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Summer is the time for cookouts, barbeques, and picnics. Myriad burgers, [hot]dogs, sausages, steaks, ribs, roasters, etc. are deliciously prepared and served at these family, friends, and colleagues get-togethers. Like the variety of main courses and sides served up at these summertime gatherings, this month's newsletter plates a smorgasbord of articles to satisfy your energy news appetite. *Bon Appetite.*

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2017 FORUM SURVEY RESULTS

The 2017 forum survey results show that the attendees rated both the technical program, and the facilities and food as good to excellent. Most of the forum participants suggested that the forum maintain the same mix of technical and non-technical presentations. Some suggestions for future topics included horizontal drilling and completions; economics of CBM production; future of CBM/CMM in Pennsylvania and U.S.; and legal and technical CBM updates. The Board will begin planning of the spring 2018 forum at its next meeting set for August 2017. We welcome suggestions from our readers!

COAL PRODUCTION FORECAST (WV)

West Virginia University's Bureau of Business and Economic Research (BBER) published its 2017 forecast of coal production for the Mountain State. The report, COAL PRODUCTION IN WEST VIRGINIA: 2017 – 2040 provides a baseline forecast of statewide coal production in addition to forecasts tied to natural gas price and coal export demand scenarios. The baseline forecast call for statewide coal production to approach 89 million tons in 2017 but fall slightly in 2018 due to a dip in exports. For the longer term, WV coal production is expected to remain relatively stable through the early 2020s; however, statewide coal production is forecast to fall below 80 million short tons by 2030. Higher or lower natural gas prices affect the state's coal producing regions differently but Northern WV output (steam coal) exhibits the largest sensitivity to natural gas prices. Stronger- and weaker-than-expected global demand for coal scenarios are also examined and the impacts to WV coal production estimated. BBER's report is available at <http://business.wvu.edu/files/d/cbeb6e87-6e4a-4f7a-a781-3cc1b31326c5/coal-production-forecast-2017-2040.pdf>

UKRAINE TO IMPORT U.S. COAL

On July 31, 2017, the U.S. Department of Energy and Department of Commerce announced that Ukrainian state-owned power generation company, Centrenergy PJSC will purchase American thermal coal ahead of the upcoming winter season. Pennsylvania based Xcoal Energy and Resources won a contract to supply thermal coal to Centrenergy PJSC. The partnership formed in response to Ukraine's desire to diversify its energy supply. XCoal has stated that it anticipates shipments of U.S. coal to arrive in Ukraine in late August or early September, just in time to stockpile fuel for the heating season. See <https://energy.gov/articles/secretary-perry-and-secretary-ross-hail-new-coal-deal-ukraine> for the full announcement.

CHINESE COMPANIES BUILD COAL PLANTS

According to URGEWALD, an environmental group based in Berlin, about 1600 coal plants are planned or under construction in 62 countries. The new plants would expand the world's coal-fired power capacity by 43 percent. The Chinese energy companies are building or planning to build more than 700 new coal plants at home and around the world, some in countries that today burn little or no coal. The addition of the new coal plants underscores how the world will remain dependent on coal for power generation for decades to come. Since 2000, China's two global policy banks have already provided more than \$43 billion in overseas coal financing and is part of China's overseas push which calls for up to \$900 billion in infrastructure investments overseas including high speed railroads, ports, gas pipelines, and power plants. (Pittsburgh Post Gazette July 2, 2017 p. A4).

WORLD NATURAL GAS FORECAST

The International Energy Agency (IEA) released its GAS 2017 market report during July. The report provides a detailed analysis of [natural gas] supply and trade developments, infrastructure investments, and demand growth forecast through 2022. An executive summary of the analysis is available on-line at <https://www.iea.org/Textbase/npsum/gas2017MRSsum.pdf> and the full report is available for purchase on IEA's website. See https://www.iea.org/bookshop/741-Market_Report_Series:_Gas_2017 . The report concludes that [natural] gas use continues to grow in the United States, the largest gas consuming county in the world, but at a slower pace than during the 2010-16 time period. It is forecasted that gas demand in North America will surpass 1000 billion cubic meters (35.3 trillion cubic feet) by 2022, which represents one-quarter of global gas consumption. Moreover, the United States, the world's largest gas producer, is expected to increase production more than any other country over the upcoming five years, accounting for almost forty percent of the growth in global output. Finally, the Agency indicates that industrial demand will emerge as the main engine driving the growth in global gas demand.

PGC RELEASES NEW ESTIMATES OF NATURAL GAS SUPPLY

The Potential Gas Committee (PCG) released it biennial estimates of U.S. natural gas resources on July 19, 2017. The total natural gas resource is estimated at 2,817 trillion cubic feet (Tcf) of which 159 Tcf is attributable to coalbed methane (CBM). When proved reserves (324.3 Tcf) are

considered, the future natural gas supply in the U.S. is reported as 3,141,3 Tcf. These estimates represent mean technically recoverable volumes of natural gas. Consistent with the 2014 estimates, most of the CBM resource is present in Alaska and the Rocky Mountain Region though 17.3 Tcf and 11.6 Tcf are estimated for the Atlantic and North Central Regions, respectively. A summary of the resource assessment is available at http://potentialgas.org/wp-content/uploads/PGC_Press_Conference_2017_07-19-2017_Final.pdf and the full report can be ordered from the Potential Gas Agency.

IMPACTS OF AN APPALACHIN PETROCHEMICAL INDUSTRY

The American Chemistry Council has released its new report that examines the potential economic and employment benefits of natural gas development from shale. The report (the fifth in a series) analyzes the impacts of the development of a petrochemical and plastics industry in the Appalachian region. The region is host to an abundant supply of energy sources and the contributions of a fully developed chemical and plastics products industry could be significant. The analysis indicates that an Appalachian petrochemical hub could generate \$28 billion in direct economic output, support over 100,000 jobs, yield over \$6 billion in wages, and contribute nearly \$3 billion in tax revenues with a capital investment of \$36 billion. The report titled, *The Potential Economic Benefits of an Appalachian Petrochemical Industry*, is available at <https://www.americanchemistry.com/Appalachian-Petrochem-Study/>

ROYALTY PAYMENTS OPINION RENDERED

In late May 2017, the Supreme Court of Appeals of West Virginia ruled that a percentage of certain post-production costs e.g., processing can be deducted from the mineral owner's royalty checks. In Leggett et al. v. EQT Production Company et al., the Court concluded, "We therefore hold that royalty payments pursuant to an oil or gas lease governed by West Virginia Code § 22-6-8(e) may be subject to pro-rata deduction or allocation of all reasonable post-production expenses actually incurred by the lessee. Therefore, an oil or gas lessee may utilize the "net-back" or "work-back" method to calculate royalties owed to a lessor pursuant to a lease governed by West Virginia Code § 22-6-8(e). The reasonableness of the post-production expenses is a question for the fact-finder." The opinion is truly an educational read and can be accessed at <http://www.courtswv.gov/supreme-court/docs/spring2017/16-0136.pdf>.

FINAL EIS ISSUED FOR ATLANTIC COAST PIPELINE

Staff of the Federal Energy Regulatory Commission (FERC) issued the Final Environmental Impact Statement (<https://ferc.gov/industries/gas/enviro/eis/2017/07-21-17-FEIS.asp>) for the Atlantic Coast Pipeline moving that project a step closer to construction. In the Final EIS, FERC staff concluded that construction and operation of the interstate natural gas transmission pipeline would result in some adverse impacts. However, the Commission further notes that implementation of impact avoidance, minimization, and mitigation measures, as well as adherence to Staff's recommendations in the EIS would further avoid, minimize, and mitigate the impacts. Most of the impacts would be reduced to less-than-significant levels. The Atlantic Coast Pipeline is a proposed 42inch natural gas pipeline that would run about 600 miles between West Virginia and eastern North Carolina. The pipeline will have a throughput of 1.5 billion cubic feet per day. Construction is expected to begin during 2017 with the pipeline having an in-service date of late 2019. A plethora of information about the ACP is readily accessible at <https://atlanticcoastpipeline.com/>