Fred Singer will be traveling again, spreading the great news about the climate. Please see the tentative schedule below:

Aug 17-24      Erice (Sicily) Conference
Aug 25           Zurich  Climate Debate and Interviews  OPEN
Aug 26 -28     (Maria Alm, Austria)
Aug 29-30      Hamburg U. – Seminar and Interviews  Aug 29 at 3pm-OPEN
Aug 31            DeBilt- KNMI  Climate Debate
Sept 1-4          Brussels   -- Seminar at Fondation Universitaire Sept 1 OPEN
Sept 5-8         Talks at Civitas and IEA  Sept 5 OPEN (Institute of Economic Affairs at 5pm)
                  Climate Discussion – Imperial College, U. of London
Sept 9–12      Paris  Seminars IPGP-Jussieu and at Observatory at 2pm OPEN
Sept 13-14     Paris, Return to U.S.

For additional detail please contact Ken@SEPP.org.

Quote of the Week:
"By a small sample, we may judge of the whole piece." Miguel de Cervantes from Don Quixote

Number of the Week: 11

THIS WEEK:
By Ken Haapala, Executive Vice President, Science and Environmental Policy Project (SEPP)

Videos from the Sixth International Conference on Climate Change (ICCC) sponsored by Heartland Institute are available on the web. Go to: http://climateconference.heartland.org/watch-live/

Expanding the Error: As nature continues her fickle ways, increasingly, observations contradict the projections of the models used by the Intergovernmental Panel on Climate Change (IPCC). Tricks being used by alarmists to cover these inconsistencies include expanding the range of error of the observations, the projections, or both. The error range of observations can be expanded by adding data that is not rigorously collected. The error range of projections can be expanded by adding projections from models the significantly deviate from other models. The sloppier the science, the more difficult it is to statistically demonstrate the inconsistencies between observations and model projections.

When alarmists, defending the IPCC, expand error ranges in observations and / or models, they undermine the claim that the “science is settled.” In addition, these alarmist efforts falsify the claim in the Summary for Policymakers (SPM) of the Fourth Assessment Report (AR4) of the IPCC that it is more than 90% sure that human influences, namely carbon dioxide emissions, caused late 20th century warming.

Such efforts are discussed in part one of “NIPCC v. IPCC” by Fred Singer under “Challenging the Orthodoxy” and “Is Gore’s Missing Heat Really Hiding in the Deep Ocean?” by Roy Spencer under “Models v. Observations.”

A similar effort is underway as to Arctic ice coverage. In 2007, Arctic ice reached a low in the measured record, starting in 1979. Immediately, this was claimed as proof of human caused global warming with
dire results to polar bears, etc. History was completely ignored. Now a study reports that “Arctic ice melt could pause in coming decades.” Although a reduction in ice is “proof” of global warming, alarmists do not recognize that an expansion in ice may negate global warming claims. Please see article under “Defending the Orthodoxy.”

Energy Policy: This week, President Obama announced he is forging ahead with an energy policy without the help of Congress. He pointed to the mandated increases in the fleet mileage of automobiles and in heavy duty trucks, the latter a first. These announcements have been accompanied with the customary claims of saving the consumers money. Even as the government is running huge deficits, administration continues with Washington’s attitude that government knows best on how to save money. The automobile and truck industries were intimidated two years ago by Washington’s seizure of assets properly belonging to bond holders, and granting them to labor unions. These industries are meekly going along.

For two years, President Obama had a unified, highly supportive Congress that joined him in implementing an energy policy – driving up the costs of energy to the consumer. They did so in many ways - including declaring extensive areas off limits to energy development, waging a campaign against reliable, affordable electricity generated by coal, and using the Gulf oil spill as an excuse to slow down development of oil fields - even as significant discoveries were being made.

The policy includes extensive subsidies to alternative energy sources, including wind farms and solar plants, even before the critical technological issue is solved – how to store electricity on an affordable, commercial scale. As a result, electricity generated by wind and solar is expensive, unreliable, and wasteful – expensive back-up is required.

Using dubious claims of public health benefits, the EPA continues on its mission of shutting down coal-fired electrical generation. Many of the older plants could be replaced by more efficient, cleaner coal plants, but it is doubtful such plants will be permitted under the current administration’s energy policy. As a result, utilities are turning to natural gas, an alternative that did not exist several years ago because natural gas prices were too high.

The methods to extract natural gas from dense shale, which did not exist on a major scale several years ago, have changed the energy picture. Now, EPA and its environmental industry allies are seeking to control such activities. Most natural gas development activities are occurring on private lands, thus do not require extensive federal government permitting, including filing exhaustive environmental impact studies, which are subject to lengthy lawsuits from the environmental industry. Thus, EPA and others are using questionable claims as to public health issues to expand their control of developing affordable, reliable energy. Please see Article # 1 and articles referenced under “Subsidies and Mandates Forever”, “Energy Issues” and “Administration Control of Fossil Fuels.”

Natural Gas Industry: The New York Times ran a several-part special on the expanding natural gas industry. The series produced the desired effect of “raising concern” about the industry, one of the bright spots in the US economy, which does not require subsidies. Now, some politicians are calling for an investigation to see if investors are being misled. Generally, most investors are far better in reading financial statements and investment projections than politicians and reporters. One of the low points of the articles was emphasizing the discovery of a report that hydraulic fracturing caused drilling fluids to seep into a household well. The report was dated 1987, long before the advent of 21st century deep drilling techniques, where the fracturing occurs far below the level of water wells, below layers of impervious rock.
This is not to say that there are not issues regarding the expanding industry. An analysis of a report from Penn State indicates that some of the assumptions may have been too rosy – not surprising.

For years, petro-chemical companies have been moving off-shore, particularly industries heavily dependent on natural gas. According to reports, Dow Chemical is expanding its facilities in the US, thanks to the resurgence of the natural gas industry. Please see articles referenced under “Oil and Natural Gas – the Future or the Past.”

Quote of the Week – on Polar Bears: For several weeks there have been reports that wildlife biologist Charles Monnett is being investigated by the Department of Interior’s Inspector General. Monnett became famous for finding dead polar bears in the water. Polar bears are extremely strong swimmers. The dead bears immediately became a symbol of the dangers of human-caused global warming. At this time, additional comments by TWTW on the investigation would be as speculative as the science declaring polar bears, which survived the Holocene Climate Optimum, are threatened by the 20th century warming. Please see referenced article under “Problems Within the Orthodoxy.”

Alternative fuels: Both China and India invested heavily in planting Jatropha, a succulent which many, including the Wall Street firm Goldman Sachs, proclaimed to be an excellent source for bio-fuels. According recent reports, this investment failed, spectacularly.

It has been known for some time that ethanol cannot be shipped via oil pipelines because ethanol attracts water, which can rust the pipeline. According to recent reports, ethanol fosters the growth of bacteria that cause cracking of pipelines. Please see article reference under “Alternative, Green (“Clean”) Energy.”

Number of the Week: 11. Eleven is the reported number of truck convoys and other vehicles leaving all parts of Australia starting on August 16 and scheduled to arrive in Canberra on August 22 to protest the new tax on carbon dioxide emissions. The participants are demanding that Parliament vote “No Confidence” in the current government, forcing a new election.

ARTICLES:

For the numbered articles below please see: www.sepp.org.

1. Coal Strikes a Tough Vein Over Costs, Natural Gas
By Kris Maher, WSJ, Aug 11, 2011
http://online.wsj.com/article/SB10001424053111904823804576502381688956252.html?mod=WSJ_Energy_leftHeadlines

2. Japan Considers Turning to Micro Nuclear Plants
By Mitsuru Obe, WSJ, Aug 12, 2011
http://online.wsj.com/article/SB10001424053111904006104576501793167664736.html?mod=WSJ_Energy_leftHeadlines

NEWS YOU CAN USE:

Climategate Continued
The Guardian Is “Bemused”
By Steve McIntyre, Climate Audit, Aug, 6, 2011
http://climateaudit.org/2011/08/06/the-guardian-is-bemused/#more-14387

[SEPP Comment: The University of East Anglia is mired in questionable activities.]
Challenging the Orthodoxy
NIPCC v. IPCC
By S. Fred Singer, July, 2011
http://www.sepp.org/science_papers/ICCC_Booklet_2011_FINAL.pdf

Thank you, President Klaus
During July-August, 2011, The Institute of Public Affairs, Melbourne, hosted a visit to Australia by President Vaclav Klaus of the Czech Republic.
By Bob Carter, Quadrant, Aug, 8, 2011

SPPI Collection of Papers as of July 2011
By SPPI, Aug 3, 2011

Global warming is melting Al Gore’s brain
Former veep’s only defense of his bogus climate theory is potty language

David Suzuki insults, but won’t debate
As the climate scare fizzles, Canada’s celebrity environmentalist resorts to ad hominem attacks
By David Legates, Financial Post, Aug 12, 2011

Climate Forecasting Models Aren’t Pretty, And They Aren’t Smart
By Larry Bell, Forbes, Aug. 9 2011

The polar bear problem
They’re thriving – and they’re hungry
By Matt Ridley, Spectator, UK, Aug 12, 2011 [H/t Aug 12, 2011]
http://www.spectator.co.uk/essays/7157198/the-polar-bear-problem.html
[SEPP Comment: The alarmists capitalize on ignorance of history.]

Arctic Fires and CO2 Emissions
By Patrick Michaels, World Climate Report, Aug 5, 2011
[SEPP Comment: Another example of claims of historically unprecedented phenomena that ignore history.]

Joe Bastardi Calls Manmade CO2 Global Warming “An Obvious Fraud”
By Staff Writer, ICECAP, Aug 10, 2011
http://icecap.us/index.php/go/political-climate/joe_bastardi_calls_manmade_co2_global_warming_an_obvious_fraud/
[SEPP Comment: The correlation between the Pacific Decadal and Atlantic Multidecadal Oscillations and the earth’s temperature is far greater than the correlation between carbon dioxide and temperature.]
Defending the Orthodoxy

Arctic ice melt could pause in coming decades

[SEPP Comment: The computer projections have spoken: Retreating ice, stable ice, and even advancing ice are all proof of global warming caused by human carbon dioxide emissions.]

Slowing climate change by targeting gases other than carbon dioxide
By Staff Writers, Washington DC (SPX) Aug 08, 2011
http://www.terradaily.com/reports/Slowing_climate_change_by_targeting_gases_other_than_carbon_dioxide_999.html

[SEPP Comment: Another assertion of false knowledge: “We know that recent climate change is primarily driven by carbon dioxide emitted during fossil-fuel combustion, and we know that this problem is going to be with us a long-time because carbon dioxide is so persistent in the atmosphere.”]

Questioning the Orthodoxy

Global warming – step changes driven by ENSO?
By Jens Raunso Jensen, WUWT, Aug 11, 2011

Global Warming Gomorrah In Hell: Welcome To Washington!
By Patrick Michaels, Forbes, Aug 5, 2011 [H/t Cooler Heads Digest]

New Rasmussen Poll Sends Al Gore Into Meltdown
By James Taylor, Forbes, Aug 10, 2011 [H/t Marc Morano, Climate Depot]

Questioning European Green

Worldwide CO2 emissions and the futility of any action in the West
By Ed Hoskins, WUWT, Aug 7, 2011

[SEPP Comment: Except for the EU, Australia, and New Zealand, the governments of few countries seem enthused about a Kyoto II.]

Problems within the Orthodoxy

Polar Bear Scientist Faces New Questions
By Nell Greenfieldboyce, National Public Radio, Aug 10, 2011 [H/t Anthony Watts, WUWT]

Models v. Observations

Is Gore’s Missing Heat Really Hiding in the Deep Ocean?
By Roy Spencer, His Blog, Aug 7, 2011

Source of “hide the decline”? New paper finds that tree height shrinks with increased temperature
Measurement Issues

Quality Of Global Climate Surface Observing Sites
By Roger Pielke Sr, Pielke Climate Science, Aug 11, 2011
[SEPP Comment: Taking the pioneering work of Anthony Watts, et al, world-wide.]

Biases in Antarctic weather stations reported up to 10°C
By Anthony Watts, WUWT, Aug 10, 2011
http://wattsupwiththat.com/2011/08/10/biases-in-antarctic-weather-stations-reported-up-to-10%C2%B0C/#more-44851

Indictment Of The ERA-40 Reanalysis In A New Paper “Erroneous Arctic Temperature Trends in the ERA-40 Reanalysis: A Closer Look” By Screen and Simmonds 2011
By Roger Pielke Sr, Pielke Climate Science, Aug 10, 2011

Changing Weather

Climate Includes Extreme Events – A Forecast Extreme New Zealand Weather Cold and Snow Event
By Roger Pielke, Sr, Pielke Climate Science, Aug 12, 2011

Current drought pales in comparison with 1950s 'drought of record'
By Farzad Mashhood, American Statesman, Aug 4, 2011 [H/t ICECAP]

Changing Climate

Arctic Driftwood Re-Visited
By Steve McIntyre, Climate Audit, Aug 7, 2011
http://climateaudit.org/2011/08/07/arctic-driftwood-re-visited/
[SEPP Comment: Discussion of the recent Danish study of the driftwood record of Arctic Ocean Sea-Ice variability which re-affirmed prior research ignored by the alarmists.]

Changing Seas

Underwater Volcano Erupts Off the Coast of Oregon
By Christine McEnrue, WeatherBell, August 11, 2011
[SEPP Comment: An example of what Ian Plimer described as our ignorance of volcanic activity – we did not know of the event until after it concluded. Unknown amounts of sulfur and carbon dioxide were emitted. Microbes living in the vents demonstrate much is to be learned about life forms in such environments.]
Changing Earth
The Sahel Is Greening
By Philipp Mueller, GWPF, Aug 12, 2011
[SEPP Comment: Entirely consistent with the writings of HH Lamb who stated that during the Holocene Climate Optimum (about 5,000 to 8,000 years ago) the Sahara was wet.]

New Montana State research sheds light on South Pole dinosaurs
By Staff Writers, SPX, Aug 08, 2011
http://www.terradaily.com/reports/New_Montana_State_research_sheds_light_on_South_Pole_dinosaurs_999.html

Agriculture Issues & Fear of Famine
Manhattan Moment: Pork barrel ethanol subsidies have doubled corn prices

Litigation Issues
ATI Responds to Union of Concerned Scientists’, et al, Efforts to Stop Agreement with UVA to Turn Over Michael Mann Records
Press Release, American Tradition Institute, Aug 11, 2011

Cap-and-Trade and Carbon Taxes
Who are the 500 polluters?
Around 500 of the biggest polluters in Australia will be required to pay for their future pollution under a carbon pricing mechanism.
Securing a Clean Energy Future (Chapter 3)
By John Izzard, Quadrant, AU, August 8, 2011
[SEPP Comment: Australia’s Prime Minister Gillard claims the carbon tax will apply only to the countries 500 biggest polluters. Who are they?]

ICE to shutter Chicago Climate Exchange
By Staff Writers, Reuters, Aug 8, 2011 [H/t Marc Morano, Climate Depot]
http://www.chicagotribune.com/business/breaking/chi-ice-to-shutter-chicago-climate-exchange-20110808,0,7784695.story
[SEPP Comment: Sometimes promoters cannot force the market – or even force the government to force the market.]

Subsidies and Mandates Forever
White House releases first efficiency standards for heavy-duty trucks
By Andrew Restuccia, The Hill, Aug 9, 2011

EPA and other Regulators on the March
EPA set to miss deadline on ozone rules
Under Obama, the agency has delayed action repeatedly on a 2010 vow to set tougher smog standards, as critics in industry and the Republican Party argue that regulations kill jobs.
By Neela Banerjee, LA Times, Aug 9, 2011

Grid Operators to EPA: Strict Compliance Deadlines Could Jeopardize Reliability
By Staff Writers, POWERnews, Aug 10, 2011
http://www.powermag.com/POWERnews/3929.html?hq_e=el&hq_m=2259915&hq_l=5&hq_v=5e66050 0d0

New Rules and Old Plants May Strain Summer Energy Supplies
By Matthew Wald, NYT, Aug 11, 2011 [H/t Willie Soon]

Energy Issues

White House advances its energy policy without help from polarized Congress
By Andrew Restuccia and Ben Geman, The Hill, Aug 11, 2011
http://thehill.com/blogs/e2-wire/677-e2-wire/176541-on-energy-obama-has-little-hope-for-congress

ERCOT Cuts Power to Industrial Users to Avoid Blackouts
By Staff Writers, POWERnews, Aug 10, 2011
http://www.powermag.com/POWERnews/3930.html?hq_e=el&hq_m=2259915&hq_l=6&hq_v=5e66050 0d0

‘Energy Independence’ is a Pipe Dream
By Jeff Jacoby, Boston Globe, Aug 7, 2011
http://www.boston.com/bostonglobe/editorial_opinion/oped/articles/2011/08/07/energy_independence_is _a_pipe_dream/

Nuclear Fears & Responses

Japan to set up new nuclear watchdog
By Staff Writers, AFP, Aug 12, 2011
http://www.nuclearpowerdaily.com/reports/Japan_to_set_up_new_nuclear_watchdog_999.html

US new nuclear build before 2012
By Staff Writers, World Nuclear News, Aug 5, 2011

[SEPP comment: A private company is hoping to start full construction of two nuclear plants in 2012. The plants will use the third generation Westinghouse AP1000 that has a fully automatic cooling system in case of accident or human error.]

China Begins Operation of Second CPR-1000 Reactor
By Staff Writers, POWERnews, Aug 10, 2011
http://www.powermag.com/POWERnews/3931.html?hq_e=el&hq_m=2259915&hq_l=7&hq_v=5e66050 0d0

Oil and Natural Gas – the Future or the Past?
My Excellent Journey to Canada’s Oil Sands
By Marlo Lewis, Global Warming.org, Aug 10, 2011
http://www.globalwarming.org/2011/08/10/my-excellent-journey-to-canadas-oil-sands/#more-10317

Musing: Marcellus Impact Study Rests on Some Shaky Assumptions
[SEPP Comment: The Penn State study of the benefits to the state of Pennsylvania from natural gas from shale may have contained overly optimistic assumptions. Certainly, as production rises quickly, prices will decline.]

Cheap Shale Gas Means Record U.S. Chemical Industry Growth
By Jack Kaskey, Bloomberg, Aug 10, 2011 [H/t GWPF]
[SEPP Comment: Another reason why many in the environmental industry are trying to stop shale gas – it is used to produce chemicals.]

New York Times vs. natural gas industry
By Talia Buford, Politico, Aug 8, 2011 [H/t Cooler Heads Digest]

Panel Seeks Stiffer Rules for Drilling of Gas Wells
By Robbie Brown and Ian Urbina, NYT, Aug 10, 2011

Companies Seek to Export U.S. Gas in Wake of Production Boom
By Trennille Tracy, WSJ, Aug 12, 2011
http://online.wsj.com/article/SB10001424053111903918104576502554089821220.html?mod=WSJ_Energy_leftHeadlines
[SEPP Comment: Attempting to recover stranded assets in the form of liquefied natural gas (LNG) port facilities by exporting LNG now that US natural gas shortages are not looming as earlier projected.]

Oil Spills & Consequences
China urges US oil giant to hasten clean-up: Xinhua
By Staff Writers, AFP, Aug 11, 2011

Administration Control of Fossil Fuels
Is Coal a Fuel of the Future?
By Donn Dears, Power For USA, Aug 12, 2011
http://dddusmma.wordpress.com/

Obama’s war on coal
Killing jobs, causing blackouts
By William Yeatman, Aug 9, 2011
http://www.nypost.com/p/news/opinion/opedcolumnists/obama_war_on_coal_zVrf0OxP4RcUmymSsDcOj

TransCanada CEO: Oil sands will be developed with or without pipeline
By Ben Geman, The Hill, Aug 10, 2011
http://thehill.com/blogs/e2-wire/677-e2-wire/176249-tranacanada-ceo-oil-sands-will-be-developed-without-without-pipeline

**Alternative, Green (“Clean”) Energy**

*The Extraordinary Collapse of Jatropha as a Global Biofuel*
By Promode Kant and Shuirong Wu, ACS, Aug 2, 2011 [H/t WUWT]
http://pubs.acs.org/doi/full/10.1021/es201943v
[SEPP Comment: A classic example of governments failing to perform necessary due-diligence before embarking on costly programs to “save the planet.”]

**Scientists find way to identify manmade biofuels in atmosphere**
By Staff Writers, SPX, Aug 08, 2011
http://www.biofueldaily.com/reports/Scientists_find_way_to_identify_manmade_biofuels_in_atmosphere_999.html
"This is particularly critical in urban areas because the majority of ethanol in the atmosphere is converted to acetaldehyde, which is highly reactive and considered to be a toxin detrimental to human health."

**Ethanol-loving bacteria accelerate cracking of pipeline steels**
By Staff Writers, SPX, Aug 09, 2011

**High Energy Output From Algae-Based Fuel No Silver Bullet**
By Zak Richards, SPX, Aug 11, 2011
http://www.biofueldaily.com/reports/High_Energy_Output_From_Algae_Based_Fuel_No_Silver_Bullet_999.html

**American Wind Industry Association: Circling the Wagons**
By Thomas Stacy II, Master Resource, Aug 8, 2011

**Blowing money in the wind**
By Jerry Agar, Toronto Sun, Aug 8, 2011

**US fund Blackstone plans two big German wind farms**
By Staff Writers, AFP, Aug 7, 2011
http://www.winddaily.com/reports/US_fund_Blackstone_plans_two_big_German_wind_farms_999.html

**California Dreaming**

*Largest solar plant approved for Calif.*
By Staff Writers, UPI, Aug 10, 2011
http://www.solardaily.com/reports/Largest_solar_plant_approved_for_Calif_999.html
[SEPP Comment: 4,100 acres of public land, 7.45 acres used per MW when it works.]

**California’s 33% Renewable Energy Goal by 2020: Form or Substance? (Part II-RECs Required)**
By Ulrich Decher, Master Resource, August 11, 2011
Deaths and Death Rates from Excessive Heat Events Have Declined in Most U.S. Cities

Another Downside of Biofuels

Floods of the Upper Midwest United States: A 75-Year History

Reconstructing Seawater pH in the South China Sea
“As shown in the accompanying figure, the δ11B-derived pH values for the South China Sea fluctuated between a pH of 7.91 and 8.29 during the past seven thousand years, revealing a large natural fluctuation in this parameter that is nearly four times the 0.1 pH unit decline the acidification alarmists predict should have occurred since pre-industrial times.”

Health, Energy, and Climate
Cholera outbreaks 'not caused' by warmer seas
By Maria Elena Hurtado, SciDev.Net, Aug 10, 2011 [H/t GWPF]

Environmental Industry
Merchants of Debt and Misery
By Staff Writers, ICECAP, Aug 11, 2011

Anti-nuclear groups shower federal regulators with legal challenges
By Andrew Restuccia, The Hill, Aug 11, 2011
http://thehill.com/blogs/e2-wire/677-e2-wire/176391-in-legal-challenges-groups-call-for-nuclear-licensing-moratorium-

Other Scientific News
Severe low temperatures devastate coral reefs in Florida Keys
By Beth Gavrilles, UGA Today, Aug 8, 2011 [H/t WUWT]
UCI studies find different reasons for global methane riddle
One cites less dependency on oil, the other new farming practices
Press Release, UCIrvine, Aug 13, 2011 [H/t WUWT]

Mars' northern polar regions in transition
By Staff Writers, ESA, Aug 08, 2011
http://www.marsdaily.com/reports/Martian_northern_polar_regions_in_transition_999.html
[SEPP Comment: Not only the Arctic is changing. Proof of human caused global warming?]

BELOW THE BOTTOM LINE:

To avoid carbon debt CRP beats fields of corn and soybeans
By Staff Writers, SPX, Aug 11, 2011
http://www.biofueldaily.com/reports/To_avoid_carbon_debt_CRP_beats_fields_of_corn_and_soybeans_999.html
[SEPP Comment: What is the carbon debt when one exhales?]

Science project closes Omaha airport terminal
By Staff Writers, AP, Aug 3, 2011
[SEPP Comment: The description of the science project would be interesting.]

ARTICLES:

1. Coal Strikes a Tough Vein Over Costs, Natural Gas
By Kris Maher, WSJ, Aug 11, 2011
http://online.wsj.com/article/SB10001424053111904823804576502381688956252.html?mod=WSJ_Energy_leftHeadlines

U.S. coal companies, whose stocks are down 30% over the past three weeks, are fighting not only the latest market swoon but inroads from natural gas, heightened environmental regulations and higher costs.

This summer's heat wave should have made the commodity hot in the East, but it didn't. Utilities drew down coal stockpiles but also favored lower priced and cleaner natural gas in some regions, sending prices of thermal coal used by utilities lower in the East. Meanwhile, small coal-fired power plants along rivers in Ohio and elsewhere are slated to close, due to tougher emission standards.

Competition from natural gas is crimping coal demand nationwide. In the first quarter, natural gas and other factors, such as flooding that disrupted coal shipments in the Midwest, helped push the share of electricity generated by coal to the lowest level in 30 years, according to the Energy Information Administration.

Coal is expected to cede more market share to natural gas, in what analysts say could be a permanent shift. In the first quarter of this year, coal fueled 46% of the nation's electricity, down three percentage points from a year earlier and down six points from the first quarter of 2008, according to the EIA. The loss of market share is most acute in Central Appalachia, a heavily mined region where it costs more to mine thinner coal seams.
Companies are still expected to mine 1.067 billion short tons of coal in 2011, the vast majority of it thermal coal used by utilities, compared with 1.085 billion tons last year, according to the EIA. The agency forecasts total coal consumption will be down about 2% this year.

"It's definitely a struggle for coal to maintain its historical market share," said Paul Forward, an analyst with Stifel, Nicolaus & Co.

Consolidation from three recent mergers and increased exports of thermal and metallurgical coal used by steelmakers should help the industry in coming months, say analysts. But shutdowns of some thermal coal mines are expected, particularly in Central Appalachia, where mining has helped buoy the local economy and kept miners working.

"Central Appalachia has been in a steady state of decline and probably will continue to decline for a while," said Kevin Crutchfield, CEO of Alpha Natural Resources Inc. in a recent interview. Alpha, which acquired Massey Energy in June, is conducting a company-wide review to identify money-losing operations and could close or sell some thermal coal mines, he said.

Mr. Crutchfield said he expects annual production in the region to fall to between 150 million tons and 170 million tons, from the current 180 million tons. He attributed some of that decline to coal seams that are thinner and harder to reach, which increases costs, and to the development of the Marcellus Shale, a massive natural-gas deposit stretching across parts of Ohio, West Virginia, Pennsylvania and New York.

Alpha, Patriot Coal Corp., Consol Energy Inc., and James River Coal Co., which have operations in Central Appalachia, all reported higher costs in the second quarter. Meanwhile, the contract price for thermal coal from that region for delivery in 2012 is down about 6% since May.

**Power Move**

Net generation of electricity by source as a percentage of total generation

At Alpha, costs per ton jumped 17% in the second quarter across its operations to $70.84 a ton, from a year ago. The increases at other companies helped drive down their share prices as the broader market declined in the past few weeks.
The higher costs for coal companies "were a big surprise... that encouraged some of this selling off of these stocks," said Mr. Forward of Stifel, Nicolaus.

At the same time, new federal rules restricting impacts to streams from mining in six Eastern states have put more pressure on thermal coal, which is often mined from the surface with explosives and earth-moving machines. Federal emissions regulations intended to reduce sulfur dioxide and nitrogen oxide that were announced in July have led utilities to say they will close coal-burning power plants in Ohio, Georgia and Texas, among others.

Coal companies are focusing more on mining higher-margin metallurgical coal used to make steel and boosting exports. Alpha, the nation's biggest producer of that grade of coal, had an average realized price of $176 a ton in the second quarter, up 50% from a year earlier.

Net exports industry-wide are expected to rise nearly 30% this year to 79.8 million tons, including thermal and metallurgical coal, according to the EIA. Higher exports of thermal coal are expected to head to Europe, where nuclear plants have been idled, and to China and India to feed power plants and steel mills.

In China, coal consumption rose 19% in July, from a year ago, while coal imports reached 17 million metric tons (18.7 million short tons) in the month, which may be a record, according to Vic Svec, a senior vice president at Peabody Energy Corp. in St. Louis. "The Asia-Pacific markets remain extremely strong," Mr. Svec said.

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2. Japan Considers Turning to Micro Nuclear Plants
By Mitsuru Obe, WSJ, Aug 12, 2011
http://online.wsj.com/article/SB100014240531119040061045765017931676664736.html?mod=WSJ_Energy_leftHeadlines

TOKYO—The Japanese government's minister in charge of national strategy said a new generation of smaller nuclear reactors might be the answer for a country traumatized by the March Fukushima Daiichi crisis, at a time when much of the nation is looking toward a nuclear-free future.

National Policy Minister Koichiro Gemba—who is responsible for helping craft energy policy—said that despite the bitterness following the accident at the nuclear-power plant, Japan should consider the use of what are known as microreactors, as a way to help bridge the electricity shortages that plagues the industrial sector.

"The development of microreactors isn't incompatible with the goal of achieving a more distributed power supply," Mr. Gemba said in a recent interview with The Wall Street Journal.

His push for smaller reactors comes as Japan grapples with the realities of Prime Minister Naoto Kan's antinuclear push. Mr. Kan scrapped the previous strategy that called for a near doubling in nuclear power to more than 50% of Japan's total electricity generation by 2030. But while a shift away from nuclear power has gained popular support, Japan has little in the way of domestic deposits of coal, natural gas or oil to meet its power needs, and alternative-energy solutions appear inadequate. Mr. Kan also is expected to resign in coming weeks, making his goal uncertain.

Japanese officials have continued to explore nuclear-power options despite opposition to them. A consultative body to Banri Kaieda, the minister who oversees Japan's nuclear-power industry, last month said that abandoning technology under development for smaller nuclear reactors and other alternatives would be a waste.
Keiji Miyazaki, professor emeritus of Osaka University, said smaller reactors have cost disadvantages but are worth considering as part of the future energy mix. Microreactors are expensive to operate because the systems to power a reactor cost about the same no matter the size of the unit. This means that unit costs will be much higher than for the reactors typically used in Japan.

Microreactors are next-generation reactors that generate less heat and are capable of cooling themselves without the use of an external power supply, a key vulnerability in the Fukushima disaster, as the units overheated due to a lack of circulating water. All three Japanese reactor makers—Hitachi Ltd., Mitsubishi Heavy Industries Ltd., and Toshiba Corp.—are pursuing them, Toshiba in particular. The concept, however, is still in the development phase. Toshiba has said it is looking to market such reactors later this decade.

Mr. Gemba said he believes Japan should look to "distributed power generation" where electricity is generated by an interconnected network of small and medium-size producers. The concept is an antithesis to the current Japanese system, which is based on constructing large nuclear plants in remote rural areas to produce electricity for large cities.

The 47-year-old Mr. Gemba—who was born in Fukushima prefecture and represents a district near the stricken plant—said he has based his recommendation on the wave of local complaints that have emerged since the March disaster. He said it is directed more at energy policies set by the central government with little regard for local concerns, rather than at promoting nuclear power. He continues to call for less reliance on nuclear energy.

Since March 11, at least five reactors have been kept from restarting even after their regular maintenance checks were completed, as local communities refused to allow their reopening.

"The newer the reactors are safer," Mr. Gemba said. "The safety of nuclear plants would be improved by replacing older reactors with newer ones.

The three reactors that suffered partial meltdowns at the Fukushima Daiichi are more than 30 years old, with technology developed before the lessons of incidents such as the 1979 Three Mile Island accident. Before the March disaster, the Japanese government saw large-scale reactors as the way to meet an anticipated surge in reactor-replacement demand around 2030.

Microreactors were being considered mainly for overseas markets. An official at Japan's Ministry of Economy, Trade and Industry, which currently oversees nuclear regulation, now says "manufacturers will explore the domestic market if there is demand."

Mr. Gemba didn't offer a projection for the share of nuclear power in the total electricity supply, but noted it will likely be well below the 26% level reached in 2007, often used as a baseline for discussion. He argues that the nation is prepared for a major shift in energy policy, even if it entails higher utility rates and a change in people's lifestyle. Legislation is in the works to introduce German-style feed-in tariffs, which would require utilities to purchase electricity generated with renewable sources at premium prices.