

ENVIRONMENTAL SYNOPSIS

The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman



Before I get into today's topic, please allow me to wish all our readers a Merry Christmas and a Happy New Year! It is my hope that all of you have a safe and blessed holiday season.

Also, I ask that you take note of the request on page seven, under the heading "Make Note...We Want to Hear From You." Please take a few minutes to update or change your mailing or e-mailing status as requested there.

Now, on to today's subject.

In 2008, the Joint Legislative Air and Water Pollution Control and Conservation Committee (Committee) sponsored a statewide survey regarding trash disposal and collection, illegal dumping and trash recycling in Pennsylvania. The intent of the survey was to try to learn more about Pennsylvania residents' habits when it came to trash and what might be done to improve trash collection and disposal and curb illegal dumping.

The Committee formulated the survey questions in cooperation with organizations like Keep Pennsylvania Beautiful, the Professional Recyclers of Pennsylvania and PA Cleanways. Among the general findings was that most people had trash collection services, but that illegal disposal and/or dumping of trash still took place around the state. However, three-quarters of those responding seemed to think that there was no illegal dumping problem in their hometowns.

PA Cleanways, a non-profit organization dedicated to stopping illegal dumping and littering through cleanups, adoptions and education, has been conducting illegal dump surveys throughout Pennsylvania for several years. The organization has now completed surveys of 37 of Pennsylvania's 67 counties, and working with the Center for Rural Pennsylvania has released an analysis of the surveys' findings.

Putting together their physical survey results with the Committee's telephone survey results makes for some interesting observations and conclusions. First of all, a study of PA Cleanways' results negates the perception of the Committees' respondents that there is no illegal dumping problem in Pennsylvania.

PA Cleanways found that there were 4,159 illegal dumpsites in the 37 counties surveyed containing an approximate 14,500 tons of trash. Keep in mind, those figures may be underestimated, because PA Cleanways only included dumpsites

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NOTES FROM THE DIRECTOR

CRAIG D. BROOKS, EXECUTIVE DIRECTOR



The Congressional Budget Office (CBO) has estimated that the federal energy bill (S. 1462) approved by the Senate Energy and Natural Resources Committee will increase the federal deficit by a net \$13.5 billion over the next decade. This legislation will be merged with a carbon cap-and-trade bill (S. 1733) being written by the Senate Environment and Public Works Committee.

The energy bill has taken a back seat recently due to the national health care debate, but the Senate Finance Committee will act soon on the tax and revenue component of the energy and climate package. The tax and revenue component will determine the final cost of the measure.

It is estimated that the American Clean Energy Leadership Act will increase the federal deficit by \$13.5 billion over the next 10 years

According to the CBO, the American Clean Energy Leadership Act (S. 1462) would increase direct spending by \$13.9 billion between 2010 and 2019. The spending would be offset by \$375 million in net revenues from compliance payments by utilities with not enough renewable electricity generation, for a net increase in the budget deficit of \$13.5 billion.

S. 1462 would establish and modify various federal policies and programs aimed at energy supply and conservation. Major provisions would:

- **Authorize appropriations for a variety of energy-related programs administered by the Department of Energy (DOE) and other agencies. Specifically, \$27.5 billion for science programs; \$10.4 billion for energy efficiency, electric supply and delivery and renewable energy programs;**

\$5.5 billion for fossil energy programs; and \$5.2 billion for nuclear energy programs.

- **Establish a Clean Energy Development Administration within DOE, which would be authorized to provide direct loans, loan guarantees, and letters of credit for clean energy projects with an appropriation of \$10 billion and would act as a clearinghouse for financial assistance for clean energy projects.**

- **Modify the mix of products stored in the Strategic Petroleum Reserve (SPR). Under current law, DOE is required to establish the SPR containing 1 billion barrels of petroleum. S. 1462 would specify that at least 30 million barrels of that total should be in the form of refined petroleum products. The CBO expects that DOE would begin exchanging crude oil for refined products and storage services in 2023.**

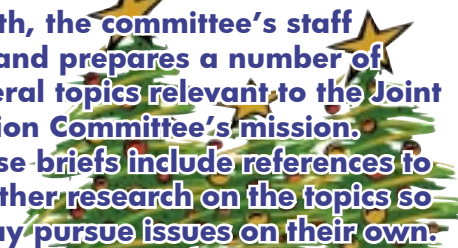
- **Require certain retail electricity suppliers to satisfy a minimum percentage of their electricity sales with electricity generated by facilities that use qualifying renewable fuels or energy sources. This is the Federal Renewable Electricity Standard. Electricity generated from sources specified in the bill would need to be equal to or exceed three percent of the sales by each covered supplier in 2011 and increase to 15 percent by 2021.**

- **Authorize the federal government to indemnify the operators of carbon storage facilities. Carbon sequestration, which involves injecting carbon dioxide into geologic formations, is being studied as a way to remove greenhouse gases from the atmosphere. This authorization would establish a three-tiered approach for managing carbon sequestration projects.**

CBO's cost estimate for S. 1462, The American Clean Energy Leadership Act, is available at <http://www.cbo.gov/ftpdocs/106xx/doc10637/s1462.pdf>.

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.



Philadelphia and Pittsburgh's Pedestrian Safety Ranks Among Best -- Tony M. Guerrieri, Research Analyst

Crossing the street in Philadelphia or Pittsburgh? The odds are you'll make it to the other side, according to a report by a national transportation reform coalition of groups led by the Surface Transportation Policy Partnership and Transportation for America.

The report, *"Dangerous by Design: Solving the Epidemic of Preventable Pedestrian Deaths (and Making Great Neighborhoods)"*, ranks the nation's 52 largest cities and their surrounding areas as the safest and most dangerous for pedestrians. It examines statistics on pedestrian deaths from 2007 and 2008. For example, over 9,000 people died nationwide in 2007-08 while trying to cross or walk along streets, and 70,000 more were injured.

The report uses a "pedestrian danger index" in determining its rankings. The danger index factors in the number of fatalities per 100,000 population and the percentage of commuters walking to work – with a national average of 52.

When cities were ranked according to their safety level for walking, Minneapolis-St. Paul was rated the safest place for pedestrians with a danger index of 22.3. The remaining top five cities named the safest for pedestrians were Boston (23.2), New York (28.1), Pittsburgh (29.1) and Seattle (31.1).

Nine of the 10 most dangerous places to walk or ride a bike in America are in the South, and Florida, with four of the five most dangerous metro areas, fared particularly poorly. Orlando tops the list because of its high pedestrian fatality rate of 2.9 pedestrian deaths per 100,000 residents, despite a very low proportion of residents walking to work (only 1.3 percent), the report said. In other words, the few people who do walk in Orlando face a relatively high risk of being killed in traf-

fic. As a result, Orlando is assigned the nation's highest pedestrian danger index of 221.5. Tampa followed in second place at 205.5, Miami third (181.2) and Jacksonville fourth (157.4). The other most dangerous metro area is Memphis, Tennessee (137.7).

The report blames sprawling suburban-style growth for the danger to pedestrians, with roads designed to assist vehicular traffic, often without sidewalks or proper crosswalks. These areas are dominated by lower density and automobile-oriented development patterns.

Pennsylvania cities scored fairly well on the reports index and Pennsylvania ranked 16th nationally in federal dollars spent on resources for walkers and bicyclists

Philadelphia was 38th and Pittsburgh was 49th of 52 metro areas in degree of danger to pedestrians, with danger indexes of 44.3 and 29.1 respectively, well below the national average. Other smaller Pennsylvania cities rank fairly well by the report's index. Scores include Altoona (43.6), Scranton (42.7), Harrisburg (41.2), Lebanon (36.9), Lancaster (27.6), Johnstown (9.9) and State College (2.8).

The report also examines how states and localities are spending federal money that could be used to make the most dangerous streets safer, and found that Pennsylvania ranks 16th nationally in its spending of federal transportation funds on resources for walkers and bicyclists. The report puts Pennsylvania's per capita spending on bicycling and walking projects at \$2.22 – compared with a national average of \$1.46 and a high of \$9.47 in Alaska. The state that spends the least on such projects (22 cents) is Virginia.

Less than 1.5 percent of funds authorized under

the old federal transportation law, called SAFETEA-LU, have been allocated for pedestrian or bike safety projects, even though pedestrians account for 11.8 percent of all traffic deaths.

The report contains recommendations including significant investments in projects to make roads safer for walking.

The 84-page report is available at: http://t4america.org/docs/dangerouslybydesign/dangerous_by_design.pdf.

Methane Partnership Reduces Emissions

-- Craig D. Brooks, Executive Director

The International Methane to Markets Partnership has significantly reduced methane emissions, according to an Environmental Protection Agency (EPA) report. The report says that in 2008, U.S.-supported Methane to Markets projects delivered methane reductions of more than 26 million metric tons of carbon dioxide-equivalent, roughly the annual greenhouse gas emissions from 4.7 million passenger vehicles. The report, *"The U.S. Government's Methane to Markets Partnership Accomplishments"*, highlights the projects and activities of the partnership.

The United States and 13 other countries formed the Methane to Markets Partnership in 2004 with the goal of reducing methane emissions quickly and cost-effectively through a collaborative, multilateral framework that combines public and private interests and advances the recovery and use of methane as a clean energy source. By engaging the private and public sectors, Methane to Markets has attempted to bring together the technical and market expertise and the financing and technology necessary for methane capture and project development.

The partnership focuses on developing projects in four major methane emissions source areas: agriculture, coal mines, landfills and oil and gas systems. In each of these sectors, cost effective methane emission reduction technologies and practices are currently available to capture and use methane gas as fuel for electricity generation, on-site energy needs or off-site gas sales. The partnership is modeled after the United States' very successful public-

private domestic methane reduction programs such as AgSTAR, CMOP (Coalbed Methane Outreach Program), LMOP (Landfill Methane Outreach Program) and Natural Gas STAR, which have helped reduce annual U.S. methane emissions 14 percent below 1990 levels.

Methane to Markets Partnership methane reductions roughly equal the annual greenhouse gas emissions from 4.7 million passenger cars

According to the report, the United States has been a strong supporter of the Methane to Markets Partnership since its inception in 2004. The United States has pledged \$53 million over a five year period to facilitate the development and implementation of methane projects in developing countries and countries with economies in transition. According to the report, this funding has supported a broad range of efforts including:

- **The development of more than 170 methane emission reduction projects in 16 Methane to Markets Partnership countries around the world. These projects are already delivering reductions of 26.7 million metric tons of carbon dioxide-equivalent (MMTCO₂E) per year and when fully implemented will yield reductions of approximately 61 MMTCO₂E annually.**
 - **Expansion from the initial 14 partners to 31, with Chile, the Dominican Republic and the Republic of Georgia being the most recent additions in 2009. Together these partners are responsible for more than 60 percent of the world's methane emissions.**
 - **The recruitment of more than 900 Project Network members from around the world.**
 - **Establishment of an international forum focusing on methane, the first Methane to Markets Expo held in Beijing, China in 2007.**
 - **The development of online tools and resources for international projects.**

The report is available at http://www.epa.gov/methanetomarkets/pdf/2009-accomplish-report/m2m_usg_fullreport.pdf.

Growing Markets For Scrap Tires

-- Tony M. Guerrieri, Research Analyst

Scrap tires are potentially a valuable product that can provide a low cost fuel alternative for manufacturers and utilities, serve as raw material for reuse and recycling businesses, or provide other beneficial uses. According to a report by the Rubber Manufacturers Association (RMA), steel-belted radial tires are one of the most recyclable products created by modern industry. Nearly 90 percent of tires that are removed from vehicles every year are now put to new productive uses.

The ninth biennial report entitled "Scrap Tire Markets in the United States" provides a comprehensive snapshot of scrap tire markets during the study year 2007. The report shows continued progress in scrap tire management practices across the nation resulting in significant reduction of scrap tire stockpiles and progress in putting waste tires to new uses.

In 2007, scrap tires being consumed in end-use markets reached a new high – 4.1 million tons

The RMA estimates that over 303 million tires (4.6 million tons) were generated in the U.S. in 2007. Eighty-five percent were light-duty tires, and 15 percent commercial tires.

Nearly all tires reaching "scrap" status are being sent to final disposition rather than being stockpiled. The majority, over 89 percent, go to productive end-use markets, for recycling, energy recovery or other beneficial use. The total volume of scrap tires consumed in end-use markets in the U.S. reached approximately 4.1 million tons of tires, the largest amount since the RMA began tabulating scrap tire statistics.

Three scrap tire markets dominated the flow of tires in 2007:

► **Tire-Derived Fuel (TDF)** – The largest single market niche is TDF, accounting for about 2.5 million tons of scrap tires in the U.S. in 2007, or about 54 percent of the total scrap tires generated. TDF contains a higher BTU content per pound than

high-quality coal and has increased in popularity due to elevated energy prices, improvements in TDF quality and reliable delivery, and technology advancements in equipment. Pulp/paper manufacturing (43 percent), cement kilns (27 percent) and electric utilities (14 percent) account for most of the TDF tonnage. The RMA predicted this market is anticipated to experience strong demand for the next two years.

► **Ground Rubber** – This market accounted for the second largest (about 17 percent) usage of scrap tires in 2007 (over 789 thousand tons). Products like floor mats, recreational surfaces and molded and extruded goods utilize ground rubber for its flexibility and energy absorption properties. This market is expected to experience modest growth in the next two years.

► **Civil Engineering** – This market used about 12 percent of scrap tires. The tire pieces used for these applications are called tire-derived aggregate and are desirable for physical properties such as permeability, vibration damping and structural stability when mixed with soils. This market experienced a continued decrease from its peak in 2003, due to competition from other TDF markets.

Other smaller markets include electric arc furnaces. In 2007, over 27 thousand tons of scrap tires were used as a charging material for electric arc furnaces, compared to 19 thousand tons in 2005. While this is a significant increase, the long term growth prospects for this market remain limited.

In 2007, about 594 thousand tons of scrap tires were landfilled in the U.S. This compares to the 477 thousand tons that were reportedly landfilled in 2005. According to the RMA report, the increase can be primarily attributed to active scrap tire stockpile remediation efforts in a number of states.

Stockpiled tires present a substantial environmental and public health hazard. At the end of 2007, about 128 million scrap tires remained in stockpiles in the U.S., a reduction of over 87 percent since 1990.

The RMA is a Washington-based trade group that represents about 100 tire makers and recyclers. The 105-page report is available at www.rma.org.

Inefficient Products Get Energy Star Labels

-- Craig D. Brooks, Executive Director

The Department of Energy (DOE) has mislabeled power thirsty products as energy efficient because it has failed to make oversight and control improvements to its Energy Star labeling program, according to an internal audit conducted by DOE's inspector general. The report, "*The Department's Management of the Energy Star Program*", found the department failed to ensure proper use of Energy Star labels in the marketplace and failed to improve the process for setting and revising product specifications.

The program, which provides consumers with energy efficiency data for products ranging from refrigerators to washing machines, has no formal testing mechanism to ensure that manufacturers adhere to all of their product specifications, despite plans by the department to begin such a system following a 2007 audit, the report said. Participation by manufacturers is voluntary.

The Department of Energy study brings into question whether the "Energy Star" label can be trusted to deliver what is promised

The shortcomings found in the audit were more than theoretical and were supported by actual events, the report said. An independent review in 2008 found that DOE allowed manufacturers in some product categories to "self-certify" without implementing corrective actions to address certification and testing weaknesses. For example, refrigerators that had been self-certified as Energy

Star-compliant by one manufacturer were found by an independent testing service to use twice the amount of energy claimed.

According to the report, the problems could reduce consumer confidence in the integrity of the Energy Star label as well as diminish the value of a recent \$300 million infusion for Energy Star consumer rebates provided in the American Recovery and Reinvestment Act. The department is considering ways to randomly test Energy Star-labeled appliances and could use about \$17 million allocated to the agency through the American Recovery and Reinvestment Act to expand its coverage of product categories.

DOE said in an October 2009 *Federal Register* notice that it would begin rigorously enforcing the efficiency standards and planned to assemble a team to conduct random compliance reviews of manufacturers' certification reports for consumer products. To help follow through on DOE's planned corrective action, the audit report recommends that the Energy Star Program:

- 1. Develop a consistent and comprehensive, independent testing program for all department Energy Star product categories to ensure compliance with the required specifications.**
- 2. Improve oversight of the use of the Energy Star label including the adequate coverage of qualified product categories and final resolution and reporting of label use violations by retailers.**
- 3. Develop procedures for setting product specifications including reviewing data on market availability and requiring documentation of its periodic evaluation of market and product conditions that could trigger a revision to established specifications.**

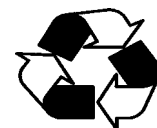
The inspector general's report is available at <http://www.ig.energy.gov/documents/IG-0827-508.pdf>.

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



There are no events scheduled at this time.

Check the Committee website at <http://jcc.legis.state.pa.us> for events that may be added to the schedule.



Merry Christmas and Happy New Year to all our readers!



SPECIAL NOTE . . .

Make Note...We Want to Hear From You Updating the Rolls...Mail, E-mail or Website???

As the end of the year approaches, it is a good time to review the *Environmental Synopsis* mailing list and remind readers of electronic options available to them to receive the *Synopsis*.

If readers would like to change the method in which they receive the *Synopsis* from mailed hard copy to an e-mailed electronic version (or vice versa), please contact Lynn Mash in the committee office either at 717-787-7570, or e-mail Lynn at lmash@jcc.legis.state.pa.us requesting to be removed from one list and added to the other. Remember to provide your e-mail address if necessary.

Readers who wish to report address changes or wish to simply be removed from the mailing (or e-mail) list should also contact Lynn in the same manner.

Readers are also reminded that the *Synopsis* is available on the committee website each month after the *Synopsis*' printing and distribution. The website address is <http://jcc.legis.state.pa.us>.

For readers' convenience, you may request an advisory e-mail be sent to you each month letting you know when the *Synopsis* has become available on the website, rather than you having to check when the latest edition has been posted. For that option, please contact Lynn in one of the methods described above. Again, please provide your e-mail address when doing so.



visible from a public right-of-way, not those that would be sure to be found on private roadways and farms.

The PA Cleanways survey found that 72 percent of the illegal dumpsites were in rural municipalities, and rural dumpsites contained 77 percent of the trash. This corresponds to some of the rural-urban breakdowns of findings in the Committee survey. For example, the Committee survey found that urban settings more frequently had mandatory participation in trash collection, removed more bulky household items (common items in illegal dumps), included recyclables far more often in curbside collection, and had fewer areas that had no trash collection services. All of these factors would seem to make it more likely that illegal dumping would occur more often in rural areas.

PA Cleanways also found that density of population played an important role in where illegal dumps sprang up. More illegal dumping was done in rural townships where population density averages fewer than 74 persons per square mile. By contrast, rural boroughs have a density of 281 persons per square mile, while the average urban township has 511 persons per square mile.

The Committee survey results can be found in the June 2008 Environmental Synopsis on the “Newsletter” page of the Committee website at <http://jcc.legis.state.pa.us>

The PA Cleanways website is www.pacleanways.org

Ending the stockpiling of waste tires has long been a priority of the Committee and with good reason. PA Cleanways discovered that tires are still a significant problem in dumpsites, despite the great strides Pennsylvania has made in cleaning up its piles of waste tires. Sixty-six percent of rural dumpsites and 73 percent of urban sites had illegally dumped waste tires.

One dumpsite usually leads to another, according to what PA Cleanways found. Of those municipalities with illegal dumpsites, only 22 percent had only one. This points to the importance of vigilance, quick cleanups and the involvement of local citizens in reporting and preventing illegal dumping.

The Committee survey found strong support (76.8 percent) for implementing mandatory trash collection in Pennsylvania to curb illegal dumping. However, more thought may need to be given in this area. In the PA Cleanways survey, it seemed to make little difference in the presence of illegal dumps whether a municipality, particularly in rural areas, had trash collection services and/or curbside recycling or not.

Both surveys found evidence that suggests that stopping illegal dumping may require, in the words of the PA Cleanways analysis, “...a more nuanced and multi-pronged approach.” Similarly, the Committee survey found that the largest percentages of respondents felt that there was no one cause for illegal dumping in their communities but a combination of lack of education, lack of enforcement and the cost of paying for trash collection services in almost equal percentages.

The committee will continue its efforts to encourage waste tire recycling and curb illegal dumping, and plans to invite PA Cleanways to speak about its findings at one of the Committee’s 2010 Environmental Issues Forums.

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