

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF DUKE ENERGY)
INDIANA, INC. SEEKING (1) APPROVAL OF AN)
ONGOING REVIEW PROGRESS REPORT)
PURSUANT TO I.C. 8-1-8.5 AND 8-1-8.7; (2))
AUTHORITY TO REFLECT COSTS INCURRED)
FOR THE EDWARDSPOINT INTEGRATED)
GASIFICATION COMBINED CYCLE)
GENERATING FACILITY ("IGCC PROJECT"))
PROPERTY UNDER CONSTRUCTION IN ITS)
RATES AND AUTHORITY TO RECOVER)
APPLICABLE RELATED COSTS THROUGH ITS)
INTEGRATED COAL GASIFICATION)
COMBINED CYCLE GENERATING FACILITY)
COST RECOVERY ADJUSTMENT, STANDARD)
CONTRACT RIDER NO. 61 PURSUANT TO I.C. 8-)
1-8.8-11 AND -12; AND (3) ESTABLISHMENT OF A)
SUBDOCKET PROCEEDING TO REVIEW THE)
COST ESTIMATE FOR THE IGCC PROJECT;)
AND (4) APPROVAL OF A REQUEST TO UPDATE)
ITS DEPRECIATION RATES FOR PRODUCTION)
TRANSMISSION, DISTRIBUTION AND)
GENERAL PLANT AND EQUIPMENT)

CAUSE NO. 43114 IGCC 4 S1

RESPONSIVE TESTIMONY OF

ANTHONY A. ALVAREZ – PUBLIC’S EXHIBIT NO. 2R

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

July 1, 2011

REDACTED (PUBLIC VERSION)
RESPONSIVE TESTIMONY OF ANTHONY A. ALVAREZ
CAUSE NO. 43114 IGCC 4-S1 Ph I
DUKE ENERGY INDIANA, INC.

INTRODUCTION AND WITNESS QUALIFICATIONS

1 **Q: Please state your name and business address.**

2 A: My name is Anthony A. Alvarez. My business address is 115 W. Washington
3 Street, Suite 1500 South, Indianapolis, Indiana 46204.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC")
6 as a Utility Analyst II within the Resource Planning and Communications
7 Division.

8 **Q: Please describe your background and experience.**

9 A: I hold a Master of Business Administration Degree from the University of the
10 Philippines ("UP") Diliman, Quezon City, Philippines. I also hold a Bachelor of
11 Science in Electrical Engineering Degree from the University of Santo Tomas
12 ("UST"), Manila, Philippines.

13 Hired by the OUCC in July 2009, I have completed the regulatory studies
14 program at Michigan State University sponsored by the National Association of
15 Regulatory Utility Commissioners ("NARUC"), as well as other utility and
16 renewable energy resources-related seminars, forums and conferences.

1 Prior to joining the OUCC, I worked for the Manila Electric Company
2 (“MERALCO”) in the Philippines as a Senior Project Engineer responsible for
3 overall project and account managements of medium and large industrial and
4 commercial customers. I evaluated electrical plans, designed overhead and
5 underground primary and secondary distribution lines and facilities, primary and
6 secondary line revamps, extensions and upgrades with voltages from 34.5 KV and
7 lower. I successfully completed the MERALCO Power Engineering Program, a
8 two-year program designed for engineers in the power and electrical utility
9 industry.

10 **Q: Have you previously testified before the Indiana Utility Regulatory**
11 **Commission (IURC)?**

12 A: Yes.

13 **Q: What have you done to prepare for your presentation of testimony in this**
14 **proceeding?**

15 A: I read the pre-filed, rebuttal and supplemental testimonies of Petitioner's witness
16 Mr. W. Michael Womack and reviewed the exhibits, schedules and work papers
17 relating to the \$2,880,000,000.00 (\$2.88B) Revised Project Cost Estimate
18 (“revised estimate” or “revised cost estimate”) for the Integrated Gasification
19 Combined Cycle (“IGCC”) project at EdwardSPORT, Indiana by Duke Energy
20 Indiana (“Petitioner ” or “Duke”). I also reviewed multiple versions of Duke’s
21 \$2,350,000,000.00 (\$2.35B) current project cost estimate as authorized by the
22 Commission for the IGCC project. I read and reviewed the multiple Duke IGCC
23 project management confidential and publicly available email communications in

1 this cause. I have likewise participated in meetings and discussions with
2 members of Duke's staff, interveners and OUCC staff and consultants in regard to
3 matters relevant to this proceeding.

4 **Q: What is the purpose of your testimony?**

5 A: I will discuss the prudence of the Petitioner's revised cost estimate for the
6 completion of the IGCC project. First, I will address the manner in which the
7 Petitioner apparently manipulated the budget allocations for the major cost
8 categories in the current \$2.35B project estimate. The evidence indicates Duke
9 has also manipulated the budget allocations to its own advantage in relation to the
10 \$2.88B revised cost estimate.

11 Second, I will discuss how the Petitioner has systematically taken control of work
12 scopes beyond its capability, casting serious doubt on the competency of its own
13 project management and the accuracy of its cost estimates.

14 I will address Duke's request for \$126.3M as additional cost contingencies related
15 to the project, and demonstrate that within that request, Duke also appears to have
16 embedded additional cost contingency amounts in excess of \$137M.

17 Finally, I will discuss the additional embedded contingency found in Petitioner's
18 Confidential Exhibit J-5 attached to Mr. Womack's rebuttal testimony. This
19 additional embedded contingency was not explicitly shown in any of the
20 Petitioner's filings prior to Mr. Womack's rebuttal testimony. The embedded
21 contingency in Duke's cost estimates demonstrates a lack of transparency and

1 calls into question the overall reasonableness of Duke's latest revised cost
2 estimates.

3 **Q: Please describe the examination and analysis you conducted in order to**
4 **prepare your testimony and exhibits in this Cause.**

5 A: First, I reviewed Mr. Womack's Confidential Exhibit B-1 ("Pet. Conf. Ex. B-1")
6 in Cause No. 43114 IGCC-1 ("IGCC-1") that contains a high level breakdown of
7 the Petitioner's original \$1.985 B, and the Commission approved current \$2.35B
8 project cost estimates.

9 Second, I reviewed Petitioner's Confidential Exhibits A-2 ("Pet. Conf. Ex. A-2"),
10 and A-4, Tab 9.a, "Edwardsport IGCC Project, Project Progress No. 17 – October,
11 2009, 5c. Control Budget" ("Pet. Conf. Ex. A-4") in Cause No. 43114 IGCC-4
12 ("IGCC-4") that contains a detailed breakdown of the Commission approved
13 current \$2.35 B cost estimate. I also reviewed other succeeding Control Budget
14 Reports Duke submitted to the Commission through its IGCC tracker filings from
15 IGCC-5 through IGCC-7.

16 Third, I reviewed Mr. Womack's Confidential Exhibits C-1 ("Pet. Conf. Ex. C-
17 1") and C-2 ("Pet. Conf. Ex. C-2") containing the Petitioner's \$2.88B revised cost
18 estimate in Cause No. 43114 IGCC-4S ("IGCC-4S") sub-docket. Lastly, I also
19 reviewed the Petitioner's Confidential Exhibit J-5 ("Pet. Conf. Ex. J-5") from Mr.
20 Womack's rebuttal testimonies in this sub-docket that contains additional
21 embedded contingency previously unknown to the OUCC. My examination and
22 analysis focus on the project cost line item breakdown in each exhibit.

BUDGET MANIPULATION

1 **Q: Please describe Duke's budget manipulation.**

2 A: Based on our review, Duke has manipulated the budget allocations to its own
3 advantage in relation to the \$2.88B revised cost estimate. This only became
4 apparent after Duke submitted Pet. Conf. Ex. J-5 with Mr. Womack's rebuttal
5 testimony in this sub-docket.¹ The budget allocations in Pet. Conf. Ex. J-5 for
6 both Bechtel and Duke Managed Work Scopes did not match those in the other
7 "Control Budget Reports"² Duke submitted to the Commission in its IGCC
8 tracker filings from IGCC-4 through IGCC-7. These budget allocations did not
9 even match those in the "Control Budget Worksheet" in Pet. Conf. Ex. C-2
10 attached to the testimony of Mr. Womack in this proceeding.

11 This distinctive characteristic of Pet. Conf. Ex. J-5, however, provides a clear
12 contrast to a pattern that emerges when the Control Budget Reports are analyzed
13 against the \$2.88B revised cost estimate. Analysis of the Control Budget Reports
14 shows that the Duke Managed Work Scopes budget allocation repeatedly gets the
15 largest allocation increase in the revised cost estimate. Even Duke's "Control
16 Budget Worksheet" in Pet. Conf. Ex. C-2 showed the same pattern and results.
17 However, this resulting pattern is contrary to what Pet. Conf. Ex. J-5 is presenting
18 wherein the largest allocation increase went to Bechtel.³

¹ Pet. Conf. Ex. J-5 includes a detailed cost breakdown of the \$2.35B cost summary presented in Pet. Conf. Ex. C-1 in this proceeding. Attached hereto as Public's Confidential Exhibit 2R-1.

² To facilitate easy reference, all "Control Budget Reports" in IGCC-4 through IGCC-7 are designated by Duke as Petitioner Confidential Exhibit A-4, Tab 9.a.

³ This result is similar to and confirms what the OUCC saw in its analysis of Pet. Conf. Ex. C-1 albeit in a summarized format.

1 **Q: Please explain.**

2 A: The budget allocation for the Bechtel Managed Work Scopes in Pet. Conf. Ex. J-5
3 is \$ [REDACTED]. This amount is lower than what was in the \$2.35B cost estimate
4 approved by the Commission in IGCC-1. In fact, this amount is even lower than
5 what was in the original \$1.985B cost estimate. At this stage of the IGCC project,
6 it makes no sense at all to show a very low budget allocation for Bechtel only to
7 increase it again in the \$2.88B revised cost estimate. In the revised cost estimate,
8 Bechtel's budget allocation is \$ [REDACTED].

9 Duke did the same type of budget manipulation with GE, albeit at a lesser
10 amount. This manifested itself in a reduced budget amount for GE followed by
11 subsequent increases to GE in the revised cost estimate. The "see-saw" effect on
12 GE's and Bechtel's budget allocations appears to be the first sign of Duke's
13 budget manipulation. In essence, at this late stage, Duke has manipulated the
14 work scope allocations as originally determined, to hide the fact that it is
15 responsible for the majority of the project cost increase.

16 **Q: Are there other instances of Duke similarly manipulating the budget?**

17 A: Yes. Both Pet. Conf. Ex. J-5 and C-1 show that Duke moved \$ [REDACTED] out of
18 the "Total Direct Project Cost" into the contingency "Allowance for Cost Risk"
19 while Duke was at the same time declaring that "escalation and contingency has

1 been effectively accounted for or used up.”⁴ This effectively understates the
2 “Total Direct Project Cost.”

3 **Q: Please respond to Mr. Womack's statement regarding Petitioner's**
4 **Confidential Exhibit J-5 being an accurate portrayal of OUCC Conf. Ex.**
5 **AAA-5.**

6 A: Mr. Womack states that, “Petitioner's Confidential Exhibit J-5 is an accurate
7 portrayal of the exhibit Mr. Alvarez thought he was presenting.” Womack
8 Rebuttal at 17, lines 22 to 23. In reality, Pet. Conf. Ex. J-5 is designed to conceal
9 the fact that the cost categories that Duke is responsible for, such as the “Duke
10 Managed Work Scope-(OSBL)” and “Owner Support Costs,” contain the largest
11 cost increases (in comparison to GE's and Bechtel's Managed Work Scopes)
12 among the major cost categories when compared side-by-side with the proposed
13 \$2.88B revised cost estimate.

14 **Q: Why would Duke attempt to conceal the true increases in its budget**
15 **allocation?**

16 A: Duke is attempting to conceal the fact that the vast majority of the cost increase it
17 is requesting in this proceeding will be channeled to their own managed work
18 scopes. Duke created Pet. Conf. Ex. J-5 to show that the budget allocation
19 increase it is getting for its own managed work scopes is considerably less than it
20 actually is.

21 Duke imprudently incurred cost increases by taking over increasingly larger work
22 scopes amounting to more than a third of the overall cost of the IGCC project,

⁴ Womack Rebuttal at 12, Lines 20 to 21.

1 when it knew or reasonably should have known that it does not possess the
2 competency to do so.

3 Other OUCC witnesses will testify in Phase II of this proceeding that Duke is not
4 competent to manage a large complex construction project such as the IGCC.
5 Multiple Duke email communications by its corporate leadership and various
6 project management team members attest to this fact. [REDACTED]

7 [REDACTED]
8 [REDACTED]

9 [REDACTED]⁶ are just few of the choice words Duke's top IGCC
10 management personnel used to describe its very own project management team.

**COMPARATIVE ANALYSIS OF PETITIONER'S
MULTIPLE VERSIONS OF THE PROJECT COST
ESTIMATE**

11 **Q: Did you find additional evidence of Duke's budget manipulation in your**
12 **comparative analysis of its various project estimates?**

13 A: Yes.

14 **Q: Please provide a side-by-side comparison, in a summarized format, of the**
15 **Petitioner's multiple versions of the \$2.35B project cost estimates, with the**
16 **original \$1.985B and the revised \$2.88B project cost estimates.**

17 A: OUCC Confidential Exhibit 2R-1 ("Conf. Ex. 2R-1")⁷ provides a side-by side
18 comparison of the Petitioner's multiple versions of its project cost estimates in a

⁵ See Bates Stamp 090001510-154272

⁶ See Bates Stamp 090001510-154020

⁷ Attached OUCC Confidential Exhibit 2R-2

1 summarized format. Highlighted in this exhibit are the budget cost allocations for
2 the major work scopes that are separately managed by GE, Bechtel and Duke.

3 **Q: Describe the movement of the budget allocations of the various work scopes**
4 **for the responsible parties such as GE, Bechtel and Duke.**

5 A: Table R-1.0 below shows the movement of the budget allocations for each work
6 scope of the responsible party from the original \$1.985B cost estimate through the
7 multiple renditions of the current \$2.35B cost estimates up to the revised \$2.88B
8 proposed cost estimate.

9 Revealing in Table R-1.0 is the skyrocketing increase in Duke's work scope
10 budget allocation. Duke initially maintained its budget allocation below [REDACTED]
11 percent ([REDACTED]%) of the Total Direct Project Cost ("TDPC") as the project cost
12 estimate increased from the original \$1.985B to the current \$2.35B cost estimate.
13 However, Duke's budget allocation increased to approximately a third of TDPC
14 as it moved along through its later renditions of the same \$2.35B cost estimate.

(Table R-1.0 is found on the next page. This space intentionally left blank.)

Table R-1.0

	(a)	(b)	{c}	(d)	(e)	(f)
Managed Work Scope	IGCC-1, Ex. B-1, \$1.985 B	IGCC-1, Ex. B-1, \$2.35 B	IGCC-4, Ex. A-4, \$2.35B	IGCC-4S, Ex. C-1, \$2.35B	IGCC-4S, Ex. J-5, \$2.35 B	IGCC-4S, Ex. C-1, \$2.88 B
Expressed as Percentage (%) of TDPC:						
GE	█	█	█	█	█	█
Bechtel	█	█	█	█	█	█
Duke	█	█	█	█	█	█
Total Direct Project Cost ("TDPC")	100%	100%	100%	100%	100%	100%
Escalation	█	█	█	█	█	█
Allow for Cost Risk	█	█	█	█	█	█
Expressed as Percentage (%) of TPC:						
TPC (w/o AFUDC)	█	█	█	█	█	█
AFUDC	█	█	█	█	█	█
Total Project Cost ("TPC")	100%	100%	100%	100%	100%	100%

1 **Q: Describe the significance of Duke's increasing budget allocations in terms of**
2 **work scope responsibilities.**

3 A: Duke's increasing budget allocations are evidence that it is taking control of an
4 increasing work scope beyond its initial project management role offering. Citing
5 "cost control," and the perennial construction lag (as much as █% behind
6 schedule in May and June of 2010), Duke undertook multiple rescheduling and
7 re-baselining of the project to play catch up. At the same time, Duke was carving
8 out a larger work scope and allocating additional budget for itself.

9 Duke also realigned and re-allocated Bechtel's budgets, continually increasing its
10 own work scope and budget allocations. Table R-1.0 shows how Bechtel's budget
11 allocation █ of the TDPC in the original

1 \$1.985B cost estimate; dropping below █% exactly at the same time Duke
2 increased its own budget allocation in the current \$2.35B cost estimate.

3 **Q: Conf. Ex. 2R-2 shows the Total Direct Project Cost decreasing despite**
4 **Duke's increasing budget allocation. Please explain how this is possible.**

5 A: Duke decreased both GE's and Bechtel's budget allocations by as much as
6 \$█. Duke moved \$█ into its own budget allocation, reducing the Total
7 Direct Project Cost by \$█ but increasing the project's contingencies by \$█.
8 In reality Duke had already used up the entire \$█, plus the \$█ "Allowance
9 for Cost Risk" plus the entire \$█ in "Escalation" funds for a total of \$█
10 in contingency funding expenditures.

CONTINGENCY FUND DRAWDOWN AND REQUEST FOR ADDITIONAL CONTINGENCY

11 **Q: What information is contained in Pet. Conf. Ex. C-1?**

12 A: Pet. Conf. Ex. C-1⁸ (hereinafter referred to as "the \$2.88B revised estimate" or
13 "revised estimate") presents the May 2008 \$2.35B cost estimate, as approved in
14 Cause No. 43114 IGCC-1, under the column "Budget as Submitted to IURC in
15 May 2008."⁹ It also contains Petitioner's "revised project cost estimate as of the
16 date of prefiling"¹⁰ in this proceeding under the column "Revised Project Cost
17 Forecast." Pet. Conf. Ex. C-1 then compares the two estimates by tabulating the
18 difference under the third column entitled "Difference" to depict Petitioner's
19 request for an additional \$530 million in this Cause.

⁸ Attached as OUCC Confidential Exhibit AAA-1.

⁹ Womack Direct at 4, line 17.

¹⁰ Ibid., lines 15-16

1 **Q: What are your concerns with regard to the information contained in the**
2 **\$2.88B revised estimate?**

3 **A:** One of OUCC's primary concerns with the revised estimate is that it does not
4 provide a complete disclosure of the changes in the project's budget allocations. It
5 does not fully disclose the nature and extent of the total project cost increase or
6 the allocations that partially offset the increase between the two estimates.
7 Consequently, the revised estimate does not provide sufficient detail and
8 breakdown of the increases and decreases in cost that are included and comprise
9 the "Total Project Cost" depicted in this exhibit.

10 The OUCC is also concerned with the revised estimate in that the row entitled
11 "Allowance for Cost Risk" (i.e. contingency) may give the impression that Duke
12 only spent \$ [REDACTED] out of its original \$ [REDACTED] in that cost category. Duke
13 actually already spent that entire \$ [REDACTED] plus the entire \$ [REDACTED] in "Escalation"
14 funds in the previously authorized cost estimate of \$2.35B (for a total of \$ [REDACTED]
15 in contingency funding expenditures). Duke now seeks an additional \$ [REDACTED] in
16 new funds for "contingencies." Petitioner's witness Womack's testimony makes
17 this clear:

18 The approved [May 2008] cost estimate of \$2.35 billion included a
19 combined amount of \$ [REDACTED] for escalation and contingency
20 (including an allocation of contingency in the Bechtel scope of
21 work). *This total amount has been effectively used up due to the*
22 *projected cost increases.*¹¹

23
24 (Emphasis added).

¹¹ Womack Direct at 17, Lines 1-4.

1 **Q: Can you demonstrate how the \$ [REDACTED] Duke has already used up ties in with**
2 **its request for approval of the revised cost estimate in this proceeding?**

3 **A:** Yes. To demonstrate how the \$ [REDACTED] was spent, one first must determine the full
4 extent of the \$530M increase, before any of the previously authorized
5 contingency funds were spent. OUCC Confidential Exhibit AAA-2 (“Conf. Ex.
6 AAA-2”)¹² reveals that the full extent of the total project cost increase was
7 \$ [REDACTED] before any contingency was spent. I prepared Table 1.0 below to
8 illustrate this point.

Table 1.0

<u>Description</u>	<u>Amount</u>	
Total project cost increase	\$ [REDACTED]	13
Less: Contingency fund used up	[REDACTED]	
Requirement net of contingency	\$ [REDACTED]	14
Less: Direct project cost decrease	[REDACTED]	
Requirement net of decrease	\$ [REDACTED]	15
Add: Revised estimate contingency	[REDACTED]	
Total Additional Cost Estimate Requirement	<u>\$ [REDACTED]</u>	

9 Table 1.0 demonstrates that Duke has already spent the \$ [REDACTED] of contingency
10 funding and is now asking for an additional contingency of \$ [REDACTED]¹⁶ (after
11 realizing a \$ [REDACTED] cost decrease in Construction Management Labor & Expenses).

¹² OUCC Conf. Ex. AAA-2 fully discloses the changes in the deployment of the project’s resources. This exhibit captures the increases and decreases in the cost categories, between Duke’s May 2008 \$2.35B cost estimate and the \$2.88B revised cost estimate, in two separate columns entitled “Increase/Unfavorable” and “Decrease/Favorable.” The “increase column” shows to where the resources are going, and the “decrease column” shows from where resources are coming to partially off-set the increase. The “Total Project Cost” increase amounted to \$ [REDACTED] and the decrease amounted to \$ [REDACTED]. The difference of \$ [REDACTED].

¹³ Sum of “Escalation” (\$ [REDACTED]) and “Allowance for Cost Risk” (\$ [REDACTED]) from Pet. Conf. Ex. C-1, May 2008 column.

¹⁴ “ISBL Construction Management Labor and Expenses,” Pet. Conf. Ex. C-1’s “Difference” column.

¹⁵ “Allowance for Cost Risk”, Pet. Conf. Ex. C-1’s “Revised Project Cost Forecast” column.

¹⁶ See also Womack Direct at 6, lines5-6.

1 **Q: Please respond to Mr. Womack's allegation in his rebuttal testimony that**
2 **your concerns about Petitioner's Confidential Exhibit C-1 are misplaced?**

3 A: The OUCC's concern with the Petitioner's Confidential Exhibit C-1 revolves
4 around the manner and calculated presentation of this exhibit. An example of this
5 is the row entitled "Allowance for Cost Risk," discussed above, that caused the
6 OUCC to examine further, focusing on the prudence of the utility's \$530M
7 increase from the current \$2.35B to its proposed \$2.88B project cost estimate. We
8 will highlight the OUCC's concerns when we subject the Petitioner's Confidential
9 Exhibit C-1 to further comparison and analysis against other exhibits the
10 Petitioner's witnesses have submitted to the Commission in previous IGCC
11 tracker cases later in this testimony.

12 Mr. Womack describes the revised estimate: "[to] have been reorganized to
13 match;" in other words, to provide a clear comparison between the current \$2.35B
14 and proposed \$2.88 B project cost estimates:

15 The summary lines of the cost categories shown on Petitioner's
16 Confidential Exhibit C-1 for the prior \$2.35 billion estimate have
17 been reorganized to match the reporting methodology currently
18 used on the revised Project cost estimate.¹⁷

19 However, Mr. Womack recants this declaration in his rebuttal by stating that:

20 This exhibit consists of a summary, high level comparison between
21 the approved cost estimate and revised cost estimate. It is not
22 intended to reveal detailed differences between the two estimates.¹⁸

¹⁷ Womack Direct at 4, Lines 17 to 20.

¹⁸ Womack Rebuttal at 11, Lines 16 to 18. Mr. Womack's statement says that, "[i]t is not intended to reveal detailed differences between the two estimates[.]" despite the fact that the very last column in his Exhibit C-1 is actually titled "Difference" and tabulates the actual differences between the two estimates.

1 These contradictory statements by the Petitioner's representatives provide a
2 glaring example of Petitioner's abuse of the estimating process through the
3 manipulation of the component parts of its estimate. This is done in an attempt to
4 justify cost recovery for expenses that otherwise would not be recoverable on the
5 grounds that they were imprudently incurred.

**COMPARING THE OCTOBER 2009 BUDGET WITH
PETITIONER'S REVISED ESTIMATE**

6 **Q: What information in Petitioner's Confidential Exhibit A-4, Tab 9.a from**
7 **Cause No. 43114 IGCC-4 are you using as reference point in your analysis?**

8 A: The Petitioner's Confidential Exhibit A-4, Tab 9.a in Cause No. 43114 IGCC 4¹⁹
9 (hereinafter "October 2009 estimate") contains Duke's October 2009 rendition of
10 the previously authorized \$2.35B budget. The "Budget Amount" column itemizes
11 cost categories line-by-line. This column provides the reference point for OUCC's
12 comparative analysis of that budget with the \$2.88B revised cost estimate.

13 **Q: How does the May 2008 version of the \$2.35B cost estimate differ from the**
14 **October 2009 version in Cause No. 43114 IGCC-4?**

15 A: First, the \$2.35B estimate contained in the October 2009 version of that cost
16 estimate is rendered with a high level of details, including the depiction of major
17 categories, subcategories and individual cost items, none of which are shown in
18 Petitioner's \$2.88B revised estimate submitted in this proceeding. Second, the
19 contingency "Allowance for Cost Risk" in the 2009 version of the cost estimate is

¹⁹ Attached as OUCC Confidential Exhibit AAA-3

1 reduced by \$ [REDACTED] over the May 2008 version, while the "Total Direct
2 Project Cost" is increased by \$ [REDACTED].²⁰

3 **Q: Please identify the source of the revised estimate you will be using in your**
4 **analysis.**

5 A: The "Revised Forecast" column from Petitioner's Confidential Exhibit C-2,
6 Section No. 1, Tab B²¹ (part of the revised cost estimate) in this proceeding
7 provides the \$2.88B revised estimate in a format similar to that of the October
8 2009 version of the \$2.35B budget described above.

9 **Q: How did you compare the two estimates?**

10 A: OUCC Confidential Exhibit AAA-5 ("OUCC Conf. Ex. AAA-5") shows both the
11 "Budget Amount" column from the October 2009 version of the \$2.35B cost
12 estimate and the revised cost estimate filed in this cause. OUCC Conf. Ex. AAA-
13 5 captures the full extent of the increases and decreases between Duke's October
14 2009 version of the \$2.35B "Budget Amount" and \$2.88B "Revised Forecast,"
15 and compares these two estimates in a higher level of detail, resulting in a clearer
16 understanding of the content of the individual cost items. OUCC Conf. Ex. AAA-
17 5 reveals that the total project cost has actually increased by as much as
18 \$ [REDACTED] and that there is \$ [REDACTED] of available resources to partially
19 off-set this increase. Once again, the difference between these numbers represents
20 the \$ [REDACTED].

²⁰ The \$ [REDACTED] figure represents the difference between the two estimates' "Total Project Cost" and can be attributed to Duke's rounding-off numbers process. It should be treated as an "adjustment" when reconciling these numbers.

²¹ Attached as OUCC Confidential Exhibit AAA-4.

1 **Q: What are the results of your analysis?**

2 A: My analysis of particular line items, and their corresponding allocated costs,
3 raises questions about the real purpose of these line items. Some of these line
4 items have vague descriptions that raise doubts as to their validity. Some lack
5 supporting documentation to satisfy questions as to their certainty. Some lack
6 transparency, while others seem to be redundant. OUCC Conf. Ex. AAA-5 draws
7 attention to these particular "line items" such as cost categories, sub-categories
8 and cost items in the October 2009 version of the \$2.35B cost estimate whose cost
9 allocations were captured in their entirety in the "Decrease" column. These line
10 items were separated and their corresponding supporting documentation, if
11 available, as referenced in Pet. Conf. Ex. C-2, were investigated and analyzed.
12 OUCC believes that the description and referenced supporting documentation that
13 were available indicate that these particular line items may, in fact, be embedded
14 contingencies.

15 **Q: Do amounts in the "Decrease" column represent cost savings?**

16 A: Some of these amounts are actual cost savings, while other decreases simply
17 reflect that the amount of money allocated to a line item in the October 2009
18 version of the \$2.35B cost estimate is more than the amount shown for that same
19 line item in the 2.88B revised estimate. Some of these reductions are attributable
20 to contingency amounts embedded within the line items that have been spent to
21 offset other cost increases. These items raise no particular concerns.

1 However, there are some particular line items in the October 2009 version of the
2 \$2.35B cost estimate that do not appear anywhere in the revised cost estimate,
3 indicating that the funds allocated to these items have been reduced to zero. These
4 line items compel further query and review because they give indications of being
5 embedded contingencies.

6 **Q: Were you able to identify these particular items in question?**

7 A: Yes, OUCC Conf. Ex. AAA-5 highlights twelve items that may be embedded
8 contingencies. If these figures are indeed embedded contingencies as they appear
9 to be, they should be summed and then added to the explicit contingencies.
10 OUCC Conf. Ex. AAA-6 shows this calculation, \$ [REDACTED] in potential
11 funding contingencies thus far for the IGCC project as explained below.

12 OUCC Conf. Ex. AAA-6 demonstrates that Duke's October 2009 version of the
13 \$2.35B cost estimate's "Total Direct Project Cost" includes an additional
14 embedded contingency of \$ [REDACTED] within line item cost amounts. Because
15 of the lack of transparency in the filed budget details, the OUCC cannot directly
16 trace the validity of these items. For the sake of transparency and cost control,
17 more supporting documentation and descriptions as to these line items, if it had
18 been presented in Petitioner's case-in-chief, would have afforded all parties the
19 opportunity to make an accurate assessment of all contingency costs expended
20 thus far in the project. The explicit funding contingency of \$ [REDACTED] is
21 derived by adding the \$ [REDACTED] figure depicted in Table 2.0 above to the

1 \$ [REDACTED]²² explicit contingency included in Duke's October 2009 version of the
2 \$2.35B cost estimate.
3 Table 2.0 summarizes the twelve embedded contingency line items in the October
4 2009 version of the \$2.35B cost estimate:

Table 2.0

<u>Description of Cost Category</u>	<u>Amount</u>
GE - cost to firm up prices	\$ [REDACTED]
Bechtel Managed Contingency Fees	[REDACTED]
ISBL Construction Contract Packages	[REDACTED]
ISBL/OSBL Construction Services, etc.	[REDACTED]
Shared Services Construction, etc.	[REDACTED]
OSBL Bulk Materials	[REDACTED]
OSBL Engineered Equipment, etc.	[REDACTED]
OSBL Engineering & Home Office Services, etc.	[REDACTED]
ASU Insulation	[REDACTED]
OSBL Construction Contract Packages	[REDACTED]
Placeholder to Tally-up Duke's Numbers ²³	[REDACTED]
Total	[REDACTED]

5 OUCC Conf. Ex. AAA-6 thus reveals that Duke's October 2009 version of the
6 \$2.35B cost estimate's "Total Direct Project Cost" includes what appears to be an
7 additional embedded contingency of \$ [REDACTED] within line item cost amounts.

²² This October 2009 \$ [REDACTED] figure represents the \$ [REDACTED] contingency amount from May 2008 reduced by \$ [REDACTED] as the Risk for Cost Allowance decreased from \$ [REDACTED] to \$ [REDACTED].

²³ The amount shown represents the number missing to tally-up with the total of the Duke Managed Work Scope-OSBL cost category.

1 Because of the lack of transparency in the filed budget details, the OUCC cannot
2 directly trace the validity of these items. For the sake of transparency and cost
3 control, more supporting documentation and descriptions as to these line items, if
4 it had been presented in Petitioner's case-in-chief, would have afforded all parties
5 the opportunity to make an accurate assessment of all contingency costs expended
6 thus far in the project. The explicit funding contingency of \$ [REDACTED] is
7 derived by adding the \$ [REDACTED] figure depicted in Table 2.0 above to the
8 \$ [REDACTED]²⁴ explicit contingency included in Duke's October 2009 version of the
9 \$2.35B cost estimate.

10 **Q: Please explain the OUCC's concern with regard to "embedded"**
11 **contingencies.**

12 A: Embedded contingencies are contingencies included in direct project costs. They
13 are not reflected in either the "Escalation" or "Allowance for Cost Risk"
14 categories. Duke's May 2008 version of the \$2.35B cost estimate and October
15 2009 version of the \$2.35B cost estimate both include explicit amounts for
16 contingencies ("Escalation" and "Allowance for Cost Risk"). Additional
17 contingencies embedded in direct project costs make it difficult for regulators and
18 other interested parties to understand the actual cost of the project. The presence
19 of additional embedded contingencies reduces the motivation for the utility or its
20 agents to control costs. In fact, the unfortunate effect is that additional embedded
21 contingencies provide an incentive for utilities to fully spend the already approved

²⁴ This October 2009 \$ [REDACTED] figure represents the \$ [REDACTED] contingency amount from May 2008 reduced by \$ [REDACTED] as the Risk for Cost Allowance decreased from \$ [REDACTED] to \$ [REDACTED].

1 amounts. This absence of transparency can obscure the actual project costs as cost
 2 overruns are covered, while explicit contingencies show no reduction, potentially
 3 placing the reasonableness of the cost estimates into serious question.

4 **Q: Has Duke spent what appears to be an additional \$ [REDACTED] of embedded**
 5 **contingencies?**

6 A: Yes. Along with actual cost reductions, the money associated with these twelve
 7 items that no longer appear in the revised budget has been used to off-set other
 8 project cost increases. To put this sum of money in perspective, the \$ [REDACTED]
 9 is greater than the explicit contingency and more than doubles the total
 10 contingency fund made available to Duke in the \$2.35B cost estimate.

11 Table 3.0 expresses these contingencies in terms of the total contingency available
 12 to Duke in the \$2.35B cost estimate:

	<u>Contingencies as Percentage of Total</u>	
	<u>Amount</u>	<u>% of Total</u>
Embedded Contingency	[REDACTED]	[REDACTED]
Escalation	[REDACTED]	[REDACTED]
Risk Allowance	[REDACTED]	[REDACTED]
Total Contingency	[REDACTED]	100.00%

13 **Q: How much total (explicit and embedded) contingency is included in Duke's**
 14 **\$2.35B October 2009 estimate?**

15 A: Duke's \$2.35B October 2009 cost estimate includes approximately \$ [REDACTED]

1 in explicit and embedded contingency as discussed above.²⁵ This “total
2 contingency” represents more than █% of the October 2009 version of the
3 \$2.35B cost estimate, as shown in Table 4.0 below.

4 Mr. Womack states that, “[a]nother way to think about what is commonly called
5 ‘contingency’ is to view it as a ‘risk allowance.’” (Womack Direct at 15, lines 9-
6 10.) OUCC agrees that these two terms can be used interchangeably, but Duke
7 does not consistently use them in that fashion. When Duke uses the terms “Risk
8 Allowance” or “Allowance for Cost Risk” they exclude contingencies embedded
9 in direct project costs. Duke thus mitigates the effect of having to disclose the
10 true amount of “contingency” it is carrying in its cost estimates. Accordingly,
11 Duke inappropriately cloaks the impact on ratepayers by claiming that the \$2.35B
12 cost estimate only carries \$█ in contingency funding representing █% of
13 the total project cost.

	<u>Amount</u>	<u>May 2008 \$2.35B Cost Estimate</u>	
		<u>Total Project Direct Cost</u>	<u>Total Project Cost</u>
		\$ █	\$ 2,350,000,000
Embedded Contingency Escalation	█	█	█
Risk Allowance	█	█	█
Total Contingency	█	█	█

²⁵ See OUCC Confidential Exhibit AAA-6.

1 In fact, Duke's \$2.35B cost estimate potentially carried as much as \$ [REDACTED]
2 of contingency funds representing [REDACTED]% of the total project cost. This cost
3 estimate included a combined explicit contingency of \$ [REDACTED] (after [REDACTED]
4 transfer to "Total Direct Project cost") representing [REDACTED]% of total project cost,
5 along with \$ [REDACTED] in embedded contingencies ([REDACTED]% of total project
6 cost). Thus, Duke understated the amount of "contingency" it actually carries in
7 its cost estimates by such a magnitude that both ratepayers and regulators should
8 be seriously concerned.

9 **Q: Please explain the additional embedded contingency found in Petitioner's**
10 **Confidential Exhibit J-5.**

11 A: Mr. Womack purported to reconstruct OUCC Conf. Ex. AAA-5 and presented it
12 as Pet. Conf. Ex. J-5 in his rebuttal testimony. Line Item 105 in Pet. Conf. Ex. J-5
13 is "[REDACTED]" with a corresponding amount of \$ [REDACTED]
14 under the "\$2.35B Approved Budget." The Duke-assigned description for this line
15 cost item is very similar to the descriptions of embedded contingencies I am
16 discussing later in this testimony. The additional \$ [REDACTED] embedded
17 contingency found in Pet. Conf. Ex. J-5 was not explicitly shown in any of the
18 Petitioner's prior filings.

**EMBEDDED CONTINGENCY IN DUKE'S \$2.88B REVISED
COST ESTIMATE**

1 **Q: Is there evidence that Duke has embedded contingencies in direct project**
2 **cost reports?**

3 A: Based on our examination of the May 2008 and October 2009 versions of the
4 \$2.35B cost estimate, the answer is "Yes." Duke has embedded contingencies
5 inside the "direct project cost" and outside of explicit contingency contained in
6 the new, revised cost estimate. Duke's embedded contingencies take the form of
7 curious descriptions such as "[REDACTED]",²⁶ "[REDACTED]",²⁷
8 "[REDACTED]",²⁸ "[REDACTED]",²⁹ "[REDACTED]",³⁰ "[REDACTED]"
9 "[REDACTED]",³¹ and "[REDACTED]".³² These items are buried deep in sub-
10 categories.

11 **Q: Has Duke embedded additional contingency funds in its \$2.88 billion revised**
12 **estimate?**

13 A: Yes. The OUCC again used Petitioner's Confidential Ex. C-2 Section 1 Tab B -
14 Control Budget Worksheet as the source of Duke's revised estimate. This exhibit
15 sets forth individual line items with descriptions such as January 10, 2010
16 Forecast amount, Revised Forecast and other information. Several line items
17 have additional supporting documents located at various tabs (Tab 3, Tab 3.A,
18 Tab 3.A.1, etc). These supporting documents reveal additional embedded

²⁶ Pet. Conf. Ex. C-2, Section 4, Tab A.1, "Notes" column.

²⁷ Ibid., Section 3, Tab H.1, "Description" column.

²⁸ Ibid., Section 3 (several locations).

²⁹ Ibid., Section 4, Tab A.10, "ISBL Steel Bulk Material" column.

³⁰ Ibid., Section 4, Tab A.8, "Description" column.

³¹ Ibid., Section 4, Tab A.3, "Description" column.

³² Ibid., Section 3, Tab C.1, "Cost Category" column.

1 contingencies totaling \$ [REDACTED]. This amount is in addition to the
2 \$ [REDACTED] in explicit contingency requested under the name "Cost Allowance
3 for Risk" set forth in the revised cost estimate. I compiled these embedded
4 contingencies in OUCC Confidential Exhibit AAA-7.

5 To recognize both the embedded and explicit contingencies, the embedded
6 contingency must first be removed from the Total Direct Project Cost. Table 5.0
7 below shows the calculations. Table 5.0 also illustrates the embedded and explicit
8 contingencies as percentages of the Total Direct Project Cost and Total Revised
9 Project Costs.

Table 5.0

	<u>Amount</u>		
Total Direct Project Cost ("TDPC")	[REDACTED]		
Less: Embedded Contingency	[REDACTED]		
TDPC Net of Embedded Contingency	[REDACTED]		
		% of TDPC Net of Embedded Contingency	% of TRPC Estimate
Contingency:			
Embedded Contingency	[REDACTED]	[REDACTED]	[REDACTED]
Risk Allowance	[REDACTED]	[REDACTED]	[REDACTED]
Total Contingency Funds	[REDACTED]	[REDACTED]	[REDACTED]
AFUDC	[REDACTED]		
Total Revised Project Cost ("TRPC") Estimate	<u>\$ 2,880,000,000</u>		

SUMMARY AND CONCLUSION

1 **Q: Please briefly summarize your testimony.**

2 A: Duke has manipulated the budget allocations to its own advantage for the purpose
3 of concealing the fact that the cost categories that Duke is responsible for, such as
4 the “Duke Managed Work Scope-(OSBL)” and “Owner Support Costs,”
5 demonstrate the largest cost increases (in comparison to GE’s and Bechtel’s
6 Managed Work Scopes) relative to the proposed \$2.88B revised cost estimate.
7 Duke fails to inform the Commission that the vast majority of the cost increase it
8 is requesting in this proceeding will be channeled to its own managed work
9 scopes.

10 Duke carved out larger work scopes beyond what was originally contemplated
11 and repeatedly re-allocated budgets to its own advantage, while misrepresenting
12 its capability to the Commission putting the IGCC project and the ratepayers at a
13 higher risk.

14 Duke’s May 2008 version of the \$2.35B cost estimate included \$ [REDACTED] in
15 explicit and embedded contingencies. In addition, Duke’s Conf. Ex. J-5 includes
16 another \$ [REDACTED] embedded contingency line item that was not explicitly shown in
17 any of the Petitioner’s prior filings. These funds have been “spent or used up.”

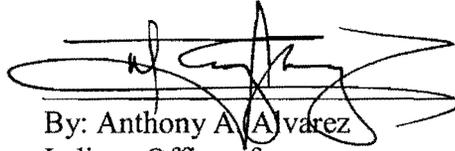
18 Duke’s pending request includes an additional \$ [REDACTED] in explicit (\$ [REDACTED]) and
19 embedded (\$ [REDACTED]) contingencies. This calls into question the reasonableness
20 and accuracy of Duke’s ongoing requests for approval of the revised cost
21 estimates for the IGCC project.

1 Q: Does this conclude your testimony?

2 A: Yes, it does.

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.


By: Anthony A. Alvarez
Indiana Office of
Utility Consumer Counselor

6/30/2011
Date

Cause No. 43114 IGCC 4S1

CERTIFICATE OF SERVICE

This is to certify that a copy of the *RESPONSIVE TESTIMONY OF ANTHONY A. ALVAREZ* has been served upon the following parties of record in the captioned proceeding by electronic service on July 1, 2011.

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