

ENVIRONMENTAL SYNOPSIS

The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman

Since 1960, the third week of October has been recognized nationwide as National Forest Products Week. It recognizes the important role forests and their products have played in our nation's history – ever since its founding – and recognizes wood as a key renewable resource. It also reminds us of the many products that come from forest products: lumber, paper, building materials, veneer, flooring, sports equipment, musical instruments, firewood and wood fuel pellets, landscape mulch, chemicals, furniture and more. A presidential proclamation precedes the observance each year, "...calling upon the people of the United States to observe such week with appropriate ceremonies and activities."

The observance of Forest Products Week is particularly important in Pennsylvania where more than half of the state – about 17 million acres – is forest, and where traditionally more than 90,000 Pennsylvanians have been employed by about 3,000 forest product-related businesses with total annual sales of more than \$17 billion.

Having said all that, normally the rest of my message would be an upbeat, fairly boilerplate message about the virtues of Pennsylvania's forests and its products, citing more positive statistics about employment and economics of the industry. But these are not normal times.

The forest products industry, like all of us, has been hit hard by the economy's downturn. The industry was then dealt a second blow by the state's budget crisis. The forest products industry in Pennsylvania has a long and glorious history and has historically been a major state employer, with a very active private sector presence. The last two years have been rough, however.

For example, the state's and nation's housing funk has meant a dramatic drop-off in demand for lumber and related housing materials. If no one is building, there is not much need for construction-related hardwood materials. It has been estimated that the average 1.1 billion board feet produced annually by Pennsylvania sawmills has fallen since 2006 to about 600 million board feet this year. *

A combination of the economy, the housing crisis, tight credit, shifts in foreign demand and fuel costs have all affected the industry. Lumber prices have dropped 30-50 percent, a number of companies have had to curtail or shut down operations and the average reduction in workforce in 2008 was 36 percent, with as many as 20,000 jobs estimated to be at risk. *

The forest products industry in Pennsylvania comes at least partially under the domain of the Agriculture Department, where the PA Hardwoods Development Council (PHDC) has worked hard to build markets, establish the Pennsylvania brand of quality

(continued on page 8)



In This Issue...

- **The Chairman's Corner**p. 1
- **Notes From the Director**p. 2
- **Research Briefs**p. 3-6

- ✓ **Ethanol Tax Credit to End?**
- ✓ **What Percent of Ethanol is Safe?**
- ✓ **Are Americans Ready for Alternative Energy?**
- ✓ **Solar and Wind Power Face Obstacles**

- **On The Horizon**p. 7
- **Committee Chronicles** p. 7

NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, EXECUTIVE DIRECTOR

The American Association of State Highway and Transportation Officials (AASHTO) has launched a new web site that is the first step in reestablishing transportation and transportation-related issues such as greenhouse gas emissions as national priorities.

The new website suggests that transportation-related greenhouse gas emissions should be addressed with a four-pronged approach, focusing on less driving and improved fuels, and efficient vehicles and transportation systems.

You can check out the new AASHTO website “Real Transportation Solutions for Greenhouse Gas Emissions” at www.transportation1.org/realsolutions

According to the website, AASHTO and state-related agencies are committed to doing their share to reach a goal of reducing greenhouse gases in the United States by 80 percent by 2050.

AASHTO is a national organization that advocates for transportation-related policies and provides technical assistance to support states in their efforts to efficiently and safely move people and goods.

The new website, entitled “Real Transportation Solutions for Greenhouse Gas Emissions”, focuses on four key strategies:

- **Smarter Driving** - reducing the annual growth in driving;
- **Better Fuels** - shifting to fuels that produce low or no carbon dioxide;
- **Better Cars** - increasing fuel efficiency; and
- **Optimizing the System** - improving the efficiency and operation of the transportation system.

According to AASHTO, the website is intended to offer realistic solutions to reduce greenhouse gas emissions from the transportation sector. The site also provides a list of ongoing and completed research related to transportation and climate change, as well as links to other climate change information sites.

The website spells out a range of strategies that state transportation agencies have endorsed to address climate change:

- public participation and transparency in the development of strategies to reduce greenhouse gas emissions;
- strong federal research and development programs to produce cleaner vehicles and fuels;
- reducing the growth rate of vehicle miles traveled to one percent annually, and establishing a federal program of \$100 million annually to coordinate and improve land use;
- increased transit funding from \$10.5 billion to \$18.5 billion each year;
- doubling of transit ridership;
- greater support for biking and walking, with \$500 million or more each year;
- intensified funding for more efficient highway operations;
- significant increases in intercity passenger rail; and
- increased reliance on non-highway modes for freight transportation.

RESEARCH BRIEFS

Each month, the committee's staff researches and prepares a number of "briefs" on several topics relevant to the Joint Conservation Committee's mission. Very often, these briefs include references to reports and further research on the topics so that readers may pursue issues on their own.

GAO Report Calls for End to Ethanol Tax Credit

-- Tony M. Guerrieri, Research Analyst

Ethanol is a vital component to achieving greater American energy independence. Currently, it is the only viable and available fuel that can be substituted for gasoline. The Renewable Fuel Standard (RFS) was part of the Energy Independence and Security Act of 2007 and sets annual increasing requirements for the amount of ethanol and other biofuels produced. A report by the U.S. General Accountability Office (GAO), examines the challenges and potential effects associated with the increased production and use of biofuels.

The report, *"Biofuels: Potential Effects and Challenges of Required Increases in Production and Use"*, suggests that Congress consider actions to address the potential environmental effects of increased biofuels production and whether revisions are needed to federal financial support for the production of conventional ethanol.

Government support for ethanol levels the playing field in the subsidized energy sector and is designed to reduce dependence on foreign oil and improve the environment. The Volumetric Ethanol Excise Tax Credit (VEETC) or "blenders' credit" provides oil companies with an economic incentive to blend ethanol with gasoline, namely a 45 cent per gallon federal tax credit. The report suggests that unless crude oil prices rise significantly, the VEETC is not expected to stimulate ethanol consumption beyond the level the RFS specifies.

In addition, ethanol production efficiency has increased dramatically since the late 1980s. The report argues that the VEETC may no longer be needed to stimulate conventional corn ethanol production because the domestic industry has matured, its processing is well understood, and its capacity is already near the effective RFS limit of 15 billion gallons per year.

Congress has already mandated a steep increase in biofuels, requiring oil companies to blend some 36 billion gallons of renewable fuels into fuel supplies by 2022. To date, the domestic biofuels industry has achieved about 30 percent of this level (10 billion gallons in 2008), largely through the production of conventional corn ethanol. By contrast, consumers in the United States burned some 138 billion gallons of gasoline in 2008.

The GAO estimated the tax credit supporting conventional corn ethanol production could cost the U.S. \$6.75 billion in lost revenue by 2015, up from \$4 billion in 2008.

The tax credit does not stimulate additional ethanol consumption, according to the GAO report, given current market conditions. The GAO said options include keeping the credit, reducing or phasing it out, or modifying it to counteract crude oil price fluctuations.

See the following Research Brief article for another point of view on the use of ethanol

The law currently defines a biofuel based only on its greenhouse gas emissions, stipulating that a conventional biofuel like corn-based ethanol must produce 20 percent less greenhouse gases compared with petroleum. The report specifically recommends the U.S. Environmental Protection Agency also consider biofuels' impact on air quality, wildlife habitat and water quality.

The tax credit was just one of two fairly critical findings of the report. The GAO also pointed out that without large investments, the ethanol industry will be constrained by infrastructure limitations. Corn-based ethanol, for example, cannot be moved through existing oil pipelines because it would damage them.

The limits of existing infrastructure to transport

ethanol around the country is known as the “blend wall,” which restricts to no more than 10 percent the amount of ethanol that can be mixed with gasoline, and will require massive investment unless new fuels are found. The report recommends that federal agencies give priority to research and development on technologies that produce non-ethanol products that the existing petroleum refining and distribution infrastructure can use, thereby reducing blend wall issues.

The U.S. GAO report can be downloaded at: <http://www.gao.gov/new.items/d09446.pdf>.

Organizations Oppose Increase in Ethanol

-- Craig D. Brooks, Executive Director

Organizations representing engine, automobile and power equipment manufacturers told the Environmental Protection Agency (EPA) in July 2009 that they oppose increasing the amount of ethanol allowed in gasoline from the 10 percent maximum in current law.

The Engine Manufacturers Association and a coalition of automobile and power equipment manufacturers known as ALLSAFE have suggested to EPA that higher levels of ethanol could damage engines, fuel lines and other components, and that proponents of more ethanol have failed to provide data showing that higher levels of ethanol provide more benefit than harm. ALLSAFE was joined in opposition by the American Lung Association (ALA) and a coalition of environmental organizations that showed temperatures increased in catalytic converters run on ethanol, posing a threat to their durability.

The ALLSAFE coalition includes the Alliance of Automobile Manufacturers, the Outdoor Power Equipment Institute and the makers of power boats, motorcycles and snowmobiles. In its comments to EPA, ALLSAFE said, “...while we are sensitive to the issues facing the ethanol industry and remain committed to finding the right answers and market solutions that will support the sustainable use of more biofuels, we urge EPA to delay any decision on blends higher than 10 percent (E10) for the existing fleet until adequate testing results are available”. ALLSAFE has also suggested that EPA does not have adequate data to show that a higher ethanol level would not increase emissions or damage fuel system components.

The move to increase ethanol levels in gasoline is motivated by requirements in the Energy Independence and Security Act (Pub. L. 110-140) that requires 36 billion gallons of renewable fuel in the nation’s motor fuel supply by 2022. Proponents of the increase suggest that an increase in the ethanol level in gasoline is necessary to enable compliance with the 36 billion gallon requirement.

One of those proponents, Growth Energy, a leading ethanol manufacturer, has stated that modern automotive components are built to withstand a 15 percent ethanol level in fuel and have petitioned EPA for a Clean Air Act waiver to increase the amount of ethanol allowed in gasoline under the Clean Air Act from 10 percent (E10) to 15 percent (E15). In its comments, Growth Energy and the Renewable Fuels Association (RFA), which also strongly supports the increase, cite six recently completed studies that show the use of higher levels of ethanol is safe and effective and showed no increase in emissions. In the interim, they have suggested that EPA raise the ethanol level to 12 percent (E12). According to RFA, oxygen level tests are the same for 12 percent ethanol as for 10 percent ethanol.

Opponents and proponents disagree on a number of issues regarding increased use of ethanol

ALLSAFE, the ALA and the Engine Manufacturing Association all oppose granting permission to increase the partial increase to 12 percent suggesting the likelihood of increased “misfueling”, or operators using the wrong fuel with subsequent damage to engines and components.

Other organizations and associations (the American Meat Institute and the National Turkey Federation) have also stepped in to oppose allowing 15 percent ethanol, saying that the increase in ethanol production from corn would increase livestock feed prices. Growth Energy and RFA dispute this suggestion and have said that ethanol production has not affected the availability of corn for food production.

Comments on the Growth Energy petition to increase the allowable level of ethanol in gasoline are available at: <http://www.regulations.gov>. Select “Advanced Docket Search” then key in the docket ID number EPA-HQ-OAR-2009-0211.

Survey Says: Americans Want Alternative Energy

-- Tony M. Guerrieri, Research Analyst

More than two-thirds of Americans agree that the U.S. should pursue alternative energy, conservation, and incentives to become more energy self-sufficient. However, the public may not yet be prepared for the tradeoffs and challenges needed to make these proposals a reality.

These are among the findings of *"The Energy Learning Curve"* – a survey conducted by Public Agenda, a nonpartisan opinion research organization. The 90-question poll surveyed more than 1,000 adults across geographic regions, age, education levels and ideologies.

The public's interest in energy alternatives is broad and not necessarily dependent on its worries about gas prices, according to the survey. Three quarters of the public (73 percent) disagrees with the statement that "if we get gas prices to drop and stay low, we don't need to be worried about finding alternative sources of energy," and 53 percent "strongly disagree."

Despite the many differences in public attitudes and gaps in knowledge, there is widespread public support on a number of policies that the nation could pursue.

Here are some of the findings:

- 86 percent agree that investing in alternative energy will create many new jobs (45 percent believe this strongly).
- 84 percent support (47 percent strongly) more investment in fuel-efficient railways.
- Solid majorities support policies that transfer wealth to individuals and businesses who invest in clean technology, reduce energy use or reduce carbon emissions.
- 68 percent support investments in energy independence, even if it raises energy costs.

By contrast, majorities oppose measures that would force change by increasing the cost of driving, such as setting a floor on gasoline prices (72 percent, with 58 percent strongly opposed), congestion pricing (surcharges on certain roads at peak times - 61 percent, 41 percent strongly) and higher gas taxes. Some 57 percent reject a gas tax even when it would be used to achieve energy independence.

Public Agenda's study also found four clusters

of people with distinctive values, beliefs and knowledge, who may come at this problem from very different perspectives, but sometimes end up with similar views on solutions.

The groups include:

- The "Anxious", account for 40 percent of Americans. Worried about energy costs, oil scarcity and global warming, they favor conservation, regulation and development of alternative energy sources. They tend to be younger, lower income and have limited knowledge about energy issues.
- The "Greens" represent 24 percent of the public, and strongly favor conservation and developing renewable energy over drilling for oil. They are willing to pay more to develop renewable energy. Politically moderate, they tend to be higher income and more knowledgeable about energy issues.
- The "Disengaged" group comprises 19 percent of the public and can be described as politically moderate, lower income and disproportionately older and female, with limited knowledge and concern about energy issues.
- Finally, 17 percent are "Climate Change Doubters", who do not consider global warming a problem. They are politically conservative and support more nuclear power and expanded domestic oil drilling.

According to the study, the majority of the public sees the price of energy and the problem of oil dependence as deeply troubling problems. Climate change is a lesser concern.

- Overwhelming majorities worry about increases in the price of gas and fuel (89 percent overall, with 57 percent saying they worry "a lot").
- Concern about dependence on foreign oil is almost as high at 83 percent (with 47 percent worrying "a lot").
- Concern about climate change is much less intense. While 71 percent say they're at least "somewhat" worried about global warming, only 32 percent say they worry "a lot."

The study found most Americans tend to focus on one or two aspects of the "energy problem," such as prices or climate change, not recognizing their connection to other issues. Despite consensus on certain solutions, misconceptions and lack of knowledge hinder informed judgment and create a disconnect

between the public and policy makers. For example, half of all Americans could not identify a renewable energy source, nearly 4 in 10 could not name a fossil fuel, two-thirds overestimate U.S. dependence on Middle Eastern oil, and more than half think that by reducing smog, the United States has gone "a long way" in addressing global warming.

The full report is available at the Public Agenda website: http://www.publicagenda.org/files/pdf/energy_learning_curve.pdf.

Meeting Wind, Solar Power Generation Goals Will Be Challenging

-- Craig D. Brooks, Executive Director

Supplying 20 percent of the nation's electricity from renewable resources such as wind power and solar power by 2030 would be challenging but not impossible, according to a report by the Pew Center on Global Climate Change. Currently, renewable sources such as wind and solar make up approximately two percent of U.S. electricity production, according to the report. Generating 20 percent of the country's power from wind however, would add four to six percent to the cost of electricity and would require \$3 billion to \$4 billion in spending on transmission lines, an increase of about 40-50 percent over current spending, the report says. Such an increase would require a doubling of the 2008 wind turbine installation rate. According to the report, 8.5 gigawatts of wind power were installed in the United States last year, representing a 50 percent increase overall. The report suggests that 20 percent wind penetration in the electricity grid is manageable, although there would be costs for integrating this variable power source.

The report, "*Wind and Solar Electricity: Challenges and Opportunities*", says the technology cost issues are quite different for wind than for solar. Electricity from wind can be cost competitive with

electricity from new coal and natural gas power plants, depending on the price of fuel, the carbon price and various subsidies. The report found that electricity generated from photovoltaic solar panels (PV) and concentrating solar power (CSP), which uses mirrors to focus sunlight on a heating fluid are still "significantly more expensive". According to the report, achieving one percent of the country's electricity generation from solar power would require annual solar installations of two to three times the 900 megawatts installed in 2008.

According to the report, the main barriers are still:

- **High Costs:** Current costs for CSP range from 28 to 42 cents per kilowatt hour (kWh) for large grid connected systems. Smaller PV systems have somewhat higher costs which are estimated to be between 46 to 59 cents per kWh, when compared to natural gas or wind at 5 to 10 cents per kWh.

- **Transmission:** Utility-scale wind and solar power plants are often located more remotely than fossil-fueled plants and therefore require construction of new, expensive and somewhat controversial transmission lines. This has proven to be very difficult.

- **Variability/Intermittency:** The availability of wind and sun as an energy source fluctuates due to weather patterns and cycles of the day and night. Therefore, the electricity output from these power plants varies accordingly. The demand for electricity however, does not follow the same pattern.

According to the report, there are other barriers as well, including siting and permitting challenges for the renewable power plants themselves and for the transmission lines that connect them to the grid, higher perceived technical risk, high ratio of capital to operating costs and federal and state policy uncertainties.

The Pew report is available at <http://www.pewclimate.org/report/Wind-Solar-Electricity/June2009>.

News to Use in the Environmental Synopsis... share it with a friend

The *Environmental Synopsis* is issued monthly.

The newsletter examines timely issues concerning environmental protection and natural resources.

If someone you know would like to receive a copy of the *Synopsis* each month, please contact the Committee office at 717-787-7570.



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ON THE HORIZON . . .

A LOOK AT UPCOMING EVENTS

✓ **Thursday, October 29, 2009, 10 a.m., Celebration Hall, 2280 Commercial Boulevard, State College, PA – Meeting of the Joint Legislative Air and Water Pollution Control and Conservation Committee’s (Committee) Forestry Task Force. ***

✓ **Thursday, November 12, 2009, 9 a.m., Rachel Carson State Office Building, Harrisburg, PA – Meeting of the Solid Waste and Recycling Fund Advisory Committee.**

* **Please call the Committee office at (717) 787-7570 if you plan to attend.**

Committee Chronicles . . .

REVIEW OF SOME MEMORABLE COMMITTEE EVENTS

Two long-time members of the Committee were recently honored for their exemplary efforts on environmental issues.

State Senator Ray Musto, Committee vice-chairman, received the Distinguished Service Award from the PA Municipal Authorities Association (PMAA) at PMAA’s 60th annual Conference and Trade Show. Musto is the first legislator to receive the award a second time, having first been honored in 2000. Musto is the minority chairman of the Senate Environmental Resources and Energy Committee, and has served on the PENNVEST Board of Directors since its inception 20 years ago. Last year, he authored the act to provide \$400 million to PENNVEST for water projects and supported the act to provide \$800 million in new infrastructure funding.



In the photo at right, Sen. Musto (2nd from right) accepts his award from PMAA. Joining the Senator are (l. to r.): Leo Kuciewicz of the Senator’s staff; PMAA Deputy Director John Brosious; Richard Fox of the Senator’s staff; and PMAA Government Relations Liaison Jennifer Case.

Rep. Camille Bud George was honored earlier this year by the National Association of Water Companies (NAWC)-Pennsylvania Chapter with its 2008 James McGirr Kelly Award for Excellence – the highest honor bestowed by the organization. The award is presented each year to, “...a resident of Pennsylvania who most exemplifies dedication to promoting the availability of safe drinking water in the commonwealth.”

George chairs the House Environmental Resources and Energy Committee, is a charter member of the PENNVEST board and helped shape the same acts mentioned above to provide \$1.2 billion for infrastructure projects. George also serves on the Environmental Quality Board and the Wild Resource Conservation Board.



In the photo at right, Rep. George (right) accepts the James McGirr Kelly Award from NAWC-PA Chapter Chairperson Kathy L. Pape.

and increase exports. The Ag Department and PHDC - like other state agencies - have been hard hit, however, by budget cuts and freezes. This means fewer resources to promote and grow the commonwealth's renewable forest resource. The Legislative Timber Caucus, of which I am a member, fought hard, with some success, to try to restore some funding cuts, working with PHDC and other organizations like the PA Forest Products Association (PFPA).

It is going to take time and much hard work to restore the industry to some semblance of normalcy. But, there are several good reasons why Pennsylvania should be optimistic about its chances for success in rebuilding its forest products industry.

First of all, there is the recognized superior quality of Pennsylvania products. The brand "Pennsylvania Hardwood Stands for Quality" is known throughout the world. Our black cherry, oak, maple, walnut, poplar and ash are famed.

Pennsylvania traditionally has led the nation in hardwood production and exports, so we are operating from a position of strength. As a matter of fact, according to PHDC, Pennsylvania's export figures remain better than the national average.

**Celebrate National Forest Products Week
with a walk through Penn's Woods**

Pennsylvania also works hard to sustain its forests for both ecological benefits and future timber production, and help forest landowners manage their resources. PA has an active Bureau of Forestry in the Department of Conservation and Natural Resources and strong organizations emphasizing sustainable and responsible forest management, such as the Sustainable Forestry Initiative (SFI), the federal Forest Stewardship Program, the American Tree Farm System, the PA Forestry Association and the PA Urban and Community Forestry Program. In 2000, Pennsylvania was recognized as the top state in promoting the SFI and that effort has not slackened. Pennsylvania also holds the largest amount of forest acreage certified under the international criteria of the Forest Stewardship Council, and in 1998 the council certified the entire state forest system as "well managed".

Unlike many forests in the Western U.S., the majority - close to 70 percent - of Pennsylvania's forest resource is privately owned. If and when an upturn comes it is reasonable to expect that the private sector will lead the way. According to the PFPA, the state's timber industry obtains approximately 80 percent of its raw material needs from private forest landowners.

There is no shortage of raw materials in Pennsylvania. The PFPA points out that the latest U.S. Department of Agriculture (USDA) Forest Inventory (2004) showed that saw timber volume in Pennsylvania had increased 18 percent since the previous inventory in 1989. Pennsylvania's saw timber volume is now the highest recorded since the inception of the USDA Forest Inventory.

October is the perfect time, it seems to me, to observe Forest Products Week. Fall colors will be peaking, so take a walk in Penn's Woods. When walking, consider that the forest is a renewable resource, strengthened by management and prudent use. If you are a forest landowner, please consider taking part in one of the state's many programs to help you sustainably manage the resource you own. The awareness and understanding of all Pennsylvania citizens about forest products and the important industries they supply will help to regrow an historic industry in Pennsylvania that is just as glorious and colorful as the autumn leaves. The fight back will not be easy, but I believe it can be done.

(* - Estimates supplied by PA Hardwoods Development Council)

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