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Pennsylvania and the American Clean Energy and Security Act

Committee on Energy and Commerce

On June 26, 2009, the U.S. House of Representatives approved H.R. 2454, the American Clean Energy and Security Act (ACES). The legislation would take a number of important steps that will (1) wean our country off of foreign oil; (2) create millions of new clean energy jobs; (3) save consumers billions of dollars in energy bills; and (4) restore U.S. leadership in clean technology and efforts to reduce the effects of global warming on the health of our children, national security, and economic productivity.

At the national level, government and other experts have documented the job creation, oil savings, consumer cost savings, and pollution reduction that would result from enactment of ACES. A recent economic analysis at New York University concluded: “from almost any perspective and under almost any assumption, H.R. 2454 is a good investment for the United States to make in our own economic future and in the future of the planet.”¹

Estimates from the Congressional Budget Office, the Environmental Protection Agency, and the Department of Energy’s Energy Information Administration predict that the per-household costs of the bill will be less than 50 cents per day in 2020 (\$74 to \$160 annually).² These estimates do not take into account the benefits of curbing global warming. They also do not take into account the full energy savings resulting from the investments ACES makes in energy efficiency, which the American Council for an Energy Efficient Economy estimates will be \$215 annually per household by 2020.³ An analysis by the University of California at Berkeley, University of Illinois, and Yale University found that the bill would increase real household income by \$488 or more in 2020.⁴

This fact sheet provides a brief overview of how the legislation would affect the country and specifically the Commonwealth of Pennsylvania.

Promoting Domestic Manufacturing. ACES would establish a Clean Energy Manufacturing Revolving Loan Fund Program to award grants to states to establish revolving loan funds for small and medium-sized manufacturers to improve energy efficiency and produce clean energy technology. It would also create partnerships to help manufacturers find new markets, improve competitiveness, reduce global warming pollution, and adopt innovative manufacturing technologies.

Promoting Economic Growth in Pennsylvania. ACES will have demonstrable benefits for Pennsylvania’s economy. A recent university study concluded that Pennsylvania could gain 46,000 to 78,000 more jobs by 2020 as a result of comprehensive clean energy policy.⁵ It also concluded that Pennsylvania’s gross domestic product would be \$2.4 billion to \$4.3 billion higher with clean energy policy than without.

Reducing Our Dependence on Imported Oil. ACES will make us more energy independent. ACES contains provisions to make vehicles more efficient, retool factories to build the next generation of vehicles, electrify the transportation sector, design more efficient communities, develop next-generation biofuels, save oil in homes and factories, and help to increase recovery from existing oil reserves. Clean energy policies like these have the potential to save 4 to 7 million barrels of oil per day by 2030, two to

three times the oil we import from the Persian Gulf.⁶ By lowering global demand for oil, clean energy policies would deprive the Iranian government of \$100 million per day in oil revenue.⁷

Avoiding the Harmful Effects of Climate Change. None of these estimates include the benefit to Pennsylvania and the nation from avoiding climate change. Unchecked global warming would have adverse impacts on agriculture in the state, including reduced livestock productivity, reduced milk production, and more extreme weather events such as heavy downpours and droughts. Projected impacts on tourism in Pennsylvania include shrinking winter snow seasons and trout habitat, reducing skiing and fishing opportunities. Climate change is also expected to increase severe floods and heat waves. For example, Philadelphia is expected to experience an average of nearly 30 days over 100°F each summer by late this century.⁸

Investments in Clean Energy Programs in Pennsylvania. ACES will invest \$2.6 billion in clean energy programs in Pennsylvania by 2020.⁹ These funds could be used to pay for renewable energy projects, energy efficient building retrofits, home appliance upgrades, and clean and efficient transportation improvements. Over the period 2012 to 2016, ACES will invest \$300 million to \$400 million in Pennsylvania each year. Specifically, ACES would provide:

- **Over \$125 million per year for investments in energy efficiency, renewable energy, and low carbon transportation.** The largest portion of funds provided by ACES can be used by states to transition to a clean energy economy. States will receive carbon allowances worth \$3.1 billion to \$3.9 billion each year to be used for projects that improve energy efficiency, deploy renewable energy and smart grid technologies, or reduce transportation-related emissions. Pennsylvania's share is \$125 to \$160 million annually.
- **Over \$55 million per year for renewable energy manufacturing and deployment.** States will receive carbon allowances worth \$1.3 billion to \$1.6 billion each year to deploy renewable energy generation or to establish facilities that manufacture renewable energy technologies. Pennsylvania's share is \$55 to \$65 million annually.
- **Over \$65 million per year to improve energy efficiency in buildings.** States will receive carbon allowances worth \$1.7 billion to \$2.1 billion each year to improve the energy efficiency of buildings through implementation of building energy codes, building retrofit assistance and upgrades of manufactured homes. Funds may also be used for additional clean energy activities in low-income communities. Pennsylvania's share is \$65 to \$80 million annually.
- **Over \$30 million per year for adaptation projects.** States will receive carbon allowances worth \$900 million to \$1.3 billion to adapt to climate impacts that are already occurring or are expected to occur. These funds can be used for activities such as agriculture and water management, as well as for protection of wildlife and natural ecosystems. Pennsylvania's share is \$30 to \$50 million annually.
- **Over \$35 million for local governments.** Local governments will receive carbon allowances worth \$800 million to \$1.0 billion each year to invest in local energy efficiency programs and deployment of local renewable energy technology. The share for local governments in Pennsylvania is \$35 to \$40 million annually.

National Programs that Benefit Pennsylvania. In addition, ACES makes several national investments that will benefit Pennsylvania. Over the period 2012 through 2025, ACES would provide:

- **\$25 billion to rebuild or retool factories to build fuel efficient vehicles.** These funds will support the construction of plug-in electric vehicles and other advanced technology vehicles, putting autoworkers back to work on new types of vehicles.
- **\$25 billion in additional loan guarantees for the auto industry.** These funds will expand the existing advanced technology vehicle manufacturing program, which provides federal loan guarantees to auto manufacturers and their component suppliers.
- **\$64 billion to develop and deploy carbon capture and storage.** These funds will build the first generation of coal power plants equipped with carbon capture and sequestration.
- **\$22 billion in advanced energy research.** These funds will support eight regional Energy Innovation Hubs where university researchers, private researchers and industry can cooperate to develop clean energy technologies. The funds can also be used to support innovative energy technologies through the Advanced Research Projects Agency-Energy (ARPA-E).
- **\$1 billion for agricultural and renewable energy incentives.** These funds will be used by the Environmental Protection Agency and the U.S. Department of Agriculture to support supplemental activities in agriculture and to invest in infrastructure to help deploy biofuels and other renewable energy.
- **Up to \$8 billion per year in a domestic offset market.** ACES would also create a national domestic offset market, in which Pennsylvania's farmers and forest owners could participate to generate a new source of income when they cut emissions.

¹ Institute for Policy Integrity, New York University School of Law, *The Other Side of the Coin: The Economic Benefits of Climate Legislation* (September 2009) (online at www.policyintegrity.org/documents/OtherSideoftheCoin.pdf)

² Environmental Protection Agency, *EPA Analysis of the American Clean Energy and Security Act of 2009, H.R. 2454 in the 111th Congress* (January 29, 2010) (online at www.epa.gov/climatechange/economics/pdfs/HR2454_SupplementalAnalysis.pdf), Energy Information Administration, *Energy Market and Economic Impacts of H.R. 2454, the American Clean Energy and Security Act of 2009* (August 4, 2009) (online at www.eia.doe.gov/oiaf/servicerpt/hr2454/index.html), and Testimony of Douglas Elmendorf, Congressional Budget Office before the Senate Committee on Energy and Natural Resources (Oct. 14, 2009) (online at www.cbo.gov/doc.cfm?index=10561&type=1).

³ American Council for an Energy Efficient Economy, *Energy Efficiency in the American Clean Energy and Security Act of 2009: Impacts of Current Provisions and Opportunities to Enhance the Legislation* (online at www.aceee.org/pubs/e096.htm)

⁴ Roland-Holst et al., *Clean Energy and Climate Policy for U.S. Growth and Job Creation* (October 2009) (online at are.berkeley.edu/~dwrh/CERES_Web/Docs/ES_DRHFK091025.pdf)

⁵ *Id.*

⁶ EPA, *Analysis of the Transportation Sector: Greenhouse Gas and Oil Reduction Scenarios*, (Feb 2 2010) (online at www.epa.gov/otaq/climate/publications.htm#basic) EIA, *U.S. Total Crude Oil and Products Imports*, (June 29, 2009) (online at: http://tonto.eia.doe.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbldpd_a.htm)

⁷ *Carbon Caps Would Cost Iran \$100 Million A Day* (Apr. 12, 2010) (online at www.scientificamerican.com/article.cfm?id=carbon-caps-would-cost-iran-100-mil-2010-04)

⁸ U.S. Global Change Research Program, *Global Climate Change Impacts in the United States* (June 2009) (online at www.globalchange.gov)

⁹ Estimates are based upon allowance prices from the Congressional Budget Office, adjusted to 2009 dollars. Changes in population, energy consumption, or allowance value will impact actual investments.