

EXHIBIT NO. ____ (TLO-1)

Resume

Thomas L. Oстераas

Education

University of Minnesota Law School, Minneapolis, Minnesota
J.D., cum laude, June 1993.

Admitted to California Bar 1993, Minnesota Bar 1995.

Harvard University, Cambridge, Massachusetts, A.B. in European
History, June 1988.

Professional Experience

Excelsior Energy Inc., Minnetonka, Minnesota (2004 – present)

Vice President and General Counsel

Faegre & Benson, LLP, Minneapolis, Minnesota (2001 – 2004)

Partner in the Finance & Restructuring Group. Practice focused on structured finance of financial assets, with particular emphasis on residential home mortgage warehouse lending and securitizations, and the establishment and renewal of commercial paper conduit lending programs in a variety of asset classes ranging from non-agency mortgage products to life insurance settlements to insurance premium finance loans.

Cogeneration Corporation of America, Minneapolis, Minnesota
(1998 – 1999)

General Counsel and Corporate Secretary. Responsible for all legal affairs of publicly traded independent power company.

NRG Energy, Inc. Minneapolis, Minnesota. Resident in Minneapolis with approximately 75% of time spent working throughout Europe (1997 – 1998)

Senior Counsel, Europe. Responsible for oversight of all legal activities relating to electric power generation project development and implementation throughout Europe. Lead sponsor counsel participating in all aspects of negotiating and closing 382 MW coal-fired power generation project in Kladno, Czech Republic, and 396 MW gas-fired power generation project in Enfield, England. Participated in all aspects of planning and negotiation of various projects under development, including projects in the United Kingdom, Germany, the Czech Republic, Poland, Spain, Turkey, Hungary and Estonia.

Morrison & Foerster, Los Angeles, California (1993 – 1996)

Associate in the Financial Transactions Practice Group. Practice emphasis in a broad variety of secured credit transactions, usually representing the agent bank in a syndicate of lenders. Represented warehouse lenders to mortgage companies in connection with mortgage-backed securitization transactions. Additional experience in general corporate, corporate finance and real estate practice areas.

EXHIBIT NO. _____(TLO-2)

Mesaba Energy Project Report (Public Version)

[Exhibit Bound Separately]

EXHIBIT NO. _____ (TLO-3)

Non-Public Sections of Mesaba Energy Project Report

**Volume I, Section III (“Cost Analysis and Comparison”);
Volume III, Section V (the Power Purchase Agreement);
Volume III, Section VI (“Summary of Key PPA Terms and Conditions”);
Volume I, Exhibit F (Fluor Report—Comparison of cost and
performance of IGCC and SCPC technologies); and
Volume I, Exhibit G (“Fluor Addendum—Economic Analysis of SCPC Plant”)**

EXHIBIT NO. _____ (TLO-4)

**Written Innovative Energy Project Designation From the
Commissioner of Iron Range Resources
November 7, 2005**

June 19, 2006



The Honorable Judges Steve M. Mihalchick and Bruce H. Johnson
Office of Administrative Hearings
100 Washington Square, Suite 1700
Minneapolis, MN 55401

**RE: In the Matter of a Petition by Excelsior Energy for Approval of a
Power Purchase Agreement
OAH No. 12-2500-17260-2**

Dear Judge Mihalchick and Judge Johnson:

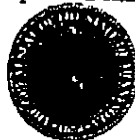
I am writing to provide written testimony in support of Excelsior Energy's above-referenced petition.

Iron Range Resources is a Minnesota state agency created by the Legislature in 1941 to diversify the economy of the iron mining areas of northeastern Minnesota. The Agency's service area is now known as the Taconite Assistance Area, encompassing approximately 13,000 square miles. A full-time commissioner appointed by the Governor of Minnesota manages the day-to-day operations of the Agency.

Iron Range Resources is funded by a portion of the taconite production taxes paid by mining companies in lieu of property taxes on each ton of taconite produced. Iron Range Resources acts as a fiscal agent for this money. Unlike other state agencies, the Agency receives no direct operational funding from the State's general fund. A 13-person Iron Range Resources and Rehabilitation Board approves the Agency's economic development projects.

The Agency's activities are guided by an overall mission -- "Advance regional growth by stabilizing and enhancing the economy of northeastern Minnesota's Taconite Assistance Area" -- and four principal goals:

1. Goal No. 1: Position the Agency to be a leader in the developing and implementing a strategy for long-term economic viability in northeastern Minnesota;
2. Goal No. 2: Sustain the region's economic base by working with existing businesses to retain existing jobs and expand to create new jobs.
3. Goal No. 3: Diversify the region's economy by growing new businesses and recruiting expanding businesses from outside the area.
4. Goal No. 4: Reclaim mining impacted lands to create diverse regional economic development resources.



An Equal Opportunity Employer

Iron Range Resources
4261 Highway 53 South
P.O. Box 441
Eveleth, MN 55734-0441
(218) 744-7400

www.IronRangeResources.org

Steve M. Mihalchick and Bruce H. Johnson - Letter
June 19, 2006

In July, 2001, Iron Range Resources launched an energy initiative to explore and capitalize on opportunities in the energy sector and to promote regional job creation and economic growth.

In April of 2002, Iron Range Resources provided Excelsior Energy with \$1.5 million in financing for the Mesaba Energy Project (the "Project"). In August of 2004, Iron Range Resources provided Excelsior Energy with an additional \$8 million in Project financing. The Agency provided the financing to Excelsior Energy because it believes that the Project will provide a substantial economic benefit to northeastern Minnesota in accordance with Iron Range Resource's mission and goals.

The 2003 Minnesota State Legislature selected Iron Range Resources to designate a project "that is located in the taconite tax relief area on a site that has substantial real property with adequate infrastructure to support new or expanded development and that has received prior and financial and other support from the Board." See Minn. Stat. § 216B.1694, Subd. 1(3).

On November 7, 2005, in accordance with Minn. Stat. § 216B.1694, Subd. 1(3), Iron Range Resources Commissioner Sandy Layman designated two Project sites. Attached as Exhibit A is a true and correct copy of the designation letter and a certification of its authenticity.

Thank you for your consideration. If you have any questions please feel free to contact me.

Sincerely,



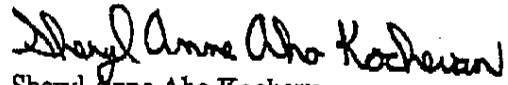
Brian Hiti
Deputy Commissioner

I, Brian Hiti, certify that the signature on Exhibit A is genuine and signed by Commissioner Layman in her official capacity.



Brian Hiti
Deputy Commissioner
Iron Range Resources

Sworn/affirmed before me this 19th day of June, 2006.



Sheryl Anne Aho Kochevar
Notary Public

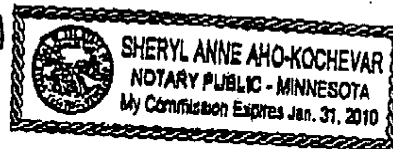


EXHIBIT A



November 7, 2005

Mr. Thomas Micheletti
Excelsior Energy Inc.
Crescent Ridge Corporate Center
11100 Wayzata Boulevard, Suite 305
Minnetonka, MN 55305

RE: "Innovative Energy Project" referenced in Minnesota Statutes, Section 216B.1964

Dear Mr. Micheletti:

Based on this Agency's ongoing efforts in support of the Mesaba Energy Project and the analysis of Agency staff of the proposed site near Taconite, Minnesota (the "Preferred Site") and alternative site near Hoyt Lakes, Minnesota (the "Alternative Site") for two units of the Mesaba Energy Project, I hereby designate the Mesaba Energy Project as one that meets the requirements set forth in Minnesota Statutes, Section 2165B.1694, Subdivision 1, Paragraph 3, whether it is located at the Preferred Site or the Alternative Site.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sandy Layman", is written over a faint circular stamp.

Sandy Layman
Commissioner



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www.IronRangeResources.org

EXHIBIT NO. _____ (TLO-5)

**Recent Announcements From Governors Supporting
Specific Initiatives For IGCC Technologies**



State of the State 2006

**Governor Joe Manchin's State of the State Address
January 11, 2006**

Mr. President, Mr. Speaker, Members of the Board of Public Works, Justices of the Supreme Court of Appeals, Members of the Legislature, Distinguished Guests, the members of my administration and senior staff, my wife Gayle, members of my family and My Fellow West Virginians:

I'm pleased to report that this afternoon Appalachian Power filed an application with the Public Service Commission of West Virginia seeking authority to construct a 600-megawatt Integrated Gasification Combined Cycle power plant – or IGCC – electric generating unit in West Virginia. The proposed power plant would be located next to the company's Mountaineer Plant near New Haven in Mason County.

This is great news for economic development in the state. As one of the first commercial scale coal gasification projects, this proposed plant will allow us to lead the nation in the development of clean coal technology for power generation. Plus, coal gasification technology offers future opportunities to produce clean liquid fuels and chemical feedstock for other industries.

IGCC technology allows us to continue using our state's coal resources in an environmentally responsible way. With IGCC, we'll have a *cleaner environment*. An IGCC power plant efficiently reduces and removes sulfur dioxide, nitrogen oxides, particulates and mercury from plant emissions. IGCC plants offer opportunity for more efficient, less costly carbon capture for disposal in deep geologic formations.

Bringing an IGCC plant to West Virginia is part of my overall plan to ensure the future of coal in West Virginia, and Appalachian Power has said it is committed to working with my administration on our Coal Conversion Initiatives.

Appalachian Power made this filing today for a Certificate of Public Convenience and Necessity because it needs new generating capacity to meet its customers' growing demand for electricity.

While this filing is just the beginning of the permitting process, the fact that AEP has tentatively chosen West Virginia for a project of this significance speaks volumes as to the state of our current business climate. The jobs that will come from a project of this type, if it is successful after going through the process, are of the quality that can have a significant impact upon the entire state. As I said, this isn't just good news; it's great news. AEP has made its commitment to West Virginia clear; it's now up to both of us to work in the best interests of our ratepayers and citizens to make this proposed partnership work.

As we all know, energy is crucial to our national and state economies. Our manufacturing jobs, our transportation systems and our way of life are totally dependent upon a reliable, affordable energy supply. So, we must do our part to reduce our dependency upon foreign sources of oil. Our goal in West Virginia is to become a leader in converting coal to liquids and other products such as natural gas, diesel fuel, jet fuel, hydrogen or chemicals. And announcements such as the one today from AEP are substantial building blocks towards achieving that goal.

It should be clear from these announcements that by working together in a non-partisan fashion, we've begun to turn the corner in West Virginia towards economic growth and government responsibility.

http://www.wvgov.org/sos2006_text.cfm



OFFICE OF THE GOVERNOR
ROD R. BLAGOJEVICH - GOVERNOR

NEWS

FOR IMMEDIATE RELEASE

June 21, 2005

Gov. Blagojevich continues to develop new markets for clean-burning Illinois coal and the creation of new jobs across the state

MT. VERNON – In another important step towards revitalizing the Illinois coal industry and creating more jobs for Illinois families, Gov. Rod R. Blagojevich today signed legislation which will help increase the use of Illinois-mined coal by supporting the use of clean-coal technology, providing energy security and promoting economic development throughout the state.

“Legislation such as this allows us to take a national leadership role in clean-coal technology. In doing so, we’re seizing a tremendous opportunity to demonstrate to the world that there are innovative and environmentally-friendly ways to use more Illinois coal, which will give this critical industry an important economic boost. By continuing to support the use of clean-burning Illinois coal, we continue to support the creation of more good jobs throughout this state,” Gov. Blagojevich said.

State Senator James Clayborne (D-East St. Louis) and State Rep. Kurt Granberg (D-Centralia) sponsored Senate Bill 90.

“Gov. Blagojevich and I believe that Illinois coal can play an important role in a comprehensive, sustainable energy plan for this state. This legislation will continue to develop the market for clean coal technology, allowing us to mine more Illinois coal that not only reduces our dependence on foreign energy sources and creates good jobs, but does so in an environmentally responsible way,” Sen. Clayborne said.

“The slumbering Illinois coal industry has a better chance of bursting back into business with this initiative by reopening mines and creating an estimated 1,400 new jobs,” Rep. Granberg said. “This innovative legislation has the potential to relieve shortages and high pricing by creating natural synthetic gas, thereby resulting in lower, more stable prices for consumers.”

SB 90 supports production of ultra-clean, high-efficiency coal gasification facilities that will produce synthesis natural gas (SNG). The legislation sets a price for SNG that is typically between 18-30 percent cheaper than that of conventional natural gas, potentially offering significant cost savings to consumers.

The legislation permits gas utilities to enter into 20-year supply contracts with any SNG producer using Illinois coal, provided that the Illinois Commerce Commission does not determine that the cost of natural gas is unreasonable or imprudent.

This guarantee is designed to permit developers of new SNG facilities to secure sales contracts to obtain project financing. This will allow developers to move forward on these kinds of environmentally-friendly projects creating new markets and jobs in the Illinois coal industry.

The legislation, along with other initiatives spearheaded by Gov. Blagojevich, puts Illinois in the lead nationally in the deployment of ultra-clean technology known as Integrated Gasification-Combined

Cycle (IGCC). It is fast-emerging IGCC technology that allows Illinois coal to be used as a feedstock for important energy products such as SNG, electric power and low-sulfur diesel fuel.

Using coal in such value-added circumstances creates jobs and investment in Illinois and, at the same time, reduces U.S. reliance on imported, price-volatile products like crude oil, natural gas and nitrogen fertilizer.

SB 90 is effective immediately.

Governor Signs Clean Indiana Energy Legislation

EVANSVILLE (May 9, 2005) – Governor Mitch Daniels initiated a revival of Indiana's coal industry today when he signed the Clean Indiana Energy Bill (SEA 378).

Clean Indiana Energy is part of the governor's economic growth package, and incentives in the law will encourage development of coal gas and biomass energy plants which utilize Indiana's supply of clean coal, corn, soybeans and other renewable organic material. Senator Tom Weatherwax, R-Logansport, was the author and Rep. Troy Woodruff, R-Vincennes, was the House sponsor.

"I believe Indiana can be a capital of the coming era of clean coal and renewable biofuels," said Daniels. "Troy Woodruff took the lead in developing and moving our legislation, which is a critical step toward greater prosperity in Southwestern Indiana."

The law will encourage development of several large energy production facilities, including coal gasification power plants as well as several ethanol and biodiesel plants. The new policy also could assist Indiana in becoming more selfsufficient in energy production and meet more strict environmental standards.

The Purdue University Center for Coal Technology Research estimates that substitution of Indiana coal through clean coal technologies required in Clean Indiana Energy could replace the 22.5 million tons of coal currently imported and add more than \$ billion and 18,000 jobs to the state's economy.

Earlier this spring, Governor Daniels signed legislation that requires biofuels use in state vehicles whenever possible. The governor is also using soy biodiesel provided by the Indiana Soybean Board to conduct business as he travels Indiana in RV1.

Other co-authors of the legislation were Sen. Luke Kenley, R-Noblesville, Sen. John Waterman, R-Shelburne; Sen. Ron Alting, R-Lafayette; Sen. Victor Heinold, R-Kouts; Sen. Lindel Hume, D-Princeton; Sen. Robert Jackman, R-Milroy; Sen. Sue Landske, R-Cedar Lake; Sen. Timothy Skinner, D-Terre Haute; Sen. Brandt Hershman, R-Monticello and House co-sponsors Rep. Steve Herm, R-Culver; Rep. Bruce Borders, R-Jacksonville; Rep. Russel Stilwell, D-Boonville; Rep. Bill Davis, R-Portland; Rep. Jacqueline Walorski, R-Lakeville; and Rep. Andrew Thomas, R-Brazil. The bill was unanimously approved in the Senate and House.

-30-

Office of the Governor media contact: Jane Jankowski, 317/232-1622; jjankowski@gov.in.gcc

FOR IMMEDIATE RELEASE:
January 16, 2006

GOVERNOR UNVEILS COMPREHENSIVE PLAN TO CUT NEW YORK'S DEPENDENCE ON IMPORTED ENERGY

Initiatives Will Boost Production and Use of Renewable Fuels, Promote Use of Energy-Efficient Vehicles, Position NY as World Leader in Renewable Energy Research and Job Creation, and Provide Relief from High Heating Bills

Governor George E. Pataki today unveiled a comprehensive, multi-faceted plan that will help reduce New York's dependence on imported energy, position the State to become a center for renewable energy research and job creation, and provide help for soaring home heating bills to New Yorkers.

The plan, most of which will be included in the Governor's Executive Budget that will be unveiled tomorrow, is designed to encourage the production and use of renewable fuels in New York, promote the expanded use of energy-efficient cars and vehicles, spur new renewable energy research and job creation, and provide relief to New Yorkers from rising energy bills.

"New York State must continue our efforts to increase energy efficiency and the use of clean and renewable fuels so that we can reduce our dependence on imported energy," Governor Pataki said. "My plan will encourage the development of more new and more energy-efficient technologies, bolster the production and use of renewable fuels, and help to reduce the high energy cost burdens that hurt our families and our economy."

Highlights of the Governor's plan include: elimination of state taxes on renewable automotive fuels; creation of new renewable fuel stations across the State; development of "clean coal" power plants; a new hybrid vehicle tax credit; discounted Thruway tolls for hybrid vehicles; creation of a new state-of-the-art alternative fuel vehicle research lab; new tax-free benefits for clean energy companies that create jobs; a new \$500 tax heating credit for lower-income seniors; a \$50 million increase in Low-Income Home Energy Assistance Program (LIHEAP) benefits, and a new tax credit for homeowners who upgrade to a high-efficiency home heating system.

"This plan is a blueprint to encourage additional private sector development of alternative energy sources, attract jobs and investments in clean energy, and help to diversify our fuel supplies," the Governor said. "I call on the Legislature to join in this effort to create an independent energy future for all New Yorkers."

Specific elements of the Governor's comprehensive plan include:

Encouraging the Production and Use of Renewable Fuels in New York

Elimination of All State Taxes on Renewable Automotive Fuels: The budget will eliminate all New York State taxes on renewable automotive fuels such as E85 (85% ethanol, 15% gasoline) and B20 fuels (20% biodiesel, 80% petroleum, which currently total approximately 40 cents per gallon. This will lower the price of these renewable fuels so that they will be competitively priced, and possibly cheaper, than petroleum fuels.

Creation of New Renewable Fuel Stations Across the State: More than 180,000 cars and trucks registered in New York State are flexible fuel vehicles meaning they can run on gasoline or ethanol fuel. In addition, diesel vehicles are able to run on a mix of biodiesel and petroleum. A new \$5 million program, administered by the New York State Energy Research and Development Authority (NYSERDA), will provide competitive grants to gas stations to install or convert pumps so they can dispense E85 (85% ethanol, 15% gasoline) and B20 fuels (20% biodiesel, 80% petroleum). These grants of up to \$50,000, along with existing tax incentives at the Federal level of up to \$30,000, will help spur the creation of an infrastructure to accommodate vehicles that run on renewable fuels. In addition, the New York State Thruway Authority will install or

convert pumps at all 27 of its Travel Plazas to make renewable fuels easily accessible to drivers across the State.

In addition, the State Department of Motor Vehicles (DMV) will send direct mail advisories to all owners of alternative-fuel vehicles registered in the State, informing them of their ability to utilize renewable fuels in their vehicles. DMV also will develop a statewide map of renewable fueling locations and provide it to these vehicle owners so they can easily locate stations that provide alternative fuels.

\$20M Program to Promote Development of "Cellulosic" Ethanol: The State Department of Agriculture and Markets will administer a new \$20 million program that would lead to the development of a pilot cellulosic ethanol facility in New York. Cellulosic ethanol is made from plant materials abundant in New York State, including agricultural and forestry residues, pulp and paper mill wastes, and certain grasses and shrubs. This type of ethanol will further increase the "net energy balance" for ethanol.

Promotion of Advanced "Clean Coal" Power Plants: State agencies and authorities will collaborate over a five-year period to identify "shovel ready" sites for the development of Integrated Gasification Combined Cycle power plants - commonly referred to as "clean coal" plants. These plants utilize coal in a manner that is significantly more protective of air quality. Under this program, the New York Power Authority (NYPA) will provide \$50 million to a private sector power generator(s) who agrees to host research and development of new technologies that would reduce carbon dioxide emissions, which contribute to climate change. NYPA will also buy power from this facility. Existing brownfield properties would receive priority consideration during the siting process.

Promoting the Use of Energy-Efficient Vehicles in New York

Creation of a New Hybrid Vehicle Tax Credit: This new tax credit would provide a \$2,000 personal income tax credit to individuals who purchase new hybrid, alternative flex-fuel vehicles to help defray the higher costs associated with the purchase of these vehicles. This measure is expected to provide \$5 million in tax savings this year and \$10 million in subsequent years when fully in place.

Discounted Thruway Tolls for Hybrid Vehicles: The Governor has directed the New York State Thruway Authority to create a new "Green" E-Z pass, which will provide a 10 percent discount for drivers of fuel-efficient vehicles, such as hybrids that average at least 45 MPG and meet certain EPA emissions standards.

New HOV Lanes Access for Alternative Fueled Vehicles: This new initiative will allow cars and other vehicles that average at least 45 mpg and meet certain EPA emissions standards to use HOV lanes in New York City and on the Long Island Expressway -- regardless of the number of occupants in the vehicle.

Creation of New State-of-the-Art Alternative Fuel Vehicle Research Lab:

NYSERDA and the Department of Environmental Conservation (DEC) will collaborate on a new \$24 million state-of-the-art laboratory that will support the development and manufacture of clean and renewable energy technologies for transportation. This facility, to be located in the Saratoga Technology and Energy Park (STEP) in Malta, will conduct research and testing of new and improved fuels, batteries and pollution-control devices, including plug-in hybrids, hydrogen vehicles, renewable fuels, emerging distributed generation, and thermally-activated technologies.

New Program to Promote Production of Flex-Fuel and Plug-in Hybrid Vehicles: This new, \$10 million competitive grant program administered by NYSERDA will help New York become a national and global leader in the production of flex-fuel hybrids and plug-in hybrids. The program will provide support to companies with research or production facilities in New York that are working to develop these types of vehicles. Flex-fuel hybrid vehicles and plug-in hybrids, which can be charged through household outlets at night when electricity grid demand is low, would significantly increase vehicle mileage, helping to reduce our dependence on petroleum and lowering fuel bills for drivers.

New Program to Develop Advanced, Energy-Saving Technologies for Vehicles: A new \$10 million program will be created to support the research and manufacturing of lightweight car/vehicle parts, which will reduce overall weight of the vehicles and improve fuel mileage. The program will also promote the development and deployment of the next generation of motor vehicle technologies, such as high capacity hybrid vehicle batteries. The program will include competitive grants to attract start-up companies to locate or expand in New York State.

Research and Development of Hydrogen Vehicles: NYSERDA will administer a \$5 million program to continue the development of a hydrogen vehicle infrastructure and conduct research to convert internal combustion vehicles to be able to use hydrogen as fuel, which is a promising energy technology.

Positioning New York to Become a Center for Renewable Energy Research & Jobs

New Tax-Free Benefits for Clean Energy Companies Tax Credit: The Empire Zones program will be expanded to give qualifying clean energy companies all of the benefits of Empire Zones -- regardless of where the company is located. These benefits include tax reduction credits, real property tax credits, sales tax exemptions, wage tax credits, and utility rate reductions, among others and the benefits can reduce a company's tax liability to as little as zero. This measure would essentially make the entire State a tax-free zone for clean energy companies that create jobs in New York.

Creation of a new Renewable Fuel Production Tax Credit: This new tax credit would provide New York companies that make renewable fuels, a tax credit for each gallon of fuel they produce. This measure would provide up to \$1 million in tax savings annually per facility.

New Help to Homeowners from Rising Home Heating Bills

Home Heating Tax Credit for the Elderly: This new tax credit will provide New York's seniors age 65 or older with incomes up to \$75,000 or less with a new refundable personal income tax credit of up to \$500 for the cost of fuel for heating their principal residence. The credit would equal 25 percent of home heating expenses when a senior's total heating expenses exceed 7.5 percent of income.

Increased Home Heating Assistance for Families: The State will provide up to \$50 million in supplemental benefits to help families meet rising energy costs, if the Federal government does not increase funding for the Low-Income Home Energy Assistance Program (LIHEAP). This funding would increase to \$250 million the amount provided under LIHEAP to New York each year.

New Tax Credit for Upgrading Home Heating Systems: The Budget will propose a new \$500 income tax credit to homeowners who purchase and install high-efficiency heating equipment. This credit will be equal to up to 50 percent of the cost of replacement or renovation of a home heating system.

Two Sales Tax Free Weeks for ENERGY STAR Products: The Budget will propose two new sales tax-free weeks for ENERGY STAR products -- encouraging consumers to purchase energy-efficient light bulbs, air conditioners, refrigerators, and other household appliances.

Under Governor Pataki's leadership, New York State currently invests nearly \$300 million annually in energy efficiency and renewable energy programs. Among key initiatives proposed and enacted by Governor Pataki are: the Renewable Portfolio Standard for Electricity that requires that by 2013 at least 25 percent of New York's electricity be generated from renewable energy; the System Benefits Charge (SBC) that provides more than \$150 million annually for improving energy efficiency and reducing energy use; a Green Power Mandate for State agencies that requires that by 2010 at least 20 percent of overall State facility energy requirements be met by renewable "green" sources and; the Green Building Tax Credit, the first-of-its-kind tax credit to promote more energy-efficient building designs.

PA PowerPort

December 2005

PA GOVERNOR RENDELL PUTS FORTH AMERICAN ENERGY HARVEST PLAN, CALLS UPON PRESIDENT TO TAKE STEPS TO REDUCE FOREIGN ENERGY DEPENDENCE

Click here for related information and multimedia!

WASHINGTON D.C. — Pennsylvania Governor Edward G. Rendell traveled to the nation's capital on Thursday to call upon the president to do all he can to address the energy needs of the United States.

If the federal government follows the leadership of the states, including Pennsylvania's "American Energy Harvest" model, Governor Rendell said there would be many significant benefits, including less reliance on the Middle East and more on 'Middle America.'

"Instead of imports growing from 59 percent of consumption to 66 percent in 10 years, they would fall from 59 percent to 53 percent. Clearly we won't be done, but we will have taken a huge step in the right direction," the Governor said in a speech before the National Press Club. "A problem that has been getting worse every year for the last 40 years would start getting better every year."

Besides depending less on energy imports, an 'American Energy Harvest' would create jobs, boost the country's energy entrepreneurs and companies, cut dependence on foreign oil, reduce the trade deficit and improve domestic security.

"By changing how and where we spend energy dollars, we can create more jobs, increase domestic investment and make our nation safer," the Governor said. "What we are doing in Pennsylvania offers a vivid illustration of how our economy, our quality of life and our security can be improved by investing in America's fuels.

"Today's energy story in Pennsylvania provides a template for the nation," Governor Rendell said. "Energy production, energy policy and energy politics are not new to Pennsylvania. Our experience over the last 150 years has taught us what energy can do for our economy when handled right and what it can do to our economy when mishandled."

LEADERSHIP NEEDED BY FEDERAL GOVERNMENT

Governor Rendell noted that he has written to President Bush and asked him to provide the federal leadership, authority and purchasing power and resources "to turn our energy challenge into an economic and political win for our nation." He said he is ready and willing to work with the president to accomplish these goals.

There are simple steps the federal government can take "to change the course that our economy and our nation will take in the next decade." They include:

- Using its regulatory power to require greater reliance on alternative fuels by utilities and energy companies;
- Using its purchasing power to stimulate private investment in alternative fuel production and fuel saving technologies; and
- Redirecting subsidies enacted before the energy companies began making extraordinary profits and allocate those funds to alternative fuel production.

"To reduce imports of petroleum, we need to aggressively invest in plants that produce transportation fuels – gasoline and diesel-fuel – from our coal reserves and coal waste piles and from crops grown on American soil including corn and sugar cane," Governor Rendell said.

As engineers, scientists and other experts have come together throughout U.S. history to solve significant and serious problems from the space race to eliminating polio, they need to come together to satisfy America's energy needs, Governor Rendell pointed out.

The Governor said by 2015, his American Energy Harvest plan will mean 2.5 million barrels a day of fuel produced in the U.S. will come from 50 agile, clean, coal plants; 1 million barrels a day will be produced from biofuels required by a federal alternative energy portfolio standard; 10,000 megawatts of electricity will be derived from solar energy required by a federal alternative energy portfolio standard; 100,000 megawatts of electricity will be derived from wind power required by a federal alternative energy portfolio standard; and 500,000 barrels per day will be conserved by purchasing federal and state fleet vehicles with hybrid technology and leading the way for 1/3 of all cars purchased to be hybrid.

THE PENNSYLVANIA MODEL

Governor Rendell outlined Pennsylvania's America Energy Harvest model. Among the specific items he mentioned were:

- The nation's first waste coal-to-diesel fuel plant. It will produce diesel and jet fuels and generate enough electricity to power more than 40,000 homes. The state pledged to purchase 10 million gallons from the plant for 10 years and organized a consortium of private fuel purchasers to do the same.
- An economic stimulus program of \$2.3 billion in government capital that is strategically investing in Pennsylvania industries, including \$15.6 million in loans and grants for the development of the first windmill blade manufacturing plant in the nation. Gamesa, a world-renowned Spanish firm, agreed to open a U.S. manufacturing facility with Pennsylvania's investment.
- An investment to stimulate the development and the use of biofuels. The state provided capital support for a state-of-the-art biofuels injection facility. Every year the plant will replace 3.2 million gallons of foreign oil in the state's diesel supply with domestically produced bio-fuel.
- A plan to build new state-of-the-art clean coal fired electric generating facilities. The plan, called EDGE – Energy Deployment for a Growing Economy – is a unique partnership to support Pennsylvania's manufacturing firms by providing low-cost, cleaner fuel, and furthering the state's solid leadership in creating homegrown energy solutions. The initiative promotes advanced coal gasification technology that gasifies coal to produce an array of products, including synthetic gas, which can be used to make chemicals and consumer products, synthetic natural gas to heat homes, transportation fuels or electricity.
- Setting energy efficiency standards for the state government fleet, including cutting out the gas-guzzlers and directing fleet managers to purchase smaller and higher fuel-efficient cars and mandating 25 percent of the fleet of SUVs and light trucks be hybrids.

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EDITOR'S NOTE: A copy of the Governor's letter to the president is attached. For the text of the Governor's speech before the National Press Club, go to <http://www.governor.state.pa.us/governor/cwp/view.asp?a=3&q=444223>.

December 1, 2005

The Honorable George W. Bush
The White House
1600 Pennsylvania Avenue
Washington, DC 20500

Dear President Bush:

As you are aware, I've written you on a number of occasions because of the interest you expressed in clean coal energy and other alternative fuel development.

Today, I outlined a plan that we call The American Energy Harvest that I believe can be a great first step toward the goal of achieving energy independence for our great nation.

The execution of this plan does not require new federal revenue and it would not add to our country's deficit. But it does require strong leadership. The plan calls for the marshalling of existing resources and technology into a project similar to the Manhattan Project, led by President Roosevelt, and the Apollo launch, called for by President Kennedy.

If you provide this type of leadership, I believe you will find truly bipartisan support ready and willing to work with you. With that support we can make such substantial progress that this effort can become a significant part of your legacy as president.

I stand ready to assist you in any way that you believe appropriate.

Sincerely yours,

Edward G. Rendell
Governor



Media Room

For Immediate Release
Thursday, August 18, 2005

Ethnie Groves, Governor's Office, 608-261-2156

Governor Doyle Announces Statewide Conservation Agenda, Conserve Wisconsin **Sweeping Conservation Agenda Will Protect Wisconsin's Environment, Encourage Energy Conservation and Innovation**

MADISON, MILWAUKEE, & GREEN BAY – Governor Jim Doyle today unveiled Conserve Wisconsin, a broad package of legislation and executive orders that will safeguard Wisconsin's great environmental legacy. It will focus on three main areas: protecting our waters, conserving our lands, and ensuring a sustainable energy future.

"Our strategy to grow our economy is to invest in our natural strengths – our workers, our schools, and our environment," Governor Doyle said. "In my budget and as part of Grow Wisconsin, we've moved forward with real investments in our workers, and we've strengthened and protected our schools. To promote our quality of life and to continue to grow our economy, we must act now to preserve our environment for future generations."

The agenda includes: protecting and conserving Wisconsin's waters; preventing the spread of costly, destructive invasive species; preserving forest land for recreation and a healthy forest industry; cleaning up and revitalizing contaminated, blighted urban neighborhoods; promoting energy conservation and efficiency; and restoring the state's public intervenor to help citizens advocate for continuing environmental protection.

"Wisconsin's natural resources are not just part of our economy or what we do for recreation, they're a fundamental part of who we are – and we owe it to future generations to be vigilant in our protection of them," Governor Doyle said. "I don't think protecting our environment should be a partisan issue, and I'm willing to work with anyone in either party who will roll up their sleeves with me to get this done."

Governor Doyle will use executive orders to make immediate progress on the package, and will work to secure legislation where needed.

Highlights of the Governor's "Conserve Wisconsin" agenda include:

Protecting our Waters:

- Introducing legislation to regulate ballast water in ocean-going ships to prevent further introduction of destructive, invasive species to the Great Lakes, the largest fresh water reservoir in the world.
- Designating the first rivers to State Wild River protection since 1965. Included will be the Totogatic River, which originates in Bayfield County and the St. Croix headwaters in Douglas County. Both have extremely high recreational and water quality, fish and wildlife habitat, and natural beauty.
- Introducing legislation to help prevent the spread of invasive species. The most effective way to stop invasive species from spreading is to make sure that they don't get transported from lake to lake. The legislation will assure that DNR has the appropriate authority to inspect boats as they come out of the water to ensure they are not transporting invasive species.
- Developing a state-wide water conservation strategy. As we have seen in this summer of drought, water conservation is critical to Wisconsin both economically and environmentally. Governor Doyle has directed DNR and the Public Service Commission to develop and implement actions to help conserve water, initially in the Great Lakes basin and ultimately statewide. And as chair of the Great Lakes Council, Governor Doyle will use his office to urge other states and provinces to increase their water conservation efforts as well.

- Making funds available more quickly to prevent polluted run-off. Farmers that have experienced discharges of manure or other polluted run-off are eligible for state money to help correct the problem. It can currently take up to 18-24 months to process the grants to farmers – all while the discharges may continue. This change would allow the DNR to provide grants on a continual basis, getting money to the problem, and fixing it as quickly as possible.
- Restoring Wisconsin's Public Intervenor. Before being eliminated by the Thompson Administration in 1995, the Public Intervenor ensured advocacy for Wisconsin's natural resources. For nearly 30 years the Public Intervenor gave ordinary citizens a place to call for technical and legal advice when they faced complicated environmental problems. Wisconsin citizens were proud that their government felt strongly enough about openness and fairness that it made sure it had a watchdog agency within government itself.

Ensuring a Sustainable Energy Future:

- Passing the full recommendations of Governor Doyle's Task Force on Energy and Renewables to reduce state dependence on costly imported energy. This includes a requirement that Wisconsin get 10 percent of its energy from renewable sources by 2015. With an electric bill of more than \$55 million, state government will lead the way, by purchasing 10 percent of its power from renewable sources by 2006 and 20 percent by 2010.
- Following "Green Building" standards in all new state buildings and where possible, in existing buildings. The State of Wisconsin owns 6,300 buildings that had annual energy bills of \$127 million last year. "Green Buildings," with renewable energy sources and recycled materials, can be used to substantially cut costs while providing comfortable and safe working environments.
- Directing the Public Service Commission (PSC) and DNR to investigate the potential for utilizing Integrated Gasification Combined-Cycle (IGCC) technology for energy production in the state. The technology is rapidly improving and Wisconsin needs answers about its feasibility, and potential advantages for rate payers and the environment.

Protecting our Lands:

- Introducing legislation to create a \$1 million state Forest Legacy Program aimed at protecting large blocks of sustainably managed working forests to safeguard their environmental, economic, and recreational values to the state.
- Introducing legislation to create a grant program for cities, towns, counties, and nonprofit conservation organizations to acquire land for outdoor recreation, using existing fees paid by landowners enrolled in the Managed Forest Law program who keep their land closed to the public. The grant program will encourage the use of sound forestry practices and open more lands for recreation.
- Making the cleanup of our urban neighborhoods – the places we live, work, and play – a priority. Too often urban economic development efforts are hampered due to the high costs of ensuring a safe and economically viable neighborhood that is conducive to creating and retaining jobs. State agencies help cities and community leaders to identify target contaminated sites and to get local, state, federal, and private help in cleaning them up. Work will start with cleaning up the City of Milwaukee's 30th Street Industrial Corridor neighborhood.
- Governor Doyle will petition the Secretary of the U.S. Department of Agriculture to ensure that areas in the Chequamegon-Nicolet National Forest (CNNF) remain roadless. The petition will include two areas – Porcupine Lake and Spring Brook – that are recommended for Wilderness Study under the recently approved CNNF plan. The Governor will consider whether other areas also have attributes that merit their inclusion in the petition based on information collected through the public forest management planning process.
- Creating a new tire recycling grant program. The recent fire in Watertown has cast a spotlight on the need to efficiently recycle and dispose of waste tires in Wisconsin. For the first time in the fund's history, Governor Doyle will make \$500,000 from the state's Recycling Fund available to businesses to help expand markets for recycled tires.

"Work on this conservation agenda should begin immediately," Governor Doyle said. "I will act now with my Cabinet agencies to get this going. It's time that Wisconsin refocused on what our citizens value and expect – a clean environment."

Governor Doyle made the announcement today in Madison, Milwaukee, and Green Bay, while Lieutenant Governor Lawton made the announcement in La Crosse and Eau Claire.

GOVERNOR ARNOLD SCHWARZENEGGER
**Review of Major
Integrated Energy Policy Report Recommendations**

In general, I find that the *2004 Integrated Energy Policy Report Update* (or Energy Report), inclusive of the *2003 Energy Report*, is consistent with my views on energy policy, except as noted otherwise. My positive comments on the Energy Report's recommendations below typically add emphasis, a sense of priority and suggestions for furthering, accelerating or modifying them, taking into account recent progress, existing policy and my own energy goals, policies and priorities.

* * *

Diversify the Electricity System

I am committed to both a diverse fuel base and a clean air quality profile for California's electricity sector. To achieve increased diversity that will provide for a more secure power base and help address future electricity supply and price concerns, California needs a balanced portfolio of new clean and diverse resources. I support continued clean coal technology research and development towards zero emission operation so that we can economically achieve reduced emissions of pollutants such as SO₂, SOX, NOX and mercury and develop methods for capturing and storing significant amounts of CO₂, either as an integral part of the energy conversion process or in pairing with external CO₂ sequestration.

It is not possible to predict which technologies will advance to commercial maturity most rapidly, so a variety of technology paths must be encouraged. Furthermore, given the diversity of regional electricity markets and the wide variation in regional coal properties, effective deployment of advanced coal power systems may entail the adoption of many different technologies, such as Integrated Gasification Combined Cycle (IGCC) and Supercritical Circulating Fluidized-Bed Combustion (SC CFBC), as well as technologies yet to be developed.

I ask the Energy Commission to work with the California Environmental Protection Agency (Cal EPA) and other agencies to evaluate the potential for California's access to such clean coal energy resources and report its initial findings with the goal of recommending a California clean coal policy in the 2005 Energy Report.

http://www.energy.ca.gov/energypolicy/2005-08-23_GOVERNOR_IEPR_RESPONSE.PDF

EXHIBIT NO. _____(TLO-6)

**Brief Summaries of Recent Relevant Statements From
Utility Commissioners or Commerce Departments**

State Regulators around the United States are concerned with the dual problems of increasingly expensive natural gas fired plants and aging base load coal facilities.

CALIFORNIA

The California Energy Commission

November 2005

Effect of Natural Gas Prices on Demand

The price of natural gas is of major concern to state energy policy makers. Futures prices currently traded in the markets exceed \$9.85 per thousand cubic feet (Mcf). Gas price volatility has become a regular feature of the natural gas market.

Since the energy crisis of 2001, natural gas prices that were anticipated to revert to the trends of the previous 10 to 15 years have instead consistently remained high. Global crude oil markets, a decreasing rate in finding new natural gas supplies, and events related to weather — most recently Hurricanes Katrina and Rita — have continued to put pressure on natural gas prices across the nation. Generally, when hurricanes impact the industry, producers and pipelines recover and resume normal operations within one to three months. However, the repeated and harsh impacts of this season's two major hurricanes have dramatically increased natural gas prices, with price and supply effects possibly lasting for more than six months. These trends will likely continue to place upward pressure on natural gas prices. It is the industry's anticipation that the prices may not back down from the high levels seen today for a significant period of time.

The Energy Commission staff forecast does not consider such unanticipated events in its price projections. The staff model is based on market fundamentals that normally drive the supply-demand balance in a well functioning market; this model and other similar ones have a long history of providing reasonably accurate forecasts. Yet, clearly, today's market prices are substantially higher than the staff's forecasted prices.

California Energy Commission, 2005 Integrated Energy Policy Report, Nov. 2005, pp. 131-4, *available at* <http://www.energy.ca.gov/2005publications/CEC-100-2005-007/CEC-100-2005-007-CMF.PDF>.

FLORIDA

Florida Public Service Commission

December 2005

Need for a Balanced Fuel Supply

Historically, Florida's electric utilities pursued fuel diversity by maintaining a balanced fuel supply (BFS) in terms of the types of fuel used to generate electricity. Florida's utilities had a relative balance of energy generation from coal, nuclear, natural gas, oil, and other sources. However, due to continued growth in the state's electricity demand and relatively low natural gas prices, Florida's utilities turned to gas-fired generating units to satisfy economic and reliability needs. Between 1990 and 2004, the vast majority of new generating capacity constructed in Florida was natural gas-fired, which led to an increase in the percentage of the state's energy generated by natural gas. . . .

Recent volatile increases in natural gas prices, however, appear to signal the end of the gas bubble. As late as 1999, electric utility forecasts for natural gas prices were relatively flat, with moderate growth rates being the consensus nationwide. Due to natural gas price volatility over the past few years, each of Florida's investor-owned utilities has substantially under-forecasted their natural gas prices. Using FPL as an example, in 1999, the average actual price for natural gas was approximately \$3.00 per MMBtu. In 2001, FPL's actual gas cost was approximately \$4.50 per MMBtu. In 2003, FPL's actual gas cost had risen to \$6.24 per MMBtu, yet Florida's utilities consistently forecasted future growth rates that fell below actual trends. By 2005, year-to-date actual cost has been \$8.26 per MMBtu, with daily fluctuations being much higher due to supply disruptions caused by Hurricanes Katrina and Rita. . . .

For 2005, the reporting utilities continue to forecast declining natural gas prices over the next three years, with a gradual increase thereafter. The utilities believe that current high prices are an aberration. The Commission remains skeptical of the utilities' natural gas forecasts, as these forecasts remain well below actual experiences. As such, planned gas-fired plants may not be a "given" in future need determination proceedings.

The effects of forecast error can be dramatic. In 2003, Florida's investor-owned utilities experienced record under-recoveries for fuel costs totaling approximately \$670 million. A fuel cost under-recovery means that the utility's fuel price forecasts made the prior year were lower than actual fuel costs. In 2004, the under-recoveries totaled approximately \$353 million. In 2005, the investor-owned utilities project under-recoveries of nearly \$1.4 billion. The 2005 value includes the effects of Hurricanes Katrina and Rita, which shut down natural gas production in the Gulf of Mexico. During this time, Florida's utilities needed to make public appeals for conservation, and sought environmental waivers allowing them to burn back-up fuels such as light oil. By comparison, FPL has projected an overnight inservice cost for its next coal plant at approximately \$2 billion. In other words, the three years of higher than predicted fuel costs are greater than the capital costs of a new coal-fired plant. If Florida continues down the current path of building natural gas-fired generation, then utility fuel costs will continue to experience volatile swings and increased prices.

* * *

Conclusion

The stability of retail rates enjoyed by ratepayers over the past twenty years was due primarily to utilities maintaining a diverse and balanced fuel supply. However, current utility plans indicate a level of dependence on natural gas that is similar to Florida's dependence on oil during the 1970's. Events of the past few years place utility planners, local government officials, and energy policy makers at a critical junction in the road. Historically, natural gas has been plentiful and inexpensive, and forecasts nationwide predicted stable prices and sufficient supplies. However, recent trends indicate an entirely different future in which volatility in price and supply of natural gas appears to be the norm. Utility forecasts of a return to lower natural gas prices have not materialized. While Florida's demand for energy was once believed to be leveling off, per-capita energy use and total demand continue to grow. Conservation, demand-side management, and renewable generation cannot keep pace with Florida's continued explosive growth. Even if new interstate transmission lines could be constructed to the north, it is likely that available purchased power will consist of more

gas-fired generation. If Florida continues down the current path of building natural gas-fired generation, then utility fuel costs will continue to experience volatile swings and increased prices.

The return to a BFS [balanced fuel supply] approach to generation planning should help mitigate volatile increases in fuel costs that are borne by ratepayers in Florida. Maintaining a diverse fuel supply will also enhance the reliability of the entire electric system in Florida. Until such time, planned gas-fired plants may not be a "given" in future need determination proceedings. Utilities should not blindly continue the addition of natural gas-fired power plants without first critically reviewing their reliability criteria, conservation programs, and renewable generation alternatives. Future need determination proceedings should also explore the proposed site's compatibility for multiple fuel usage, such as the conversion of a gas plant to coal-gasification. Florida's utilities should explore ways to accelerate the certification and construction of solid fuel plants and continue their education efforts with regard to the benefits of a BFS approach to utility planning.

Florida Public Service Commission, Division of Economic Regulation, A Review of Florida Electric Utility 2005 Ten-Year Site Plans, pp. 10-13, available at <http://www.psc.state.fl.us/general/publications/reports/electysp2005.pdf>.

MICHIGAN

Michigan Public Service Commission

Oct. 14, 2004

Because a reliable and abundant supply of reasonably-priced electric power is essential to the economy of this state and to the welfare of its citizens, the Commission is now persuaded that it should also undertake an investigation into the need for additional generation capacity, transmission upgrades, and other supply- and demand-side resources to supplement current Michigan based generating facilities and out-of-state power sources. Existing businesses located in Michigan depend on a reliable supply of electricity to perform their daily functions. Moreover, the retention, expansion, and location of industrial and commercial facilities in Michigan that provide jobs for the citizens of this state would likely be hindered by the absence of reliable and reasonably-priced electricity.

The Commission is particularly concerned with the inventory of Michigan's base-load generating capability. The average age of base-load generating units located in Michigan is increasing and the last major base-load addition is 16 years old. The average age of the Consumers' and Detroit Edison's base-load generators is 46 years and the average "megawatt weighted" in-service date of those units is 1956. The last new major base-load unit brought online was Detroit Edison's Fermi 2 Nuclear Plant, which commenced commercial operations in 1988. The last new base-load, coal-fired unit added to Detroit Edison's system was Belle River 2, which was placed in service in 1985.

In the past 15 years, most of the capacity additions in this state have been fueled by natural gas, a fuel whose available supply has diminished and whose price has increased. The Energy Information Administration projects that natural gas prices will remain relatively high for the rest of 2004. Natural gas spot prices are expected to average \$5.62 per million British thermal units (MMBtu), which equates to a fuel cost of \$0.039 per kilowatt-hour

(kWh) for a typical combined cycle gas-fired generating unit with a 6,900 Btu/kWh heat rate. In 2005, spot prices are expected to increase to \$5.90 per MMBtu or \$0.041 per kWh. Therefore, reliance on natural gas to fuel power plants may result in sharply rising electricity costs compared to costs attributable to coal burning plants.

Michigan Public Service Commission, Order Commencing Investigation, pp. 2-3, Oct. 14, 2004, In the Matter. On the Commission's Own Motion, to Commence an Investigation into Future Capacity Requirements. MPSC Docket No. U-14231, available at http://www.dleg.state.mi.us/mpsc/orders/electric/2004/u-14231_10-14-2004.pdf

Staff of the Michigan Public Service Commission

Sept. 20, 2005

Natural Gas Sensitivity

The second major contingency evaluated through the use of sensitivities was variability in the price of natural gas. The base forecast for natural gas prices begins with the average of 18-month-forward NYMEX prices and is then projected to increase at the natural gas price escalation rate reported in the U.S. Department of Energy's Energy Information Agency (EIA) 2005 long-term forecast, which runs to 2025. This produces an initial price of approximately \$8.50 per thousand cubic feet (Mcf). The High Gas Price Scenario uses a price that is 20 percent higher than the base case forecast.

Notwithstanding the recent surge in natural gas drilling, no sensitivity analysis for low natural gas price was modeled. To meet the growing demand for natural gas, EIA forecasts increased supply from three unconventional sources: (1) liquefied natural gas (LNG); (2) a new Alaskan natural gas pipeline; and (3) substantial supply increases from non-traditional sources (tight sands, coal-bed methane, etc.). For example, by 2025 the EIA forecasts that 21 percent of the nation's supply of natural gas will come from overseas through LNG. This will require a huge expansion of both overseas liquefied gas production and shipping capability and U.S. re-gasification facilities. The EIA forecast predicts first a decline and then increase in real natural gas prices between 2005 and 2025. Based upon the assumptions made by the EIA, staff considers gas price risk, at this time, to be asymmetrical: Future price deviations from the prediction are more likely to be higher, rather than lower.

Staff of the Michigan Public Service Commission, Final Staff Report of the Capacity Need Forum, p. 44, Jan. 3, 2005, available at http://www.dleg.state.mi.us/mpsc/electric/capacity/cnf/cnf_report_1-3-06.pdf.

OHIO

Staff of the Public Utilities Commission of Ohio

Sept. 20, 2005

Obsolescence

There is substantial reason to be concerned about the obsolescence of the existing generation in Ohio. This obsolescence affects the two predominant kinds of plants in Ohio, pulverized coal and natural gas, differently. The fleet of pulverized coal plants in Ohio is simply old. The plants have an average age of 44 years and they are not being replaced. No new pulverized coal plant has been built in 14 years.

The plain reality is that these plants will wear out and no longer be available. The day that these plants will be worn out and decommissioned may be hastened by the need to invest in

them to meet current requirements. AEP estimates that it will need to spend \$3.7 billion over the next five years to meet the current Clean Air Interstate Rule and the Clean Air Mercury Rule. Such huge investment needs hasten the day when the plants will simply be shut down. The problem with shutting down these plants is that there is no replacement.

For years, the demands of new growth and coal plant retirements have been countered with the construction of gas-fired capacity. Essentially all new construction in Ohio for more than a decade has been gas-fired. While this approach seemed [] environmentally friendly at the time, it has led to a large reliance on natural gas as a fuel source. Natural gas has been shown to be less than reliable. High prices and the volatility of natural gas have already idled some gas-fired capacity, rendering it economically obsolete. Serious questions exist about the long-term supply of natural gas. It may be that natural gas simply will not be available for electric generation purposes at some point in the future, rendering the plants technically obsolete.

In the long run, there is substantial reason to believe that the current capacity reserve will be reduced and, it appears that nothing is being done about this problem.

Post Hearing Brief Submitted on Behalf of the Staff of the Public Utilities Commission of Ohio, pp. 12-13, Sept. 20, 2005, In the Matter of the Columbus Southern Power Company and Ohio Power Company for Authority to Recover Costs Associated with the Construction and Ultimate Operation of an Integrated Gasification Combined Cycle Electric Generating Facility, Ohio PUC Docket 05-376-EL-UNC, available at <http://dis.puc.state.oh.us/CMPDFs/KO7C2QCTN5JQHBTl.pdf>.

UTAH

Utah Department of Commerce – Committee of Consumer Services

Apr. 25, 2005

Until recently the standard industry response to meeting growing load obligations was to acquire or build some combination of market and/or gas-fired resources, depending on the size, location, and duration of the need. Economics and environmental concerns drove that response; the western market was surplus, natural gas was relatively cheap, and natural-gas fired resources had fewer environmental impacts than some other relatively low-cost resources such as coal.

This has changed. The western surplus has disappeared, and the expanding use of natural gas to generate electricity coupled with the increasing cost of expanding domestic natural gas supplies appear to have fundamentally shifted the natural gas market thereby resulting in more expensive and more volatile wholesale electricity and natural gas markets. As a result of the increased cost and price volatility of these resources, coal-fired and wind resources located far from load centers with their associated transmission costs are economically viable options providing price stability despite the associated risks of environmental cost adders on coal. In addition, significant strides in standardizing coal gasification technology are helping to address some of the environmental concerns associated with coal resources.

The Committee believes the Company [PacifiCorp] is at a critical juncture. It faces sizeable resource acquisition requirements as contracts expire, plants are scheduled for retirement, and loads continue to grow. At the same time market fundamentals and technological options are in flux. The Company must determine whether it wishes to continue its

incremental, shorter-term approach to resource acquisition, thereby exposing its customers and shareholders to the risk of increasingly volatile wholesale electricity and natural gas markets, or whether it will aggressively pursue the future by adopting budding technologies and strengthening its link to the plentiful resources located in its Wyoming service territory and adjacent areas.

The fundamental question facing the Company and its customers in this IRP cycle and the next is whether to continue to link PacifiCorp's resource future to market and natural gas-fired resources in an incremental manner or to develop a long-run vision that develops coal gasification and wind resources. The analysis provided by PacifiCorp's *IRP 2004* indicates to the Committee that developing stably-priced resources is best for customers and shareholders alike.

Utah Department of Commerce – Committee of Consumer Services, p. 24, Apr. 25, 2005. Recommendations of the Committee of Consumer Services regarding the Matter of Acknowledgement of PacifiCorp's Integrated Resource Plan 2004; Utah PSC Docket No. 05-2035-01, *available at* <http://www.psc.state.ut.us/elec/05docs/05203501/Comments%20of%20CCS%204-25-05.doc>.

Utah Department of Commerce – Division of Public Utilities
Apr. 22, 2005

While the coal/gas mix in the PacifiCorp fleet is still heavily weighted toward coal, the addition of two large gas plants over the next two years is seriously increasing the risk of price volatility. The Division understands that natural gas fired plants are a preferable type of generator for certain types of usage, particularly peaking or load following, due to its ability to ramp quickly. This being said, however, the last natural gas fired plant to be approved was approved as a base load plant, meaning that it will be serving the type of role that in the past has been filled by more capital intensive, less fuel price volatile coal plants. At least part of the reason for choosing the natural gas plants was the forecasted natural gas price, which, at least in the short-run may be overly optimistic. The Division is concerned that, given the currently high gas prices, the wrong resource choices are being made based upon these low gas price forecasts. These resource decisions could end up costing customers millions of dollars more in fuel costs than projected.

Utah Department of Commerce – Division of Public Utilities, Memorandum, pp. 8-9, Apr. 22, 2005, In the Matter of the Acknowledgment of PACIFICORP Integrated Resource Plan 2004, Utah PSC Docket 05-2035-01, *available at* <http://www.psc.state.ut.us/elec/05docs/05203501/Comments%20from%20DPU%204-22-05.doc>.

WISCONSIN

Wisconsin Public Service Commission

Sept. 2004

Lack of New Baseload Plants May Be Affecting Whether Energy Will Be Available to the Public at a Reasonable Price

There is a large general caveat to this expectation of reasonable prices. The electric system as a whole appears to be fully and economically utilized at present. The generating units built in the last 15 years have been CTs fueled by increasingly expensive natural gas. They were built to meet the growth in peak demand and for increased reliability. These units however are sensitive to the recent fluctuations in natural gas prices. As a result, the majority of the generation now under construction or proposed is either intermediate or baseload. p. 55

* * *

Natural gas consumption is expected to increase substantially in the upcoming years as electrical use continues to increase. In the short-term, the lack of baseload or intermediate load types of generation within the state could place natural gas-fired units designed for peaking duty into additional hours of service.

Natural gas now represents 3,967 MW or 28 percent of the state's capacity. It is expected to represent an additional 2,567 MW, which would equal 40 percent of the state's MW capacity by the end of 2006 if all facilities approved or proposed are placed in operation. pp. 76-7

* * *

A recent incident in January 2003 indicates what can happen when gas supplies become curtailed. In that incident Wisconsin utilities and IPPs were able to only get 25 percent of the state's gas generating units online due to pipeline and other concerns while several of the coal plants within Wisconsin were out for maintenance. As a result, WP&L interruptible electric customers and WPSC gas system customers were curtailed at the same time. This interdependency between gas and electric supplies is a concern. Often gas generating units purchase gas based on interruptible rates which may not be available for winter peak use. There have been incidents in Wisconsin where utilities have called upon the CTs on short notice and the natural gas pipelines have not had sufficient pressure to sustain operation. . . .

In addition, during a period of cold weather in January 2004, the major interstate pipeline serving Wisconsin was near capacity and it placed limits on its gas transportation customers. During that period a gas-fired power plant with firm transportation contracts would have been limited to receiving gas under the strict terms of the pipeline's tariff, while a power plant with interruptible gas transportation contracts may not have been able to use natural gas at all. While many of the gas-fired power plants in Wisconsin ship natural gas under interruptible transportation contracts, few of the state's power plants would be assured of being able to run on natural gas during this period. pp. 79-80

* * *

The Importance of Fuel Supply Diversity

Concerns about the diversity of Wisconsin's energy supply have contributed to a recent Commission approval for two 600 MW coal-fired power plants in Oak Creek. An application for another 500 MW coal unit at Weston is also under review. p. 88

Wisconsin Public Service Commission, Wisconsin's Strategic Energy Assessment: Energy 2010 - Final Report, Sept. 2004, WPSC Docket 05-ES-102, *available at*
<http://psc.wi.gov/utilityinfo/electric/cases/sea/document/FinalSEAWeb.pdf>.

EXHIBIT NO. _____ (TLO-7)

**Supplement Compendium of Publications Establishing the
Public Interest Benefits of the IGCC Technology
(Volume III, Section VII of the Report)**

(This Exhibit is provided in CD Rom Format)

MESABA ENERGY PROJECT

SECTION VII SUPPLEMENTAL MATERIALS

COMPENDIUM OF RECENT PUBLICATIONS CONFIRMING IGCC'S PUBLIC INTEREST BENEFITS

MESABA ENERGY PROJECT

A. CHARACTERISTIC QUOTES

INDUSTRY PUBLICATIONS

<u>Source</u>	<u>Characteristic Quote</u>
1. Douglas G. Cogan, Ceres, CORPORATE GOVERNANCE AND CLIMATE CHANGE: MAKING THE CONNECTION, p. 21, Mar. 2006. <i>available at</i> http://www.ceres.org/pub/docs/Ceres_corp_gov_and_climate_change_0306.pdf .	“Electric Utility Industry <ul style="list-style-type: none">▪ Above-average Strategies scores: High-scoring companies are pursuing low- and no-carbon energy options—renewables, natural gas and clean coal—to generate electricity. Noteworthy examples include the FPL Group, the nation’s largest wind power generator, AEP and Cinergy, which are moving forward with plans to build commercial-scale integrated gasification combined cycle (IGCC) power plants, and Edison International which is partnering with BP to build the nation’s first hydrogen fueled power plant, with most of the CO2 being captured and stored underground. Lower scoring utilities remain committed to traditional forms of coal-fired generation and are less focused on demand-side management programs.”
2. <i>Utility Interest in IGCC Growing: Panel</i> , ELECTRIC POWER DAILY, May 11, 2006, p. 3, (quoting Richard Docter, U.S. Dep’t of Energy, Argonne Nat’l Lab.).	“[Utilities should] focus on IGCC because it has a minimal environmental footprint and IGCC technology is even more important given the regulatory climate we are in. I think we all can agree that carbon dioxide regulations are coming. It’s just a matter of how stringent those regulations will be.”

MESABA ENERGY PROJECT

GOVERNMENT PUBLICATIONS

<u>Source</u>	<u>Characteristic Quote</u>
1. WISC. DEP'T OF NATURAL RESOURCES, PUB. SERV. COMM'N INTEGRATED GASIFICATION COMBINED-CYCLE TECHNOLOGY DRAFT REPORT, p. 1. Jun. 2006, <i>available at</i> http://psc.wi.gov/CleanCoal/documents/IGCCDraftReport.pdf .	<p>“It is the prospect of controlling carbon dioxide emissions, however, that generates the most intense focus on IGCC. Carbon dioxide is the main greenhouse gas and is comparatively easier and less expensive to remove from an IGCC unit versus an SCPC unit; some estimate that carbon dioxide removal from SCPC will be twice as expensive as from IGCC.</p> <p>.....</p> <p>[P]ollutants, including carbon dioxide, are easier to strip out of IGCC than SCPC. This means that should a carbon dioxide tax be imposed, IGCC will have an advantage both in terms of cost and technology in the near term.”</p>

POLICY PUBLICATIONS

<u>Source</u>	<u>Characteristic Quote</u>
1. WESTERN RESOURCE ADVOCATES, WESTERN COAL AT THE CROSSROADS, at iv (2006).	<p>“IGCC technologies are more efficient than pulverized coal technologies in that they use less coal to generate each kilowatt-hour of electricity. The process also produces fewer air emissions and creates less solid waste. IGCC power plants use roughly 50 percent less water than new pulverized coal plants, an advantage in the arid West where water resources are increasingly scarce. Perhaps most importantly, IGCC technology lends itself to the capture and sequestration of CO₂ emissions at much lower cost than pulverized coal plants.”</p>

NEWS PERIODICALS

<u>Source</u>	<u>Characteristic Quote</u>
1. Spencer Jakab, <i>Coal-Gasification Begins to Emerge</i> , WALL ST. J., Jan. 4, 2006.	“Coal gasification, a technology that has been pointed to for decades as having major environmental and energy security benefits, finally seems to be coming of age. Soaring costs of competing generation fuels and expensive mandates to limit airborne pollutants have created pressure for more commercial development of technologies that make use of abundant U.S. coal reserves. Bold investments by equipment providers have also made gasification commercially viable on a large scale for the first time.”
2. Spencer Jakab, <i>Coal-Gasification Begins to Emerge</i> , WALL ST. J., Jan. 4, 2006. (quoting Ed Lowe, manager of coal gasification, GE Inc.).	“Certainly we believe that this is the new platform for coal-based generation technology. We have very strong expectations for the future of this business. . . . What we see IGCC as being able to do is utilize our most abundant natural resource with the type of emissions associated with natural gas.”
3. Sonja Lee, <i>Speaker to Debate City's Coal Plans</i> , GREAT FALLS TRIB. (Great Falls, Mont.), May 17, 2006.	“[John Thompson, director of the coal transition project for the Clean Air Task Force] advocates integrated gasification combined cycle or IGCC technology. That system produces fewer emissions because coal is not burned. ‘If we don't transition coal from burning it to coal gasification, it is all over in terms of global warming,’ Thompson said.”
4. Jonathan Shaw, <i>Fueling Our Future</i> , HARVARD MAG., May-June 2006, pp. 40, 46 (quoting Daniel P. Schrag, Professor of Earth and Planetary Sciences, Harvard Univ.), available at http://www.harvardmagazine.com/on-line/050692.html .	“‘Even with the cost,’ says Schrag, ‘burning the coal with advanced technology that captures the CO ₂ and then sequesters it may actually be the way to go, at least as a bridge to renewable energy sources in the future.’ Long term, that means replacing the existing capital stock of coal plants with coal-gasification (clean coal) plants. Short-term, it means not building more dirty coal plants, in this country or anywhere else.”

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5. *Southern Co., Partners to Start \$557M Clean-Coal Plant Project*, ATLANTA BUS. CHRON., Feb. 22, 2006. available at <http://atlanta.bizjournals.com/atlanta/stories/2006/02/20/daily26.html>. “[I]ntegrated gasification combined cycle . . . will be the cleanest, most efficient generating technology in the world using coal as its fuel source.”

STATEMENTS FROM POLICYMAKERS

- | <u>Source</u> | <u>Characteristic Quote</u> |
|--|---|
| 1. <i>Deputy Energy Secretary Makes Tampa Stop to Pump Up Clean Coal</i> , TAMPA BAY BUS. J., Jan. 6, 2006, (quoting Clay Sell, Deputy Sec’y of Energy, U.S. Dept. of Energy, on TECO Energy, Inc.’s Polk IGCC Facility). available at http://tampabay.bizjournals.com/tampabay/stories/2006/01/02/daily54.html . | “This plant opens a window of opportunities to others in the future. If you look at its stack on a clear day like today, you see nothing coming out of it.” |
| 2. Noelle Straub, <i>Experts: Coal to Gas Should be a Priority</i> , HELENA INDEP. REC., May 2, 2006, available at http://www.helenair.com/articles/2006/05/02/national/a01050206_03.prt . | “Energy Under Secretary David Garman testified that gasification technology ‘is poised to make a revolutionary impact’ on the marketplace both in the U.S. and abroad.” |
| 3. Press Release, Rod R. Blagojevich, Governor, Ill., Gov. Blagojevich Announces \$5 Million Investment for New Coal Gasification Project at Taylorville Energy Center, Jan. 9, 2006, available at http://www.illinois.gov/PressReleases/PrintPressRelease.cfm?SubjectID=1&RecNum=4576 . | “By investing in innovative projects like the Taylorville Energy Center, [a 770 MW IGCC facility], we are proving that we can capitalize on one of our greatest natural assets in a way that will create hundreds of jobs. The only way we can make coal king in Illinois is to make it clean. We are leading the nation in the development of this cutting-edge technology, and the Taylorville Energy Center is great example of how we are growing our economy, while protecting our environment.” |

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4. Press Release, Norm Coleman. US Sen. (R-MN), Coleman Applauds Department of Energy Funding to Construct Clean Coal Plant in Northeastern Minnesota. May 2006, *available at* http://coleman.senate.gov/index.cfm?FuseAction=PressReleases.Detail&PressRelease_id=972&Month=5&Year=2006.

“With rising energy prices and increasing concerns over energy security, the Mesaba Project is a key opportunity for Minnesota to increase domestic energy production, lower the demand for and cost of natural gas, and do so in an environmentally sensitive manner,” said [U.S. Senator Norm] Coleman. “This revolutionary energy endeavor continues Minnesota’s role as a leader in energy innovation and environmental protection. Best of all, the project will provide jobs in an area that is in sore need of more employment opportunities.”
5. Joe Manchin, Governor, W. Va., State of the State Address (January 11, 2006), *available at* http://www.wv.gov/sos2006_text.cfm.

“IGCC technology allows us to continue using our state’s coal resources in an environmentally responsible way. With IGCC, we’ll have a *cleaner environment*. . . . Bringing an IGCC plant to West Virginia is part of my overall plan to ensure the future of coal in West Virginia. . . . [T]his isn’t just good news; it’s great news.”
6. Press Release, George E. Pataki, Governor, NY, Governor Unveils Comprehensive Plan to Cut New York’s Dependence on Imported Energy (Jan. 11, 2006). *available at* <http://www.ny.gov/governor/press/06/0116062.html>

“Promotion of Advanced ‘Clean Coal’ Power Plants: State agencies and authorities will collaborate over a five-year period to identify ‘shovel ready’ sites for the development of Integrated Gasification Combined Cycle power plants – commonly referred to as ‘clean coal’ plants. These plants utilize coal in a manner that is significantly more protective of air quality.”

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7. Edward G. Rendell, Gov. of Penn.,
Opinion, *An American Energy
Harvest Plan: Jobs, Prosperity,
Independence*, COALCANDOTHAT,
Feb. 1, 2006,
[http://www.coalcandothat.com/index
.php/expert_resources/expert_
sources/7.html](http://www.coalcandothat.com/index.php/expert_resources/expert_sources/7.html).

"In building a new energy infrastructure, I want to be sure we do not replace our dependence on foreign oil by ginning up an aging energy infrastructure that emits dangerous pollution into our air and water. . . . Under this plan Pennsylvania will leapfrog past the traditional way of reducing emissions, of adding 'scrubbers' to old power plants. Instead, I am asking the federal government to give Pennsylvania the power to work with our utilities to close down these dinosaur coal plants and replace them with state-of-the-art coal gasification plants that will be subject to strict limits on greenhouse gas emissions and will far surpass federal emissions requirements two years before the final clean air standards go into effect. Earlier this week I announced this plan with an unlikely coalition of partners — large energy firms and unions stood with me, as did utility companies and environmentalists. Clean coal is a sound policy that unites public and private interests."

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