

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

JOINT PETITION AND APPLICATION OF PSI ENERGY, )  
 INC., D/B/A DUKE ENERGY INDIANA, INC., AND )  
 SOUTHERN INDIANA GAS AND ELECTRIC COMPANY, )  
 D/B/A VECTREN ENERGY DELIVERY OF INDIANA, )  
 INC., PURSUANT TO INDIANA CODE CHAPTERS 8-1-8.5, )  
 8-1-8.7, 8-1-8.8, AND SECTIONS 8-1-2-6.8, 8-1-2-6.7, 8-1-2- )  
 42(a) REQUESTING THAT THE COMMISSION: (1) ISSUE )  
 APPLICABLE CERTIFICATES OF PUBLIC )  
 CONVENIENCE AND NECESSITY AND APPLICABLE )  
 CERTIFICATES OF CLEAN COAL TECHNOLOGY TO )  
 EACH JOINT PETITIONER FOR THE CONSTRUCTION )  
 OF AN INTEGRATED GASIFICATION COMBINED )  
 CYCLE GENERATING FACILITY ("IGCC PROJECT") TO )  
 BE USED IN THE PROVISION OF ELECTRIC UTILITY )  
 SERVICE TO THE PUBLIC; (2) APPROVE THE )  
 ESTIMATED COSTS AND SCHEDULE OF THE IGCC )  
 PROJECT; (3) AUTHORIZE EACH JOINT PETITIONER )  
 TO RECOVER ITS CONSTRUCTION AND OPERATING )  
 COSTS ASSOCIATED WITH THE IGCC PROJECT ON A )  
 TIMELY BASIS VIA APPLICABLE RATE ADJUSTMENT )  
 MECHANISMS; (4) AUTHORIZE EACH JOINT )  
 PETITIONER TO USE ACCELERATED DEPRECIATION )  
 FOR THE IGCC PROJECT; (5) APPROVE CERTAIN )  
 OTHER FINANCIAL INCENTIVES FOR EACH JOINT )  
 PETITIONER ASSOCIATED WITH THE IGCC PROJECT; )  
 (6) GRANT EACH JOINT PETITIONER THE AUTHORITY )  
 TO DEFER ITS PROPERTY TAX EXPENSE, POST-IN- )  
 SERVICE CARRYING COSTS, DEPRECIATION COSTS, )  
 AND OPERATION AND MAINTENANCE COSTS )  
 ASSOCIATED WITH THE IGCC PROJECT ON AN )  
 INTERIM BASIS UNTIL THE APPLICABLE COSTS ARE )  
 REFLECTED IN EACH JOINT PETITIONER'S )  
 RESPECTIVE RETAIL ELECTRIC RATES; (7) )  
 AUTHORIZE EACH JOINT PETITIONER TO RECOVER )  
 ITS OTHER RELATED COSTS ASSOCIATED WITH THE )  
 IGCC PROJECT; AND (8) CONDUCT AN ONGOING )  
 REVIEW OF THE CONSTRUCTION OF THE IGCC )  
 PROJECT )

**FILED**

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INDIANA UTILITY  
REGULATORY COMMISSION

CAUSE NO. 43114

VOLUME I

PETITIONER'S CASE-IN-CHIEF TESTIMONY AND EXHIBITS OF:

JAMES E. ROGERS  
KAY PASHOS

OCTOBER 24, 2006



**TESTIMONY OF JAMES E. ROGERS  
PRESIDENT AND CHIEF EXECUTIVE OFFICER  
OF DUKE ENERGY CORPORATION  
ON BEHALF OF DUKE ENERGY INDIANA, INC.  
CAUSE NO. 43114 BEFORE THE  
INDIANA UTILITY REGULATORY COMMISSION**

**I. INTRODUCTION**

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**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is James E. Rogers, and my business address is 526 South Church Street,  
Charlotte, North Carolina.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

A. I am President and Chief Executive Officer of Duke Energy Corporation ("Duke  
Energy"). Duke Energy is the parent holding company of Duke Energy Indiana, Inc.  
("Duke Energy Indiana" or "Company").

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL  
BACKGROUND.**

A. I received a bachelor's degree in Business Administration (1970) and a law degree (1974)  
from the University of Kentucky. I became President and Chief Executive Officer of  
Duke Energy in April 2006, after the merger of Duke Energy and Cinergy Corp.  
("Cinergy"). Prior to the Duke Energy/Cinergy merger, I served as Chairman and CEO  
of Cinergy. I became Vice Chairman, President and Chief Operating Officer of Cinergy  
in October 1994, and I became Chief Executive Officer in 1995. Prior to the formation of  
Cinergy, I was Chairman and Chief Executive Officer of PSI Energy, Inc. and PSI

1 Resources, Inc., the parent company of PSI Energy, Inc. Before coming to PSI Energy,  
2 Inc. in October of 1988 as Chief Executive Officer, I was Executive Vice President of the  
3 gas pipeline group of Enron Corp. ("Enron"), and President of Enron's interstate gas  
4 pipeline companies from 1985 to 1988. From 1979 to 1981 and from 1983 to 1985, I was  
5 in private law practice in Washington, D.C. with the law firm of Akin, Gump, Strauss,  
6 Hauer & Feld. During that time, I represented natural gas pipelines, gas producers and  
7 electric utilities before the Federal Energy Regulatory Commission ("FERC") and  
8 various federal courts. From 1981 to 1983, I was Deputy General Counsel for litigation  
9 and enforcement at the FERC. In that position, I directed FERC's litigation efforts in  
10 cases involving electric rates, hydroelectric licensing, gas producer and gas pipeline rates.  
11 I began my career with the Kentucky Attorney General's Office representing consumer  
12 interests in utility cases.

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

14 A. My testimony will discuss: (1) why the building of an Integrated Gasification Combined  
15 Cycle ("IGCC") power plant is the preferred option for meeting Duke Energy Indiana's  
16 baseload generation power needs and why now is a good time to build an IGCC plant in  
17 Indiana; (2) the environmental benefits of IGCC technology; (3) Duke Energy Indiana's  
18 leadership roles in IGCC technology research, development, and deployment; and (4)  
19 Duke Energy Indiana's continuing commitment to energy efficiency and renewable  
20 energy initiatives.

1                   **II.    OVERVIEW OF WHY IGCC IS PREFERRED OPTION**

2                                   **A.   NEED FOR BASELOAD GENERATION**

3   **Q.    DOES DUKE ENERGY INDIANA FORESEE AN INCREASE IN ITS**  
4   **BASELOAD CAPACITY NEEDS?**

5   A.    Yes. Based on both the 2003 Duke Energy Indiana Integrated Resource Plan (“IRP”)  
6       analysis and our most recent 2005 IRP analysis, the steadily growing demand for power  
7       in Indiana requires additional baseload generation early in the next decade.

8   **Q.    HOW DOES DUKE ENERGY INDIANA PLAN TO SATISFY THIS NEED?**

9   A.    Based on the modeling of our most recent IRP filing, Duke Energy Indiana has  
10       determined that replacing the existing 160 MW of coal and oil-fired generating units  
11       (circa 1940s-1950s) near Edwardsport, Indiana with an approximately 630 MW  
12       Integrated Gasification Combined Cycle plant (“IGCC Project”) will most economically,  
13       efficiently and robustly meet our anticipated baseload capacity needs over the long term.  
14       This replacement will ensure our commitment to continue providing reliable, reasonably  
15       priced electricity to customers. Ms. Jenner’s testimony discusses the IRP process in  
16       greater detail.

17                                   **B.   COMMODITY COST INCREASES AND VOLATILITY**

18   **Q.    WHY HAS DUKE ENERGY INDIANA SELECTED COAL AS THE POWER**  
19   **GENERATION FUEL TO MEET ITS GROWING BASELOAD CAPACITY**  
20   **NEEDS?**

21   A.    There are currently a limited number of power generation fuels to consider in  
22       determining the best option to provide for Duke Energy Indiana’s growing baseload  
23       capacity needs. Oil and natural gas prices have increased significantly in the last decade

1 and, as the country experienced following the hurricanes in the fall of 2005, supply limits  
2 and disruptions can have powerful effects not only on the price level, but also on the  
3 volatility of prices. Although coal prices have been rising, they have done so more  
4 gradually and with far less volatility, and according to the U.S. Energy Information  
5 Administration, the United States has about 270 billion short tons of recoverable coal  
6 reserves, enough to last over 250 years at current usage rates. In addition, Indiana has  
7 abundant coal resources readily transportable to the proposed IGCC Project.

8           Given the limited supplies and high prices and/or price volatility of oil and natural  
9 gas as well as abundant supplies, moderate prices and ready accessibility of coal, coal is  
10 and will likely remain the most practical fuel choice for baseload electric generation in  
11 the Midwest. Energy from coal is cheaper than energy from oil and natural gas, while  
12 being more cost effective for increasing baseload capacity, than available renewable  
13 energy options.

14 **Q. WHY DID DUKE ENERGY INDIANA CHOOSE IGCC TECHNOLOGY?**

15 A. Even with coal as our generating fuel choice, increasing commodity costs and volatility  
16 provide a challenge. Like oil and gas prices, sulfur dioxide (“SO<sub>2</sub>”) allowance prices  
17 have experienced price spikes and volatility. This is discussed in greater detail in the  
18 testimony of Mr. Judah Rose. The federal Clean Air Interstate Rule (“CAIR”) requires  
19 deep reductions in SO<sub>2</sub> and nitrogen oxide (“NO<sub>x</sub>”) emissions, and the current and future  
20 allowance market prices have already reacted. This volatility and the high price of  
21 emissions-controlling technologies such as scrubbers make low-sulfur coals attractive  
22 fuel sources. However, the depletion of central Appalachian coal reserves and the 2005

1 Powder River Basin coal transportation problems demand a search for lower risk and  
2 more stable coal supply alternatives.

3 Indiana has significant coal reserves of about 17.5 billion tons, but this locally  
4 mined, high-sulfur Illinois Basin bituminous coal produces significant emissions. The  
5 challenge is to identify ways to use this abundant, accessible resource in an economic and  
6 environmentally clean way. IGCC technology achieves 99% SO<sub>2</sub> removal and can make  
7 use of copious Indiana coal resources in an economic and more environmentally benign  
8 way, using an estimated 1.5 million tons of coal per year valued at approximately \$45-50  
9 million annually.

10 **C. COST-EFFECTIVENESS OVER LONG TERM/ROBUSTNESS OVER MANY**  
11 **SCENARIOS**

12  
13 **Q. IS THE PROPOSED IGCC PROJECT A COST-EFFECTIVE OPTION?**

14 A. Yes. According to the analysis of the most recent IRP, the installation of an IGCC plant  
15 appears to be an economical addition to the Duke Energy Indiana system at this time.  
16 With federal, state and local incentives, this is the least-cost option under base case  
17 assumptions and demonstrates robustness over many scenarios and sensitivities. The  
18 base case assumes that all current environmental requirements are met, that the recent  
19 Clean Air Interstate Rule ("CAIR") and Clean Air Mercury Rule ("CAMR")  
20 requirements will be met, and that no climate change initiatives or hazardous air pollutant  
21 controls would be implemented during the relevant time period.

22 The IRP modeling indicates that the most economically feasible plans, given the  
23 constraints of minimum reserve margin and the environmental compliance assumptions,  
24 include the building of a 50% or 80% ownership share IGCC plant at the Edwardsport  
25 Generating Station in the 2011-2013 timeframe under base case conditions. The IRP

1 modeling also indicates that the IGCC Project is cost-effective with 100% ownership.

2 We have selected the plan with an 80% ownership share IGCC plant to be installed at the  
3 earliest feasible date - in 2011.

4 **Q. PLEASE BRIEFLY DESCRIBE HOW DUKE ENERGY INDIANA TESTED THE**  
5 **ROBUSTNESS OF THE PLANS INCLUDING THE PROPOSED IGCC**  
6 **PROJECT.**

7 A. In order to test the robustness of the resource plans, Duke Energy Indiana identified a  
8 number of possible alternative futures that could have large impacts on stakeholders, to  
9 create future scenarios, and then tested the alternative plans' economics under different  
10 sensitivities. Under the sensitivities considered, the IGCC plans maintained cost-  
11 effectiveness. Although the IRP modeling focused most intently on the first decade for  
12 effective planning purposes, the IGCC option is especially attractive because it has so  
13 much potential for both near- and long-term cost-effectiveness while being an  
14 environmentally responsible choice.

### 15 **III. ENVIRONMENTAL BENEFITS OF IGCC**

#### 16 **A. SMALLER ENVIRONMENTAL FOOTPRINT**

17 **Q. WHAT IS THE ENVIRONMENTAL IMPACT OF REPLACING THE 160 MW**  
18 **EDWARDSPORT PLANT WITH THE PROPOSED APPROXIMATELY 630 MW**  
19 **IGCC PROJECT?**

20 A. Currently, the 160 MW Edwardsport plant runs less than 30% of the time and in an  
21 average year emits approximately 11,000 tons of SO<sub>2</sub>, NO<sub>x</sub> and particulates. Even  
22 running 100% of the time, the proposed approximately 630 MW IGCC Project would  
23 emit about 2,900 tons of these pollutants annually. Using IGCC technology, Duke



1 Energy Indiana can substantially increase its baseload capacity and generate energy while  
2 simultaneously reducing its environmental footprint. IGCC plants run at a higher overall  
3 efficiency than conventional pulverized coal ("PC") plants with currently required  
4 pollution control equipment. IGCC plants are capable of achieving greater thermal  
5 efficiencies than even new supercritical pulverized technology while using approximately  
6 30% less water than conventional PC plants and generating 50% less solid waste. The  
7 by-products generated, 99%-pure elemental sulfur and slag, are marketable, rather than  
8 waste materials which must be disposed of at added cost. The sulfur is valued by sulfur  
9 users, and the slag has the potential to be sold for use as an aggregate in asphalt roads, as  
10 structural fill in various types of construction applications, as roofing granules, and as  
11 blasting grit. With low NO<sub>x</sub> emissions, negligible particulate emissions, greater than 90-  
12 95% mercury removal, and over 99% SO<sub>2</sub> removal, IGCC technology substantially  
13 reduces air emissions, and because it is more efficient, it reduces carbon emissions even  
14 without carbon capture technology.

15 Notably, we've committed to add an SCR to the plant to remove NO<sub>x</sub> that will  
16 make the Edwardsport plant the cleanest IGCC plant in the nation, and one of the first  
17 commercial project of its size committed to install an SCR in the gas stream. The  
18 testimony of Mr. Robert D. Moreland provides more detail on the environmental benefits  
19 of IGCC technology.

1           **B.     CURRENT AND POTENTIAL FUTURE EMISSIONS REQUIREMENTS**

2           **Q.     WHAT EFFORTS HAS DUKE ENERGY INDIANA UNDERTAKEN TO**  
3           **COMPLY WITH CURRENT EMISSIONS REQUIREMENTS?**

4           A.     The 1990 Clean Air Act Amendments required Duke Energy Indiana to reduce its SO<sub>2</sub>  
5           emissions by 50% (or to acquire emission allowances) and to reduce its NO<sub>x</sub> emissions by  
6           25%. Duke Energy Indiana achieved these emission reductions by the 2000 compliance  
7           deadline by investing over \$540 million in capital. The U.S. Environmental Protection  
8           Agency's ("EPA") and the State of Indiana's NO<sub>x</sub> State Implementation Plan required  
9           Duke Energy Indiana to achieve an additional 50% (or to acquire emission allowances)  
10          reduction in summertime NO<sub>x</sub> emissions by May 2004. Duke Energy Indiana invested  
11          nearly \$600 million in capital to achieve these reductions. As is discussed below, Duke  
12          Energy Indiana is now in the process of complying with the federal CAIR and CAMR  
13          rules.

14          **Q.     HOW DO FUTURE EMISSIONS REQUIREMENTS AFFECT DUKE ENERGY**  
15          **INDIANA'S PLANS FOR INCREASING BASELOAD GENERATION POWER?**

16          A.     Analyses of more stringent environmental scenarios are more important than ever. As  
17          this Commission is aware, the CAIR and CAMR rules require additional significant SO<sub>2</sub>  
18          and NO<sub>x</sub> emission reductions, and also provide for capping mercury ("Hg") emissions for  
19          the first time. Duke Energy Indiana projects that it will need to invest over \$1 billion in  
20          capital to achieve the emission reductions required by CAIR and CAMR. Mr. Stowell  
21          discusses these environmental regulations and Duke Energy Indiana's compliance plans  
22          in more detail. Even more stringent SO<sub>2</sub>, NO<sub>x</sub> and mercury requirements may be enacted

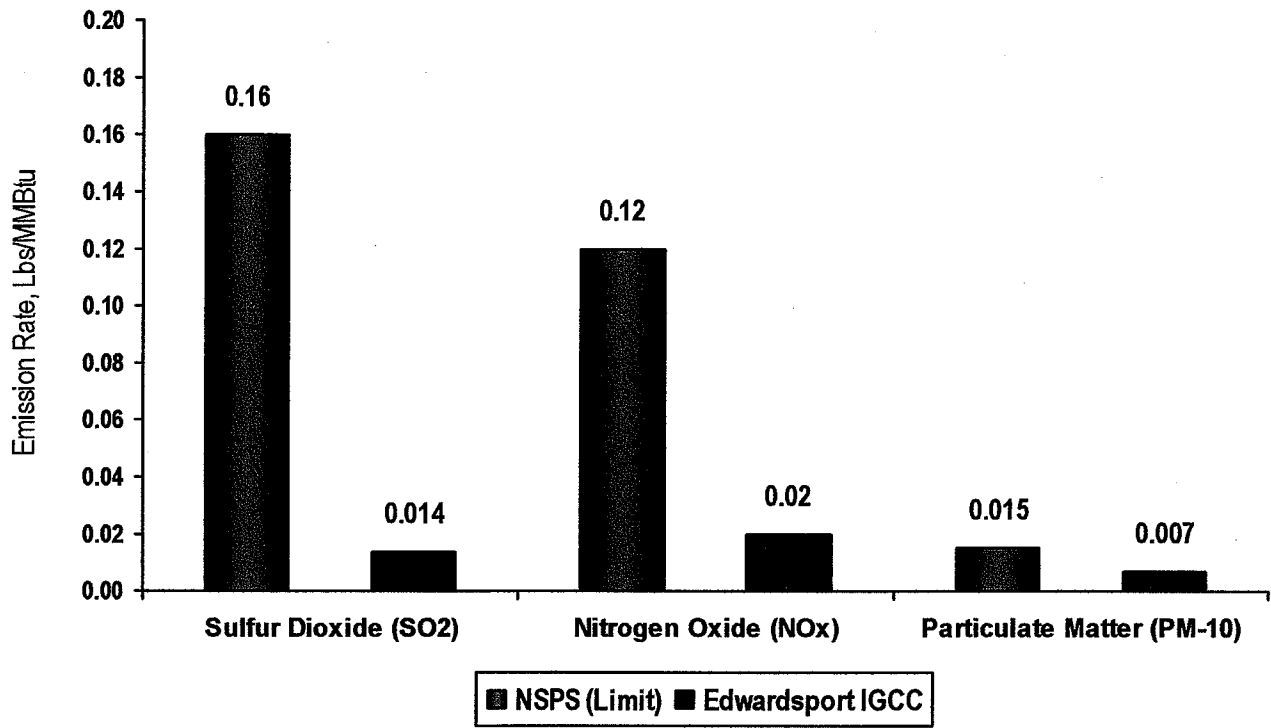
1 in the future, and as I discuss later in my testimony, I believe CO<sub>2</sub> regulation is highly  
2 likely as well.

3 Based on the IGCC Project's expected SO<sub>2</sub>, NO<sub>x</sub>, Hg, and particulate emissions,  
4 the plant is projected to be among the cleanest solid fuel power plants in the world, and  
5 certainly well within the new CAIR/CAMR requirements. Pollution control equipment  
6 for greater reduction of NO<sub>x</sub> emissions is included in the IGCC Project, which places  
7 these emissions even further below the requirements of CAIR.

8 The following table compares the projected emission levels from Duke Energy's  
9 planned IGCC Project to the emission requirements under the New Source Performance  
10 Standard ("NSPS):

1 **General Environmental Performance Comparison**

2 **Revised (Feb. 2006) NSPS vs. IGCC**



- 24 (1) Approximate conversion of NSPS lb/MWh (gross) to lb/MMBtu for SO<sub>2</sub> and NO<sub>x</sub>.  
25 (2) Actual SO<sub>2</sub> emission rate will depend on type of coal burned.  
26 (3) Rates for IGCC Project reflect preliminary expected performance, including selective catalytic  
27 reduction ("SCR").  
28 (4) Emission permit limits may be greater than that shown for operating margin.  
29

30 These low emissions lessen the likelihood of expensive retrofit environmental  
31 compliance equipment becoming necessary even as future stricter reductions are  
32 mandated.

33 **Q. PLEASE EXPLAIN THE STATUS OF CARBON SEQUESTRATION.**

34 **A.** Globally, there is a host of efforts to establish proven, safe and reliable carbon  
35 sequestration techniques. Nationally, the U.S. Department of Energy ("DOE") has  
36 established seven regional partnerships of state agencies, universities, private companies

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1 and non-governmental organizations. These partnerships form the core of a nationwide  
2 network to address climate change by assessing the technical and economic viability of  
3 various approaches for capturing and permanently storing CO<sub>2</sub> through carbon  
4 sequestration.

5 **Q. WHAT HAS BEEN DUKE ENERGY'S ROLE IN THE CARBON**  
6 **SEQUESTRATION DISCUSSION?**

7 A. Duke Energy is actively involved in climate change research and development issues that  
8 will reduce or offset greenhouse gas emissions. In addition to the Midwest Geological  
9 Sequestration Consortium ("MGSC"), Duke Energy is also a partner in two more of the  
10 seven DOE regional carbon sequestration partnerships including the Midwest Regional  
11 Carbon Sequestration Partnership and the Southeast Regional Carbon Sequestration  
12 Partnership. We're currently participating in a field test with DOE to see if the geology  
13 under Duke Energy Kentucky's East Bend coal plant (in Kentucky) is suitable for storing  
14 CO<sub>2</sub>. Duke Energy Indiana is contributing \$2.5 million over 5 years to the Indiana  
15 Center for Coal Technology Research, based at Purdue University. This investment,  
16 which arose out of the Settlement Agreement in the merger case, will be used to support  
17 research into technologies than can use Indiana coal in a way that is environmentally and  
18 economically sound.

19 **Q. PLEASE BRIEFLY DESCRIBE THE CARBON CAPTURE POTENTIAL OF**  
20 **THE IGCC PROJECT.**

21 A. The possible future addition of carbon capture technology is a strong potential benefit of  
22 IGCC plants. Although capture and storage or sequestration techniques have not yet been  
23 commercially proven, IGCC technology offers the potential for relatively easier and less

1 energy-intensive means of capturing CO<sub>2</sub> than PC plants. The testimony of Mr.  
2 Moreland provides more detail on the CO<sub>2</sub> capture and sequestration potential of IGCC  
3 technology.

4 Duke Energy Indiana considered the potential for geologic sequestration an  
5 important criterion in siting an IGCC plant from the very beginning of the project. In  
6 order to evaluate the potential for geologic sequestration at Edwardsport, Duke Energy  
7 Indiana worked with the Indiana Geological Survey in conjunction with the MGSC to  
8 complete a preliminary feasibility assessment. The potential ability to integrate carbon  
9 capture and sequestration technology at the Edwardsport site further demonstrates the  
10 long-term positive impact of an IGCC plant for Duke Energy Indiana and all our  
11 stakeholders.

12 **Q. PLEASE EXPLAIN THE BENEFITS OF THE IGCC PROJECT AS TO CARBON**  
13 **CAPTURE TECHNOLOGY.**

14 A. Given this continuing trend of significant emission reduction requirements, and the  
15 likelihood of future carbon regulation, which I discuss later in my testimony, the IGCC  
16 Project is a responsible choice to provide for Duke Energy Indiana's increasing baseload  
17 requirements. This advanced clean coal technology is able to comply with current and  
18 potential future emissions requirements in a cost-effective manner.

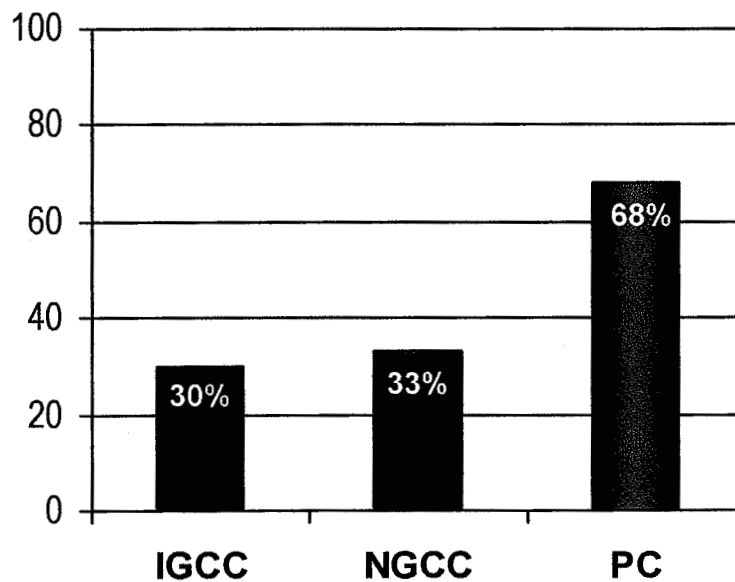
19 **Q. HOW WOULD FUTURE MANDATORY CARBON RESTRICTIONS AFFECT**  
20 **DUKE ENERGY INDIANA'S PROPOSED IGCC PLANT?**

21 A. As I discuss in more detail below, I hold a strong conviction that we will someday be  
22 living in a carbon constrained world. Should carbon restrictions become a reality,  
23 DOE's National Energy Technology Laboratory estimated that the costs of outfitting an

1 IGCC plant with carbon capture equipment is expected to increase plant electricity costs  
2 by about 30%, whereas the impact on the cost of electricity from a supercritical PC plant  
3 is anticipated to be around a 68% increase. Also shown are the costs of outfitting a  
4 premium fueled natural gas combined cycle (NGCC) plant with carbon capture  
5 equipment.

6 **Potential to Capture CO<sub>2</sub> Economically in the Future**

Effect of CO<sub>2</sub> Capture on Cost of Electricity  
(% Increase Resulting from CO<sub>2</sub> Capture)



12 *Source: National Energy Technology Laboratory*

13 As the graph above demonstrates, between the two coal fueled alternatives, the IGCC  
14 plant is a compelling answer to the concerns raised by the current emissions requirements  
15 and probable future requirements.

1 Q. IN THE SHADOW OF POTENTIAL CARBON RESTRICTIONS, WHY DOES  
2 DUKE ENERGY INDIANA PROPOSE AN IGCC PLANT RATHER THAN A  
3 NUCLEAR PLANT?

4 A. Duke Energy will most likely be pursuing nuclear plants for the 2016 - 2020 timeframe in  
5 the Carolinas, where there is a significant existing nuclear fleet. Nuclear power plants are  
6 certainly a sound investment in a number of ways, especially when considering potential  
7 CO<sub>2</sub> emission reduction requirements. However, Duke Energy Indiana feels that an  
8 IGCC plant is a better option to meet its upcoming baseload generation power needs due  
9 to the size of the plant needed, timing and other considerations. The IGCC Project can be  
10 completed by 2011, consistent with our baseload needs, while permitting and  
11 constructing a nuclear plant in the Midwest would take far longer. Moreover, nuclear  
12 plants are typically larger than the proposed approximately 630 MW IGCC plant.

13 The proposed IGCC Project also has benefits for Duke Energy Indiana that could  
14 not be realized with nuclear power. The IGCC Project will use clean coal technology  
15 designed to use Indiana Illinois Basin coal, and as such is eligible for significant federal  
16 and state incentives that make this choice more economical, and the plant's use of  
17 Indiana coal from the Illinois Basin will help the state economy. Additionally, because of  
18 Duke Energy Indiana's participation in the Wabash River Coal Gasification Repowering  
19 Project, Duke Energy Indiana has some experience with IGCC technology. IGCC  
20 technology provides an economic way for Duke Energy Indiana to meet its anticipated  
21 baseload capacity needs in an environmentally responsible way.



1 **C. CLIMATE CHANGE**

2 **Q. WHAT IS DUKE ENERGY'S POSITION ON CLIMATE CHANGE?**

3 A. Many scientists believe that greenhouse gas emissions from human activities are  
4 influencing the earth's climate, and momentum is building that steps should be taken now  
5 to reduce these emissions. Duke Energy shares that view. The debate on the science of  
6 global warming is unresolved, but avoiding the debate and failing to understand the  
7 implications of CO<sub>2</sub> and other greenhouse gases on Duke Energy is not an option. We  
8 have a responsibility to our stakeholders, particularly our customers, investors and  
9 communities, to play a leading role in shaping a national policy that addresses this  
10 challenge responsibly and fairly. Although no CO<sub>2</sub> emissions regulations currently exist  
11 in Indiana or at the federal level, Duke Energy believes that carbon regulation will  
12 probably occur in the future, and Duke Energy Indiana is preparing for that probable  
13 future.

14 Researching and participating in domestic and international economic and  
15 environmental conferences over the past several years has given me a heightened  
16 understanding of the climate change debate, and it is clear that people increasingly  
17 believe that greenhouse gas emissions must be reduced and that action should start now.  
18 Disagreement on the science of climate change does not change the political weight of  
19 the issue, and there are many signs carbon regulation will probably occur in the future. I  
20 strongly believe that the energy industry needs to help shape the future of carbon  
21 regulation. Duke Energy is committed to being a leader in this area.

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1 **Q. WHAT SIGNS INDICATE THAT CARBON PROBABLY WILL BE**  
2 **REGULATED IN THE FUTURE?**

3 A. The first significant step toward carbon regulation was the Kyoto Protocol, a 1997  
4 international agreement on climate change, which committed industrial nations to  
5 reducing greenhouse gas emissions, including carbon, by approximately 5% from 1990  
6 levels. The Kyoto Protocol became binding on the signatory nations when Russia ratified  
7 it in November 2004. A mandatory carbon emissions cap-and-trade program took effect  
8 in Europe in January 2005 to comply with the Kyoto Protocol.

9 The U.S. Senate rejected the Kyoto Protocol by a 95-0 vote in 1997. But in 2003,  
10 the McCain-Lieberman Climate Stewardship Act (“Act”), which provided CO<sub>2</sub> emission  
11 caps, garnered 43 votes, and was just eight votes short of passing. The Act also failed to  
12 pass in the 2004 Congress. The Senate Committee on Energy and Natural Resources  
13 held hearings on climate change earlier this year and Duke Energy, along with a few  
14 other utilities, asked Congress to establish mandatory caps on carbon emissions so that  
15 companies can have certainty on this issue.

16 Several states have taken steps to limit greenhouse gas emissions. Nine states –  
17 New York, Maine, Massachusetts, Rhode Island, Connecticut, Delaware, New  
18 Hampshire, New Jersey and Vermont – joined the Regional Greenhouse Gas Initiative,  
19 which has been developing a regional cap-and-trade plan for CO<sub>2</sub> emissions since 2003.  
20 In September 2006, California passed AB 32, the nation’s first bill to reduce greenhouse  
21 gas emissions and Governor Schwarzenegger recently signed this bill into law. The  
22 California law requires the state to reduce carbon emissions to 1990 levels by the year  
23 2020, with initial compliance requirements scheduled for the year 2012.

1           Greenhouse gas and CO<sub>2</sub> emissions trading markets have developed in the United  
2 States and Europe. There is a growing concern about global warming in our everyday  
3 consciousness. Duke Energy, certain other utilities, and companies in many other  
4 industries are proactively taking steps to control and report on greenhouse gas emissions.

5 **Q.   HOW SIGNIFICANT IS THE CALIFORNIA BILL IN THE MOVEMENT**  
6 **TOWARD CARBON REGULATION?**

7 A.   The California bill is very significant because it is the first state to require carbon  
8 reductions and because California has long been a leader in the national movement  
9 toward clean air. California presaged the U.S. Clean Air Act by adopting laws to control  
10 smog in Southern California during the 1960s. When the Clean Air Act was enacted in  
11 1970, California was unique among other states in that it was allowed to retain its  
12 independent authority to regulate air emissions, because California's regulations pre-  
13 dated the Clean Air Act. In 2004, California adopted the nation's first law requiring  
14 reductions in CO<sub>2</sub> emissions from automobile engines. California's passage of AB 32  
15 earlier this year increases the likelihood for federal regulation of CO<sub>2</sub> emissions.

16 **Q.   WHAT HAS DUKE ENERGY DONE TO ATTEMPT TO ADDRESS THESE**  
17 **CLIMATE CHANGE ISSUES?**

18 A.   In addition to our efforts to develop technology for carbon capture and sequestration,  
19 which I discussed earlier, we have voluntarily committed to reduce greenhouse gases as a  
20 participant in the DOE's Climate Challenge voluntary greenhouse gas reporting program.  
21 As part of this program, Duke Energy has achieved voluntary greenhouse gas emission  
22 reductions equivalent to approximately 175 million metric tons of CO<sub>2</sub> between 1991 and  
23 2005. We have accomplished this through:

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- 1 • Increased nuclear electricity generation
- 2 • Combined heat and power projects
- 3 • Cooperative sequestration programs that involve tree planting, forest
- 4 management and preservation
- 5 • Improved efficiency at hydroelectric and coal-fired electric generating
- 6 facilities
- 7 • Landfill methane capture
- 8 • Coal byproduct reuse
- 9 • End-use energy conservation programs
- 10 • Renewable energy demonstration projects
- 11 • Projects to reduce sulfur hexafluoride in electrical equipment
- 12 • Material recycling
- 13 • Implementation of natural gas pipeline operation best management practices

14 Due to the merger of Cinergy and Duke Energy, we are currently reevaluating our  
15 voluntary commitment to reduce greenhouse gas emissions to take into account the entire  
16 Duke Energy system; my commitment to voluntary greenhouse gas emissions reductions  
17 remains.

18 **Q. HOW DOES THE PROPOSED IGCC PROJECT ALIGN WITH DUKE**  
19 **ENERGY'S POSITION ON CLIMATE CHANGE?**

20 A. New CO<sub>2</sub> regulations could significantly increase our cost of generating electricity over  
21 time and ultimately result in higher prices for our customers. IGCC technology is a  
22 promising approach to planning for future environmental requirements, offering the  
23 potential to keep coal a low-cost fuel for generating power while meeting tighter  
24 emissions standards and facilitating carbon capture. Such new technologies and nuclear  
25 energy are long-term solutions able to make the large reduction in CO<sub>2</sub> emissions  
26 necessary to have any real effect on atmospheric carbon concentrations.

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1                   **IV.    DUKE ENERGY INDIANA LEADERSHIP ON IGCC**

2                   **A.   "EARLY MOVER"—WABASH RIVER REPOWERING PROJECT**

3   **Q.   PLEASE DESCRIBE DUKE ENERGY INDIANA'S EXPERIENCE WITH IGCC.**

4   **A.**   Duke Energy Indiana's interest in innovative coal technology is not a recent  
5       development. We were among the first to participate in building a coal gasification  
6       demonstration plant in the mid-1990s in western Indiana. Together with Destec Energy  
7       Inc., Duke Energy Indiana formed the Wabash River Coal Gasification Repowering  
8       Project Joint Venture ("Wabash River Project"). The Wabash River Project was a  
9       participant in the DOE's Clean Coal Technology program. Assisted by DOE funding, the  
10      Wabash River Project began operation for a three-year demonstration period in 1995.  
11      The success of the Wabash River Project in demonstrating the ability of the gasification  
12      combined cycle to run at capacity and within environmental compliance while using  
13      locally mined, high-sulfur Illinois Basin bituminous coal, as well as a variety of other fuel  
14      sources, contributed greatly to the development of this clean coal technology.

15           Recognizing the new technology's implications for low environmental impact and  
16      especially for using Indiana coal, Duke Energy Indiana has remained on the forefront of  
17      IGCC technology development. Duke Energy Indiana met with General Electric ("GE"),  
18      Conoco-Phillips and Shell early in 2004 to discuss their gasification technologies and the  
19      state of development of their base designs for commercial IGCC generating stations. In  
20      October of 2004, Duke Energy Indiana, GE and Bechtel signed a letter of intent to study  
21      the feasibility of constructing an IGCC plant, the first announced under the proposed GE-  
22      Bechtel alliance. Duke Energy recognized early the potential IGCC technology carried

1 for utilities, particularly Indiana utilities, in a time of rising fuel costs and tighter  
2 environmental regulation.

3 **B. PUSH FOR INCENTIVES**

4 **Q. HOW DOES DUKE ENERGY INDIANA PLAN TO MITIGATE THE HIGHER**  
5 **COST OF BUILDING AN IGCC PLANT?**

6 A. Current estimates are that the capital cost of building an IGCC plant will be 10-20%  
7 higher than the cost of a conventional PC plant. Incentives must fill this gap in order to  
8 make the plant an economical choice that will not unduly burden our customers, and  
9 Duke Energy Indiana is confident that such incentives are available and obtainable.  
10 Because of Duke Energy's commitment to leadership in the local, state and national arena  
11 in technology and environmental issues, the incentives to make the IGCC plant a least-  
12 cost reality exist. Duke Energy Indiana is pursuing federal investment tax credits for the  
13 proposed bituminous coal IGCC Project. The process is highly competitive, but Duke  
14 Energy Indiana is aggressively pursuing this incentive. The Company filed an  
15 application with the DOE at the end of June and we expect to be notified of the results in  
16 December 2006.

17 State incentives also can be used to bridge the cost gap between an IGCC and a  
18 conventional PC plant. Duke Energy Indiana lobbied for and actively worked with the  
19 Indiana General Assembly to draft incentives for investing in IGCC clean coal  
20 technology. As a result, the State of Indiana enacted Senate Bill 378, which provides a  
21 10% tax credit for the first \$500 million invested in an IGCC Project in Indiana and 5%  
22 of the amount exceeding \$500 million if the plant uses Indiana coal. The proposed IGCC

1 Project meets these criteria, making it reasonable to assume that Duke Energy Indiana  
2 should realize these incentives.

3 Duke Energy Indiana has pursued and secured local tax abatement and tax  
4 incremental finance (“TIF”) district initiatives. On April 11, 2006, the final approval for  
5 the 10-year real and personal property tax abatement and the 30-year 45% TIF district  
6 was unanimously approved by the Knox County Council. With such local and state  
7 incentives, we are confident that we can secure the appropriate amount of incentives to  
8 make the IGCC plant an attractive option for the state, our Company, and our customers.  
9 Kay Pashos’ testimony discusses our efforts to create and obtain these incentives in  
10 greater detail.

11 **C. RESEARCH AND DEVELOPMENT SUPPORT FOR IGCC**

12 **Q. PLEASE BRIEFLY DESCRIBE ADDITIONAL DUKE ENERGY**  
13 **INVOLVEMENT WITH IGCC RESEARCH AND DEVELOPMENT.**

14 **A.** Duke Energy’s involvement with IGCC and clean coal technology is not limited to the  
15 Wabash River Project and the proposed IGCC Project. We have been a leader in  
16 investigating and providing support for research and development in clean coal  
17 technology implications of IGCC. Consistent with our philosophy of providing technical  
18 leadership, Duke Energy was one of the first utilities to join the Electric Power Research  
19 Institute’s (“EPRI”) CoalFleet for Tomorrow Initiative (“CoalFleet”) and served as one  
20 of the two Industry co-chairs on the Program Advisory Board. CoalFleet is focused on  
21 encouraging the deployment of advanced coal power generation technologies—  
22 particularly those that are suitable for CO<sub>2</sub> capture in the future.

1 Duke Energy is also actively involved in climate change research and  
2 development issues, particularly those relating to the capability of the proposed IGCC  
3 Project to capture and sequester CO<sub>2</sub>. As mentioned before, Duke Energy is a partner in  
4 the MGSC and one of our power plants (Duke Energy Kentucky's East Bend plant) has  
5 been chosen as a Phase II project for MGSC, as was officially announced in August  
6 2006. Phase I involved initial site assessments and data collection to create a consistent  
7 regional map of the geology and potential carbon sinks of the seven state area, leading to  
8 the Phase II selection of Duke Energy Kentucky's plant where 5,000-10,000 tons of  
9 carbon dioxide will be geologically sequestered. Duke Energy Kentucky's site will help  
10 MGSC validate saline aquifers, one of the most important geologic storage reservoirs for  
11 the region, and to more accurately estimate CO<sub>2</sub> storage capacity in the region.

12 Leadership in DOE regional partnerships further exemplifies Duke Energy's commitment  
13 to pursue clean coal capabilities and willingness to participate in technical "firsts."

14 Duke Energy has also supported the development of IGCC technology by hosting  
15 and participating on numerous IGCC panels and giving presentations on the topic at  
16 conferences held by the Gasification Technologies Council, Air and Waste Management  
17 Association and the DOE, to name a few.

## 18 V. ENERGY EFFICIENCY AND RENEWABLE ENERGY

### 19 A. ROLE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

20 Q. HOW WILL THE BUILDING OF THE IGCC PROJECT AFFECT DUKE  
21 ENERGY INDIANA'S ENERGY EFFICIENCY PROGRAMS?

22 A. The building of the IGCC Project in no way affects our commitment to energy efficiency  
23 initiatives. For over two decades, Duke Energy Indiana has worked to develop energy

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1 efficiency programs that have yielded tangible economic benefits for the communities in  
2 which we operate. Energy efficiency programs implemented in collaboration with our  
3 various stakeholders are mutually advantageous for the economy and environment.  
4 Developing energy efficiency is one way to balance demand growth with corporate goals  
5 for reduced environmental impact and cost. We believe that energy efficiency can be  
6 equated with good demand-side management, particularly products and services that help  
7 customers manage their total energy costs by encouraging fuel switching to lower-cost  
8 fuel sources, using energy more efficiently, and changing energy usage behaviors.  
9 Through these actions and the creation of mechanisms that limit any financial harm to  
10 energy providers and customers, energy efficiency can provide environmental, economic  
11 and social benefits to all stakeholders. These benefits, some of which can be quantified  
12 and some which are qualitative in nature, include contributing to a least-cost resource  
13 plan, improving electric reliability, increasing customer satisfaction, optimizing and  
14 hedging generation and power delivery systems, diversifying resources and improving  
15 our environmental performance. Through cost-effective energy efficiency programs,  
16 Duke Energy Indiana has achieved significant demand and energy savings impacts.  
17 Duke Energy Indiana will continue to offer a comprehensive set of energy  
18 efficiency/demand-side management programs to our customers, to invest in energy  
19 efficiency initiatives and to be innovative in our energy efficiency efforts.

20 **B. HISTORICAL ENERGY EFFICIENCY ACTIVITIES/IMPACTS IN INDIANA**

21 **Q. PLEASE DESCRIBE DUKE ENERGY INDIANA'S ENERGY EFFICIENCY**  
22 **ACTIVITIES.**

1 A. Duke Energy Indiana has a history of energy efficiency activities that have made an  
2 impact throughout the state, using innovative outreach programs to help customers lower  
3 costs through energy efficiency improvements as well as supporting initiatives to  
4 improve industry efficiency. Since Duke Energy Indiana first launched its  
5 comprehensive set of demand-side management programs in 1991, we have invested over  
6 \$150 million in energy efficiency. These programs have saved approximately 654,000  
7 MWhs of energy annually – enough to serve approximately 50,000 homes per year.  
8 These programs reduce demand on the Duke Energy Indiana system by about 160 MW.  
9 According to the DOE Information Administration, Duke Energy Indiana’s energy  
10 efficiency programs rank number 1 in Indiana, number 4 in ECAR/MAIN (out of 70  
11 utilities) and in the top 6% nationally, in terms of energy reductions from utility energy  
12 efficiency programs. Approximately 350,000 of our customers have participated over the  
13 years, and the cumulative bill savings for these participants have been over \$300 million.  
14 Since 2000, participation in selected programs has exceeded our goals each year, and  
15 customer satisfaction is high. Duke Energy Indiana’s programs have been nationally  
16 recognized; our low-income Refrigerator Replacement Program received the Association  
17 of Energy Services Professionals International’s Achievement in Energy Services Award,  
18 and the Refrigerator Replacement Program and the Low-Income Weatherization Program  
19 brought Duke Energy Indiana the American Council for an Energy-Efficient Economy’s  
20 Certificate of Recognition for Exemplary Programs. Dr. Richard Stevie discusses our  
21 commitment to energy efficiency programs in more detail.

1 C. CURRENT PROGRAMS

2 **Q. PLEASE BRIEFLY DESCRIBE DUKE ENERGY INDIANA'S CURRENT**  
3 **ENERGY EFFICIENCY ACTIVITIES.**

4 A. Currently, Duke Energy Indiana maintains a comprehensive set of programs aimed at  
5 residential and small commercial and industrial customers. Please refer to the testimony  
6 of Dr. Stevie for detailed information about our current energy efficiency programs. In  
7 addition to maintaining our demand-side management programs, Duke Energy  
8 participates in a number of energy efficiency initiatives, including the Clean Energy  
9 Initiative, the Midwest Energy Efficiency Alliance, and most recently the National  
10 Action Plan for Energy Efficiency ("NAPEE"), which I have the honor of co-chairing.  
11 This national initiative is sponsored by the DOE and the EPA. Duke Energy's objectives  
12 as a NAPEE supporter are to utilize a collaborative process to work with stakeholder  
13 groups to determine cost-effective energy efficiency programs that provide benefits to  
14 both the utility and the stakeholders and to recognize the economic and the environmental  
15 benefits that result from effective and sustainable energy efficiency programs supported  
16 through the regulatory process. In order to achieve these objectives, Duke Energy will  
17 assist in introducing the NAPEE initiative at the state level with the help of the EPA and  
18 the DOE. This approach will include the use of on-going collaborative state efforts  
19 beginning with overviews and high level topic introductions, and will continue later with  
20 NAPEE updates included in regularly scheduled collaborative meetings. These efforts  
21 will allow Duke Energy to provide our customers with the best valued energy efficiency  
22 programs per implementation dollar through innovation and continued stakeholder

1 collaboration while promoting the benefits of sustainable energy efficiency initiatives to  
2 all stakeholders in the region.

3 Currently, Duke Energy Indiana is awaiting a Commission Order in Cause No.  
4 43099 approving the Personal Energy Report, which will provide customers  
5 individualized reports of their energy usage and suggestions on how to reduce usage.  
6 Additionally, as part of a collaborative within the Office of Utility Consumer Counselor,  
7 the Citizens Action Coalition and a group of large industrial customers, Duke Energy  
8 Indiana has committed to fund up to \$125,000 for an energy efficiency market potential  
9 study in its service territory.

10 Through our programs and involvement, Duke Energy Indiana seeks to bring  
11 energy efficiency to new levels. Duke Energy Indiana will continue to pursue an increase  
12 in the deployment of cost-effective energy efficiency programs by seeking incentives to  
13 implement such programs, which would allow for the timely recovery of energy  
14 efficiency program costs, the timely recovery of lost revenues associated with such  
15 programs, and the recovery of a performance-based incentive for effective and cost-  
16 efficient programs. This dedication to energy efficiency and demand-side management  
17 practices is an ongoing commitment that Duke Energy Indiana takes very seriously.

18 **D. RENEWABLE ENERGY EFFORTS AND RESULTS**

19 **Q. WHAT IS DUKE ENERGY INDIANA'S POSITION ON RENEWABLE**  
20 **ENERGY?**

21 **A.** Renewable energy options, in combination with our demand-side management programs,  
22 offer the potential for cost-effective resource options combined with efficient clean  
23 energy; however, due to its higher costs, this technology needs to be developed through

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1 various incentives, such as tax credits. Duke Energy Indiana has been involved not only  
2 in renewable energy projects and their research and development, but also in raising  
3 community awareness of renewable energy resources.

4 **Q. PLEASE BRIEFLY DESCRIBE DUKE ENERGY INDIANA'S RENEWABLE**  
5 **ENERGY ACTIVITIES.**

6 A. The very same sign posts that we see as signaling a move to clean coal technology  
7 demand that we investigate the potential of renewable energy, although renewable energy  
8 sources cannot yet make a big enough impact on our capacity to supply our growing  
9 baseload need. In November of 2005, Duke Energy Indiana issued a request for  
10 proposals ("RFP") for a supply portfolio of energy and capacity generated from  
11 renewable and/or environmentally-friendly sustainable sources of power, such as wind,  
12 solar photovoltaic, biomass co-firing, hydro, coal mine methane, landfill gas and biomass  
13 digesters. We received six bids – all wind power projects – and compiled a shortlist of  
14 the proposals in March 2006. Duke Energy Indiana's IRP contained a renewable energy  
15 "placeholder" to be included in the modeling, so this investment in renewable energy  
16 could be included in our resource planning. In September 2006, Duke Energy Indiana  
17 executed a Renewable Wind Energy Project Purchase Power Agreement ("Wind PPA")  
18 with one of the RFP bidders – Benton County Wind Farm, LLC – a wind farm project in  
19 Benton County, Indiana.<sup>1</sup> The Wind PPA provides for the purchase by Duke Energy  
20 Indiana of approximately 100 MW of installed wind turbine capacity producing  
21 approximately 307,000 MWhs per year (which assumes a 35% capacity factor). The full

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<sup>1</sup> Duke Energy Indiana is seeking approval of the Wind PPA and requesting recovery of the associated costs in Commission Cause No. 43097.

1 duration of the Wind PPA is for 20 years with the overall expected life of the project  
2 being 25-30 years.

3 The Wind PPA will be most beneficial for Duke Energy Indiana should either a  
4 renewable portfolio standard ("RPS") be adopted in Indiana or federally, or should  
5 carbon restraints be enacted. At the present time, 22 states have RPS standards in place,  
6 with more expected to join following the passage of the Energy Policy Act of 2005 and  
7 more recent encouragement from the federal government to seek out and develop new,  
8 renewable sources of energy in response to the higher prices associated with many fossil  
9 fuels. The Wind PPA clearly demonstrates Duke Energy Indiana's commitment to the  
10 environment by providing our customers with stably-priced and emission-free electricity.  
11 This project is also consistent with Governor Daniels' position on renewable generation  
12 as part of the recently unveiled Indiana Strategic Energy Plan. Duke Energy Indiana is  
13 the first Indiana electric utility to sign a significant long-term renewable energy contract,  
14 consistent with our track record of leadership and innovation in energy efficiency,  
15 renewable resources and sustainability initiatives.

16 Additionally, Duke Energy Indiana's demand-side management and renewable  
17 awareness goals include community education on energy efficiency and sustainability; as  
18 such, we have invested in renewable alternative demonstrations in our service area. Duke  
19 Energy Indiana has installed one wind and 15 solar demonstration projects throughout  
20 our service territory at homes, schools and Duke Energy Indiana customer service centers  
21 to raise awareness of renewable energy. In raising community awareness and  
22 involvement, it is our hope that renewable energy and energy efficiency options will gain

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1 value in the eyes of our customers, and investment in energy efficiency and sustainability  
2 will increase.

3 Duke Energy Indiana also recently re-vamped its voluntary green power program  
4 and entered into an environmentally-friendly purchased power agreement, so that our  
5 customers can now buy a portion of their energy needs from an Indiana generating  
6 project that converts coal mine methane gas into electricity, preventing this greenhouse  
7 gas from entering the environment and further contributing to climate change.

8 Duke Energy Indiana is also involved in the research and development of new  
9 renewable energy alternatives. Duke Energy Indiana and Purdue University recently  
10 partnered in a research project that could lead to a biomass product being used as a co-  
11 firing fuel in power production. We committed \$75,000 to begin a feasibility study to  
12 use switch grass as a fuel in co-firing a coal-fired unit at Purdue University's Wade  
13 Utility plant. Duke Energy Indiana will remain committed to investigating renewable  
14 energy options.

#### 15 E. NATIONAL LEADERSHIP

16 **Q. PLEASE BRIEFLY DESCRIBE YOUR NATIONAL LEADERSHIP ROLES**  
17 **RELATING TO CLEAN COAL TECHNOLOGY, ENERGY EFFICIENCY, AND**  
18 **RENEWABLE ENERGY.**

19 **A.** Having been an electric utility CEO for about 17 years has given me the opportunity not  
20 only to be involved in the important energy issues of our country, but to become a  
21 national leader in the crucial areas of sustainability, energy efficiency and climate  
22 change. When I first took over as CEO of Duke Energy Indiana, I was able to join policy  
23 makers and work with the Administration of President George H. W. Bush on the

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1 revamped Clean Air Act of 1990. I have spoken on my views on climate change before  
2 the House Science Committee, the National Commission on Energy Policy and the  
3 Institutional Investor Summit on Climate Risk. I have been a vocal supporter of the  
4 development of clean coal technologies, such as IGCC and I have spoken at and  
5 supported the Harvard IGCC Workshop. I was recently appointed the Edison Electric  
6 Institute ("EEI") chairman, having previously served as chair of the EEI's Policy  
7 Committee on Environment. I serve on the boards of the American Gas Association, the  
8 U.S. Chamber of Commerce, the Business Roundtable, the National Coal Council, and  
9 the Alliance to Save Energy. One leadership role I feel is especially important is my  
10 position as co-chair of the NAPEE. This national initiative, supported by the DOE and  
11 the EPA, is a call to action to bring stakeholders together at the regional, state, and utility  
12 level in order to have the discussions necessary to take investment in energy efficiency to  
13 a new level with an overall goal of creating a sustainable, aggressive national  
14 commitment to energy efficiency. All of these activities have given me a unique  
15 perspective and understanding of the importance of issues like climate change and energy  
16 efficiency, and I and Duke Energy will remain committed to leadership in these areas.

17 **Q. DOES THIS CONCLUDE YOUR PREPARED TESTIMONY?**

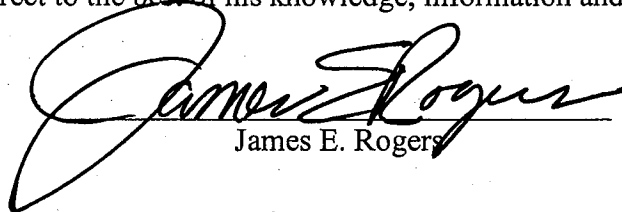
18 **A.** Yes, it does.



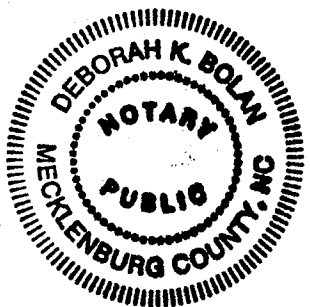
VERIFICATION


STATE OF NORTH CAROLINA )  
 ) SS:  
COUNTY OF MECKLENBURG )

The undersigned, James E. Rogers, being first duly sworn on his oath, says that he is President and Chief Executive Officer of Duke Energy Corporation, the parent holding company of Duke Energy Indiana, Inc., that he has read the foregoing; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.

  
James E. Rogers

Subscribed and sworn to before me, a Notary Public, this 10<sup>th</sup> day of October, 2006.



  
Signature

DEBORAH K. BOLAN  
Printed Name

My Commission Expires: 10-29-07

My County of Residence: Mecklenburg



**DIRECT TESTIMONY OF  
KAY PASHOS  
PRESIDENT,  
DUKE ENERGY INDIANA, INC.  
ON BEHALF OF  
DUKE ENERGY INDIANA, INC.  
CAUSE NO. 43114 BEFORE THE  
INDIANA UTILITY REGULATORY COMMISSION**

**I. INTRODUCTION**

1

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Kay Pashos, and my business address is 1000 East Main Street,  
4 Plainfield, Indiana 46168.

5 **Q. WHAT IS YOUR POSITION WITH DUKE ENERGY INDIANA, INC.?**

6 A. I am the President of Duke Energy Indiana, Inc. ("Duke Energy Indiana" or  
7 "Company"), an indirect subsidiary of Duke Energy Corporation ("Duke  
8 Energy").

9 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL  
10 BACKGROUND.**

11 A. I received a B.A. degree in political science from DePauw University, and a J.D.  
12 degree from Northwestern University Law School. Immediately after graduating  
13 from law school, I practiced with a Minneapolis law firm, Best & Flanagan, for  
14 two years before returning to Indianapolis to take a job in the Company's Legal  
15 Department. Until the end of 2004, I held a number of positions within the legal  
16 department, most recently General Counsel of Cinergy Corp.'s Regulated

KAY PASHOS

-1-

1 Businesses. In December 2004, I was named President and a member of the  
2 Board of Directors of PSI Energy, Inc. (now Duke Energy Indiana).

3 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS PRESIDENT OF**  
4 **DUKE ENERGY INDIANA.**

5 A. As a member of Duke Energy's senior executive leadership team, I share  
6 responsibility for the overall direction and strategy of Duke Energy Indiana. As  
7 President of Duke Energy Indiana, I am charged with ensuring that electricity is  
8 reliably supplied to our native load customers at reasonable costs and with quality  
9 customer service. Additionally, I share responsibility for regulatory and financial  
10 planning for Duke Energy Indiana, including achieving timely recovery of  
11 expenditures made to provide service to Duke Energy Indiana's native load  
12 customers, and achieving reasonable returns on such expenditures. Finally, I also  
13 have primary responsibility for Duke Energy Indiana's customer, community,  
14 economic development, regulatory, and governmental relations areas.

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
16 **PROCEEDING?**

17 A. The purpose of my testimony is to: (1) summarize Duke Energy Indiana's case-  
18 in-chief testimony in this proceeding; (2) provide an overview of the Duke Energy  
19 Indiana supply resources and load obligations; (3) describe the efforts Duke  
20 Energy Indiana has taken to obtain outside funding for the proposed Edwardsport  
21 Integrated Gasification Combined Cycle Project ("IGCC Project"), in order to  
22 make the IGCC Project cost-effective for the Company and our customers; (4)

1 discuss the various benefits which will accrue to Indiana from this IGCC Project;  
2 and (5) explain the ratemaking and accounting relief requested by Duke Energy  
3 Indiana in this case.

4 Along with other witnesses' testimony, my testimony will make clear that  
5 Duke Energy Indiana has a need for new baseload capacity, and that the IGCC  
6 Project represents the best choice for Duke Energy Indiana, its customers, and the  
7 State of Indiana, in terms of cost-effectiveness, robustness over the long-term,  
8 reliability, risk mitigation, and sustainability.

9 **II. SUMMARY OF DUKE ENERGY INDIANA'S CASE-IN-CHIEF**

10 **Q. PLEASE IDENTIFY JOINT PETITIONERS' EXHIBIT NO. 2-A.**

11 A. Joint Petitioners' Exhibit No. 2-A is a copy of the September 7, 2006 Joint  
12 Petition and Application filed by Duke Energy Indiana and Vectren Energy  
13 Delivery of Indiana, Inc. ("Vectren") initiating this Cause.

14 **Q. PLEASE SUMMARIZE THE RELIEF REQUESTED BY DUKE ENERGY**  
15 **INDIANA IN THIS PROCEEDING.**

16 A. Duke Energy Indiana is requesting that the Indiana Utility Regulatory  
17 Commission ("Commission") approve its proposal to construct and own up to  
18 approximately 630 MW (*i.e.*, up to 100%)<sup>1</sup> of an IGCC facility in Edwardsport,  
19 Indiana, at the site of Duke Energy Indiana's existing, circa 1940s-1950s, 160

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<sup>1</sup> We are currently contemplating that Duke Energy Indiana will own 80%, and Vectren will own 20% of the IGCC Plant. But in the event that Vectren decides not to participate as a joint owner in the IGCC Project, Duke Energy Indiana will own 100% of the Plant.

1 MW oil/pulverized coal plant. Specifically, Duke Energy Indiana is seeking  
2 Certificates of Public Convenience and Necessity (“CPCNs”), including approval  
3 of our estimated costs of construction of the IGCC Project. These approvals are  
4 being sought under Indiana’s Powerplant Construction statute,<sup>2</sup> the Clean Coal  
5 Technology Certificate statute,<sup>3</sup> the clean coal technology depreciation statute,<sup>4</sup>  
6 and Senate Bill 29.<sup>5</sup> As contemplated by these statutes, Duke Energy Indiana is  
7 seeking assurance of cost recovery for the IGCC Project.

8 In addition to the assurances of cost recovery that come with the CPCNs  
9 and approvals under these statutes, Duke Energy Indiana also requests that the  
10 Commission approve certain ratemaking and accounting treatment for the IGCC  
11 Project, including: (1) timely recovery of its construction and operating costs  
12 incurred in connection with the IGCC Project; (2) the use of accelerated (20-year)  
13 depreciation for the IGCC Project; and (3) an incentive equal to an additional 200  
14 basis points on the return on equity for the IGCC Project. The specific accounting  
15 and ratemaking requests are discussed in greater detail later in my testimony, and  
16 in the testimony of Mr. Farmer.

17 Duke Energy Indiana further requests that the Commission conduct an  
18 ongoing review of the construction of the IGCC Project as it proceeds, and that  
19 the Commission grant confidential treatment to various pricing and operating  
20 characteristic information associated with the IGCC Project and Duke Energy

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<sup>2</sup> Ind. Code Ch. 8-1-8.5.

<sup>3</sup> Ind. Code Ch. 8-1-8.7.

<sup>4</sup> Ind. Code § 8-1-2-6.7.

<sup>5</sup> Ind. Code Ch. 8-1-8.8.

1 Indiana's Integrated Resource Plan ("IRP") presented in this proceeding; (e.g.,  
2 project cost estimates, competing cost estimates, and commodity price forecasts).

3 **Q. PLEASE GIVE AN OVERVIEW OF THE CASE-IN-CHIEF TESTIMONY**  
4 **OFFERED BY THE JOINT PETITIONER DUKE ENERGY INDIANA IN**  
5 **THIS CASE.**

6 A. James E. Rogers, President and CEO of Duke Energy, will present testimony on  
7 why the IGCC Project is the preferred option to meet Duke Energy Indiana's base  
8 load generation power needs, as well as explain Duke Energy Indiana's leadership  
9 role in IGCC technology and its continuing commitment to energy efficiency and  
10 renewable energy initiatives.

11 Dr. Norman Shilling, Product Line Leader for Integrated Combined Cycle  
12 Power Block for GE Energy, will testify regarding the benefits of coal  
13 gasification, how IGCC technology works, and whether it is economical to build  
14 an IGCC plant. He will also explain the alliance between GE and Bechtel.

15 Robert C. Moreland, General Manager, Analytical and Investment  
16 Engineering, will provide an overview of IGCC technology, the proposed IGCC  
17 Project, and the estimated cost for the proposed IGCC Project. Mr. Moreland will  
18 also provide the analysis performed to support Ms. Jenner's IRP analysis.

19 Diane L. Jenner, Director of Integrated Resource Planning, will present  
20 testimony discussing Duke Energy Indiana's 2005 IRP, and how the proposed  
21 IGCC Project is a part of a cost-effective and robust IRP for Duke Energy  
22 Indiana.

1           Judah Rose, Managing Director of ICF International, will present  
2 testimony regarding forecasts of fuels, wholesale power, and environmental  
3 allowance prices, and the uncertainties regarding these forecasts. He will also  
4 testify regarding forecasts of utility generation capacity expansion based on his  
5 forecasts of pricing issues.

6           John L. Stowell, Vice President, Environmental, Health and Safety Policy,  
7 will explain the current and potential future environmental regulations that affect  
8 Duke Energy Indiana. Mr. Stowell's testimony will also discuss the base case  
9 environmental assumptions used in Duke Energy Indiana's 2005 IRP process and  
10 the environmental scenario analyses used in the IRP process.

11           Dr. Richard G. Stevie, General Manager of the Market Analysis  
12 Department, will testify regarding Duke Energy Indiana's long-term energy and  
13 demand forecasts and demand-side management ("DSM") programs.

14           Ronald C. Snead, Vice President of Asset Management, will present  
15 testimony describing the transmission system studies undertaken to evaluate the  
16 integration of the IGCC Project at Edwardsport into the Duke Energy Indiana  
17 transmission system.

18           Lynn J. Good, Vice President and Treasurer of Duke Energy, will address  
19 Duke Energy's financial objectives, with emphasis on the impact that a robust  
20 capital spending program will have on the Company's financial objectives and the  
21 overall credit rating of the Company. She will also discuss the accounting and  
22 ratemaking treatment sought in this proceeding.



1 Steven M. Fetter, President, Regulation UnFettered, will discuss the  
2 impact on Duke Energy's credit ratings that can result from financial commitment  
3 of the Company for its shared ownership in the IGCC Project. He will also  
4 discuss the accounting treatment and ratemaking relief requested by Duke Energy  
5 Indiana and the consequences of not being granted the relief requested.

6 John J. Roebel, Group Vice President, Engineering and Technical  
7 Services, will present testimony explaining how the proposed IGCC Project meets  
8 certain Indiana legal requirements, and how portions of the existing Edwardsport  
9 plant will be either re-used or retired and demolished.

10 Stephen M. Farmer, Revenue Requirements Director, will provide a  
11 description and summary of the various costs that Duke Energy Indiana expects to  
12 incur as a result of the construction of the IGCC Project. He will describe the  
13 ratemaking mechanism by which Duke Energy Indiana proposes to recover, on a  
14 current basis, the retail jurisdictional portion of such costs and will address the  
15 Company's ratemaking proposals relating to various local, state and federal tax  
16 incentives. Furthermore, he will explain the Company's request for deferral of  
17 certain costs for both regulatory and accounting purposes and how the Company's  
18 request in this proceeding will affect future fuel adjustment clause earnings and  
19 expense tests calculations.

1 **III. OVERVIEW OF DUKE ENERGY INDIANA'S NATIVE LOAD**  
2 **SUPPLY OBLIGATIONS AND SUPPLY RESOURCES**

3 **Q. PLEASE GIVE AN OVERVIEW OF DUKE ENERGY INDIANA'S**  
4 **NATIVE LOAD SUPPLY OBLIGATIONS.**

5 A. Duke Energy Indiana's native load supply obligations consist of providing electric  
6 energy, and having the capacity to provide such energy, to over 750,000 retail and  
7 wholesale customers located throughout Indiana. As a load-serving entity with  
8 statutory and contractual obligations to serve its native load customers, Duke  
9 Energy Indiana must be prepared to serve its customers' variable energy needs 24  
10 hours a day, 365 days a year. This necessarily includes customers' demands for  
11 electricity during peak conditions – the hottest and coldest days of the year. Duke  
12 Energy Indiana's native load customers consume approximately 34 million  
13 MWhs of energy annually,<sup>6</sup> and during peak hours, our native load customer  
14 demand has been as high as 6602 MWs.<sup>7</sup>

15 Our retail native load customers' demand for electricity continues to  
16 increase by about 1% (approx. 65 MW) annually. And while our wholesale  
17 native load customer mix and demand requirements are changing, we anticipate  
18 that this segment of our customer base will continue to grow as well over time.  
19 Dr. Stevie's testimony addresses our peak demand and energy forecasts in greater  
20 detail.

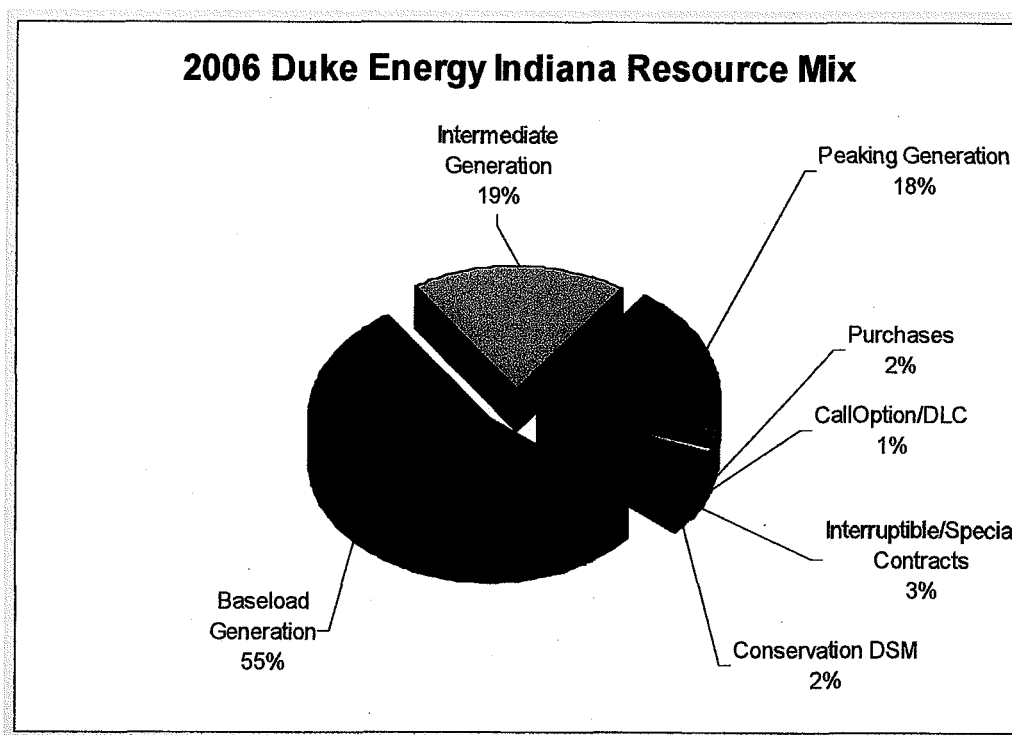
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<sup>6</sup> 2005 actual consumption.

<sup>7</sup> This all-time system peak was reached on July 31, 2006.

1 **Q. PLEASE DESCRIBE DUKE ENERGY INDIANA'S CURRENT SUPPLY**  
2 **RESOURCES.**

3 A. In order to reliably and cost-effectively meet its native load customers' demand  
4 and energy requirements, over the years Duke Energy Indiana has assembled a  
5 diverse portfolio of on-system generation, energy efficiency and demand response  
6 programs, and wholesale power purchases. The chart below illustrates the  
7 components of Duke Energy Indiana's current resource mix:



8  
9 Duke Energy Indiana's on-system generating resources – described in  
10 greater detail in Mr. Roebel's testimony – are well-balanced in terms of baseload,  
11 intermediate, and peaking generation. This generation fleet is fuel-diversified, as  
12 well, consisting of coal-fired (71%), gas-fired (25%), oil-fired (3.3%), and hydro

1 (less than 1%). Notably, we anticipate that our wholesale power purchases will  
2 become more diversified, as well, with the proposed addition of a wind energy  
3 purchase beginning in late 2007. On the demand-side, Duke Energy Indiana's  
4 energy efficiency and demand response programs – described in more detail in  
5 Dr. Stevie's testimony – provide a set of comprehensive voluntary program  
6 offerings for our residential and small commercial and industrial customers that  
7 produce significant energy and peak demand reduction impacts.

8 **Q. IS IT IMPORTANT TO HAVE A DIVERSE PORTFOLIO OF SUPPLY**  
9 **RESOURCES?**

10 A. Yes, we believe it is. In our view, a portfolio approach to resource planning is  
11 most likely to produce the best economic mix of resources while at the same time  
12 mitigating risk through diversification. Our portfolio approach facilitates the  
13 deployment of the most cost-effective combination of resources from a variety of  
14 options, such as a combination of on-system generating assets, power purchases  
15 and demand-side options. Because so many variables are uncertain in the future,  
16 satisfying load obligations with a diversified portfolio provides options that, taken  
17 together, provide a significant amount of flexibility to economically and reliably  
18 meet load obligations under a multitude of potential circumstances.

19 **Q. HOW DOES DUKE ENERGY INDIANA DECIDE WHEN TO ADD**  
20 **SUPPLY RESOURCES, AND WHAT SUPPLY RESOURCES TO ADD?**

21 A. We use a fairly sophisticated IRP process, which involves projecting the demand  
22 for power by Duke Energy Indiana native load customers and determining the

1 most economic, reliable and robust supply options and/or demand reduction  
2 alternatives for meeting that demand. Essentially, when we are facing the need  
3 for additional capacity – as we are today – we analyze and consider three basic  
4 options for meeting our load obligations: (1) build, or otherwise acquire, new  
5 supply resources; (2) buy power from the wholesale markets; and/or (3) initiate  
6 additional energy efficiency and demand response programs. Ms. Jenner’s  
7 testimony discusses Duke Energy Indiana’s IRP process in greater detail.

8 **Q. DOES DUKE ENERGY INDIANA’S 2005 IRP INDICATE A NEED FOR**  
9 **NEW RESOURCES?**

10 A. Yes. As Ms. Jenner’s testimony notes, our projected 2007 reserve margin is  
11 under 14%, less than our target planning reserve margin of 15% to 17%, and our  
12 native load customers’ demands for electricity are continuing to grow. As Ms.  
13 Jenner explains, our IRP process indicates that additional baseload capacity is  
14 needed in the 2011 to 2014 timeframe, and that the IGCC Project will be an  
15 economic and robust resource addition to our system.

16 **IV. EFFORTS TAKEN BY DUKE ENERGY INDIANA TO OBTAIN**  
17 **OUTSIDE FUNDING FOR THIS IGCC PROJECT**

18 **Q. WHY HAS DUKE ENERGY INDIANA PURSUED OUTSIDE FUNDING**  
19 **FOR THE IGCC PROJECT?**

20 A. Because of the estimated 10% to 20% cost differential between a traditional  
21 pulverized coal plant and an IGCC plant, we have aggressively sought to create  
22 and obtain state, local and federal tax incentives to help bridge that financial gap.

1 Q. PLEASE DESCRIBE THE SPECIFIC EFFORTS OF DUKE ENERGY  
2 INDIANA TO CREATE AND OBTAIN INCENTIVES TO MITIGATE  
3 THE HIGHER COST OF THE PROPOSED IGCC PROJECT.

4 A. At the state level, we first approached Indiana's legislative leadership to  
5 determine if there would be a sufficient level of support to advance the idea of  
6 various forms of financial assistance for this type of project. Given the positive  
7 response received in these initial conversations, we worked with members of both  
8 the Indiana House and Senate in the drafting of IGCC investment tax credit  
9 legislation.

10 House Bill 1246 was the original vehicle through which the above  
11 legislative concept was introduced. Eventually, that bill was incorporated into  
12 Senate Bill 378, which contained investment tax credit incentives for IGCC  
13 technology, as well as incentives for other forms of energy. These bills were  
14 heard and fully vetted in the House Ways and Means, House Utilities, Senate  
15 Finance, Senate Homeland Security, Utilities and Public Policy Committees – and  
16 were debated on the floor of both chambers, without a single “no” vote cast.

17 To further support our case for state tax incentives for IGCC, we  
18 commissioned an Economic Impact Study (performed by Ernst and Young) that  
19 confirmed the significant, positive impact that construction of an IGCC plant  
20 would have on both the local and statewide economy. Joint Petitioners' Exhibit  
21 No. 2-B is a copy of this economic impact study.

1           We worked extensively with other member companies of the Indiana  
2 Energy Association, the Statewide REMCs, the Indiana Manufacturers  
3 Association, the Indiana Coal Council, the State Utility Forecasting Group and the  
4 Indiana Economic Development Corporation. We sought – and received – their  
5 active support. In fact, testimony in support of the legislation was given by each  
6 of these organizations during the committee process and afterward.

7           These collective efforts resulted in the passage of Senate Bill 378 -- the  
8 Coal Gasification Technology Investment Tax Credit Act. This Act provides tax  
9 credits for placing into service an IGCC power plant. This law requires the  
10 taxpayer to enter into an agreement with the Indiana Economic Development  
11 Corporation to use Indiana coal and satisfy other requirements relating to the  
12 operation of the power plant.

13           The law establishes a tax credit against a taxpayer's tax liability arising  
14 under the Adjusted Gross Income Tax, Financial Institutions Tax, Insurance  
15 Premiums Tax, and the Utility Receipts Tax for qualified investment in an  
16 integrated coal gasification power plant. The credit is equal to 10% of the first  
17 \$500 million in qualified investment, and 5% of the qualified investment  
18 exceeding \$500 million. The law provides for allocating the credit among co-  
19 owners of an IGCC power plant or owners of a pass-through entity. The taxpayer  
20 may take the credit in 10 annual installments beginning with the year in which the  
21 taxpayer places the IGCC power plant into service. Based on the mid-point of  
22 current low end and high end estimates of the cost to complete the IGCC plant of

1           \$1.9 billion,<sup>8</sup> which reflects recent Electric Power Research Institute (“EPRI”)  
2           projections as described by Mr. Moreland, the total credit available for the IGCC  
3           Project is approximately \$111 million.

4                     Duke Energy Indiana’s activity and the increasing concern over  
5           environmental issues and rising fuel costs made this bill a priority for both the  
6           legislature and the Governor. The proposed IGCC Project meets all the criteria in  
7           this law.

8                     At the local level in Knox County, a total of nineteen local meetings were  
9           conducted over a period of a year and a half to help secure local incentives for the  
10          IGCC Project. Meetings were conducted with the Knox County Council, the  
11          County Commissioners, the Planning Department, the Redevelopment  
12          Commission, the North Knox School District and the Knox County Development  
13          Corporation. On April 11, 2006, the final approval for the 10-year real and  
14          personal property tax abatement and the tax increment finance (“TIF”) district  
15          was unanimously approved by the Knox County Council.

16                    This ten-year real and personal property tax abatement represents the  
17          maximum allowed by law and will begin when the plant goes into service. The  
18          estimated total property tax abatement savings for a \$1.9 billion plant (the mid-  
19          point of the EPRI range described by Mr. Moreland) is approximately \$93

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<sup>8</sup> This is an illustrative cost estimate, based on the EPRI estimates. Duke Energy Indiana’s cost estimates are confidential and are contained in Mr. Moreland’s testimony.



1 million. The TIF District represents a thirty-year agreement in which 45% of the  
2 property tax payments made by the Company and its co-owners applicable to the  
3 project will be reimbursed by the county. The estimated property tax savings –  
4 again, for a \$1.9 billion plant-- resulting from the TIF are \$106 million.

5 The bottom line is that the total estimated state and local incentives (based  
6 on a project cost of \$1.9 billion) are approximately \$310 million. Joint  
7 Petitioners' Confidential Exhibit No. 2-C sets forth these estimates based on the  
8 current Duke Energy Indiana estimate range shown on Mr. Moreland's Joint  
9 Petitioners' Confidential Exhibit No. 4-D. These tax incentives will reduce our  
10 costs of operating the IGCC Project, to the benefit of our native load customers.

11 At the federal level, Cinergy Corp., as well as Duke Energy, was  
12 extremely supportive of including advanced clean coal incentives in the Energy  
13 Policy Act of 2005 and worked hard to provide input and analysis to decision  
14 makers. Of particular value and importance is Title XIII – Sec. 1307, Sec. 48(A)  
15 Clean Coal Facilities Investment of the Energy Policy Act of 2005, which created  
16 investment tax credits (“ITC”) for IGCC and other qualifying advanced coal  
17 technologies. Under Section 48(A), a 20% ITC capped at \$800 million for IGCC  
18 and a 15% ITC capped at \$500 million for other advanced coal technologies were  
19 included. The \$800 million for IGCC was further split between projects using  
20 bituminous (\$267 million), subbituminous (\$267 million) and lignite (\$266  
21 million) coal as a primary feedstock. IGCC projects that include greenhouse gas  
22 capture capability, increased by-product utilization, and other benefits will be

1 given high priority in the allocation of credits. For the initial allocation round,  
2 applications were due to the U.S. Department of Energy ("DOE") for certification  
3 by June 30, 2006. Those projects certified by DOE will then be sent to the  
4 Internal Revenue Service ("IRS") for consideration to receive the ITCs.

5 Duke Energy Indiana worked diligently over many weeks to put together a  
6 very comprehensive application for DOE certification for the proposed IGCC  
7 Project and hand-delivered it to the DOE. We are seeking up to \$133.5 million  
8 (the maximum amount allowed) in federal tax credits for this project. The IRS  
9 will notify applicants by letter in early December 2006 as to whether or not they  
10 will be receiving any ITCs. The Company is cautiously optimistic that we will  
11 receive federal ITCs, in addition to state and local tax incentives for the IGCC  
12 Project.

13 **V. BENEFITS FOR THE STATE OF INDIANA FROM THE IGCC**  
14 **PROJECT**

15 **Q. PLEASE DESCRIBE THE POTENTIAL BENEFITS OF THE IGCC**  
16 **PROJECT FOR THE STATE OF INDIANA.**

17 **A.** The IGCC Project offers many benefits to the state, in addition to the primary  
18 benefit of providing a cost-effective and reliable generating resource. For  
19 example, the proposed IGCC Project would have a significant positive impact on  
20 both the state and local economies. Based on the EPRI mid-point estimate, the  
21 IGCC Project will involve a total investment of \$1.9 billion and will create an  
22 increased tax base for both state and local economies. Designed for Indiana coal,

1 it is estimated that the IGCC Project will use 1.5 million tons of coal per year,  
2 valued at about \$45-50 million annually. The IGCC Project will bring increases  
3 in state and local taxes paid, as well. The estimated property taxes to be paid on  
4 an investment of \$1.9 billion in years 1-10, excluding the property taxes paid  
5 during construction are approximately \$33 million, (based on the mid-point of the  
6 EPRI range described by Mr. Moreland) with the amount increasing in years 11-  
7 30, excluding the property taxes paid during construction, is estimated at \$96  
8 million.<sup>9</sup>

9 The IGCC Project will result in the creation of about 50 permanent new  
10 jobs. The majority of these positions will be high-skilled and high-paying, with  
11 the estimated annual payroll being \$4-5 million. In addition, during the three-year  
12 construction period, the number of construction jobs will average an estimated  
13 800-900. Peak construction will see the number increase to approximately 2,000.  
14 Knox County, acknowledging these attractive benefits, is very supportive of this  
15 project, and has already granted the local tax incentives that will help make this  
16 generating facility a reality.

17 The reduced environmental footprint of the IGCC Project also benefits the  
18 state. IGCC technology is a way in which both Duke Energy Indiana and the state  
19 can benefit from the use of Indiana coal, while lessening the environmental  
20 impact of electricity generation. The IGCC Project will benefit all stakeholders  
21 by being economical and environmentally responsible. The increase in baseload

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<sup>9</sup> Estimated property taxes reflect 2004 pay 2005 tax rates and current property tax laws in effect as of 12/31/05.

1 capacity will ensure continued reliability for Indiana consumers, and this addition,  
2 combined with our recently-signed wind purchased power agreement, will help to  
3 diversify Duke Energy Indiana's supply portfolio and hedge against price  
4 increases. IGCC technology carries the potential for relatively economical carbon  
5 capture and sequestration, which would allow Duke Energy Indiana to further its  
6 efforts to reduce greenhouse gases and its environmental impact. Additionally,  
7 the plant would be among the first of its size in the United States, and such  
8 technological innovation and leadership in clean coal technology reflects  
9 positively on the State of Indiana.

10 I would note that our proposed IGCC Project is also consistent with the  
11 state's recently-unveiled Strategic Energy Plan, as well as the State Utility  
12 Forecasting Group's analysis of Indiana's capacity needs. It is a prime example  
13 of a "homegrown" energy resource that will use Indiana coal in combination with  
14 clean coal technology to produce cost-effective electricity over the longer term, as  
15 well as jobs and increased capital investment in the state.

16 **VI. DUKE ENERGY INDIANA'S REQUESTED RATEMAKING AND**  
17 **ACCOUNTING RELIEF**

18 **Q. WHAT RATEMAKING AND ACCOUNTING RELIEF IS DUKE ENERGY**  
19 **INDIANA REQUESTING WITH RESPECT TO THE EDWARDSPORT**  
20 **IGCC PROJECT?**

21 **A.** In addition to the assurances of cost recovery, Duke Energy Indiana is requesting  
22 the following ratemaking and accounting authorizations from the Commission:

1 (1) timely recovery of its construction (financing) and operating and maintenance  
2 (including depreciation, property taxes, etc.) costs incurred in connection with the  
3 IGCC Project; (2) the use of accelerated (20-year) depreciation for the IGCC  
4 Project; (3) an incentive associated with the IGCC Project equal to an incremental  
5 200 basis points on the return on shareholder equity that would otherwise be  
6 earned by Duke Energy Indiana, over the life of the project; (4) deferral of post-  
7 in-service carrying costs and O&M costs (including depreciation, property taxes,  
8 etc.) on an interim basis until such costs are reflected in Duke Energy Indiana's  
9 retail rates; and (5) recovery of Duke Energy Indiana's external costs related to  
10 the development and presentation of this case. The testimony of Mr. Farmer  
11 discusses these ratemaking and accounting requests in greater detail.

12 **Q. DOES DUKE ENERGY INDIANA BELIEVE THAT ITS PROPOSED**  
13 **RATEMAKING AND ACCOUNTING TREATMENT FOR THE IGCC**  
14 **PROJECT IS REASONABLE?**

15 A. Yes, we do. Regional resource needs necessitate generation additions. At the  
16 same time, technology improvements, combined with increasingly stringent  
17 emissions reduction requirements, make deployment of IGCC technology a very  
18 reasonable choice, especially in the Midwest where coal supplies are abundant.  
19 Yet cost-effectiveness remains a challenge, and IGCC technology has not been  
20 widely deployed to date. The Indiana General Assembly recognized the  
21 importance of adding ample generation in the region, the importance of  
22 supporting the region's coal industry, and the benefits of clean coal technology

1 such as IGCC. The General Assembly has passed legislation to encourage both  
2 the construction of new generating plants that use Illinois Basin coal and the use  
3 of clean coal technology such as IGCC technology – providing both tax incentives  
4 and ratemaking and accounting incentives for projects that meet these  
5 requirements.

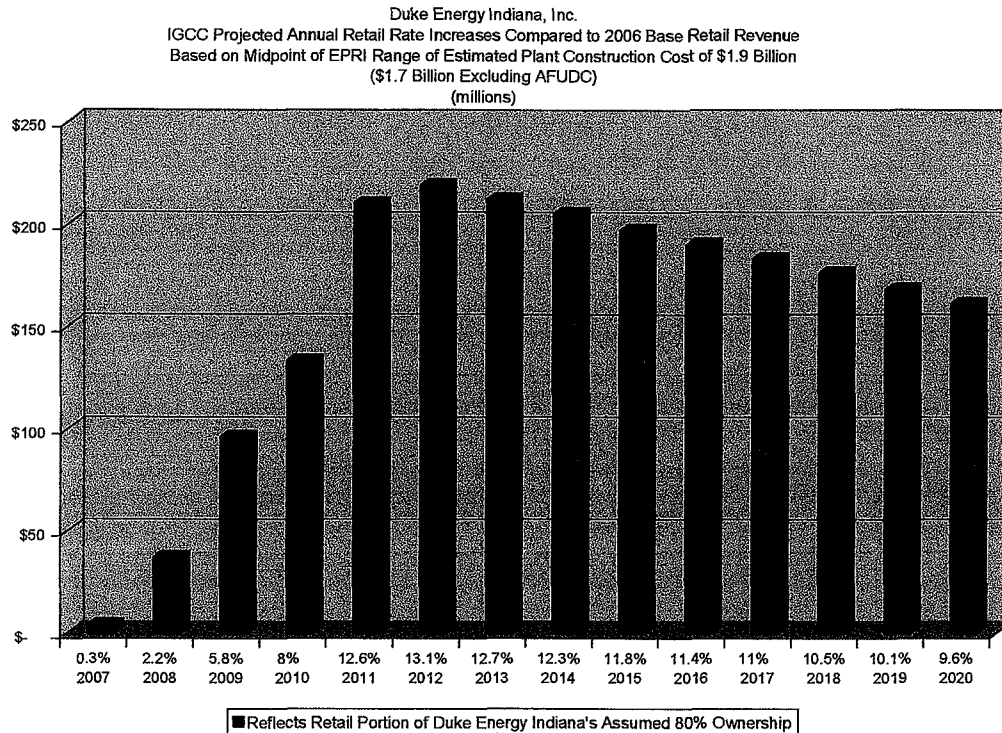
6 The ratemaking and accounting incentives we are requesting – timely  
7 recovery of costs, accelerated depreciation and an enhanced return on equity – are  
8 all explicitly authorized by Indiana statutes. Additionally, as Mr. Fetter’s  
9 testimony indicates, this proposed ratemaking will provide positive cash flow and  
10 credit quality benefits for Duke Energy Indiana, which will accrue to the benefit  
11 of both the Company and its customers.

12 Duke Energy Indiana has and continues to work diligently to make the  
13 IGCC Project a reality – by entering into an early alliance arrangement with GE  
14 Energy and Bechtel Corporation, by promoting IGCC research and development,  
15 by working to create financial incentives at federal, state and local levels to close  
16 the financial gap between IGCC and traditional pulverized coal plants, and by  
17 pursuing joint owners for this project. For all of these reasons, we believe the  
18 proposed IGCC plant, and the proposed ratemaking treatment for it, are  
19 reasonable and entirely consistent with Indiana statutory law.

20 **Q. WHAT IS THE ESTIMATED IMPACT OF THIS PLANT ON DUKE**  
21 **ENERGY INDIANA’S RETAIL RATES?**

KAY PASHOS

1 A. As illustrated below, we estimate that the retail rate impacts will be phased-in  
 2 over an approximately five-year period, with the peak rate impact of  
 3 approximately 13.1% occurring in the first full year after commercial operation  
 4 (2012):



5 The estimated rate impacts shown above are in comparison to current (2005) retail  
 6 revenue levels, which remain highly competitive on both a national and regional  
 7 comparative basis. These estimated rate impacts do not reflect the impact of  
 8 changes (savings) in fuel and emission allowance costs due to the IGCC Project.

9 It is also important to note that these rate impacts cannot be avoided by  
 10 “doing nothing.” We have resource needs that we must fill in order to continue to

1 be in a position to provide adequate and reliable service to our customers.  
2 Ignoring these resource needs would not be prudent, and our IRP analyses  
3 indicate that alternative resources will likely cost as much or more over the long  
4 term. Although this will be a significant rate impact for our customers, as the  
5 chart above shows, it will be phased in over time, which should be helpful to  
6 customers. Moreover, the magnitude of the rate impact is not at all out of line  
7 with the historical rate impacts associated with bringing new baseload capacity on  
8 line in Indiana.

9 **Q. CAN YOU SUMMARIZE THE BENEFITS OF THE IGCC PROJECT?**

10 **A.** Yes. My testimony and all of Duke Energy Indiana's testimony and exhibits  
11 demonstrate that Duke Energy Indiana has a need for new baseload capacity by  
12 2011, and the IGCC Project represents the best choice for Duke Energy Indiana,  
13 its customers and the state of Indiana in terms of cost effectiveness, robustness  
14 over the long-term, reliability, risk mitigation and sustainability. The IGCC  
15 Project represents the cleanest baseload technology available in the United States  
16 using coal as a fuel, and this technology represents one of the most efficient clean  
17 coal technologies available. The IGCC Project, located in southern Indiana, will  
18 create hundreds of construction jobs and dozens of high paying jobs at the site,  
19 which will last for the duration of the IGCC Project plant life. Furthermore, the  
20 IGCC Project will rely on Indiana coal, which is in plentiful supply, and will  
21 benefit Indiana's coal industry and create mining jobs while assuring Duke  
22 Energy Indiana and its customers a secure, affordable fuel source for the long-



1 term. The improvement to local tax base and increases in jobs will propel a  
2 positive ripple effect across the Indiana economy. The IGCC Project will rely on  
3 a variety of tax and other incentives, reducing the costs to customers. Finally, in  
4 light of growing concerns about increasing concentrations of green house gases,  
5 the IGCC Project will be adaptable to future regulations constraining the emission  
6 of carbon dioxide.

7 **VII. CONCLUSION**

8 **Q. WERE JOINT PETITIONERS' EXHIBIT NOS. 2-A THROUGH 2-C**  
9 **PREPARED BY YOU OR UNDER YOUR SUPERVISION?**

10 **A. Yes, they were.**

11 **Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?**

12 **A. Yes, it does.**

FILED

SEP 07 2006

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

INDIANA UTILITY  
REGULATORY COMMISSION

JOINT PETITION AND APPLICATION OF PSI ENERGY, )  
 INC., D/B/A DUKE ENERGY INDIANA, INC., AND )  
 SOUTHERN INDIANA GAS AND ELECTRIC COMPANY, )  
 D/B/A VECTREN ENERGY DELIVERY OF INDIANA, )  
 INC., PURSUANT TO INDIANA CODE CHAPTERS 8-1-8.5, )  
 8-1-8.7, 8-1-8.8, AND SECTIONS 8-1-2-6.8, 8-1-2-6.7, 8-1-2- )  
 42(a) REQUESTING THAT THE COMMISSION: (1) ISSUE )  
 APPLICABLE CERTIFICATES OF PUBLIC )  
 CONVENIENCE AND NECESSITY AND APPLICABLE )  
 CERTIFICATES OF CLEAN COAL TECHNOLOGY TO )  
 EACH JOINT PETITIONER FOR THE CONSTRUCTION )  
 OF AN INTEGRATED GASIFICATION COMBINED )  
 CYCLE GENERATING FACILITY ("IGCC PROJECT") TO )  
 BE USED IN THE PROVISION OF ELECTRIC UTILITY )  
 SERVICE TO THE PUBLIC; (2) APPROVE THE )  
 ESTIMATED COSTS AND SCHEDULE OF THE IGCC )  
 PROJECT; (3) AUTHORIZE EACH JOINT PETITIONER )  
 TO RECOVER ITS CONSTRUCTION AND OPERATING )  
 COSTS ASSOCIATED WITH THE IGCC PROJECT ON A )  
 TIMELY BASIS VIA APPLICABLE RATE ADJUSTMENT )  
 MECHANISMS; (4) AUTHORIZE EACH JOINT )  
 PETITIONER TO USE ACCELERATED DEPRECIATION )  
 FOR THE IGCC PROJECT; (5) APPROVE CERTAIN )  
 OTHER FINANCIAL INCENTIVES FOR EACH JOINT )  
 PETITIONER ASSOCIATED WITH THE IGCC PROJECT; )  
 (6) GRANT EACH JOINT PETITIONER THE AUTHORITY )  
 TO DEFER ITS PROPERTY TAX EXPENSE, POST-IN- )  
 SERVICE CARRYING COSTS, DEPRECIATION COSTS, )  
 AND OPERATION AND MAINTENANCE COSTS )  
 ASSOCIATED WITH THE IGCC PROJECT ON AN )  
 INTERIM BASIS UNTIL THE APPLICABLE COSTS ARE )  
 REFLECTED IN EACH JOINT PETITIONER'S )  
 RESPECTIVE RETAIL ELECTRIC RATES; (7) )  
 AUTHORIZE EACH JOINT PETITIONER TO RECOVER )  
 ITS OTHER RELATED COSTS ASSOCIATED WITH THE )  
 IGCC PROJECT; AND (8) CONDUCT AN ONGOING )  
 REVIEW OF THE CONSTRUCTION OF THE IGCC )  
 PROJECT )

CAUSE NO. 43114

JOINT PETITION AND APPLICATION

TO THE INDIANA UTILITY REGULATORY COMMISSION

PSI Energy, Inc., d/b/a Duke Energy Indiana, Inc. ("Duke Energy Indiana") and  
Southern Indiana Gas And Electric Company, d/b/a Vectren Energy Delivery of Indiana,

Inc. ("Vectren") (sometimes referred to herein individually as "Joint Petitioner" and collectively as "Joint Petitioners") respectfully represent and show to the Indiana Utility Regulatory Commission ("Commission") that:

1. **Joint Petitioners' Corporate and Regulated Status.**

A. **Duke Energy Indiana.** Joint Petitioner Duke Energy Indiana is a public utility organized and existing under the laws of the State of Indiana, with its principal office at 1000 East Main Street, Plainfield, Indiana. Duke Energy Indiana provides electric utility service in the State of Indiana. In connection with providing such service, Duke Energy Indiana owns, operates, manages and controls plant and equipment within the State of Indiana used and useful for the production, transmission and delivery of such electric service to the public. Duke Energy Indiana directly supplies electric energy to over 750,000 retail customers located in 69 counties in the central, north central and southern parts of the State of Indiana. In addition, Duke Energy Indiana serves various wholesale customers and provides steam service to an industrial customer whose manufacturing facility is located adjacent to Duke Energy Indiana's Cayuga Generating Station. Duke Energy Indiana is a "public utility" within the meaning of that term as used in the Indiana Public Service Commission Act, as amended, Ind. Code § 8-1-2-1, and is subject to the jurisdiction of this Commission in the manner and to the extent provided by the laws of the State of Indiana, including Ind. Code 8-1-2. As a public utility under the Commission's jurisdiction, Duke Energy Indiana maintains its books and records in the manner and form prescribed by the Commission under Ind. Code §§ 8-1-2-10, 12, and 14. As of April 3, 2006, Duke Energy Indiana became a second tier wholly-owned subsidiary of Duke Energy Corporation.

**B. Vectren.** Joint Petitioner Vectren is a corporation organized and existing under the laws of the State of Indiana, with its principal office located at One Vectren Square, Evansville, Indiana. Vectren owns, operates, manages and controls, among other things, plant and equipment within the State of Indiana used and useful for the production, transmission, delivery and furnishing of such utility service to its retail electric customers within the State of Indiana and to various wholesale customers. Vectren is a "public utility" within the meaning of that term as used in the Indiana Public Service Commission Act, as amended, Ind. Code § 8-1-2-1, and is subject to the jurisdiction of the Commission in the manner and to the extent provided by the laws of the State of Indiana, including Ind. Code 8-1-2. As a public utility under the Commission's jurisdiction, Vectren maintains its books and records in the manner and form prescribed by the Commission under Ind. Code §§ 8-1-2-10, 12 and 14.

**2. Joint Petitioners' Existing Electric Supply Resources.**

**A. Duke Energy Indiana's Electric Supply Resources.** Duke Energy Indiana utilizes a diverse portfolio of supply-side and demand-side resources to meet its native load customers' demands for electricity. Duke Energy Indiana's existing electric generating fleet is a mix of coal-fired, gas-fired, oil-fired, and hydro facilities, collectively capable of providing up to 7305 megawatts ("MW") of electric generating capacity (summer-rated). Approximately 92% of Duke Energy Indiana's native electric load obligations are met with power generated by Company owned generating assets. These on-system generating resources are complemented by Duke Energy Indiana's comprehensive energy efficiency and demand response programs, which are used to meet approximately 6% of Duke Energy Indiana's native electric load obligations. Duke

Energy Indiana relies on purchases from the wholesale power market to fulfill any remaining native electric load and reserve margin obligations.

**B. Vectren's Electric Supply Resources.** Vectren's current generation fleet totals 1351 MWs of both coal fired and natural gas fired units. All coal fired units are scrubbed with the exception of Culley 1 and Warrick 4. Vectren and its co-owner ALCOA are in the planning stage of a project to install a scrubber on Warrick 4 with a target completion date in 2009. Culley 1 is Vectren's oldest, smallest and least efficient coal fired unit with a rating of 46 MWs and has no pollution control equipment. This unit will be retired at the end of 2006, leaving Vectren with 1010 MWs of baseload generation. In addition, Vectren has contracted for 73 MWs of peaking power in 2006 and 100 MWs for the period of 2007-2009.

Vectren's DSM program contributes up to 35 MWs of peak reductions through direct load control of subscribing customers' air conditioning load.

On August 10, 2006, Vectren set a new system peak load of 1300 MWs. At the time of the new peak, Vectren Energy operated its direct load control program, attaining at least 25 MWs of demand reduction.

**3. Joint Petitioners' Need for Additional Electric Supply Resources.**

**A. Duke Energy Indiana's Future Capacity Needs.** Duke Energy Indiana's current on-system electric generating reserve margin is below its target planning reserve margin of 15% to 17%, and Duke Energy Indiana projects that its native electric load demand obligations will continue to grow over time, at an annual growth rate of approximately 1% to 1.5%. Through its integrated resource planning ("IRP") process, Duke Energy Indiana has determined that additional electric supply resources are required in order to continue to reliably and cost-effectively meet its customers' growing

demands for electricity. Duke Energy Indiana anticipates that a portion of its incremental supply needs will be met through incremental demand-side management ("DSM") program impacts, and a purchased power arrangement for renewable wind resources.<sup>1</sup> However, Duke Energy Indiana's IRP process indicates that its future electric supply needs warrant additional baseload capacity in the 2010-2015 timeframe, as well as an additional 160 MW of new capacity to replace the aging generating units at Duke Energy Indiana's Edwardsport Generating Station that are nearing the end of their useful economic life. The Edwardsport Generating Station is a coal and oil-fired station, consisting of three generating units with a total of 160 MW of capacity, placed in service between 1944 and 1951.

**B. Vectren's Future Capacity Needs.** As indicated by its Integrated Resource Plan which was filed with the Commission in 2004, Vectren has a demonstrated need for additional electric generating capacity in the 2010 - 2011 timeframe. The forecasted need is approximately 125 MW. The timing of this capacity need has been delayed by Vectren's contractual purchase of electric capacity and energy from merchant generators located in the State of Indiana. These current contractual arrangements are set to expire at the end of 2009, thereby leaving Vectren with essentially no electric generating reserve margin. It is important that Vectren maintain the appropriate planning electric generating reserve margin of at least 15% to ensure system reliability.

Vectren also needs additional baseload generating capacity in order to maintain an appropriate balance between reliance upon coal fired baseload capacity and its gas fired peaking capacity within the Vectren portfolio. During the period 2007- 2009, 29% of the on system capacity used to provide supply to Vectren's customers will be natural gas-

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<sup>1</sup> See Cause No. 43097, filed on August 15, 2006.

fired peaking capacity. This dependence on natural gas-fired peaking generation for a greater portion of supply will, over time, likely result in higher energy costs than can be achieved with more coal-fired baseload capacity. In addition, natural gas market conditions and future natural gas market projections provide reason for concern as to the availability of natural gas at reasonable prices, especially when required to meet Vectren's winter peak electric demand.

4. **Proposed IGCC Project.** Based on Duke Energy Indiana's and Vectren's respective IRP processes, the continuing potential for further emissions reduction requirements, the possibility of carbon regulation and the continuing volatility in natural gas, wholesale power and emission allowance markets, Duke Energy Indiana and Vectren have determined that replacing Duke Energy Indiana's existing Edwardsport Generating Station with the jointly-owned IGCC Project will most economically, efficiently, and reliably meet the Joint Petitioners' anticipated baseload electric needs over the long-term. IGCC technology offers several advantages over competing electric generating technologies, including: (a) a smaller environmental footprint, in terms of SO<sub>2</sub>, NO<sub>x</sub>, mercury, CO<sub>2</sub>, particulates, volume of water used, and solid waste produced; (b) superior efficiency, in terms of thermal efficiency; (c) the ability to cleanly utilize abundant locally mined Illinois Basin coal as the fuel source; (d) the potential for carbon capture and storage in the future; and (e) the availability of federal, state, and local incentives for the use of the IGCC technology.

5. **Joint Petitioners' Requests for Relief.**

In this proceeding, Joint Petitioners request that the Commission approve the construction of an IGCC Project of approximately 630 MW in Knox County, Indiana, at

the site of Duke Energy Indiana's existing Edwardsport Generating Station.<sup>2</sup> More specifically, (a) Duke Energy Indiana requests that the Commission approve its construction and ownership of up to 100% of the IGCC Project, and issue to Duke Energy Indiana applicable Certificates of Public Convenience and Necessity ("CPCNs") for such ownership interest under Inc. Code 8-1-8.5 and 8-1-8.7;<sup>3</sup> and (b) Vectren requests that the Commission approve its construction and ownership of up to 20% of the IGCC Project, and issue to Vectren applicable CPCNs for such ownership interest under Ind. Code 8-1-8.5 and 8-1-8.7. Along with this approval, pursuant to Ind. Code 8-1-8.5, 8-1-8.7, and 8-1-8.8, Joint Petitioners request assurance of recovery of their costs for the IGCC Project.

Joint Petitioners also request that the Commission approve certain ratemaking treatment for the IGCC Project. Specifically, Joint Petitioners' request that the Commission authorize each Joint Petitioner: (a) to timely recover its construction, operation and maintenance ("O&M") costs (including financing, depreciation, O&M, and property tax cost) associated with the IGCC Project, and the cost of transmission lines and associated equipment employed specifically to service the IGCC Project, via an applicable rate adjustment mechanism to commence upon approval by the Commission in this proceeding, and to be updated every six months thereafter; (b) to use accelerated (20-year) depreciation for the IGCC Project; (c) to receive and recover via an applicable rate adjustment mechanism an incentive associated with the IGCC Project equal to an incremental 200 basis points adder to the return on shareholder equity that would

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<sup>2</sup> Note that the Commission's Order in Cause No. 42894 provides for the recovery of IGCC feasibility, engineering and preconstruction costs (including carrying costs) as a capitalized cost of the IGCC Project if the Joint Petitioners each receive a CPCN for and participate in the construction of an IGCC Project.

<sup>3</sup> Although Duke Energy Indiana currently contemplates that it will own 80% of the IGCC Project, it is requesting approval to own up to 100%, should Vectren decide not to participate as a joint owner in the IGCC Project.



otherwise be earned by each Joint Petitioner on its net original cost IGCC investment for the life of the project; (d) to defer, as necessary on an interim basis, its property tax expense, post-in-service carrying costs, depreciation expense, and O&M costs associated with the IGCC Project, until the applicable costs are included in each Joint Petitioner's respective retail electric rates via the rate adjustment mechanism or a case setting each Joint Petitioner's basic retail electric rates and charges; and (e) to recover via the applicable rate adjustment mechanism over a two year amortization period, other external costs incurred by Joint Petitioners, such as expert witness expenses and other costs directly related to the development and presentation of the IGCC Project to the extent such costs are not otherwise properly capitalized as part of the IGCC Project.

Joint Petitioners request that the Commission conduct an ongoing review of the construction of the IGCC Project as it proceeds, and that the Commission grant confidential treatment to various pricing information associated with the IGCC Project and Joint Petitioners' IRPs presented in this proceeding; (e.g., project cost estimates, competing cost estimates, and commodity price forecasts).

**6. Relevant Indiana Statutes and Rules; Applicable Law.** Various Indiana laws and Commission rules provide for the following: Commission approval of a utility's construction and use of new energy generating facilities, clean coal technology and clean coal and energy projects; assurance of cost recovery; timely recovery of financing, construction, and operating costs; financial incentives in certain circumstances, including up to three hundred basis points on a utility's return on shareholder equity and the use of accelerated depreciation; and ongoing Commission review of the implementation of such a plan.

The Utility Powerplant Construction statute, Ind. Code 8-1-8.5 and the Clean Coal Technology Certificate statute, Ind. Code 8-1-8.7 provide for the Commission's review and approval of proposals to construct and use new generating facilities and clean coal technology. These two statutes also provide for assurance of cost recovery, consistent with approved cost and schedule estimates, and ongoing review of the construction of the projects. Ind. Code § 8-1-2-23 generally provides that the Commission shall keep itself informed of all new construction, extensions and additions to public utility property.

Ind. Code 8-1-8.8 ("Senate Bill 29"), provides for timely recovery of construction and operating costs for new energy generating facilities and clean coal and energy projects that use Illinois Basin coal. Senate Bill 29 also provides for other financial incentives for clean coal and energy projects, including specifically coal gasification projects. Ind. Code § 8-1-2-6.7 authorizes the use of accelerated depreciation (10 to 20 years) for clean coal technology projects.

Ind. Code § 8-1-2-6.8 provides for construction work in progress treatment for qualified pollution control property.

Ind. Code §§ 8-1-2-10, 12 and 14, provide for the Commission's authority concerning the books and accounts of public utilities, as related to Joint Petitioners' request to defer certain costs associated with the IGCC Project on an interim basis, until the applicable costs are reflected in each Joint Petitioner's respective retail electric rates.

Ind. Code §8-1-2-42(a) provides for the Commission approval of tracking provisions.

Ind. Code §§ 5-14-3-4 and 8-1-2-29 provide for confidential treatment of trade secrets, including cost estimate and pricing information such as that which Joint Petitioners seek to keep confidential in this proceeding.

Accordingly, Joint Petitioners consider that Ind. Code §§ 8-1-2-6.7, 8-1-2-6.8, 8-1-2-10, 8-1-2-12, 8-1-2-14, 8-1-2-23, 8-1-2-42(a), chapters 8-1-8.5, 8-1-8.7, 8-1-8.8, and §§ 8-1-2-29 and 5-14-3-4 are applicable to the subject matter of this proceeding.

7. **Request for Prehearing Conference.** Joint Petitioners request that, pursuant to 170 I.A.C. 1-1.1-15 and consistent with Ind. Code § 8-1-8.8-11(e), which provides for an expedited procedural schedule and Commission ruling, the Commission promptly convene a prehearing conference in this Cause for the purpose of establishing an expeditious procedural schedule in this Cause.

8. **Joint Petitioners' Counsel.** J. William DuMond, Kelley A. Karn, James R. Pope, Melanie D. Price, all at 1000 East Main Street, Plainfield, Indiana, 46168, are counsel for Joint Petitioner Duke Energy Indiana in this matter, and are duly authorized to accept service of papers in this Cause on behalf of Duke Energy Indiana.

Robert E. Heidorn, Vectren Energy Delivery of Indiana, Inc., One Vectren Square, Evansville, Indiana 47708 and Daniel W. McGill, Barnes and Thornburg LLP, 11 South Meridian Street, Indianapolis, Indiana 46204, are counsel for Vectren in this matter, and are duly authorized to accept service papers in this Cause on behalf of Vectren.

WHEREFORE, Joint Petitioners Duke Energy Indiana and Vectren respectfully request that the Commission, after notice and hearing, issue an order granting the relief requested by this Joint Petition and Application, and grant Joint Petitioners such other and further relief in the premises as may be appropriate and proper.

Dated this 7th day of September, 2006.

**PSI ENERGY INC. D/B/A  
DUKE ENERGY INDIANA, INC.**

By: 

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**SOUTHERN INDIANA GAS AND  
ELECTRIC COMPANY D/B/A  
VECTREN ENERGY DELIVERY OF  
INDIANA, INC.**

By: 

Counsel

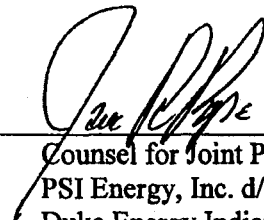
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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that copy of the foregoing Joint Petition and Application was delivered or mailed, postage prepaid, in the United States Mail, this 7<sup>th</sup> day of September, 2006, to:

Office of Utility Consumer Counselor  
Indiana Government Center North  
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Indianapolis, IN 46204-2208

  
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JOINT PETITIONERS' EXHIBIT NO. 2-B  
QUANTITATIVE ECONOMICS  
& STATISTICS

FEBRUARY 18, 2005



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# Potential Economic and Fiscal Impacts of a Proposed Indiana Generating Facility

## Introduction

To meet the state's growing baseload power needs, various entities and Indiana utilities are interested in evaluating the public and private sector financial feasibility of creating additional Indiana generating capacity.

To illustrate the potential impacts of a new generating facility, this study presents estimates of the potential economic and fiscal impacts of constructing and operating an integrated gasification combined cycle (IGCC) electric power plant in Indiana. The impact analysis uses the estimated construction and operating characteristics of a plant that is currently under consideration by Cinergy/PSI, in an alliance with General Electric Company and Bechtel Corporation, to illustrate the potential impacts of an IGCC plant on the Indiana economy.

## Background

The proposed 500 to 600 MW plant would be the first plant of its kind announced under the recently proposed PSI-GE-Bechtel alliance, characterized by the following features:

- **Coal Fueled:** The IGCC plant would use the abundant regional resources of high-sulfur coal as the primary fuel, protecting local mining jobs and expanding the local economy. In light of the volatile price of oil and limited supplies of natural gas available, coal is the most practical alternative for addressing Indiana's additional baseload power needs.
- **Clean Technology:** The plant would help address the state's growing power demand with reduced environmental impact. IGCC plants convert coal into synthesis gas fuel for advanced combustion turbine-generators. Waste heat from the turbine exhaust is recovered and used to drive a steam turbine generator. Integration of the gasification process and a combined cycle power plant result in the cleanest method of using coal to produce electric power demonstrated in a commercial setting.
- **Up-Front Costs:** The advanced technology used in IGCC plants results in higher construction, financing, and startup costs relative to traditional generating facilities.

*The accompanying analyses were prepared for the use of Cinergy/PSI management and other limited distribution parties. While we performed the procedures discussed above with respect to the analyses, the procedures constitute neither an examination nor a compilation of prospective financial statements nor the application of agreed-upon procedures thereto in accordance with the attestation standards established by the American Institute of Certified Public Accountants ("AICPA"). Accordingly, we do not express an opinion on or offer any other assurances as to whether the financial analyses are presented in conformity with AICPA presentation guidelines or as to whether the underlying assumptions provide a reasonable basis for the analyses. The analyses were based on assumptions which will usually differ from actual results, because events and circumstances frequently do not occur as expected, and these differences may be material. We have no responsibility to update or otherwise revise the financial analyses for events and circumstances occurring after the date of our report unless subsequently engaged to do so.*

## Key Findings

The proposed plant will create significant economic and fiscal impacts during its construction and operation, including the selected highlights below.

### Construction-Period Impacts

- ▶ **Direct Economic Impact:** Construction of the proposed generating plant will require nearly 940 construction workers each year, equivalent to more than 2,800 one-year, temporary positions. The compensation of construction-related employees combined with the operating surplus of the construction contractor will increase Indiana resident personal income by a total of \$257 million over the three year construction period.<sup>1,2</sup>
- ▶ **Indirect Economic Impacts:** Increased supplier and consumer purchases will create an additional 1,950 jobs and \$186 million in personal income over the three-year period.
- ▶ **Total Economic Impact of Capital Investments:** The combined direct and indirect economic impact of the plant's construction include 2,890 additional jobs for duration of the three-year construction period and over \$440 million in additional personal income to state residents.
- ▶ **Fiscal Impact of Capital Investments:** Direct tax payments by Cinergy/PSI and the construction contractors will result in one-time state tax revenue of \$14.4 million. Increased economic activity and personal income will generate an additional \$12.5 in state revenue, resulting in total state revenues of \$26.9 million attributable to the construction of the proposed facility.

### Ongoing Operating Impacts

- ▶ **Direct Economic Impact:** The operation of the proposed facility will create approximately 87 full-time jobs. These jobs will increase annual Indiana resident personal income by \$11.1 million during the first year of stabilized operations.<sup>3</sup>
- ▶ **Indirect Economic Impacts:** The significant purchases from Indiana suppliers combined with consumer spending by Cinergy/PSI and supplier employees will create an additional 1,630 jobs and \$85.3 million in personal income.
- ▶ **Total Ongoing Economic Impact:** The combined direct and indirect economic impact of ongoing operations include 1,719 jobs and \$96.4 million in additional personal income to state residents.
- ▶ **Fiscal Impact of Capital Investments:** Direct tax payments by Cinergy/PSI will result in increased state tax revenue of \$7.3 million during the first stabilized year of operations. Increased economic activity and personal income will generate additional state revenue of \$5.7 million, resulting in total state tax revenues of \$13.0 million attributable to the ongoing operations of the proposed facility during the first stabilized year of operations.

<sup>1</sup> Personal income includes wage and salary payments, fringe benefits, employer contributions for social insurance, proprietor's income, dividends and interest payments, and subsidies.

<sup>2</sup> Cinergy/PSI has estimated new wages from construction at \$165 million, excluding fringe benefits.

<sup>3</sup> Cinergy/PSI estimates wage and salary payments to be \$4-5 million, excluding fringe benefits.



## Estimation Methodology

The private-sector benefits of the proposed project include new jobs and increased local resident income. The impact of the facilities' construction and ongoing operations is summarized in the results tables using as direct, indirect, and induced economic and fiscal impacts.

### Direct and Indirect Impacts

The direct, indirect, and total economic impacts are presented for the construction and operation of the proposed facility.

- ▶ **Direct Impact:** The estimated direct impact of each activity is measured as the additional output, personal income, or employment connected directly to the facility. The direct public-sector benefits include increased state and local taxes, such as sales and use, excise, and Indiana adjusted gross income tax paid directly by Cinergy/PSI or its employees.
- ▶ **Indirect Impact:** The direct impacts described above include purchases of goods and services from other Indiana firms, which create a ripple or multiplier effect throughout the entire local and statewide economy. During the construction phase, indirect impacts result primarily from the purchase of building materials and equipment. The indirect impact from ongoing operations results from expenditures related to tangible property purchases as well as contract labor, business services, and other services provided by local firms.
- ▶ **Induced Impact:** The increased employment and wages at Cinergy/PSI and its supplier firms result in substantial induced consumer spending, which generates the third and final round of economic multiplier effects.<sup>4</sup>

An economic model of the Indiana economy, developed by Minnesota IMPLAN Group, Inc., was used to estimate the direct and indirect impacts of one-time construction expenditures and ongoing operating economic, based on the assumptions and data described below.

<sup>4</sup> To simplify the presentation of results, the indirect and induced impacts will be combined and described as indirect effects.

## Key Assumptions

The direct impacts that drive the economic multiplier model were derived using project data supplied by Cinergy/PSI, including construction and equipment costs, average wage and salary levels, projected employment levels, annual projected revenue, and major operating expenses. Unless otherwise indicated, the project data and assumptions described below are estimates provided by Cinergy/PSI that may vary based on supplier cost and plant configuration.

### Construction Period

Although they are one-time expenditures, the direct capital investments in the proposed generation facility are expected to generate significant economic impacts from payments to local workers and suppliers. The analysis incorporates the following assumptions in the estimated impact of the proposed construction period activities:

- Over the three-year construction period, Cinergy/PSI will spend approximately \$950 million on building materials, construction labor, specialized generating machinery, and pollution control equipment.<sup>5</sup>
- Cinergy's purchase of generating equipment and pollution control equipment will be exempt from Indiana sales tax.<sup>6</sup>

### Ongoing Operations

The ongoing impact of the facility includes increased Indiana output (sales), employment, and personal income. The estimated impacts are based on the project data and assumptions described below, which were provided by Cinergy/PSI as potential unless otherwise noted.

#### Employees and Compensation:

- The plant will employ 87 people.<sup>7</sup>
- Payroll costs are estimated to be \$4.9 million annually, excluding fringe benefits and employer contributions for social insurance.<sup>8</sup>

#### Gross Sales and Transaction Taxes:

- The annual operation of the facility will generate approximately \$200 million in gross revenue from sales of electricity.<sup>9</sup>
- Consumer sales and utility taxes will be remitted by Cinergy/PSI and will total an estimated \$100 million during a stabilized year of operations. Cinergy/PSI's sales and gross receipts tax collections *are not* attributed to the construction and operation of the plant, assuming that additional Indiana demand for electricity cannot be attributed to the proposed facility.

<sup>5</sup> Total construction period capital investment is projected to be \$750 million to \$1.1 billion.

<sup>6</sup> IN Code § 6-2.5-5-7, Indiana Dept. Revenue Sales Tax Information Bulletin #51

<sup>7</sup> Cinergy/PSI projects between 77 and 97 employees at the facility.

<sup>8</sup> Total annual payroll expense is projected to be \$4.3 to \$5.5 million annually, excluding non-wage compensation and benefits.

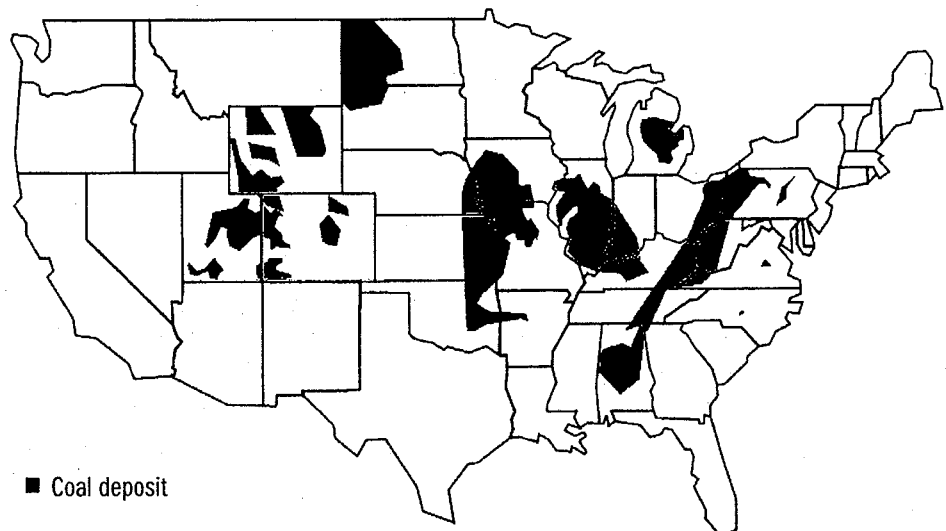
<sup>9</sup> \$200 million sales is equivalent to the \$275 million output impact presented in Table 3, assuming a 6.6% annual growth rate from 2005 to 2010.

### Operating Expenses and Business Taxes:

- ▶ Based on the projected net income attributable to the proposed facility, approximately \$6.5 million of corporate income tax will result from the operation of the proposed facility during its first year of stabilized operation.
- ▶ Coal costs will total approximately \$40 million annually. For the purposes of this analysis, we assume 90% of the facility's annual coal requirement will be supplied by Indiana firms due to the state's large coal reserves (see Figure 1).

### Figure 1. U.S. Coal Deposits

The coal deposits illustrated in this figure contribute significantly to the proposed generation facility's estimated impact on the Indiana economy. By relying heavily on a locally-supplied commodity, the capital investment in the Cinergy/PSI plant will have a relatively greater impact on local jobs and income than facilities importing fuel from other states. Reduced transportation costs associated with importing coal will also contribute to lower operating costs and potentially lower rates.



### Ancillary Operations

Ancillary businesses may develop near the proposed facility to acquire low-cost production inputs that are by-products of the IGCC process. The reduced transportation costs and regular supply of these materials would be expected to attract industrial users of the inputs to the local economy, generating significant additional economic and fiscal impacts. Although the estimated impacts *do not* include the potential impacts of ancillary businesses, the following byproducts would be produced by the proposed plant and could be used as described below:

- ▶ Slag is used by the cement industry and in road base construction
- ▶ Elemental sulfur is widely used by many industries.

## Estimated Economic and Fiscal Impacts

The estimated economic impacts of Cinergy/PSI's proposed construction and operation of a new Indiana generating facility are summarized in terms of direct and indirect output (sales), personal income, and employment for the initial construction period and a stabilized year of operations.

### Construction Period Impacts

Table 1 summarizes the potential impact of construction activity and related capital investments on the Indiana economy during each year of the construction period and as the total for the construction period. The table shows the estimated direct and indirect impacts in terms of sales and personal income (in millions of dollars) and employment.<sup>10</sup>

Note that the employment impact for each year is presented as the number of one-year positions created by the project. The cumulative impact column presents the total impact accrued over the three-year period and the average increase in employment.

**Table 1. Construction Period Economic Impacts**

(Millions of Nominal Dollars and Number of Employees - may not add due to rounding)<sup>11</sup>

Construction Period Impacts	Year 1	Year 2	Year 3	Cumulative
<b>Direct Impacts</b>				
Direct Output Impact <sup>12</sup>	\$91.1	\$190.3	\$198.6	\$480.0
Direct Personal Income Impact	\$48.8	\$102.0	\$106.5	\$257.3
Direct Construction Employment Impact <sup>13</sup>	564	1128	1128	940*
<b>Indirect Impacts</b>				
Indirect Output Impact	\$98.4	\$205.5	\$214.5	\$518.4
Indirect Personal Income Impact	\$35.4	\$74.0	\$77.3	\$186.7
Indirect Employment Impact	1,083	2,311	2,462	1,952*
<b>Total Direct and Indirect Impacts</b>				
Total Output Impact	\$189.5	\$395.8	\$413.2	\$998.5
Total Personal Income Impact	\$84.3	\$176.0	\$183.7	\$444.0
Total Employment Impact	1,644	3,434	3,585	2,888*

\*Average employment impact over the three-year construction period.

<sup>10</sup> To simplify the presentation of results, the indirect and induced impacts are combined and described as indirect effects.

<sup>11</sup> Assumes construction period of three years, from 2007 through 2009.

<sup>12</sup> When modeling the impact of capital investments, land costs are excluded. When included, capital investment totals \$950 million, of which approximately 50% is paid to Indiana labor or capital.

<sup>13</sup> 901 direct jobs (300 jobs over three-year construction period) will be created by direct purchases of materials and services related to the project. These employees are not on-site construction workers and have been removed from the direct impact results presented in the table above and combined with the indirect employment impacts as "first-round" indirect impacts.

ECONOMIC AND FISCAL IMPACTS OF A  
PROPOSED INDIANA GENERATING FACILITY

Table 2 presents the construction period state fiscal impacts. The estimated direct and indirect fiscal impacts are presented for each year of the period and as cumulative, 3-year totals.

Note that the direct fiscal impacts include both the tax liabilities of Cinergy/PSI and those of its construction contractor. Additionally, the purchases of building materials by the construction contractor are assumed to be taxable while all other capital equipment acquisitions are assumed to be exempt.

**Table 2. Construction Period Fiscal Impacts**

(Thousands of Nominal Dollars - may not add due to rounding)<sup>14</sup>

Construction Period Impacts	Year 1	Year 2	Year 3	Cumulative
<b>Direct State Tax Impact</b>				
Total General Sales Tax	\$700	\$1,461	\$1,525	\$3,686
Other Selective Sales Tax	577	1,204	1,257	3,038
Individual Income Tax	1,147	2,395	2,500	6,041
Corporation Net Income Tax	150	313	327	791
Other Taxes	153	318	332	803
<b>Total State Tax Impact</b>	<b>\$2,725</b>	<b>\$5,691</b>	<b>\$5,941</b>	<b>\$14,357</b>
<b>Indirect State Tax Impact</b>				
Total General Sales Tax	\$908	\$1,895	\$1,978	\$4,781
Other Selective Sales Tax	418	874	912	2,204
Individual Income Tax	832	1,737	1,814	4,383
Corporation Net Income Tax	109	227	237	573
Other Taxes	110	229	239	578
<b>Total State Tax Impact</b>	<b>\$2,377</b>	<b>\$4,963</b>	<b>\$5,182</b>	<b>\$12,522</b>
<b>Total State Tax Impact</b>				
Total General Sales Tax	\$1,607	\$3,356	\$3,504	\$8,467
Other Selective Sales Tax <sup>15</sup>	995	2,078	2,169	5,242
Individual Income Tax	1,979	4,132	4,314	10,424
Corporation Net Income Tax	259	541	564	1,364
Other Taxes <sup>16</sup>	263	547	571	1,381
<b>Total State Tax Impact</b>	<b>\$5,103</b>	<b>\$10,654</b>	<b>\$11,123</b>	<b>\$26,880</b>

<sup>14</sup> Assumes a construction period of three years, from 2007 through 2009.

<sup>15</sup> Includes motor fuels taxes, public utilities taxes, and other selective sales taxes on specific commodities, businesses, or services not reported separately (e.g., on contractors, lodging, lubricating oil, fuels other than motor fuel, motor vehicles, meals, etc.).

<sup>16</sup> Includes business and corporate license, motor vehicle license, public utility license, state property, building permits, documentary stock and transfer taxes, and severance taxes.

## Ongoing Operating Impacts

Table 3 presents the economic impact of the proposed facility's ongoing operations. The direct, indirect, and total economic impacts are presented for the first anticipated year of stabilized operations.

Note that the large employment impact multiplier results from the generating facility's unusually high capital intensity, high average wage level, and the high percentage of input purchases from in-state coal mining firms. These factors combined result in an employment multiplier of 19.8 and a corresponding personal income multiplier of 8.7. The unusually high employment and income multipliers do not, however, drive the overall economic impact results, which have an output multiplier of 1.8 and a property income multiplier of 2.4.<sup>17</sup>

**Table 3. Economic Impact of Ongoing Operations**

(Millions of 2010 Dollars - may not add due to rounding)

Economic Impact of Operations	Direct	Indirect	Total
Output Impact	\$284.3	\$234.2	\$518.5
Personal Income Impact <sup>18</sup>	\$11.1	\$85.3	\$96.4
Employment Impact	87	1,632	1,719

Table 4 presents the estimated fiscal impact of the proposed generating plant. The direct sales and corporate net income impacts were derived from data provided by Cinergy/PSI while other direct and indirect fiscal impacts were estimated based on the facility's expected economic impact.

Note that in addition to the fiscal impact from operations presented in Table 4, Cinergy/PSI will collect and remit nearly \$100 million annually in utility gross receipts taxes and sales tax on sales of electricity. The proposed facility is not projected to affect directly the consumption of electricity in Indiana - therefore, transaction taxes on electric utility consumption *are not* included in the fiscal impact estimates presented in this study.

**Table 4. Fiscal Impacts of Ongoing Operations**

(Thousands of 2010 Dollars and Number of Employees - may not add due to rounding)

State Tax	Direct	Indirect	Total
General Sales and Use Tax	\$0	\$2,184	\$2,184
Other Selective Sales Taxes <sup>19</sup>	131	1,007	1,138
Individual Income Tax	641	2,002	2,643
Corporation Net Income Tax	6,504	262	6,766
Other Taxes <sup>20</sup>	35	266	300
<b>Total State Tax Impact</b>	<b>\$7,301</b>	<b>\$5,721</b>	<b>\$13,022</b>

<sup>17</sup> The property income impacts are not shown in the results table. These impacts represent payments to capital including corporate profits, interest, dividends, and allowances for depreciation.

<sup>18</sup> Personal income includes wage and salary payments, fringe benefits, employer contributions for social insurance, proprietor's income, dividends and interest payments, and subsidies.

<sup>19</sup> Includes insurance premium taxes, motor fuels taxes, public utilities taxes, and other selective sales (e.g., on contractors, lodging, lubricating oil, fuels other than motor fuel, motor vehicles, meals, etc.).

<sup>20</sup> Includes business licenses, motor vehicle licenses, public utility licenses, state property tax, building permits, documentary stock and transfer taxes, and severance taxes.

## Appendix: Estimation Methodology

This section describes the methodology used to estimate the direct and indirect economic contributions of Cinergy/PSI's activities in Indiana. The analysis uses a 500-sector economic model developed by Minnesota IMPLAN Group, Inc., incorporating the latest statistical information available for Indiana, to estimate the private sector contribution of Cinergy/PSI's operations and investment.<sup>21</sup> The model has been customized to reflect the unique characteristics of the proposed facility's construction and operation based on the data and assumptions described in the study.<sup>22</sup>

### Direct and Indirect Contributions

Cinergy/PSI's economic contributions include both direct and indirect economic contributions.

- **Direct Contributions:** Higher employment and income due to Cinergy/PSI expenditures on capital investment, wages and salaries, and business input purchases are the direct economic contributions of the company's operations in Indiana.
- **Indirect Contributions:** Indirect economic contributions include additional incomes, and employment related to increased sales and economic activity by Indiana suppliers and vendors selling to the Cinergy/PSI. Additional in-state consumer spending due to increased disposable income created by higher statewide employment is also included in the indirect contributions. This is often referred to as the induced economic contribution.

The economic contributions are based on projected employment and capital spending provided by Cinergy/PSI. Direct and indirect economic contributions are estimated for both ongoing operations and capital spending.

### Fiscal Contribution Methodology

Cinergy/PSI's economic contributions generate substantial tax revenues for Indiana. These taxes are either paid directly by Cinergy/PSI or indirectly by suppliers or consumers spending their higher incomes. Direct taxes paid by Cinergy/PSI or its employees include license taxes, personal income taxes, utility receipts taxes and the Indiana adjusted gross income tax. Indirect taxes occur as Indiana suppliers, retailers, service firms, and other businesses increase sales and economic activity in response to additional sales related to Cinergy/PSI operations and investment. These additional indirect taxes are generated through the economic multiplier effect.

<sup>21</sup> The IMPLAN model, based on U.S. Commerce Department's Bureau of Economic Analysis Input-Output matrices, was used to estimate intermediate input purchases for the "Power Generation and Supply" industry. The economic impacts of Cinergy/PSI's proposed operations were modeled based on the operating characteristics of the same industry, NAICS 221100.

<sup>22</sup> The regional purchase coefficients estimated by the IMPLAN model were adjusted to reflect the assumption that 90% of the facility's coal requirement will be supplied by in-state firms and that the majority of major equipment assemblies will be imported from out-of-state suppliers. Additionally, average compensation and output per worker were modified to reflect the projected expenditures and employment associated with the construction and ongoing operations of the plant.

ECONOMIC AND FISCAL IMPACTS OF A  
PROPOSED INDIANA GENERATING FACILITY

Direct fiscal contributions for major Indiana state taxes were calculated using statutory rates and estimated tax bases. Additional direct tax contributions for minor taxes and all indirect tax contributions were estimated using ratios of the most recent tax collections to state or county personal income for each type of tax.

Estimates of the higher state and local taxes resulting indirectly from increased economic activity are based on E&Y's fiscal models for Indiana. Using data from the U.S. Bureau of the Census, *Governmental Finances*, and the U.S. Bureau of Economic Analysis (BEA), the model calculates the ratio of state and local taxes to personal income for all major taxes in Indiana.

The tax ratios were then adjusted by estimates of the responsiveness of tax bases to personal income (tax base elasticities) and applied to the estimated direct and indirect change in personal income due to Cinergy/PSI's activities in Indiana, as estimated by the IMPLAN model. The resulting increase in state tax collections is reported by tax type separately for both state taxes collected.



Duke Energy Indiana Estimated Tax Incentives

**VERIFICATION**

STATE OF INDIANA            )  
  )    SS:  
COUNTY OF HENDRICKS    )

The undersigned, Kay Pashos, being first duly sworn on her oath, says that she is President, Duke Energy Indiana, Inc., that she has read the foregoing; and that the matters set forth therein are true and correct to the best of her knowledge, information and belief.

*Kay Pashos*  
Kay Pashos

Subscribed and sworn to before me, a Notary Public, this 9<sup>th</sup> day of October, 2006.

*Lana J. Horner*  
Signature

LANA J. HORNER  
Printed Name

My Commission Expires: 4/19/2007

My County of Residence: HENDRICKS