra Club Beyond Coal Campaign

www.sierraclub.org/coal/mtr

The Sierra Club works at the national level for legislation



and is committed to keeping our vast coal reserves in the ground, thereby protecting communities, waterways, and mountains in Appalachia by ending Mountaintop Removal, the most devastating form of coal mining. Their website a one stop site for learning, donation, or volunteering opportunities. The permit tracker enables research on permit status. Numerous reports and fact sheets are also presented there.

Get Involved or Donate

Linguist Environmental Appalachian Fellowship

<http://www.discoveret.org/tleaf/>

LEAF is a Christian fellowship of

Tennesseans to

protect Tennessee's mountains. This organization educates faith based groups on mountaintop removal mining practices and works to develop and lobby for legislation in Tennessee.



Prayer for Mountain Top Removal

God of Creation - may you bless the mountains and rocks, rivers and valleys, animals and plants which daily sing your praises and remind us of your gracious gift of creation.

God of Grace - may you forgive us our devotion to greed, destruction, and selfishness so that we might be freed to truly see the other as ourselves and hold the care of creation in our hearts.

God of Mercy - may you bless those who have lost their homes, families, or livelihoods because of mountaintop removal. Be with them in their grief and through your love give them hope for a new day.

God of Justice - may you bless those who strive to end mountaintop removal. Give them perseverance, wisdom, and strength as they work for peace and justice for all.

God of Peace - may you bless those that find employment in mountaintop removal.

May you give all of us insight and humility that will yield compassion and mercy so that we might find understanding and reconciliation.

God of Love - We give you thanks for the love you have for the whole of the world.

We know that we are blessed so that we may be a blessing to others. May your compassion and mercy guide all of us as we seek peace and justice for the Mountains of Appalachia and those who call them home.

In the name of your son Jesus Christ, Amen.

BY CARROLL YOUNG, PHD

Book Review

Lost Mountain: A Year in the Vanishing Wilderness Radical Strip Mining and the Devastation of Appalachia by Erik Reece

Be advised: it takes courage to read this book. It is so well-written that it transports you right into the reality of coal country Appalachia, with vivid descriptions of the awesome beauty and diversity of its natural life and the heartbreaking devastation to humans, plants, and animals wrought by surface coal mining. The author, Erik Reece, teaches writing at the University of Kentucky in Lexington. He is widely published and has won awards for his moving writing on environmental issues. Wendell Berry, always eloquent, wrote the foreword.

The lost mountain of the title got its name, not because it has now been destroyed by commercial coal interests, but because the forests on its flanks were once so dense that hunters got lost if they strayed too far from the creek that flowed down it. Now both mountain and creek are literally lost, destroyed by explosives and heavy machinery, plant life bulldozed indiscriminately, native species left to become extinct in a moon-like environment.

Reese made frequent trips to Lost Mountain during the year the coal was being removed from September, 2003, to September, 2004. He repeatedly hiked to the summit, climbed its flanks, waded its streams, watched its wildlife, and interviewed its people, who were among the poorest in America even before coal mining ruined their land and water. He documents the process by which the coal is removed and describes the economics and politics by which the people and the land on which they depend have been exploited.

We need to know the facts about mountaintop removal, no matter how heartbreaking. Everyone interested in social justice and in preserving life should read this book. We owe it to the people of Appalachia, to the diverse forms of life being destroyed there, and to ourselves. For, as Reese reminds us, no one is an outsider; we all live downstream.



Energy Tips for Living Lightly on the Planet

Use Energy Star Appliances

If you are planning to replace an appliance, you can easily look for the energy star label on appliances in your local store. If you want to compare and research before you go shopping, you can find a comprehensive list of the appliances that have earned this certification at www.energystar.gov (See Interfaith Power and Light in the Follow Up suggestions on p. 2)



Already switched to CFL's?

As they burn out, start working on moving to LED lighting. An LED light uses a tiny fraction of the energy that even compact florescent (CFL) bulbs use. In addition, they do not require the special disposal CFLs do since they contain no mercury. Although still expensive, these lights are becoming increasingly available. Some hardware stores now carry them and an impressive variety of home application bulbs can be obtained on the internet. One place that sells them is the internet website of Interfaith Power and Light. (see Follow Up - Take it Further on page 2)



Install electric eye switches

If you sometimes forget to turn off a light or bathroom vent fan, install an electric eye switch that can be adjusted

to turn itself off after there has been no movement in the room for a period of time. Usually these can be adjusted to turn off anywhere from after one or two seconds to ten minutes. If you install these in a room you may be surprised to find that if you leave the lights on in a room thinking you will be right back, you are usually gone for longer than you think and the timer will have turned off the lights for you. These switches are no more difficult for a homeowner to install than any replacement switch and are cheap.



Use Less Water!

In Middle Tennessee it costs millions of dollars annually just for the energy to process water and deliver potable water to the tap, and to treat and return the "used" water to the river. The energy costs for one pumping station for one month alone can easily exceed \$10,000. (In California where this has been studied, 19% of all electricity usage is consumed to pump, transport, and treat water.)

Typical water heating cost is 17% of the homes energy usage. By simply turning off the water while you lather your hands or brush your teeth you can contribute significant energy savings to your community. A recirculating pump for your water heater is easy to add and saves gallons of water each day, and you will immediately get warm water at the

tap. Better yet, when you plan to replace your water heater, get one or more inline heaters that heat only on demand and can be located closer to the tap.



Use Sleep Mode or Turn Off Your Computer

The screen saver on your computer does not save energy. If you are not turning off your computer when you step away, set the computer to sleep mode. By setting your computer to automatically turn to sleep mode when you are away for just one or two minutes you will save energy. Better yet, turn the computer off when you are not using it. Even sleep mode uses a surprising amount of energy.



Buy Green Power from TVA

A TVA program called Green Power Switch allows consumers to pay for a portion of the electricity produced to come from renewable and clean energy sources. The idea is that right now, renewable and clean energy costs more to produce and by purchasing these credits from TVA you can help keep energy costs low for consumers while encouraging TVA to invest in more green power.

If you have a unique tip for living lightly and want to share it in a newsletter, please contact Barbara Deneke

Join an Earth Ministry Committee!

We want to provide meaningful ways for you to grow spiritually in your stewardship of the earth. These are mostly short term commitments! You can work on one event or take a continuing role as best suits your life and interest. We currently need people to help with each of our programs for the 2009 - 2010 church season and no talents will go to waste! If you want to participate but don't know what to volunteer for, we'll help you find something that you will enjoy.

For further information, contact Barbara Deneke

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383-3269

The Earth Impact Audit has been delayed while we evaluate "out of the box" audit tools for this project.

The National Academy of Sciences Report Examines Hidden Health and Environmental Costs of Energy Production and Consumption in U.S.

The following excerpt from a news release published on The National Academies webpage includes only the information on production of electricity since our topic this season is on the production of electricity from coal, mined using the technique known as Mountaintop Removal. There is much more to this report that discusses motor vehicle impacts, etc.

WASHINGTON -- A new report from the National Research Council examines and, when possible, estimates "hidden" costs of energy production and use -- such as the damage air pollution imposes on human health -- that are not reflected in market prices of coal, oil, other energy sources, or the electricity and gasoline produced from them. The report estimates dollar values for several major components of these costs. The damages the committee was able to quantify were an estimated \$120 billion in the U.S. in 2005, a number that reflects primarily health damages from air pollution associated with electricity generation and motor vehicle transportation. The figure does not include damages from climate change, harm to ecosystems, effects of some air pollutants such as mercury, and risks to national security, which the report examines but does not monetize.

Requested by Congress, the report assesses what economists call external effects caused by various energy sources over their entire life cycle -- for example, not only the pollution generated when gasoline is used to run a car but also the pollution created by extracting and refining oil and transporting fuel to gas stations. Because these effects are not reflected in energy prices, government, businesses and consumers may not realize the full impact of their choices. When such market failures occur, a case can be made for government interventions -- such as regulations, taxes or tradable permits -- to address these external costs, the report says.

The committee that wrote the report focused on monetizing the damage of major air pollutants -- sulfur dioxide, nitrogen oxides, ozone, and particulate matter -- on human health, grain crops and timber yields, buildings, and recreation. When possible, it estimated both what the damages were in 2005 (the latest year for which data were available) and what they are likely to be in 2030, assuming current policies continue and new policies already slated for implementation are put in place.

The committee also separately derived a range of values for damages from climate change; the wide range of possibilities for these damages made it impossible to develop precise estimates of cost. However, all model results available to the committee indicate that climate-related damages caused by each ton of CO₂ emissions will be far worse in 2030 than now; even if the total amount of annual emissions remains steady, the damages caused by each ton would increase 50 percent to 80 percent.

DAMAGES FROM ELECTRICITY GENERATION

Coal accounts for about half the electricity produced in the U.S. In 2005 the total annual external damages from sulfur dioxide, nitrogen oxides, and particulate matter created by burning coal at 406 coal-fired power plants, which produce 95 percent of the nation's coal-generated electricity, were about \$62 billion; these nonclimate damages average about 3.2 cents for every kilowatt-hour (kwh) of energy produced. A relatively small number of plants -- 10 percent of the total number -- accounted for 43 percent of the damages. By 2030, nonclimate damages are estimated to fall to 1.7 cents per kwh.

Coal-fired power plants are the single largest source of greenhouse gases in the U.S., emitting on average about a ton of CO₂ per megawatt-hour of electricity produced, the report says. Climate-related monetary damages range from 0.1 cents to 10 cents per kilowatt-hour, based on previous modeling studies.

Burning natural gas generated far less damage than coal, both overall and per kilowatt-hour of electricity generated. A sample of 498 natural gas fueled plants, which accounted for 71 percent of gas-generated electricity, produced \$740 million in total nonclimate damages in 2005, an average of 0.16 cents per kwh. As with coal, there was a vast difference among plants; half the plants account for only 4 percent of the total nonclimate damages from air pollution, while 10 percent produce 65 percent of the damages. By 2030, nonclimate damages are estimated to fall to 0.11 cents per kwh. Estimated climate damages from natural gas were half that of coal, ranging from 0.05 cents to 5 cents per kilowatt-hour.

The life-cycle damages of wind power, which produces just over 1 percent of U.S. electricity but has large growth potential, are small compared with those from coal and natural gas. So are the damages associated with normal operation of the nation's 104 nuclear reactors, which provide almost 20 percent of the country's electricity. But the life cycle of nuclear power does pose some risks; if uranium mining activities contaminate ground or surface water, for example, people could potentially be exposed to radon or other radionuclides; this risk is borne mostly by other nations, the report says, because the U.S. mines only 5 percent of the world's uranium. The potential risks from a proposed long-term facility for storing high-level radioactive waste need further evaluation before they can be quantified. Life-cycle CO₂ emissions from nuclear, wind, biomass, and solar power appear to be negligible when compared with fossil fuels.