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ENERGY-ON-LINE
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No 16 – August/September/October 2010

GENERAL INTEREST

Meeting the Energy Challenges of the Future: A Guide for Policymakers

National Conference of State Legislatures- July 25, 2010 - 50 pages

<http://www.ncsl.org/documents/energy/FutureEnergyChallenges0710.pdf>

The guide provides an overview of the challenges facing states as they attempt to meet the electricity demands of the 21st century. It investigates regional diversity, fuel sources, and the economic and environmental effects of energy choices. It also explores the long-term supply outlook, options for meeting growing energy demand, the challenges of building and updating the electricity transmission and distribution system, and options for improving efficiency.

Energy Predictions 2011

Deloitte - October 19, 2010 - 16 pages

http://www.deloitte.com/assets/Dcom-Global/Local%20Assets/Documents/Energy_Resources/6810A_EnergyPredict10_sm5.pdf

Even as the recession begins to subside, the energy sector is still likely to experience challenging conditions as we enter 2011. It should be remembered how very important a role energy plays in driving the global economy, according to the report. Serving as a simple yet global and unified measure of economic recovery, it is oil's price range and the strength and sustainability of the recovery which will impact the ways in which all forms of energy are produced and consumed.

Bracken Hendricks and al.

Efficiency Works: Creating Good Jobs and New Markets through Energy Efficiency.

Center for American Progress- September 2010- 56 pages

http://www.americanprogress.org/issues/2010/08/pdf/good_jobs_new_markets.pdf

“In this paper, the Center for American Progress and Energy Resource Management look at state regulations and incentives for energy efficiency that are working today in leading states to accelerate demand for energy efficiency services, businesses, and ultimately jobs. As this market rapidly grows in coming years, states that have put in place strong policies for energy efficiency will be best positioned to capture these new employment opportunities for construction workers in clean energy.”

Global Green USA: Building Resources

<http://www.globalgreen.org/greenurbanism/buildingresources/>

Going "green" may be relatively easy for individuals, but how can a building go "green"? It's definitely more complex, and this website from the Global Green USA organization provides a host of resources on this topic. The homepage provides a few basic overviews of relevant questions, including "What makes a product green?" and "Why build green?" There's even a "Planet Green Game", developed by Global Green and Starbucks which seeks to educate individuals and organizations about making meaningful environmentally sound decisions. Moving along, visitors can click on the "Green Building Resources" link to find a thematically organized set of websites, lesson plans, and other items organized into topics like "Energy-Related Resources" and "Project Certifications and Guidelines". The site is rounded out by a series of links that allow visitors to email the group with questions and a place where they can also sign up to receive their newsletter.

ELECTRICITY

Renewable Energy Trends in Consumption and Electricity 2008

U.S. Energy Information Administration - August 25, 2010 - 49 pages

<http://www.eia.gov/ceaf/solar.renewables/page/trends/trends.pdf>

The report shows that U.S. renewable energy consumption grew 10 percent to 7.367 quadrillion Btu between 2007 and 2008 and now holds well over 7 percent of the U.S. energy market.

Drew Thornley

Regulatory Barriers to a National Electricity Grid

Center for Energy Policy and the Environment, The Manhattan Institute - September 2010 – 25 pages

http://www.manhattan-institute.org/pdf/eper_06.pdf

The benefits of a truly national electricity grid have been known for years. Advantages include increased reliability and efficiency, as well as the potential to transmit power generated from renewable sources across long distances. Despite the promise of cheap, abundant, and reliable electricity, significant financial and regulatory barriers to the development of a national grid remain, according to the report. The report explores the regulatory barriers standing in the way of an interstate grid, including the authority of state public utility commissions to set transmission rates and approve facility siting.

Peter Fox-Penner

The Smart Grid–Enabled Energy Services Utility: How Utilities Can Become Sustainable by Selling Less

Solutions for a sustainable and desirable future – Article - September 10, 2010

<http://thesolutionsjournal.com/node/750>

“The U.S. electricity utility industry is poised to enter a new era of rapid innovation and transformation as it faces the toughest challenges in its history. Increasing regulation of carbon emissions requires the industry to transition to low-carbon production technologies at a projected cost of over \$1 trillion by 2030. Utilities are not positioned to take on such massive investments as total sales continue to flatten, bringing revenue down with them. In an economy in which low-carbon technologies represent a key area of growth, making energy efficiency the main function of utilities will lower carbon emissions and revive utilities at the same time.”

ELECTRIC CARS

Lei Zhou et al.

Charging Ahead: Battery Electric Vehicles and the Transformation of an Industry

Deloitte Review - August 2010 - 14 pages

http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Deloitte%20Review/Deloitte%20Review%20-%20Summer%202010/us_DeloitteReview_ChargingAheadBatteryElectricVehicles_0710.pdf

Over the past century, as the automobile gained popularity across the world, there was a dramatic transformation in city planning, infrastructure and distribution systems. While the effects of modern automobile use continue to generate philosophical discussions, perhaps the most controversial debate centers around the impact that nearly one billion cars worldwide are having on the environment. Environmental sensitivities have begun to drive demand for an alternative to the conventional internal combustion engine (ICE) vehicles. Among the front-runner technologies: the Battery Electric Vehicle (BEV), a zero-emission vehicle.

Ronald Bailey

Revving Up Electric Cars with Government Cash

Reason – Article - September 28, 2010

<http://reason.com/archives/2010/09/28/revving-up-electric-cars-with>

“We'll never know if the electric car industry would have been viable without subsidies (...) Last year, President Barack Obama set the goal of putting 1 million plug-in electric hybrid (PHEV) automobiles on American roads by 2015. (...) As part of his \$787 billion stimulus package, a tax credit up to \$7,500 is available to consumers as a way to encourage them to buy such cars. The tax credit is needed because PHEVs cost up to \$10,000 more than comparable conventional vehicles. In addition, the president pledged \$2.4 billion of his stimulus package to jumpstart the electric car industry, including \$1.5 billion to battery manufacturers, \$500 million to other PHEV component makers, and \$400 million to build infrastructure for charging the cars.”

RESEARCH

U.S. Department of Energy's Loan Guarantee Program

Senate Committee on Energy – Hearing - September 23, 2010

http://energy.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=1c1534be-9e3a-9632-c0ec-c8f8d212882b

“The United States can and should retain a position of global clean energy leadership through the widespread and large-scale deployment of new and innovative clean energy technologies. Government policies, such as those proposed by this Administration can encourage and facilitate such deployment. But only the private sector can provide the type of massive, sustained investment that is required to achieve our national clean energy goals. Yet the private sector has not invested in clean energy at the the scale necessary to drive meaningful change.”

Role of Strategic Minerals in Clean Energy Technologies

Senate Committee on Energy – Hearing - September 30, 2010

http://energy.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=192e1208-95df-db80-4f96-b6318e73a56d

David Sandalow: “I am here today to speak about rare earth metals, their importance to clean energy technologies, and the Department of Energy's recent work on this topic. This is an important issue – one that needs priority attention in the months and years ahead. The Administration has been focused on this issue for some time. The Department is working to develop a strategy on rare earths that I announced earlier this year and the Administration is continuing to review S. 3521. We share the goal of establishing a secure supply of rare earth metals, and we look forward to discussions with the Congress on ways to address this issue as we

move forward and other applications as well as legislation to address the issue, including S. 3521 the “Rare Earths Supply Technology and Resources Transformation Act of 2010”

Steven F. Hayward et al.

Post-Partisan Power: How a Limited and Direct Approach to Energy Innovation Can Deliver Clean, Cheap Energy, Economic Productivity and National Prosperity

American Enterprise Institute - October 12, 2010 – 36 pages

<http://www.aei.org/docLib/Post-Partisan-Power-Hayward-101310.pdf>

“American energy policy is at a standstill. A new approach is needed that focuses on energy innovation as a key driver of American economic growth, national security, and health and safety benefits. This joint paper by the Brookings Institution, the American Enterprise Institute, and the Breakthrough Institute argues that the federal government should invest roughly \$25 billion per year in military procurement, R&D, and a new network of university-private sector innovation hubs to create an energy revolution. The program should be financed through several mechanisms, including a low price on carbon.”

2009 NETL Accomplishments

Department of Energy - National Energy Technology Laboratory - September 2, 2010 - 90 pages

http://www.netl.doe.gov/publications/others/accomp_rpt/accomp09.pdf

Energy research and technology development achievements, including advances in clean fossil-based systems with carbon capture and storage (CCS), are highlighted in the report. The report, which details research and development (R&D) projects and activities by the laboratory and its partners, also tells the story of the laboratory’s research over the past century, in commemoration of NETL’s 100th anniversary. The report notes R&D progress in developing “exciting domestic resources,” such as methane hydrates, and “enhancing the efficiency, reliability and economics of renewable, wind, solar, and biomass-based systems.”

Mark Muro and Sarah Rahman

Centers of Invention: Leveraging the Mountain West Innovation Complex for Energy System Transformation

The Brookings Institution – Paper – September 2010 – 15 pages

http://www.brookings.edu/~media/Files/rc/papers/2010/0901_energy_muro_rahman/0901_energy_muro_rahman.pdf

“America needs to transform its energy system to reduce its carbon intensity and make clean energy cheap. At the same time, the Intermountain West region (including Arizona, Colorado, Idaho, New Mexico, Nevada, and Utah) possesses a unique confluence of world-class innovation assets (research universities, national and corporate research labs, and top-flight science and engineering talent); varied energy resources ranging from low sulfur coal to solar, wind, and geothermal energy potential; and unparalleled opportunities to build out next-generation energy systems, whether smart energy grids or energy efficient buildings, as future population growth demands the building of new infrastructure from the ground-up. In view of that, this brief contends that a new partnership should be forged between the federal government and the Intermountain states metropolitan areas to leverage the region’s unique strengths in support of the national interest.”

OIL

Alun Thomas, Martin Mühleisen, and Malika Pant

Peaks, Spikes, and Barrels: Modeling Sharp Movements in Oil Prices

International Monetary Fund- August 2010 -18 pages

<http://www.imf.org/external/pubs/ft/wp/2010/wp10186.pdf>

Global oil markets were roiled by sharp price swings in 2008, and economists are still divided over the reasons for the unusual volatility. Those emphasizing fundamentals point to inelastic supply and demand curves, others view the phenomenon mostly as a result of financial investors flocking into commodity markets. The paper attempts to infer the strength of these competing hypotheses, using a simultaneous equation model that enables us to undertake a separate analysis of supply and demand factors.

Short-Term Energy and Winter Fuels Outlook

Energy Information Administration - October 13, 2010 - 45 pages

http://www.eia.gov/emeu/steo/pub/steo_full.pdf

“The Outlook projects average household expenditures for space-heating fuels will total \$986 this winter, October 1 to March 31, an increase of \$24, or 2.5 percent, from last winter. It projects higher expenditures in all fuels except electricity, where expenditures decline by 2 percent. The forecast reflects moderately higher prices for all the fuels, although slightly milder weather than last winter for much of the Nation should contribute to lower consumption in many areas.”

Pipeline Security: TSA Has Taken Actions to Help Strengthen Security, but Could Improve Priority-Setting Assessment Processes

U.S. Government Accountability Office - Web posted September 1, 2010 - 7 pages

<http://www.gao.gov/new.items/d10867.pdf>

The United States depends on a vast network of pipelines to transport energy. GAO was asked to review the Transportation Security Administration's (TSA) efforts to help ensure pipeline security. This report addresses the extent to which TSA's Pipeline Security Division (PSD) has (1) assessed risk and prioritized efforts to help strengthen pipeline security, (2) implemented agency guidance and requirements of the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Commission Act) regarding pipeline security, and (3) measured its performance in strengthening pipeline security.

Pipeline Safety Oversight and Legislation

House - Subcommittee on Energy and Environment – Hearing – September 23, 2010

http://energycommerce.house.gov/index.php?option=com_content&view=section&layout=blog&id=9&Itemid=56

The hearing addressed recent pipeline safety incidents and proposals for reauthorization or reform of the pipeline safety statute.

Edward C. Chow et al.

Pipeline Politics of Asia: The Intersection of Demand, Energy Markets, and Supply Routes

The National Bureau of Asian Research – Paper - September 2010 – 80 pages

http://www.nbr.org/publications/specialreport/pdf/SR23_Pipeline_Politics.pdf

The paper presents key findings from the 2010 Energy Security Conference and explores the strategic, market, and geopolitical ties that have emerged from the rise in pipeline development in Asia. The report includes essays commissioned for the conference focusing on the key pipeline routes in this growing nexus of energy and political ties (Northeast Asia, Central Asia, India, and the China-Myanmar pipelines) as well as an overview of oil and gas pipeline geopolitics and analysis of the implications for the United States.

Snorre Kverndokk and Knut Einar Rosendahl

The Effects of Transport Regulations on the Oil Market: Does Market Power Matter?

Resources for the Future – paper – September 10, 2010 – 40 pages

<http://www.rff.org/RFF/Documents/RFF-DP-10-40.pdf>

“In the United States and Western Europe, reducing oil consumption is a growing priority due to concerns about climate change, energy security, and the recent oil spill in the Gulf of Mexico. The first place to turn should be the transport sector because it accounts for more than 50 percent of global consumption, a share that will only increase. Several policy instruments—including fuel taxes, biofuel shares, and fuel-efficiency requirements—have been proposed (if not already introduced) for the transport sector. In a new RFF discussion paper, the authors show how the effects of different instruments depend on oil market structure.”

Tony Iallorardo

Assault on America: A Decade of Petroleum Company Disaster, Pollution, and Profit

National Wildlife Federation - July 29, 2010 - 32 pages

<http://www.nwf.org/News-and-Magazines/Media-Center/News-by-Topic/Global-Warming/2010/~media/PDFs/Global%20Warming/Reports/Assault-on-America-A-Decade-of-Petroleum-Company-Disaster.ashx>

The report catalogs a decade of serious oil spills, fires, leaks and loss of life over the last decade that author says underscores petroleum company malfeasance. According to the report, from 2000 to 2010, the oil and gas industry accounted for hundreds of deaths, explosions, fires, seeps, and spills as well as habitat and wildlife destruction in the United States. These disasters demonstrate that the BP incident is not merely an accident but an industry pattern that places profit ahead of communities, local economies, and the environment.

National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling

<http://www.oilspillcommission.gov/>

“On May 22, 2010 President Obama established the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. This commission's purpose is to examine the facts and circumstances to determine the cause of the Deepwater Horizon Oil Disaster, develop options for guarding against future oil spills associated with offshore drilling and submit a final public report to the President with its findings within 6 months of the Commission's first meeting.”

GAS

Lucas W. Davis and Erich Muehlegger

Do Americans Consume Too Little Natural Gas? An Empirical Test of Marginal Cost Pricing

NBER Working Paper No. 15885 - April 2010 – 33 pages

<http://www.nber.org/papers/w15885.pdf>

This paper measures the extent to which prices exceed marginal costs in the U.S. natural gas distribution market during the period 1991-2007. We find large departures from marginal cost pricing in all 50 states, with residential and commercial customers facing average markups of over 40%. Based on conservative estimates of the price elasticity of demand these distortions impose hundreds of millions of dollars of annual welfare loss. Moreover, current price schedules are an important pre-existing distortion which should be taken into account when evaluating carbon taxes and other policies aimed at addressing external costs.

U.S. Natural Gas Imports & Exports: 2009

U.S. Energy Information Administration- September 28, 2010-

http://www.eia.doe.gov/pub/oil_gas/natural_gas/feature_articles/2010/ngimpexp2009/ngimpexp2009.htm

“In 2009, net U.S. imports of natural gas were the lowest since 1994, representing just 12 percent of total consumption. The primary underlying cause for the lower level of net imports was continued strong levels of

natural gas production in the lower 48 States. Dry natural gas production increased 3.3 percent compared with 2008 and was nearly 9 percent higher than in 2007. With these recent gains in domestic production, the U.S. is now the largest producer of natural gas in the world. U.S. domestic consumption decreased in 2009, which in turn contributed to a reduced demand for imports. Although liquefied natural gas (LNG) gross imports increased almost 30 percent (from a 5-year low established in 2008), LNG remains a very small source of supplies for the United States, accounting for less than 2 percent of consumption.”

Propane and Heating Oil: Federal Oversight of the Propane Education and Research Council and National Oilheat Research Alliance Should Be Strengthened

US Government Accountability Office - June 30, 2010 - 83 pages

<http://www.gao.gov/new.items/d10583.pdf>

“Millions of Americans use propane and oil heat for such purposes as heating and cooking. Congress authorized creation of the Propane Education and Research Council (PERC) in 1996 and the National Oilheat Research Alliance (NORA) in 2000 to provide research and development, safety and training, and consumer education for propane and oil heat, as the highest priority activities. Congressional deliberations on the groups' creation emphasized providing funding for research and development. PERC and NORA fund operations by assessing fees on propane and oil heat sales. GAO examined (1) how PERC and NORA spent assessments collected; (2) the extent to which their reported activities help strategic goals; (3) the extent to which key statutory requirements were met; and (4) the extent of federal oversight.”

RENEWABLE ENERGIES

Large-Scale Offshore Wind Power in the United States: Assessment of Opportunities and Barriers

Department of Energy – NREL - October 7, 2010

Summary (16 pages): <http://www.nrel.gov/docs/fy10osti/49229.pdf>

Report (240 pages): <http://www.nrel.gov/docs/fy10osti/40745.pdf>

“The United States is now deliberating an energy policy that will have a powerful impact on the nation’s energy and economic health for decades to come. This report provides a broad understanding of today’s wind industry and the offshore resource, as well as the associated technology challenges, economics, permitting procedures, and potential risks and benefits. An appreciation for all sides of these issues will help to build an informed national dialog and shape effective national policies.”

Policy Design for Maximizing U.S. Wind Energy Jobs

World Resources Institute - September 2010 – 2 pages

http://pdf.wri.org/factsheets/factsheet_policy_design_for_maximizing_us_wind_energy_jobs.pdf

“Wind power is a nascent industry in the U.S., but has the potential to spur job creation. Several studies show that wind power creates more jobs than power generation from fossil fuels. The nature of wind power is more labor-intensive than traditional energy, and it creates jobs in both manufacturing and skilled scientific, engineering, and service roles. However, compared to other large regional markets for wind, the U.S. has yet to reach its full job creation potential in the wind industry.”

Department of Energy – Marine and Hydrokinetic Technology Database

<http://www1.eere.energy.gov/windandhydro/index.html>

The U.S. Department of Energy’s Marine and Hydrokinetic Technology Database provides up-to-date information on marine and hydrokinetic renewable energy, both in the U.S. and around the world. The database includes wave, tidal, current, and ocean thermal energy, and contains information on the various energy conversion technologies, companies active in the field, and development of projects in the water.

Investment in Small Hydropower: Prospects of Expanding Low-Impact and Affordable Hydropower Generation in the West

House Subcommittee on Water and Power – Hearing - July 29, 2010

http://resourcescommittee.house.gov/index.php?option=com_jcalpro&Itemid=27&extmode=view&extid=380

“Today’s hearing will focus on opportunities to harness small, affordable, low-impact hydropower generation in the West. We will hear testimony of the Federal government’s role in facilitating small hydropower production, and the existing impediments to hydropower growth, whether from existing statutes, regulations or otherwise. Out of this dialogue, it is our hope that we will be able to accurately assess potential opportunities, including issues that we need to address, to support this as part of our Nation’s energy portfolio.”

INTERNATIONAL

Erica S. Downs

China’s Energy Policies and Their Environmental Impacts

The Brookings Institution- U.S.-China Economic & Security Review Commission- August 13, 2008

http://www.brookings.edu/testimony/2008/0813_china_downs.aspx

This article focuses on the changes to China’s energy policymaking structure approved by the National People’s Congress (NPC) in March 2008. It first outlines China’s previous energy policymaking apparatus and why its reform has been a hot topic of debate in China. Second, the new changes to China’s energy policymaking structure and why those changes are unlikely to substantially improve energy governance are explained. Third, some implications for the United States are discussed.

Joel Darmstadter

A Resource War Resurgence? Divining Facts and Fears in China’s Energy Strategy

Resources for the Future - Resources Magazine - Summer 2010 – 3 pages

<http://issuu.com/resources-for-the-future/docs/resources-175/10?mode=embed&layout=http://skin.issuu.com/v/color/layout.xml&backgroundColor=2A5083&showFlipBtn=true>

“You don’t have to go very far perusing the financial and business pages without encountering word of yet one more Chinese bid for an equity stake in some country’s natural resource sector – whether in Africa, Latin America, Canada or elsewhere. Frequently, these deals are couched in language reminiscent of wartime (hot or cold) resource anxieties. In the latest issue of Resources, Senior Fellow sets China’s global hunt in context, explaining that, as far as one can tell, things seem less devious than the mainstream press implies.”

Ryan Clarke

Chinese Energy Security: The Myth of the Plan’s Frontline Status

Strategic Studies Institute - August 17, 2010– 124 pages

<http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=1012>

The report examines the dynamics of China’s energy security dilemma and the role of the People’s Liberation Army Navy (PLAN). Following this, PLAN development is discussed and its future role in regional security is hypothesized. It argues that it is domestic market inefficiencies and poor management practices that pose the greatest threat to China’s energy security. Further, less and less of Chinese energy imports are making their way to the country by sea, and as such, the PLAN actually has a minimal role to play. Given these realities, Chinese fears of a naval blockade that deprives it of energy supplies, and American confidence that this is a realistic strategic option in the event of hostilities are implausible.

Erica S. Downs

Sino-Russian Energy Relations: An Uncertain Courtship

The Brookings Institution – Book Chapter – 11 pages - 2010

http://www.brookings.edu/papers/2010/0823_china_russia_energy_downs.aspx

“China and Russia appear to be natural energy partners... However, despite their economic complementariness, energy ties between China and Russia are relatively modest. In a chapter from *The Future of China-Russia Relations* (University of Kentucky Press, 2010) Erica Downs explains how the rise and fall in world oil prices, mutual mistrust and misunderstanding, Moscow’s energy diplomacy and rent struggles between Russian companies have impeded bilateral energy cooperation.”

Christophe-Alexandre Paillard

Russia and Europe’s Mutual Energy Dependence

Columbia University - Journal of International Affairs - Spring/Summer 2010

http://jia.sipa.columbia.edu/files/jia/65-84_Paillard.pdf

“In the field of energy, Europe will be confronted with various risks in the next twenty years. Most notably, there is no clear alternative to fossil energy on a large scale with the possible exception of nuclear energy; yet few countries are able to pay for the large investment required by a nuclear industry... Many energy security issues in Europe take a strong east-west slant for geographic reasons: Russia is close to Europe; it possesses huge oil and gas reserves; and it is a natural energy supplier for the European Union. Economic and political interdependence between Russia and Europe is obvious over the long term, though it may seem less so in the short term, given Russia’s reactions to recent energy projects in the region.”

Urjit R. Patel

Crucial Deadline for Nuclear Energy Business in India

Brookings Institution - August 17, 2010

http://www.brookings.edu/opinions/2010/0817_nuclear_energy_india_patel.aspx

Over the last two years, India has signed bilateral nuclear power agreements with several countries, including the U.S., France, Russia, Kazakhstan and Canada. On July 30, a prerequisite for U.S. nuclear fuel suppliers to conduct business with India was concluded with the two countries signing an agreement on the reprocessing of American nuclear spent fuel by India, marking the final steps toward implementation of the landmark 2008 civil nuclear deal. These latest arrangements and procedures will enable reprocessing by India of the U.S.-obligated nuclear material at a new national reprocessing facility to be established by India and dedicated to the reprocessing of safeguarded nuclear material under International Atomic Energy Agency (IAEA) safeguards.

Dmitri Trenin and Pavel Baev

The Arctic: A View from Moscow

Carnegie Endowment for International Peace - September 20, 2010 – 44 pages

http://www.carnegieendowment.org/files/arctic_cooperation.pdf

The Arctic is emerging as the world’s next hot spot for oil and gas development. As the melting ice cap opens new shipping lanes and makes it easier to access strategic energy reserves, countries are racing to gain control over the Arctic’s abundant natural resources. The authors offer a view from Moscow on what the opening of the Arctic means. While there is a strong desire to compete over the resources in order to meet increasing energy demands, the authors argue that all countries, with Russia in a leading role, can benefit more through cooperation.

COUNTRY ANALYSIS BRIEFS

Australia

Energy Information Administration- September 2010 – 7 pages

<http://www.eia.doe.gov/emeu/cabs/Australia/pdf.pdf>

Australia has considerable petroleum, natural gas and coal reserves and is one of the few countries belonging to the Organization for Economic Cooperation and Development (OECD) that is a significant net hydrocarbon exporter, exporting about two-thirds of its total energy production. Australia was the world's largest coal exporter and the fourth largest exporter of liquefied natural gas (LNG) in 2009, after Qatar, Malaysia, and Indonesia. Australia's prospects for expanding these energy exports in the future are promising as Asian demand for both coal and LNG is rising along with Australia's proven natural gas reserves. While Australia also exports crude oil and refined petroleum products, it is a net importer of oil. Hydrocarbon exports accounted for 19 percent of total export revenues in 2009.

Ecuador

Energy Information Administration - August 2010 – 6 pages

<http://www.eia.gov/emeu/cabs/Ecuador/pdf.pdf>

Ecuador is one of Latin America's largest oil exporters, with net oil exports estimated at 305,000 barrels per day (bbl/d) in 2009. The oil sector accounts for about 50 percent of Ecuador's export earnings and about one-third of all tax revenues. Despite being an oil exporter, Ecuador must still import refined petroleum products due to the lack of sufficient domestic refining capacity to meet local demand. As a result, the country does not always enjoy the full benefits of high world oil prices: while these high prices bring Ecuador greater export revenues, they also increase the country's refined product import bill.

India

Energy Information Administration - August 2010 – 11 pages

<http://www.eia.gov/emeu/cabs/India/pdf.pdf>

With high economic growth rates and over 15 percent of the world's population, India is a significant consumer of energy resources. In 2009, India was the fourth largest oil consumer in the world, after the United States, China, and Japan. Despite the global financial crisis, India's energy demand continues to rise. In terms of end-use, energy demand in the transport sector is expected to be particularly high, as vehicle ownership, particularly of four-wheel vehicles, is forecast to increase rapidly in the years ahead.

Libya

Energy Information Administration - September 2010 - 8 pages

<http://www.eia.doe.gov/emeu/cabs/Libya/pdf.pdf>

The Libyan economy is heavily dependent on the hydrocarbon industry which, according to the International Monetary Fund (IMF), accounted for over 95 percent of export earnings and an estimated 80 percent of fiscal revenues in 2008 – preliminary 2009 data and short-term forecasts indicate that these figures will remain relatively stable through 2014. According to the Oil and Gas Journal (OGJ), Libya holds around 44 billion barrels of oil reserves, the largest in Africa, and slightly over 54 trillion cubic feet (tcf) of natural gas reserves. In 2009, total oil production (crude plus liquids) was approximately 1.8 million barrels per day (bbl/d).

Norway

Energy Information Administration - August 2010 - 7 pages

<http://www.eia.gov/emeu/cabs/Norway/pdf.pdf>

In 2009, crude oil, natural gas, and pipeline transport services accounted for almost 50 percent of Norway's exports value, 22 percent of GDP, and 27 percent of government revenues according to the Norwegian

Petroleum Directorate. Although Norway's oil production peaked in 2001 at 3.42 million barrels per day (bbl/d) and has declined to reach 2.35 million bbl/d in 2009, natural gas production has been steadily increasing since 1993, reaching 3.65 trillion cubic feet (Tcf) in 2009.

United Kingdom

Energy Information Administration - September 2010- 11 pages

http://www.eia.doe.gov/emeu/cabs/United_Kingdom/pdf.pdf

The United Kingdom (UK) is the largest producer of oil and second-largest producer of natural gas in the European Union (EU). After years of being a net exporter of both fuels, the UK became a net importer of natural gas and crude oil in 2004 and 2005, respectively. Production from UK oil and natural gas fields peaked in the late 1990s and has declined steadily over the past several years, as the discovery of new reserves has not kept pace with the maturation of existing fields. In response, the government has begun a three-pronged approach to address the predicted domestic shortfalls: 1) increasing domestic production; 2) establishing necessary import infrastructure, such as liquefied natural gas (LNG) receiving terminals and transnational pipelines; and 3) investing in energy conservation.

MISCELLANEOUS

Jennifer Washburn

Big Oil Goes To College: An Analysis of 10 Research Collaboration Contracts Between Leading Energy Companies and Major U.S. Universities

Center for American Progress- October 14, 2010 – 220 pages

http://www.americanprogress.org/issues/2010/10/pdf/big_oil_if.pdf

“The world’s largest oil companies are showing surprising interest in financing alternative energy research at U.S. universities. Over the past decade, five of the world’s top 10 oil companies, ExxonMobil Corp., Chevron Corp., BP PLC, Royal Dutch Shell Group, and ConocoPhillips Co., and other large traditional energy companies with a direct commercial stake in future energy markets have forged dozens of multi-year, multi-million-dollar alliances with top U.S. universities and scientists to carry out energy-related research. Much of this funding by “Big Oil” is being used for research into new sources of alternative energy and renewable energy, mostly biofuels.”

Global Alliance for Clean Cookstoves: The United States Commitment by the Numbers

U.S. Department of State - September 21, 2010

<http://www.state.gov/r/pa/prs/ps/2010/09/147494.htm>

“On September 21, 2010, Secretary of State Hillary Rodham Clinton announced the Global Alliance for Clean Cookstoves, a public-private partnership led by the United Nations Foundation, which focuses on creating a thriving global market for clean and efficient household solutions. The U.S. Department of State, U.S. Environmental Protection Agency (EPA), U.S. Department of Energy, U.S. Department of Health and Human Services – Centers for Disease Control and National Institutes of Health, and the U.S. Agency for International Development (USAID), all of whom are founding partners of the Alliance, have forged an unprecedented government effort to mobilize financial resources, top-level U.S. experts, and research and development tools to help the Alliance achieve its target of ‘100 by 20,’ which calls for 100 million homes to adopt clean and efficient stoves and fuels by 2020.”

Gregory Clark and David Jacks

Coal and the Industrial Revolution, 1700-1869

UC-Davis – Paper – 2007 – 54 pages

<http://www.econ.ucdavis.edu/faculty/gclark/papers/Coal2006.pdf>

“How important was coal to the Industrial Revolution? Despite the huge growth of output, and the grip of coal and steam on the popular image of the Industrial Revolution, recent cliometric accounts have assumed coal mining mattered little to the Industrial Revolution. In contrast both E. A. Wrigley and Kenneth Pomeranz have made coal central to the story. This paper constructs new series on coal rents, the price of coal at pithead and at market, and the price of firewood, and uses them to examine this issue. We conclude coal output expanded in the Industrial Revolution mainly as a result of increased demand rather than technological innovations in mining. But that expansion could have occurred at any time before 1760.”