



Energy Quiz!

As you may know, October has been designated Energy Awareness Month, so we thought a little Energy Quiz might be fun. Here are a few “multiple guess” questions for you about energy related facts and figures. Give the quiz a try - and then see the back page to check your answers - no peeking! If you have an energy question to put on the next Quiz, send it to Kathleen. Also, if you would like for us to research an energy issue for you, please send it in as well. Enjoy!

- Approximately how much water is used or diverted if you burn a 60-watt incandescent light bulb 12 hours a day for one year? a) 50 gallons, b) 500 gallons, c) 5,000 gallons, d) 50,000gallons
- What percent increase in fuel efficiency has been achieved in the average combined new car and truck fleet in the United States from 1985 to today? a) -10%, b) 0%, c) 10%, d) 20%
- What percent of the nation’s electricity is generated with coal? a) 15%, b) 35%, c) 55%, d) 85%
- On the average, two large (~500 MW) coal-fired power generation plants are built in China_____? a) every day, b) every week, c) every month, d) every year
- During the 105th Congress (1997 – 1998) seven Climate Change bills, resolutions, and amendments were proposed. How many were proposed in the 110th Congress (2007 – 2008)? a) 17, b) 43, c) 176, d) 235
- Between 1996 and 2005, installed electricity generation for coal, nuclear and natural gas changed, respectively, by what percentages? a) (0%, 0%, 100%), b) (0%, 33%, 33%), c) (50%, 0%, 25%), d) (0%, 50%, 0%)
- The U.S. average industrial electricity rate is 6.16 cents/kwh. How many states have industrial rates \geq twice the national average? a) 7, b) 0, c) 4, d) 13
- Total energy imported into the United States changed by what percent in the first half of 2008 compared with the first half of 2007? a) -10%, b) -5%, c) 5%, d) 10%
- Where is the largest wind farm in the Eastern U.S.? a) off Delaware shore; b) Grant County, West Virginia; c) Mount Mitchell, North Carolina; d) Key West, Florida
- What percent of West Virginia coal production is used for electricity production in West Virginia? a) 95%, b) 60%, c) 25%, d) 5%
- West Virginia exports approximately x% of natural gas and y% of electricity produced in the state. What are x and y? a) x=50 y=70, b) x=75 y=40, c) x=90 y=10, d) x=10 y=90
- According to the U.S. Green Buildings Council, homes account for about _____ percent of U.S. CO₂ emissions. a) 11, b) 44, c) 21, d) 57
- Wind power provides approximately _____ percent of total U.S. electricity? a) 55, b) 33, c) 13, d) 1
- The U.S. has approximately x% of the world’s natural gas reserves and y% of the world’s oil reserves. What are x and =y? a) x=25 y=55, b) x=25 y=6, c) x=1 y=60, d) x=3 y=6
- What is the approximate overall efficiency of delivered electricity from large base-load generation plants and transmission via long distance power lines? a) 80%, b) 35%, c) 95%, d) 50%
- What is the approximate overall efficiency of electricity generation with recovery/use of waste heat and distribution of power to nearby users, i.e., CHP? a) 80% - 90%, b) 40% – 50%, c) 20% - 30%, d) 50% – 60%
- What is RE<C?
- If all the CO₂ produced in U.S. power plants were captured and compressed to a liquid for sequestration, the volume would be approximately equal to _____% of total U.S. oil consumption (20 million barrels per day). a) 16%, b) 67%, c) 100%, d) 167%
- A decrease of just 1% in industrial energy use would save the equivalent of about 55 million barrels of oil per year - that’s worth about \$_____.
- What percent of total U.S. energy needs are met by fossil fuel use? a) 15%, b) 40%, c) 80%, d) 99%

EVENTS

The Coal Forum- Coal: Energy, The Environment & West Virginia to be held from 1:30 p.m. to 5:00 p.m. on Wednesday October 15th 2008, at the WVU National Research Center for Coal and Energy in Morgantown WV. The purpose of this forum is to expose civic, legislative, research, and opinion leaders in West Virginia’s “Energy, The Environment & West Virginia policy recommendations” and to facilitate discussion on coal’s role in our state and nation’s energy strategy. For more information visit www.wvcoalforum.org.

2008 Forestry Symposium sponsored by the WV Forestry Association will be held October 21, 2008 at the Days Inn in Flatwoods, WV. For more information or to register, please log on to <http://www.wvfa.org/>.

U.S. DOE Pumping Systems Assessment sponsored by Peerless Pumps and Daman Industrial Service will be held November 10, 2008 in Mars, PA. For workshop and registration information contact Jim King at Jimsis@comcast.net or (724) 526-5724.

U.S. DOE WEBCAST: Introduction to Steam System Assessment Tool (SSAT) will be held November 4, 2008. This Webcast provides an overview of the Steam System Assessment Tool suite (SSAT) and how it can be used to target opportunities for energy savings. To register, go to <https://www1.gotomeeting.com/register/646990137>.

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|----------------------------------|-------|-------|------|
| 16. a | 11. a | 6. a | 1. c |
| 17. Google it to find out! | 12. c | 7. c | 2. b |
| 18. d | 13. d | 8. b | 3. c |
| 19. Big bucks - you do the math! | 14. d | 9. b | 4. b |
| 20. c | 15. b | 10. c | 5. d |

Co-Funding Opportunities for IOF-WV Research Teams

<i>Announcement</i>	<i>Due Dates</i>	<i>Funding</i>
U.S. DOE SBIR Small Business Innovation Research Program Phase I FY- 2009 http://www.science.doe.gov/sbir/	Request for Proposals: Now Open Proposals Due: November 27, 2008	Estimated Funding: \$100,000 per award
U.S. DOE Pre-Combustion Carbon Capture Technologies for Coal-Based Gasification Plants http://e-center.doe.gov	Request for Proposals: Now Open Proposals Due: October 14, 2008	Estimated Funding: \$24,000,000 expected to be available for new awards
U.S. Department of Energy Save Energy Now: State, Regional, and Local Delivery http://e-center.doe.gov	Request for Proposals: Now Open Letter of Intent Due: September 15, 2008 Proposals Due: October 16, 2008	Estimated funding: \$9,500,000 in total funding available (\$3,000,000 for FY2009 and \$6,500,000 for FY2011) \$300,000 to \$900,000 per award
National Science Foundation Partnerships for Innovation www.nsf.gov	Request for Proposals: Now Open Letter of Intent Due: October 31, 2008 Proposals Due: December 31, 2008	Estimated funding: \$9,500,000 in total funding available \$600,000 per award
National Science Foundation Small Business Innovation Research Program Phase I Solicitation FY-2009 www.nsf.gov	Request for Proposals: Now Open Proposals Due: November 4-December 4, 2008	Estimated funding: \$100,000 per award
National Science Foundation CHE-DMR-DMS Solar Energy Initiative www.nsf.gov	Request for Proposals: Now Open Preliminary Proposals Due: December 16, 2008 Proposals Due: March 9, 2009	Estimated funding: TBD

Save the Date!

The 2008 IOF-WV Symposium will be held November 19, 2008 at the Charleston Marriott, Charleston, WV. For registration information contact Kathleen Cullen at (304) 293- 2867 ext. 5426 or Kathleen.Cullen@mail.wvu.edu.

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