

BEFORE THE MISSISSIPPI PUBLIC SERVICE COMMISSION

**MISSISSIPPI POWER COMPANY
EC-120-0097-00**

DOCKET NO. 2009-UA-014

**IN RE: PETITION OF MISSISSIPPI POWER COMPANY FOR A
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
AUTHORIZING THE ACQUISITION, CONSTRUCTION, AND
OPERATION OF AN ELECTRIC GENERATING PLANT,
ASSOCIATED TRANSMISSION FACILITIES, ASSOCIATED GAS
PIPELINE FACILITIES, ASSOCIATED RIGHTS-OF-WAY, AND
RELATED FACILITIES IN KEMPER, LAUDERDALE, CLARKE,
AND JASPER COUNTIES, MISSISSIPPI**

**FINAL ORDER ON REMAND GRANTING A CERTIFICATE OF PUBLIC
CONVENIENCE AND NECESSITY, AUTHORIZING APPLICATION OF BASELOAD
ACT, AND APPROVING PRUDENT PRE-CONSTRUCTION COSTS**

COMES NOW, the Mississippi Public Service Commission (“Commission”) and, for the reasons stated herein, hereby grants Mississippi Power Company’s (“MPCo” or “the Company”) Petition filed in this cause and issues a certificate of public convenience and necessity authorizing the acquisition, construction and operation of the Kemper County IGCC Project (“the Kemper Project” or “Kemper” or “the Project”). This Final Order on Remand is being issued by the Commission pursuant to the decision and mandate of the Mississippi Supreme Court issued in Cause No. 2011-CA-00350-SCT. The Supreme Court’s opinion reversed our certificate orders, holding that the orders lacked the requisite findings and failed to cite sufficient evidence from the record to support the conclusions reached in approving the Kemper Project, as defined herein.¹ The Court did not render an opinion on whether the record in this proceeding

¹ The Supreme Court’s opinion requires that the Commission “make findings supporting its decision” and further requires that those “findings must be ‘supported by substantial evidence presented’ which ‘shall be in sufficient detail to enable [this] court on appeal to determine the controverted questions presented, and the basis of the commission’s conclusion.’” Opinion of Mississippi Supreme Court, Case No. 2011-CA-00350-SCT, ¶ 2 (Mar. 15, 2012) (citing MISS. CODE ANN. § 77-3-59 (Rev. 2009)). By reversing the Commission’s June 2010 Order the April and May 2010 Orders, which were incorporated by reference in and provided the findings and rationale upon

actually contains substantial evidence on which to base our decision to approve the Kemper Project. We find that the record as comprised as of June 3, 2010, is complete, negating the need for the Commission to hold additional hearings, request additional evidence, or further supplement the record. Fundamental to this finding is the professional and ongoing monitoring of the Kemper Project conducted by the Commission's and the Public Utilities Staff's ("Staff") respective Independent Monitors ("IMs"). The continuing activities of the IMs and the periodic economic viability evaluations of the Kemper Project eliminate any need to receive evidence from any third-party concerning the current status of the Kemper Project or the general state of the economy and fuel markets.

The decision of the Commission to render a decision on the record as currently comprised without holding additional proceedings on remand is fully within the discretion of the Commission under Mississippi law.² In light of the Supreme Court's order and the issues raised on appeal, the Commission finds that its original approach resulted in confusion as to the Commission's actual determination and the findings of law and fact relied upon in reaching its determination and seeks to remedy any insufficiencies by issuance of this new Final Order on Remand. Through its original orders the Commission intended to approve the Kemper Project so that Mississippi customers could enjoy the benefits of Kemper's baseload energy and stable,

which the June 2010 Order was based, were likewise reversed and thereby voided and annulled. Consequently, the Commission must issue a new Order in accordance with the Supreme Court's decision and mandate.

² *McGowan v. Miss. Oil & Gas Bd.*, 604 So. 2d 312, 324 (Miss. 1992) ("The Board may, if it deems it appropriate, stand by its prior orders, provided only that it make more than conclusory 'written findings of fact and conclusions of law setting forth the reasons for the Board's decision.' Nothing said here implies so much as a hint what the Board should do, so long as its further proceedings are not inconsistent with this opinion."); *see also Estate of Bolden v. Williams*, 17 So. 3d 1069, 1073 n.5 (Miss. 2009) ("Upon remand of a case for a new trial - absent a directive from this Court to the contrary - the decision of whether to reopen discovery and other pretrial matters in a case is left squarely within the sound discretion of the trial court, and the trial court's decision, absent an abuse of that discretion, will not be disturbed.") (citing *Banks v. Hill*, 978 So. 2d 663, 665 (Miss. 2008)); *see also Florida Power & Light Co. v. Lorion*, 470 U.S. 729, 744 (U.S. 1985).

low-cost fuel, while at the same time providing the customer protection from what we viewed as unique risks associated with the Kemper Project.

The Commission's approval of Kemper in the April 29, 2010, Order ("April Order") essentially required that the Company assume all of the risks and uncertainties of the Project. In response, MPCo filed what was in essence a Motion for Reconsideration. Attached to the motion were exhibits showing developments with Kemper since Phase Two Hearings held in February. Those exhibits showed that some of the risks of Kemper had been either mitigated or eliminated. In addition, MPCo advised it could not finance or build Kemper under the conditions contained in the April Order. MPCo then set forth alternative conditions that would allow it, albeit under less than the terms it originally proposed, to build Kemper. We allowed all parties to comment on that Motion and held several open meetings before issuing the May 26, 2010, Order ("May Order").

As is proper on remand,³ the Commission has carefully re-examined, reviewed, and considered the documents, evidence, testimony, and record in both Phase One and Phase Two of these proceedings in full. We have given particular consideration to the issues that were raised on appeal by the parties, and to ensuring that each finding on remand is set forth in sufficient detail, with appropriate record references where applicable, such that all of our findings are supported by substantial evidence as presented in this Order and contained in the record. By way of illustration and not by limitation, we have carefully considered (i) the substantial record evidence which overwhelmingly supports the issuance of the certificate of public convenience and necessity allowing construction of the Kemper Project; (ii) the evidence presented regarding

³ See *McGowan*, 604 So. 2d at 324 (recognizing the agencies freedom to do anything not inconsistent with the opinion of the reviewing court); see also 2 AM. JUR. 2D *Administrative Law* § 576 (2004) ("[U]nless the remand to an agency limits the issues to be considered, the case should be viewed in its entirety.") (citing *City of Hampton v. Iowa Civil Rights Comm'n*, 554 N.W.2d 532 (Iowa 1996)).

the risks, real or perceived, associated with the construction of any baseload facility, as well as those associated with the implementation of a new technology; (iii) the evidence regarding various fuel and environmental compliance scenarios presented; and (iv) the evidence regarding the overall allocation of risks and benefits of the Kemper Project to MPCo, its shareholders, and its customers. Based upon this full re-examination and re-consideration of the record and in accordance with the Supreme Court's decision and pursuant to the Mississippi Public Utility Act⁴ ("the Act") and the Commission's Public Utilities Rules of Practice and Procedure ("the Rules"), the Commission finds as follows:

I. SUMMARY OF COMMISSION FINDINGS

1. This docket represents the most thoroughly analyzed certificate petition ever presented to the Commission. Several parties actively participated throughout and many issues were debated. The Commission took a measured approach to the review of the Company's requests and finds that a full opportunity for discovery and the submission of evidence was afforded all parties. As such, the record in this proceeding contains substantial evidence to support the findings contained in this Order.

2. The Commission finds it unnecessary to re-open the record to consider new evidence, particularly proposed lower natural gas forecasts, as urged by the Mississippi Chapter of the Sierra Club ("Sierra Club") and Entegra Power Group, LLC ("Entegra"). Pursuant to the original orders setting forth the conditions and approval of the Kemper Project, the Commission and the Staff engaged IMs to scrutinize the Project. Among other things, the Commission's IM maintains a continuous presence on the job site, conducts various site and record inspections, tracks the Project's accounting, routinely holds meetings with the Company, maintains close

⁴ MISS. CODE ANN. §77-3-1, *et. seq.*

contact with Commission staff and provides monthly reports to the Commission. Additionally, MPCo provides monthly progress reports and periodic viability reviews that track the economics of the Kemper Project in light of a range of natural gas forecasts, among other considerations. These reports are reviewed by the IMs. This Commission is aware and apprised of natural gas forecasts. Recently, in Docket No. 2010-UA-279, the Commission considered whether to grant MPCo a facilities certificate to install environmental control measures on the Company's coal units at Plant Daniel. The Commission considered recent natural gas price forecasts and the economic comparison between a self-built natural gas-fired combined cycle option and the proposed controlled coal units. The Commission found that, given the range of natural gas price forecasts, maintaining the coal units best served the public interest by providing fuel diversity and greater price stability. The Commission finds that, through its IM, the periodic viability reviews and other Commission proceedings, it is fully aware of natural gas forecasts and declines the invitation of Sierra Club and Entegra to reopen the record in this case. Should the need occur, the Commission possesses the authority to reconsider any certificate issued.

3. In Phase One, the Commission determined that MPCo had a need for additional generating capacity. These findings were based upon a thorough Integrated Resource Planning ("IRP") process presented by the Company and analyzed by all of the parties, including the Staff. No evidence was presented in Phase Two that would cause the Commission to reconsider, and we hereby confirm and incorporate the findings contained in the Commission's Phase One Order.⁵ Finding that a need existed, it was then necessary to determine the best resource or resources available to meet this need.

⁵The Phase One Order was not contested on appeal.

4. For all of the reasons provided in this order, the Commission finds that the public convenience and necessity requires and will require the acquisition, construction, and operation of the Kemper Project as approved in this Order. We find, based upon our re-examination of the record in this proceeding that the Kemper Project is the best overall alternative to meet the identified need and to provide reliable energy and capacity at low, stable fuel prices for the next several decades. The Commission's consideration of the Kemper Project involved the evaluation of the relative economics of other available alternatives, an analysis of the risk posed by each option to both MPCo and its customers, and the strategic benefits offered by each alternative. By this Order, we make explicit what was implicit in our previous orders: the Kemper County IGCC Project, given its low, stable fuel prices, its overall economics, and its significant contribution to preserving a reasonable level of fuel diversity for MPCo's generation portfolio satisfies the Commission's preference for a long-term baseload resource that will provide reliable service to MPCo's customers for the next 40 years.

5. To evaluate the economics of each alternative, the Commission used the same scenario approach adopted in Phase One, which evaluates alternatives across a range of reasonable fuel and carbon compliance forecasts. The Commission finds that the use of a range of scenarios to evaluate the relative economics of all available alternatives was a prudent and effective approach. An issue in the case was the relative credibility of various natural gas price forecasts. For the reasons provided herein, the Commission declines to pick a specific forecast or set of forecasts. Instead, the Commission elects to consider the effect of the range of natural gas prices on the economics of the alternatives under all credible scenarios.⁶

⁶ The Independent Evaluator agreed with this approach noting that the "use of scenarios is a good way to measure risks. We would tend to pick the option that wins a majority or more of the scenarios because it means that the option is the best deal for Mississippi ratepayers no matter how the future unfolds." Report of the Independent

6. In his testimony, Dr. Roach, the Independent Evaluator, indicated that as part of the Commission's decision, the Commission must make a strategic choice as to whether it preferred long-term or short term resource solutions.⁷ MPCo and the Commission have obligations under the Act to ensure that customers are being served safely, reliably, and in a cost-effective manner. Notably, the Legislature has stated its policy preference for the development of diverse baseload capacity and energy.⁸ The regulated utility industry is characterized by large, long-lived capital investments, which does not easily allow for a utility to ignore long-term planning needs or the consequences of making a short-term decision. Based on its review of the evidence in the record and the considerations discussed above, the Commission finds that a long-term resource solution is in the best interest of MPCo's customers and is the strategic choice of the Commission.

7. After re-examining the record and testimony, the Commission finds that the intervening IPPs' "fixed gas" bids were not supported by credible evidence and do not warrant further consideration as viable alternatives to meet MPCo's resource needs, particularly in light of our strategic preference for a long-term resource solution. No party to these proceedings was willing to fix the price of natural gas themselves, making their claims that a "fixed gas" price deal could be done mere speculation. Once the fixed gas proposals are removed from consideration, the overwhelming weight of economic evidence in the record supports a finding that the Kemper Project is the most economic resource available.

8. Aside from its economic advantage, the Kemper Project also provides significant strategic benefits to MPCo, its customers, and the State. All of these benefits are laid out in

Evaluator, p. 3 (Jan. 25, 2010).

⁷ Phase Two Hearing Transcript, pp. 1122-23.

⁸ MISS. CODE ANN. § 77-3-101.

detail in this order, but paramount among them is the fuel diversity the Project provides. Today, MPCo's generating fleet is limited to two fuels, traditional coal and natural gas. If Plant Watson Units 4 and 5 remained uncontrolled, over 70% of MPCo's existing fleet will be burning natural gas. Such dependence on one fuel source is not prudent for an electric utility or its customers. The record has extensive evidence on natural gas prices since they were deregulated in the 1970's, and two things are not rebuttable. During that time natural gas prices have been extremely volatile, and their trend in pricing has been upward for the last 50 years. Kemper will provide MPCo and its customers a long-term, low stable-priced fuel in locally mined lignite. The fuel diversity and price stability offered by Kemper to the customers of MPCo is a significant factor supporting the Commission's decision. The Commission finds that maintaining long-term fuel diversity is critical to keeping MPCo's prices to customers low and stable over the next several decades.

9. We recognize that there are increased costs and risks inherent in any new baseload facility due primarily to the long construction time for such facilities and the typically higher capital cost associated with such facilities, particularly coal or nuclear resources. Based on a full examination of the record, we perceive the magnitude of cost and risk with respect to Kemper to be equal or greater than other baseload facilities, given the cost of the proposed facility, the size of MPCo relative to the Project, the new technology being employed in the Plant, and the alternative cost recovery mechanisms requested under the Baseload Act.⁹ In essence, the Kemper Project presents a unique challenge for the Commission in terms of balancing our obligations as established by the Legislature (i) to evaluate new facilities under the

⁹MISS. CODE ANN. § 77-3-101, *et. seq.*

well-established certificate process established in the Act, and (ii) to promote new baseload generation facilities, such as Kemper, under the Baseload Act.

10. To that end, each condition contained in this Order is designed to appropriately balance the risk between MPCo and its customers and one or more of the uncertainties identified. First, the purpose of the cost cap (which is more fully described below) is to insulate customers from large construction cost overruns by shifting this risk to the utility at a certain total cost level beyond which customers are no longer responsible, even if the costs are found to be prudent. Second, the operational cost and performance parameters apply similarly to the operational cost estimates assumed in the Company's analysis during the hearings. The operational cost and performance parameters assure that ratepayers will not pay for an underperforming asset. Third, the Commission made clear that nothing in this order will diminish the provisions in the Baseload Act related to plant cancellation—a risk that was discussed by several parties. Fourth, with respect to incentives, the Company must demonstrate that it used its “best efforts” to procure the incentives identified by the Company before recovering any additional costs from customers resulting from the loss of any incentive. Fifth, the Commission re-iterates that the Company should use all diligence to obtain and maintain all of the permits necessary to construct and operate the Project and keep the Commission informed of any issues related thereto. Finally, the Commission requires that the Company periodically re-evaluate the economic viability of the Kemper Project to confirm that it remains in the overall best interest of customers. This last condition helps mitigate the risk that a better option becomes available because of subsequent changes in the technology, cost, energy markets and/or utility regulation.

11. The Commission finds that the Kemper Project is a “generating facility” as defined in the Baseload Act. The Commission also finds that there are two primary benefits to

awarding rate recovery of financing costs on “Construction Work in Progress” (CWIP): (1) it will save customers money over the life of the Project; and (2) it will help MPCo maintain the financial strength needed to complete the Kemper Project. Therefore, the Commission finds that it is in the public interest for the Commission to exercise its CWIP authority under the Baseload Act in the manner described in more detail later in this Order.

12. The Commission finds that the “used or useful” doctrine is distinct from the Baseload Act and rejects and declines any application of the Baseload Act that would undermine the independent safeguards of the used and useful doctrine.

13. In summary, we find that the present and future public convenience and necessity requires and will require the construction, acquisition, operation, and maintenance of the Kemper Project as approved herein.

II. BACKGROUND AND PROCEDURAL HISTORY

A. PROCEDURAL HISTORY.

14. On January 16, 2009, MPCo filed its Certificate Filing, including its petition, testimony and supporting documents, as amended and supplemented from time to time,¹⁰ seeking a certificate of public convenience and necessity authorizing the Company to construct, acquire, operate, and maintain a new electric generating facility in Kemper County, Mississippi. Specifically, MPCo’s Certificate Filing requested that the Commission (i) issue a certificate of public convenience and necessity authorizing the acquisition, construction, extension, operation and maintenance of the Kemper Project, as defined below; (ii) apply the Commission’s authority

¹⁰ The Company amended and supplemented its Certificate Filing through the following submissions in this Docket: (i) Supplemental Filing for Phase One--Need, filed July 8, 2009; (ii) Rebuttal Filing for Phase One--Need filed July 28, 2009; (iii) Second Supplemental Filing for Phase One--Need, filed August 28, 2009; (iv) Third Supplemental Filing, filed December 7, 2009; (v) Phase Two Rebuttal Filing, filed January 5, 2010; and (vi) Phase Two Supplemental Filing, filed January 25, 2010.

under the Baseload Act, Miss. Code Ann. § 77-3-101, *et seq.* and (iii) approve the Company's pre-construction costs incurred in connection with the screening and evaluation of generating alternatives and the various pre-construction activities undertaken by the Company in connection with the Project.

15. Notice was given as required by law to all parties interested therein by mailing such notice to each public utility which may be affected, by publication on January 26, 2009, in The Clarion Ledger, a newspaper of general circulation in Jackson, Mississippi, and by publication in the following newspapers of general circulation where the facilities are to be located on the following dates:

The Meridian Star, on January 28, 2009, in Lauderdale County;

The Jasper County News, on January 28, 2009, in Jasper County;

The Kemper County Messenger, on January 29, 2009, in Kemper County; and

The Clarke County Tribune, on January 30, 2009, in Clark County.

16. The Mississippi Public Utilities Staff ("Staff") actively participated in this proceeding through its Litigation Section, led by the Staff's General Counsel, George M. Fleming, Esq., and other Staff members assigned to participate in the Litigation Section. Those members of the Staff not assigned to the Litigation Section were designated to assist the Executive Director of the Staff, Robert G. Waites, Esq., as advisors to the Commission and appropriate safeguards were put in place to segregate the functions of the Litigation Section from the functions of the Advisory Section.

17. In addition, the following parties petitioned the Commission for and were granted leave to intervene in this proceeding all in accordance with RP 6 of the Rules:

South Mississippi Electric Power Association ("SMEPA")

Entergy Mississippi, Inc. (“EMI”);
Mississippi Chapter of the Sierra Club (“Sierra Club”);
Entegra Power Group, LLC (“Entegra”);¹¹
Ergon, Inc. (“Ergon”);
Jim Hood, Attorney General of the State of Mississippi (“AGO”);
Magnolia Energy, L.P. (“Magnolia”);⁹
Queshaun Sudbury, individually;
Steve McKenna, individually;
International Energy Solutions, Inc. (“IES”);
KGen Power Management, Inc. (“KGen”);⁹ and
Calpine Corporation (“Calpine”).⁹

B. INVESTIGATION OF MPCo CERTIFICATE FILING

18. By order dated June 5, 2009, the Commission initiated an evaluation and investigation of MPCo’s Certificate Filing and established a two phase procedural schedule pursuant to which the Commission administered the issues presented in this Docket. Phase One was designed to evaluate MPCo’s IRP and determine whether there was a need for additional capacity and energy. Phase Two was designed to address what resources are available to meet the need determined in Phase One, and to identify the likely costs of those resources.

19. The Commission and the Staff separately retained expert consultants to assist them independently in evaluating MPCo’s Certificate Filing and to participate in the investigation and hearings in Phase One, all of which is described in the Phase One Order. For

¹¹ Entegra, Magnolia, KGen and Calpine are all Independent Power Producers (IPPs) that will sometimes be referred to collectively as the IPPs.

Phase Two, which included an evaluation of resource alternatives and the Company's pre-construction costs, the Commission and Staff again utilized expert consultants to assist them in their evaluation of the Project and other resource alternatives. As it did in Phase One, the National Regulatory Research Institute (NRRI) continued its participation in an advisory role to the Commission through its principal Scott Hempling, Esq. In addition, Boston Pacific, Inc. consulting firm and its principal Dr. Craig Roach continued its participation as an independent consultant in these proceedings. For Phase Two, the Commission expanded Dr. Roach's role to include evaluating MPCo's proposed Project as well as the various other resource proposals submitted in Phase Two and to present written and oral testimony at the Phase Two hearing. The Staff retained Larkin and Associates, PLLC ("Larkin"), and its accountant, Ralph C. Smith, to audit and review the prudence of pre-construction costs incurred by MPCo through March 31, 2009.

20. The Commission takes notice that several parties, including the Commission's and Staff's consulting and testifying experts and the Litigation Section of the Staff, conducted extensive discovery over the course of these proceedings on the many issues that related to MPCo's Certificate Filing in both Phase One and Phase Two. Over 1,000 separate data requests/responses (many containing multiple sub-parts) were exchanged between and among the parties, all of which were submitted into the record of this proceeding. A number of intervenors including the AGO, the Sierra Club and various IPPs also provided testimony, briefs and other documents to the Commission concerning many of the issues raised by the Commission in this proceeding. The Commission and Staff and their respective consultants engaged in a thorough evaluation and investigation of the Company's Certificate Filing as well as the testimony, evidence and resource alternatives offered by other parties in this proceeding. These experts,

along with MPCo and the other intervenors, provided testimony during the hearings. Finally, many letters, emails, phone calls and hearing comments were received from the public both in support of and in opposition to MPCo's proposed Kemper County IGCC Plant. The Commission findings presented herein are each based upon a careful review of all of the evidence in the record as well as the Commission's knowledge and expertise in the regulation of electric public utilities.

21. As stated above, over 1,000 data requests were exchanged between and among the parties, including substantial amounts of confidential and proprietary information, including trade secrets, exchanged pursuant to confidentiality agreements executed by and among many of the parties. This exchange of confidential information clearly benefitted the parties and the Commission in the administration of this Docket. By Commission Order, all responses to data requests were also filed with the Executive Secretary and were incorporated into the official file and record of this proceeding. All confidential information has been filed under seal and will be included in the record under seal to protect the confidential information of the respective parties contained therein. The Commission finds that a full opportunity for discovery was afforded all parties and that the record in this proceeding contains substantial evidence supporting the Commission's findings.

C. SUMMARY OF PHASE ONE AND PHASE TWO PROCEEDINGS

22. Hearings on Phase One issues were held on October 5-9, 2009. Following the Phase One hearings, the Commission issued its Order Finding Need for Generating Capacity and Energy on November 9, 2009 (Phase One Order), wherein it found, *inter alia*, that (i) MPCo's load forecast and load forecasting methodology are reasonable; (ii) MPCo demonstrated a need under all sixteen scenarios for additional capacity and energy ranging from approximately 304

MW to 1,276 MW in the 2014-2015 time frame; (iii) the Company's retirement assumptions for Plant Watson Units 1-3 in 2013 and Plant Eaton Units 1-3 in 2012 are reasonable; (iv) some level of CO₂ emission regulation is expected to be enacted; and (v) demand-side management programs (DSMs) and renewables, although included in MPCo's planning scenarios, are inadequate to meet the identified need. Finally, the Commission found that based upon all of the evidence in the Phase One record, the public interest required the Commission to proceed to Phase Two and to assess the available resources to meet MPCo's identified need. No evidence was presented in Phase Two that would justify any changes in the findings of fact or conclusions of law rendered by the Commission in its Phase One Order, and the Commission hereby adopts in its entirety its Phase One Order as if fully restated herein.¹²

23. For Phase Two, the Commission summarized its expectations in our June 5, 2009, order as follows:

Phase Two will address what resources are available to meet the need determined in Phase One, and what are the likely costs of those resources. Resources include, but are not limited to, utility-built resources, purchased power (including power purchased through competitive bidding), and demand-side resources. Parties may propose alternatives to meet the need established in Phase One. Any party wishing the Commission to take seriously its position on resource options for the territory served by MPCo should submit testimony on the technology, timing and cost of those options. Simply stating "no" or "not now" to another party's proposed resource does not assist the Commission in meeting its responsibilities.

24. Also in its June 5, 2009, order, the Commission propounded certain data requests to all parties of record related to the resource options available to fill MPCo's capacity and energy needs established in Phase One. By separate orders dated November 9, 2009, and December 1, 2009, the Commission further defined the procedures that would govern the

¹² Notably, the Commission's Phase One Order was not challenged on appeal.

administration of Phase Two of this proceeding. By those orders, the Commission established a procedural schedule for Phase Two, which allowed additional parties an opportunity to intervene for the purpose of submitting competing resource proposals to compare and evaluate against the Company's resource proposal. We also established a list of minimum bid requirements that were applicable to all potential bidders in Phase Two and directed MPCo to address various issues for which the Commission sought additional information in Phase Two. In addition, the procedural schedule created by the various orders described herein established, *inter alia*: (i) deadlines for filing direct and rebuttal testimony on Phase Two issues; (ii) deadlines for filing resource evaluation reports and analyses; (iii) a pre-hearing conference; (iv) hearing dates for Phase Two; (v) a panel procedure for use during the hearings; (vi) a briefing schedule for post-hearing issues; (vii) and a decision date by the Commission. The procedural schedule provided adequate time for all parties of record to conduct discovery and to conduct such investigation and examination of the various resource options proposed by the parties.

25. By order dated January 4, 2010, the Commission supplemented its previous orders in this Docket by establishing the procedures for the Phase Two hearings and by providing for those hearings to be organized and conducted in six distinct issue panels similar to the manner the Phase One hearings were conducted. Prior to the Phase Two hearings, a pre-hearing conference was also conducted in which procedural matters and hearing format were discussed in greater detail and agreed upon by the parties and the hearing examiner, Robert G. Waites, Esq., Executive Director of the Staff.

26. Hearings were held in the hearing room of the Commission beginning on February 1, 2010, and continuing until February 4, 2010, all consistent with the procedures previously established by the Commission. Limited portions of the hearings discussing

confidential, proprietary and trade secret information were closed to the public and to those parties that had not executed appropriate confidentiality agreements affording them access to confidential information of MPCo and/or the other parties. Public witnesses were allowed to address the Commission regarding MPCo's application on February 5, 2010, and those public comments are in the record in this proceeding. In addition, the Commission allowed written comments to be received until March 12, 2010, after which the public comment period was closed.

27. At the beginning of the Phase Two hearings, the Commission again reiterated its intent to fully develop the record on all Phase Two issues. The Commission overruled the Company's renewed and continuing objection from Phase One objecting to the issue panel format as constituted, and the testimony and record at hearing were developed in accordance with the issue panels established by the Commission in its January 4, 2010, order. The purpose of the panel procedure was to develop testimony on the key issues that affect a resource evaluation and selection decision. While the panel procedure was an unusual and unique method of handling a case such as this, the Commission finds that the parties did have a fair opportunity to present their respective cases and to fully develop the issues related to the various resource proposals submitted for consideration and evaluation.

D. PREVIOUS COMMISSION ORDERS

28. At the conclusion of the Phase Two Hearings, the Commission issued its Order for Post Hearing Information requesting that the parties propose customer protection measures to mitigate some of the risk borne by customers from Kemper and the IPP proposals.¹³ Several parties submitted proposals on March 12, 2010, including MPCo. MPCo's revised Kemper

¹³ MPSC Order for Post-Hearing Information (Feb. 11, 2010).

proposal included a voluntary construction cost cap of 30% over its estimate (representing up to an \$800 million increase over its estimate), operational cost and performance measures, and equipment guarantees for certain portions of the first-of-a-kind gasification technology.¹⁴ It should be noted that MPCo's March proposal represented a significant compromise to the Company's original position taken in its Pre-Hearing Brief, that cost caps were neither appropriate nor authorized by law.¹⁵

29. On April 29, 2010, the Commission issued its April Order as required by the Act and the Commission's Scheduling Order imposing conditions on the approval of the Kemper Project.

30. In response, MPCo filed its Motion in Response to Commission Order, or, in the Alternative, Motion for Alteration or Rehearing ("Motion" or "Motion for Reconsideration").¹⁶ By subsequent order of the Commission, the provisions of the April Order were stayed until the Commission could consider and rule upon the Company's Motion.¹⁷ Other parties were also permitted to be heard on the Company's Motion by filing written responses to the Company's Motion.¹⁸

31. In its Motion, the Company provided several material updates to the Kemper Project that occurred since the Phase Two hearings held in February. These updates served to

¹⁴ MPCo's Post Hearing Submission and Answer to Questions (Mar. 12, 2010).

¹⁵ MPCo's Phase Two Pre-Hearing Brief (Jan. 25, 2010).

¹⁶ MPCo's Motion in Response to Commission Order or in the Alternative Motion for Alteration or Rehearing (May 10, 2010) [hereinafter "Motion for Reconsideration"].

¹⁷ MPSC Order, suspending part XIII of order (May 17, 2010).

¹⁸ Entegra/Calpine Response to MPCo Motion (May 13, 2010); Queshaun Sudbury's Opposition to MPSC Proposed Final Order (May 25, 2010).

address several of the items listed in Article VII of the April Order. Among the information provided in its Motion, the Company described and updated the status of the following:

Listing of current confirmed construction costs amounting to 20% (instead of 10% available at Phase Two hearings) of total construction costs based upon executed contracts, memoranda of understanding, letters of intent, or vendor bids;¹⁹

Update on current status of ash handling requirements, which indicate that such proposed regulations would not apply to the Project;²⁰

Update on acquisition of rights-of-way for transmission lines (34% obtained), the gray water pipeline (21% obtained), the natural gas pipeline (48% obtained);²¹

Update on acquisition of lignite leases and representing the generally accepted practices for such acquisition;²²

Update on status of CO₂ off take agreement negotiations;²³

Issuance of modified PSD Construction Permit from Mississippi Environmental Permit Board on March 9, 2010 (authorizing the commencement of construction);²⁴

Update on NEPA Environmental Impact Statement;²⁵

Confirmation of \$279 million allocation of Section 48A Phase II investment tax credits (Company filing assumed only \$200 million);²⁶

¹⁹ See MPCo's Motion for Reconsideration, p. 26 (May 10, 2010).

²⁰ *Id.* at 15-16.

²¹ *Id.* at 16-18.

²² *Id.* at 18.

²³ *Id.* at 19.

²⁴ *Id.* at 20.

²⁵ *Id.* at 21-22.

²⁶ *Id.* at 22-23.

Execution of Sponsor Payment Letters to commence “Project Evaluation” phase of U.S. Department of Energy (DOE) Loan Guarantee Program;²⁷

Agreement in principle reached with North American Coal for a forty-year Lignite Mining Agreement;²⁸ and

Expectation that DOE will advance the recognition of \$245 million during the construction phase of the Project under the CCPI2 cooperative agreement.²⁹

32. The Company’s Motion also requested that the Commission modify the proposed conditions based upon the record evidence and the updates provided by MPCo in its Motion. While the April Order contained several conditions, only four created concern to MPCo, and ultimately, those were the primary issues raised on appeal: (1) \$2.4 billion construction cost cap; (2) operational cost and performance parameters; (3) deferral of a decision on CWIP financing recovery; and (4) deferral of a decision on a prudence review schedule. In its Motion, the Company offered alternative conditions for the Commission’s consideration that, if adopted, would allow the Company to finance and construct the Kemper Project, albeit on substantially less than the Company’s ideal terms.

33. Following MPCo’s Motion, the parties were permitted by Rule 12 of the Commission’s Rules to file written responses to MPCo’s Motion. Entegra, Calpine, Honorable Steven Chu, U.S. Secretary of Energy, Honorable Haley Barbour, Governor of Mississippi, and Mr. Queshaun Sudbury all submitted written comments concerning the Commission’s April Order and/or MPCo’s Motion. Although provided the opportunity, the Sierra Club chose not to submit a written response.

²⁷ *Id.* at 23.

²⁸ *Id.* at 23-24.

²⁹ *Id.*

34. The Commission also noticed and held two separate hearings on May 20, 2010, and May 26, 2010, for the purpose of discussing the Company's Motion and the written responses thereto.³⁰ All parties of record, including MPCo, received Notice of the May 20th Hearing by U.S. Mail,³¹ which Notice was dated May 7, 2010. No action was taken to alter or amend the Commission's April Order at the May 20th Hearing. Notice of the May 26th Hearing was served upon all parties of record on May 17, 2010, by electronic transmission which is authorized by the Commission's Rules and was the accepted service procedure for all documents filed in the Kemper proceedings.³² As indicated in the Commission's May Order, notice of the May 26th Hearing was also provided orally at the conclusion of the May 20th Hearing.

35. On May 26, 2010, the Commission issued its May Order in response to the Company's Motion and the other parties' responses thereto. The May Order specifically addressed many of the issues raised by MPCo's Motion and found that modifications to conditions contained in the April Order were warranted. The Commission found that the modifications were required to:

provide a reasonable measure of certainty to the Company, ratepayers and investors that should allow the [Kemper] Project to go forward and will satisfy the public interest and the public convenience and necessity.³³

36. Specifically, the Commission (1) imposed a construction cost cap of \$2.88 billion, representing a 20% cap above MPCo's approved Kemper Project estimate; (2) removed the

³⁰ A hearing was held on May 14, 2010, for the sole purpose of considering the May 17th Order suspending Part XIII of the April Order.

³¹ Under Commission Rule 6.113, notice of Commission hearings is deemed delivered when mailed.

³² Administrative Filing Order (Apr. 15, 2009).

³³ May Order, p. 8.

financial incentive mechanism that would have rewarded the Company for cost underruns;³⁴ and (3) provided 100% CWIP financing cost recovery in years 2012, 2013 and 2014, while still requiring that MPCo establish annually that the recovery of financing costs is needed and in the public interest. Each of these issues was discussed in detail in the record as explained in Sections VI and VII of this Order. The Commission reiterated that an appropriate balance of risk and benefits of the Kemper Project between the Company and customers remained paramount and found that the conditions contained in the May Order achieved this objective.³⁵

37. MPCo filed a Motion for Commission to Accept Petition, agreeing to the modified conditions imposed on the Kemper Project. On June 3, 2010, the Commission issued its Final Certificate Order.

E. SIERRA CLUB APPEAL

38. On June 16, 2010, the Commission's Final Certificate Order was appealed by Sierra Club to the Harrison County Chancery Court in Cause No. C2401-10-02580(1). On February 28, 2011, the Chancery Court issued its Judgment affirming the Final Certificate Order. The primary issues raised by the Sierra Club on appeal were whether the April and May Orders complied with Section 77-3-59, whether the Commission was arbitrary and capricious, whether the Commission's exercise of CWIP rate authority was supported by substantial evidence in the record, and whether the Commission's Rule permitting MPCo to submit certain rate impact information confidentially constituted reversible error.

³⁴ This provision could be significant for MPCo's customers. The Commission was made aware of the possibility that the Kemper Project would receive up to \$1.2 billion in "early mover" benefits, cutting the cost of Kemper in half, if certain legislation currently proposed in Congress were passed. By removing this incentive mechanism, any such "early mover" benefits would flow to customers and not stockholders. *See* Phase Two Direct Testimony of F. Sherrell Brazzell, pp. 6-7 (Dec. 7, 2009).

³⁵ *See* May Order, p. 8.

39. On March 1, 2011, the Sierra Club subsequently appealed the Chancery Court's decision to the Mississippi Supreme Court. Following oral arguments, the Supreme Court issued an order on March 15, 2012, reversing the Harrison County Chancery Court's judgment and the Final Certificate Order, and remanding the case back to the Commission.³⁶ The Mississippi Supreme Court's decision did not speak to the merits of the decision, but only discussed whether the Order contained sufficient findings of fact to allow the Mississippi Supreme Court to determine the questions presented and the basis of the Commission's findings.³⁷

III. PRESENT PROCEDURAL MOTIONS AND PROJECT STATUS

40. After the Mississippi Supreme Court issued its decision, the Sierra Club filed with the Commission a Motion for Status Conference Pending Remand, urging the Commission to halt construction of the Kemper Project and institute a full rehearing of the matter.³⁸ Relying almost exclusively on recent, lower-trending natural gas price forecasts, Sierra Club concludes that

there is no question that there is evidence of significantly changed circumstances since Kemper was approved that supports a full hearing on the Kemper project and alternatives to the project. Further, any such proceeding must be carried out without any presumption that construction activities to date on Kemper were prudent or approved by the Commission as such.³⁹

Simply put, Sierra Club urges this Commission to treat the Kemper Project as if *nothing* has occurred: no evidence has been heard, no certificate has issued, no construction has proceeded, no monitoring has been conducted.

³⁶ *Sierra Club v. Mississippi Pub. Serv. Comm'n*, 2011-CA-00350-SCT (¶ 2) (Miss. 2012).

³⁷ *Id.*

³⁸ *Sierra Club Mot. for Status Conf.*, ¶ 7 (March 19, 2012).

³⁹ *Id.*

41. Similarly, Entegra filed with the Commission a Motion to Reopen Record for Additional Evidence and Prudence Review, asking the Commission to reconsider the economic feasibility and need for the Kemper Project in light of recent natural gas price forecasts.⁴⁰ Additionally, Entegra urges the Commission to review “the prudence of [MPCo] evaluations and decisions to continue construction of the Kemper project” in light of forecasted natural gas prices.⁴¹ Entegra, an independent power producer, makes clear its willingness to sell capacity and energy to MPCo to satisfy any customer needs should the Kemper Project not proceed.⁴²

42. Of course the timing of these motions is not coincidental to the Supreme Court’s decision. Sierra Club and Entegra, given their respective interests, have seized upon the opportunity provided by the Mississippi Supreme Court to argue that the Kemper Project should be considered anew. The Commission is informed and acutely aware of recent natural gas price forecasts, the economics of the Kemper Project and the progress made in the plant’s construction. Additionally, neither Sierra Club’s nor Entegra’s position on natural gas forecasts or alternative resource options adds anything to this Commission’s preference for a 40 year baseload solution that secures fuel diversity and price stability. To the contrary, Sierra Club’s and Entegra’s litigation strategy continues to ignore that any credible natural gas option forces MPCo to rely heavily on natural gas and its corresponding volatility, a point on which the movants’ attachments/evidence does not conflict.

43. Movants have not cited, and this Commission has not found, any statute, rule or case law that would require the Commission to reopen this matter to take more evidence and essentially re-litigate issues that have been fully addressed and of which this Commission is fully

⁴⁰ Entegra’s Mot. to Reopen Record, p. 1 (March 29, 2012).

⁴¹ *Id.*

⁴² *Id.* at 5-6.

informed. In contrast, Mississippi Supreme Court precedent instructs that this Commission retains discretion to proceed as it determines appropriate. In *McGowan v. Miss. Oil & Gas Bd.*, the Court reviewed an order of the State Oil and Gas Board denying a permit to operate certain salt water disposal wells.⁴³ The Court noted that the Board had clearly denied the permits, but from the order, the Court could not discern why the Board had denied the permits.⁴⁴ The Court went on to explain that without sufficient findings and explanation the Court could not begin to determine whether the Board had acted arbitrarily and capriciously and therefore, could not perform its appellate function.⁴⁵ The Court concluded, as follows:

We vacate the orders below and remand to the State Oil and Gas Board. The Board may reopen, a course we encourage (but do not require) in view of the improved procedures the Board has implemented since 1987. Or, the Board may proceed as all concerned may agree, or as may otherwise be appropriate. The Board may, if it deems it appropriate, stand by its prior orders, provided only that it make more than conclusory “written findings of fact and conclusions of law setting forth the reasons for the Board’s decision.” Nothing said here implies so much as a hint what the Board should do, so long as its further proceedings are not inconsistent with this opinion.⁴⁶

44. The Commission interprets the Supreme Court’s decision to merely require that the Commission’s order granting the Kemper certificate contain sufficient findings and citations to the record to comply with the requirements of § 77-3-59. The proceedings conducted on remand are within the discretion of the Commission. As admitted by every stakeholder in this proceeding, including the Supreme Court, the Kemper record is extensive, and the Commission believes there is an overwhelming weight of credible evidence in the record to support the findings contained herein, making additional evidentiary proceedings unnecessary.

⁴³ *McGowan*, 604 So. 2d 312, 313 (Miss. 1992).

⁴⁴ *Id.* at 323-24.

⁴⁵ *Id.*

⁴⁶ *Id.* at 324-25; *see, supra*, n. 2.

45. As explained further below, the Commission finds it unnecessary to halt construction and reopen the Kemper Project to seek more evidence because the Commission has continued to monitor the project since initial approval; the Company has continued to report on the economic viability of the Project; the Commission has engaged in other proceedings highly relevant to this one; and the movants' positions offer nothing credible to address the Commission's preference for a 40 year solution that achieves fuel diversity and price stability.

A. PROJECT MONITORING

46. Following issuance of the certificate and requests for proposals, the Commission hired URS Corporation to act as the IM for the Commission.⁴⁷ URS is a nationally recognized engineering and construction firm that has extensive experience in the design, procurement, construction and operation of large utility projects, as well as mining experience. URS has hired several sub-contractors to assist them in monitoring the Kemper Project with specialties in accounting, environmental matters and ratemaking.

47. To assist in its statutory monitoring duties, the Staff hired another prominent engineering and construction firm, Burns and Roe, Inc. (BRE), to fill the IM role, which has also contracted with experts in the field of utility accounting and mining.⁴⁸

48. All of the IMs have been involved monitoring various aspects of the Kemper Project, including engineering, land, construction, estimating, and contracting. URS maintains several full-time personnel on-site to monitor construction activities as they progress, and accountants maintain a full-time presence at MPCo's general office. URS produces a monthly written report to the Commission and consistently and routinely communicates with staff.

⁴⁷ The Commission retained URS on, or about, February 1, 2011.

⁴⁸ The Staff retained BRE on, or about January 18, 2011.

49. As of January 2012, engineering was 68% complete, with major equipment procurement nearly done at 88% complete. Actual construction of the plant itself stood at 17% complete, with various components nearing completion. For example, the Company had completed plant site clearing and grubbing activities, auger cast piling was 76% complete, caisson installation was complete, 50,795 cubic yards of concrete foundations had been poured, underground piping was 60% complete, electrical duct bank installation was 87% complete and structural steel erection was underway with 8% complete.

50. Pursuant to the Final Certificate Order, MPCo has made significant investments of time and money in the Kemper Project. For the period commencing upon the Company's receipt of the Final Certificate Order through February 2012, the Company has expended approximately \$1.1 billion in connection with the construction of the Kemper Project. Approximately \$1.5 billion of the total cost of the Kemper Project has been committed, meaning a cost that the Company has either already incurred or will be contractually obligated to pay.

51. The Project has been under construction for nearly two full years of a four year construction schedule. Currently, the design of the Project is approximately two thirds complete. All major construction contracts have been awarded and virtually all contractors have started significant work. Plant staffing and start-up activities are both well underway. MPCo is diligently negotiating final agreements for outstanding land and by-product needs. The lignite mine has received all necessary permits to commence construction and clearing and grading of the mine site is progressing. Along with the execution of key mining equipment contracts, MPCo expects construction of the dragline to start in the next several weeks. The plant's steam turbine is already on site, the gasifier is scheduled to begin delivery within the next six to eight weeks and the first gas turbine is due to be delivered this June. First fire of the combustion

turbines is expected to occur in only fifteen months. Literally thousands of design, construction and project activities are being performed by over 2,000 craft and other workers.

52. As required by the original orders, MPCo reports on the monthly progress of the Kemper plant. The reports are filed in this docket and are served on each original party to the Kemper proceeding. For example, the most recent filing reports on the various costs associated with each category, the certificated amount, the projected costs and any variance from the certificated amount.⁴⁹ According to the Company, the “[p]roject is on schedule and on budget. 72% of the Certified Plant Costs have been confirmed.”⁵⁰

53. In its March 2012 report, the Commission’s IM generally agreed that “[a]ll construction activities are on schedule or ahead of schedule,” with certain limited exceptions.⁵¹ The IM, however, did raise concerns regarding the contingency. Specifically, the IM noted, as follows:

The level of project contingency rundown is a concern that will require close monitoring. About 91% of the contingency has been allocated, while the overall project is only 26% complete (70% confirmed cost). The current forecast does not include adjustments for possible overruns based on historical trends or pending Change Orders. For example, the construction variance is \$85 million with \$573 million awarded (15% over plan to date). The forecast does not address budget impact if this adverse trend were to continue for the balance of construction. Instead, the forecast assumes the impact will not exceed available contingency. A special meeting is being scheduled in early May with all project stakeholders to discuss these concerns.⁵²

The observation above exemplifies the dynamic interaction between the Company and IMs. The Commission IM noted a concern and has prompted the Company to address it.

⁴⁹ MPCo Monthly Project Status and Cost Report, Project Cost Summary attachment, p. 3, Table 3 (April 3, 2012).

⁵⁰ *Id.*, Executive Summary, p. 1.

⁵¹ MPSC IM Monthly Report, Executive Summary attachment, p. 9 (March 2012).

⁵² *Id.* at 5.

54. The presence of the IM allows this Commission to routinely assess the status of the Kemper Project. The ongoing monitoring negates the need to rely upon intervening parties to prompt a re-opening of the record to accept additional evidence. The regulatory regime presently in place does not require, or rely upon, parties to re-engage discovery, gather evidence, submit direct testimony and cross-examine witnesses. The Commission is a quasi-legislative body engaged in regulatory oversight, not a civil court deciding discreet rights between two parties.

55. The IMs have greater expertise, more resources and better access to the Kemper Project than either Sierra Club or Entegra, or any other party. The Commission, at any time it deems necessary, can require the Company to show cause that the Kemper Project remains in the public interest. The independent monitoring, monthly reporting and periodic economic analysis, if they are serving the intended purpose, should remove the need to re-open a case to accept new evidence or to issue a show cause order.

B. CONTINUING ECONOMIC ANALYSIS

56. Given the monitoring and reporting requirements in place, the Commission has been, and continues to be, informed of the potential economic impact of lower natural gas prices on the Kemper Project. In its May 2011 Monthly Project Status and Cost Report, the Company attached a 12-cell table comparing the economics of the Kemper Project to a self-build natural gas combined cycle generating unit ("NGCC"), which represents the closest economic alternative to Kemper, at certain natural gas forecast and carbon constrained scenarios.⁵³ The assumptions and model were similar to those used by the Company in the Kemper proceedings,

⁵³ MPCo Monthly Project Status and Cost Report, Economic Analysis attachment, p. 9 Figure 1 (May 2, 2011).

although with updated information concerning load forecast, fuel forecast, inflation forecast and emissions allowance cost forecast.⁵⁴ The analysis showed that, if the Company were considering the matter anew, the Kemper Project would be the best economic choice in all the scenarios where future fuel prices are moderate or high (8 of the 12 scenarios), but an NGCC alternative is more economic in a future where natural gas prices remain low (4 of 12 scenarios).⁵⁵

57. The May analysis confirms the Commission's original and continued understanding of the economics of the Kemper Project: it wins in a moderate and high fuel cost world and loses if fuel prices remain low for the long term. With natural gas comprising approximately 53% of MPCo's generating fleet⁵⁶ and with the traditional price volatility and potential future demand for natural gas, this Commission was and remains uncomfortable abandoning fuel diversity and the price stability offered by the Kemper Project. Without Kemper, MPCo's reliance on natural gas, and its associated price risks, rises dramatically.

58. MPCo filed a more recent economic analysis in February 2012, which offered more detail than the May 2011 economic analysis.⁵⁷ The February Economic Analysis again compared the Kemper Project with the most economical self-build NGCC in light of updated information, including natural gas forecasts and carbon constrained scenarios.⁵⁸ Specifically, the Company explained, as follows:

Consistent with the Company's previous filings, analysis has been performed using a number of unique natural gas price forecasts that take into

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ See Direct Testimony of Kimberly D. Flowers, p. 17 and Appendix I to Exhibit _____ (KDF-1) (Jan. 16, 2009).

⁵⁷ MPCo Monthly Project Status and Cost Report, Economic Analysis attachment, pp. 10-11 (Feb. 2, 2012).

⁵⁸ *Id.*

account supply (including shale), demand, global economic factors, and potential CO₂ emission impacts (\$/ton).⁵⁹

59. As expressed in 2014 Net Present Value (“NPV”) of life cycle costs, the Kemper Project fared better than an NGCC with a 2017 in-service date in 8 of the 9 scenarios evaluated.⁶⁰ MPCo also produced a table that analyzed Kemper versus an NGCC if the costs already incurred (committed costs) in the Kemper project were attributed to an NGCC.⁶¹ In this committed cost analysis, the Kemper Project had a lower net present value of life cycle costs in every scenario.⁶²

60. The committed cost analysis is illustrative only, but it is relevant when considering the potential cost to company and ratepayer associated with cancelling or abandoning *any* construction project that was previously certificated. Assuming prudent decisions and actions, the analysis shows that as a project progresses the economics of cancelling the project in favor of an alternative get more difficult to justify.

61. This is common sense. For example, assume a public utility had received a certificate to build a natural gas plant and within six months of going into service natural gas prices spiked. If the economics of the plant were considered as if no construction had occurred, then the high prices of the day, if projected to persist, would require cancellation. The repercussions of such a regulatory policy are obvious: no public utility could plan for or risk constructing power plants. Granted, under the right circumstances cancellation could be justified (and most, if not all, of the costs might be passed to the utility), but the presence of the IMs helps

⁵⁹ *Id.* at 10.

⁶⁰ *Id.* at 11, Figure 2.

⁶¹ *Id.* at 11, Figure 3.

⁶² *Id.*

inform this Commission what those circumstances might be and when they might exist. The Kemper Project is not in that place.

C. FUEL DIVERSITY AND PRICE STABILITY

62. Halting construction of the Kemper Project to consider present natural gas prices would not address this Commission's preference for a 40 year baseload solution that yields fuel diversity and price stability. On the contrary, a natural gas solution would shift MPCo's generation to a 70% reliance on natural gas and bring with it corresponding price volatility. As explained in the following exchange, near absolute reliance on natural gas, particularly as a baseload asset, is unacceptable:

COMMISSIONER BENTZ: Dr. Roach, I'm hearing a lot about this gas and 10 years. The question I need to ask, do you feel the utility company is being prudent to the ratepayers if they're 70 percent dependent on natural gas?

DR. ROACH: That's -- you know, I haven't really addressed that. I think that is a worry. There's no doubt about it. Fuel diversity matters. I think I've been presuming, although it's not my place to presume, that you would not go forward, necessarily, with the gas option if it didn't offer you some fixed gas prices so you wouldn't face that risk, you wouldn't have that risk. So that's my presumption, but you'll make your decision.⁶³

Additionally, Boston Pacific noted that without producing innovative fixed-price natural gas supply deals the natural gas industry would not be able "to secure a place for base load gas-fired electricity generation."⁶⁴ As noted herein, 10 year fixed gas contracts do not exist and indicative offers for such are not credible; therefore, natural gas options do not exist that would provide the sort of fuel diversity and price stability that this Commission seeks.⁶⁵

⁶³ Phase Two Hearing Transcript, pp. 1604-05.

⁶⁴ Report of the Independent Evaluator, p. 24 (Jan. 25, 2010).

⁶⁵ For a full discussion *see, infra*, part V.D. and E.

63. The Commission finds that fuel diversity matters, particularly because fuel price stability matters. The Kemper Project offers both, giving MPCo a third fuel source for its generation fleet and utilizing a lignite resource owned by the Company and mined at the mouth of the Kemper plant. Lignite will be subject to neither shifting transportation costs nor market pressure, thereby offering near price certainty and transparency.⁶⁶

64. In addition, the Commission's decision to not adopt any one natural gas price forecast as most probable also supports the Commission's decision not to reopen the record. Both Sierra Club and Entegra have requested we do so, primarily based upon their belief that natural gas prices will remain at historic lows far into the future. In essence, the movants are requesting the Commission adopt the low-end of the natural gas forecast in the record, which, for reasons stated in this Order, the Commission finds unwise and declines to do.

65. Because Sierra Club's and Entegra's suggestions offer nothing to further address fuel diversity and price stability, the Commission finds that their respective motions lack merit.

D. THE DANIEL SCRUBBER PROJECT

66. As noted above and continued below, the Commission is aware of natural gas prices and the importance of fuel diversity and price stability. The monitoring and reporting of the Kemper Project is not the only matter before this Commission or from which the Commission draws and develops its understanding of the utility industry. Natural gas forecasts were featured prominently in MPCo's petition to construct and install "scrubbers" on the coal units at Plant Daniel ("the Scrubber Project") to comply with regulations issued by the U.S. Environmental Protection Agency.⁶⁷

⁶⁶ See, e.g., Phase Two Hearing Transcript, pp. 1803-04.

⁶⁷ MPSC Docket No. 2010-UA-279, Final Certificate Order (April 3, 2012).

67. On July 22, 2010, MPCo filed its petition for a certificate to construct the Scrubber Project.⁶⁸ The Sierra Club intervened as a party, and the Public Utilities Staff (“the Staff”), although not advocating a particular outcome, actively participated in the case and offered expert analysis and testimony by Economic Insights, Inc. (“EI”).⁶⁹ Although discovery was completed and a full hearing was held on January 25, 2011, the Commission decided to delay its order until the EPA issued its final rule, which was eventually issued on December 21, 2011.⁷⁰ On October 25, 2011, the Sierra Club, which had not previously offered expert testimony, moved to re-open the record to accept evidence related to lower natural gas price forecasts, which the Commission granted on January 11, 2012.⁷¹

68. The Staff, MPCo and Sierra Club offered supplemental evidence, and the Commission held a supplemental evidentiary hearing on March 14, 2012.⁷² In its Final Order approving the certificate to construct the Scrubber Project, the Commission focused on natural gas forecasts, the volatility of natural gas and the importance of fuel diversity and price stability.⁷³ The Commission considered Sierra Club’s evidence of potentially lower natural gas prices, as well as Staff’s expert’s admonition to exercise caution when considering natural gas price forecasts and to consider the strategic benefits of fuel diversity.⁷⁴

69. The Commission highlights the following portion of its Final Order regarding the Scrubber Project:

⁶⁸ *Id.* at ¶ 10.

⁶⁹ *Id.* at ¶¶ 12-13.

⁷⁰ *Id.* at ¶¶ 15-17.

⁷¹ *Id.* at ¶¶ 16-18.

⁷² *Id.* at ¶¶ 18-20.

⁷³ *Id.* at ¶¶ 29-50, 55-59.

⁷⁴ *Id.* at ¶¶ 32-50.

The Sierra Club's supplemental testimony offered that the Company's natural gas forecasts were too high and advocated for the incorporation of recently released forecasts generated from the Energy Information Agency ("EIA"). . . .

EI [Staff's expert] also offered supplemental testimony taking issue with aspects of Sierra Club's evidence regarding natural gas prices. EI noted that, while the EIA's 2011 forecast was lower than the 2010 "Low EIA" they had asked MPCo to analyze, the difference between the two was not great. EI went on to testify about the 2010 EIA high shale gas case (EIA Low 2010 case), the EIA 2011 Reference case, and the 2012 Early Release Reference case. EI noted that the high shale gas scenario examined by MPCo was actually lower than the EIA 2010 forecast and that the high shale gas scenario considered was comparable to the EIA early 2011 reference case. EI went on to state that present natural gas forecasts should be viewed with caution due to factors such as higher labor costs as the economy improves, shuttering of production of shale gas wells, public anxiety over fracking and the possibility of future regulation, and a bias among forecasters to allow present conditions to skew forecasts. For example, when prices are low EIA tends to forecast about 7% lower than actual future prices.

Sierra Club noted that the Low gas price forecast submitted by the Company in its most recent analysis is essentially the same as the 2010 Low EIA forecast that EI requested MPCo to consider. Additionally, MPCo significantly reduced its High and Moderate estimates from their prior forecasts.⁷⁵

Not surprisingly, this Commission found "that the conflicting evidence on natural gas forecasts points out the difficulty in predicting long-term future natural gas prices."⁷⁶ As exemplified by the above, the Commission is well-aware of the issues and considerations associated with natural gas price forecasts.

70. After thorough review, the Commission found that "MPCo has submitted a reasonable range of possible gas and carbon constrained scenarios for considering the Scrubber Project. Although the Sierra Club would like to see certain scenarios discarded or added, the

⁷⁵ *Id.* at ¶¶ 43, 47-49 (internal footnotes omitted).

⁷⁶ *Id.* at ¶ 57.

Commission finds that the gas projections offered by MPCo provide a reasonable range of possibilities”⁷⁷ Finding in favor of fuel diversity and price stability, the Commission granted a certificate to MPCo to construct and install the Scrubber Project.

71. At least two significant parallels or connections exists between the Scrubber Project docket and the Kemper Project docket that further undermines Sierra Club’s and Entegra’s pleas to re-open the Kemper docket and halt project construction. First, several important issues or concerns permeated both the Kemper Project and the Scrubber Project, such as overreliance on natural gas, price volatility, fuel diversity, price stability, the value of baseload generation, and the uncertainty surrounding natural gas forecasts. For example, concern over the impact to natural gas of potential environmental issues related to “fracking” existed in both proceedings⁷⁸, as did legitimate criticism of EIA natural gas forecasts.⁷⁹ The point being, what was relevant in the Kemper proceedings was relevant in the recent Daniel Scrubber proceeding; and the Commission has made consistent and informed decisions on these matters.

72. Second, the resource planning and basic methodology and inputs that were used and approved in the economic analysis of the Kemper Project were the same ones used and approved for the Scrubber Project.⁸⁰ Additionally, the economic analysis that emerged from the Scrubber Project is the same one MPCo recently used to compare the life cycle costs of the Kemper Project versus an NGCC alternative.⁸¹

⁷⁷ *Id.* at ¶ 50.

⁷⁸ Transcript of Proceedings Hearing on Need (hereinafter “Phase One Hearing Transcript”), pp. 305-06.

⁷⁹ *See, e.g.*, Phase Two Hearing Transcript, pp. 1647-48.

⁸⁰ *Id.* at ¶¶ 29, 33, 41-46.

⁸¹ *See* MPCo Monthly Project Status and Cost Report, Economic Analysis attachment, pp. 10-11 (Feb. 2, 2012).

73. Sierra Club's and Entegra's desire to once again litigate natural gas forecasts and resource options fails to address the Commission's policy preference for a 40 year solution that will provide fuel diversity and price stability as a counterweight against overreliance on natural gas and the corresponding volatility. The motions made by Entegra and Sierra Club attempt to once again place *their* singular interests before this Commission so that they can again attempt to make *their own* cases against the Kemper Project. The Commission's charge, however, is broader than the interests of Entegra and the Sierra Club. The Commission must pursue the public interest, and the Commission finds that halting construction on the Kemper Project and re-opening the case for another round of discovery and hearing, to take and consider evidence with which this Commission is already familiar, is not in the public interest.

74. The reporting and monitoring established by the Commission serves to inform this Commission of the status and viability of the Kemper Project. If at any time the Commission's investigation and monitoring reveals a need to order MPCo to account for the Kemper Project in a formal hearing, the Commission may so order, but now is not the time. Consequently, the Commission denies Entegra's Motion to Re-Open and the Sierra Club's Motion for Status Conference.

75. As exemplified above, no hearing is necessary for this Commission to consider and decide the pending procedural motions, nor would such a proceeding aid this Commission or further the public interest. Having dispensed with the pending motions, the Commission turns to the evidence of record before it, and conducts its analysis and renders a decision thereon.

IV. LEGAL MATTERS

A. APPLICABLE LAW; STATUTORY FRAMEWORK FOR CERTIFICATES

74. Sections 77-3-11, 77-3-13, and 77-3-14, prescribe the statutory requirements governing applications for certificates of public convenience and necessity made to the Commission. In addition, RP 7 of the Commission's Rules gives effect to these sections by prescribing the specific filing requirements that must be met by any utility seeking a certificate. Under § 77-3-14(1):

no public utility or other person shall begin the construction of any facility for the generation and transmission of electricity to be directly or indirectly used for the furnishing of public utility service in this state . . . without first obtaining from the commission a certificate that the public convenience and necessity requires, or will require, such construction.

75. When determining whether to grant such certificate, the Commission will:

take into account the utility's arrangements with other electric utilities for the interchange of power, pooling of plant, purchase of power and other methods for providing reliable, efficient and economical electric service.⁸²

As a further condition to the issuance of a certificate, the Commission must approve the estimated construction costs for the proposed facility.⁸³

76. In light of the issues raised on appeal by Sierra Club and in light of our re-examination of the record in this proceeding, the Commission finds that further explanation of the certification process and framework is warranted to put the Commission's original decision to approve the Kemper Project in the proper context for the parties and for any reviewing court. The certification process established by the Mississippi Legislature under the Act requires MPCo to apply for a certificate *before* commencing construction on any new generating facility. In other words, MPCo must apply for the certificate as the first step in the certification process. In

⁸² MISS. CODE ANN. § 77-3-14(3) (Rev. 2011).

⁸³ MISS. CODE ANN. § 77-3-14(4) (Rev. 2011).

order to comply with the filing requirements established by the Commission, the certificate application must include an estimate of the construction costs for the proposed facility.

Typically, however, those estimates are preliminary in nature, because the detailed design and procurement of materials for utility assets is very expensive and without authority to proceed with the project from the Commission, the utility cannot be reasonably assured of cost recovery for such activities without a certificate.

77. In this case, the Commission and Staff were provided more detail and analysis regarding the design and cost estimates for the Kemper Project than is ordinarily presented for other certificate applications. In 2006, the Company applied for and was granted limited authority as part of its generation screening and evaluation activities to prepare a Front End Engineering and Design (FEED) study for the Kemper Project. Therefore, while the Commission still has some concerns about the Company's estimates and the fact that only a small portion of the detailed design and procurement had been done as of June 3, 2010, we do acknowledge that such uncertainties are primarily a function of the certificate framework under which the Company and the Commission operate.

78. Ultimately, the Commission must issue an order that meets the requirements of § 77-3-59 by making findings that are supported by substantial evidence presented in the record and "in sufficient detail to enable the court on appeal to determine the controverted questions presented, and the basis of the commission's conclusion."⁸⁴

79. Section 77-3-13(3) provides that the Commission:

may attach to the exercise of the rights granted by the certificate
such reasonable terms and conditions as to time or otherwise as, in

⁸⁴ MISS. CODE ANN. § 77-3-59 (Rev. 2011).

its judgment, the public convenience, necessity and protection may require⁸⁵

This provision provides the authority for the Commission's placement of conditions upon the certificate granted.

B. BASELOAD ACT

80. Section 77-3-101 *et seq.*, also known as the Baseload Act, prescribes alternative methods of cost recovery for certain baseload generation. By enacting the Baseload Act, the Mississippi Legislature created a separate, entirely new article of the Mississippi Code that establishes the policy of the State of Mississippi favoring baseload generation and establishes an alternate method of cost recovery for qualifying baseload generating facilities. Through its passage of the Baseload Act, the Legislature has determined it to be in the public interest for the State of Mississippi to promote and foster the construction of baseload electric generating facilities by public utilities.⁸⁶ The Baseload Act is designed to facilitate Mississippi electric public utilities' ability to finance and construct baseload generation by authorizing the Commission, at its discretion and when it is in the best interest of customers to do so, to utilize an alternate method of recovery of financing costs during construction for qualifying baseload generation.

81. Typically, in regulatory orders approving facilities for a utility, the Commission approves an estimate, the Company constructs the facility, and the utility seeks rate recovery for the facility following construction. At that time, the Commission is able to compare the actual costs of the facility to the estimated costs of the facility and determine whether the costs or any variances in the costs were prudent. Given the magnitude of the project and MPCo's request for

⁸⁵ MISS. CODE ANN. § 77-3-13(3) (Rev. 2011).

⁸⁶ See MISS. CODE ANN. § 77-3-101 (Rev. 2009).

relief under the Baseload Act, the Commission determined that it would be appropriate to focus on the potential risks to both the Company and the customers and develop conditions, as described below, to appropriately balance such risks.

82. In addition to its broad declaration of public policy favoring the development of baseload generating capacity, the Baseload Act addresses five specific issues regarding the treatment of the costs associated with baseload generating facilities and the inclusion of such costs in the rates of public utilities: (i) § 77-3-103 defines the types of generating facilities that qualify for consideration by the Commission under the Baseload Act and the pre-construction costs that are eligible for recovery under the Baseload Act; (ii) § 77-3-105(1)(a) empowers the Commission, subject to findings of prudence, to include certain types of costs, including without limitation CWIP, in rate base and rates of a public utility during construction; (iii) § 77-3-105(1)(b) empowers the Commission to allow the public utility to earn a just and reasonable return on the unrecovered balance of qualifying costs; (iv) § 77-3-105(1)(c) empowers the Commission to establish and approve the mechanisms for rate recovery of qualifying costs; and (v) § 77-3-105(1)(e) sets forth the rights and obligations of the public utility and the authority of the Commission in the event a generating plant approved for alternative cost recovery treatment under the Baseload Act is canceled.

83. The Commission takes notice that the Baseload Act is enabling and not mandatory. Any decision by the Commission to exercise its discretionary authority under the Baseload Act must include a finding that the public interest requires the implementation of the alternative recovery methods authorized under § 77-3-105 of the Baseload Act. MPCo has requested that the Commission find that the application of the Baseload Act is in the public

interest, and that we exercise our full statutory authority implementing the provisions of the Baseload Act.

84. Several parties argued during the course of this proceeding that MPCo's application constituted a "rate filing" under § 77-3-37, and that MPCo must comply with the provisions of that section for the implementation of the Baseload Act and for any changes in rates approved under the Baseload Act. The parties submitted multiple legal briefs on these issues, and the Commission heard oral argument on the issues during the proceeding. After carefully reviewing the legal briefs on these issues, the Commission finds that the provisions of § 77-3-37 are not applicable to MPCo's certificate request in this proceeding, because MPCo's Certificate Filing has not made a request to change customer rates. In fact, all rate matters related to the Kemper Project are being addressed in a separate rate proceeding, Docket No. 2011-UN-135, which is currently pending before the Commission.

C. JURISDICTION AND SUFFICIENCY OF THE FILING

85. The Commission finds that it has jurisdiction over the parties and subject matter in this proceeding.

86. The Commission finds that MPCo has adequately complied with the requirements of the Act and the Rules regarding requests for Certificates of Public Convenience and Necessity and has provided all of the information relevant to and necessary for the Commission to evaluate its Certificate Filing and to support our Order in this Docket. Therefore, for good cause shown, the Commission hereby waives each and every other filing requirement that may be prescribed by the Commission's Rules.

V. EVALUATION AND APPROVAL OF THE KEMPER PROJECT

A. PETITIONER'S CHARACTERISTICS.

87. MPCo is a public utility as defined in § 77-3-3(d)(i) and is engaged in the business of providing electric service to and for the public for compensation in twenty-three (23) counties of southeastern Mississippi, having its principal place of business at Gulfport, Mississippi.

88. MPCo holds a Certificate of Public Convenience and Necessity issued by the Commission in Docket No. U-99, as supplemented from time to time, authorizing its operations in certain areas in the twenty-three (23) counties of southeastern Mississippi, and is rendering service in accordance with its service rules and regulations and in accordance with schedules of rates and charges, all of which are a part of its tariff that has been previously approved by order of the Commission.

89. MPCo is a Mississippi corporation. A copy of its corporate charter, articles of incorporation, the names and addresses of its board of directors and officers, the name of all persons owning fifteen percent (15%) or more of its stock, and a copy of its current balance sheet and income statement are on file with the Commission and are hereby incorporated by reference.

90. MPCo has an obligation under the Act to provide reliable electric service to its customers at the lowest reasonable costs. Planning for generation requirements necessary to serve its customers is an essential part of fulfilling that obligation. Currently, MPCo serves approximately 186,000 retail customers in 123 municipalities and unincorporated communities in southeastern Mississippi.

91. MPCo also provides full-requirements electric service at wholesale to South Mississippi Electric Power Association (SMEPA) at certain wholesale delivery points on behalf of Coast Electric Power Association, Singing River Electric Power Association, Dixie Electric Power Association, Southern Pine Electric Power Association, and Pearl River Valley Electric

Power Association. In addition, MPCo provides full-requirements electric service at wholesale to East Mississippi Electric Power Association at certain wholesale delivery points, and to the City of Collins, Mississippi. Through these wholesale electric service contracts, MPCo indirectly provides full requirements for capacity and energy to approximately 175,000 additional customers in Mississippi.

92. Currently, MPCo owns or controls approximately 3,309 MW of electric capacity available to serve its jurisdictional retail and territorial wholesale customers in Mississippi, all of which was provided to the Commission in detail in the Company's filing.⁸⁷ MPCo's current available generating capacity includes 445 MW of aging natural gas-fired steam generation, 1,492 MW of coal-fired steam generation, 1,054 MW combined-cycle natural gas-fired generation, 130 MW of gas-fired cogeneration (dedicated to the Chevron Refinery in Pascagoula, Mississippi), and 65 MW of gas-fired combustion turbine generation.⁸⁸ A portion of MPCo's capacity is owned under joint ownership arrangements with Alabama Power Company (Greene County Units 1 and 2) and Gulf Power Company (Plant Daniel Units 1 and 2), and other portions are provided through active Demand Side Options, such as interruptible and stand-by generation contracts with retail customers approved by the Commission.⁸⁹ "Approximately 47% of [MPCo's] generating capacity uses coal as the primary fuel, and approximately 53% uses natural gas as the primary fuel."⁹⁰

93. In addition, MPCo is a member of a pooling arrangement within the Southern electric system (SES), which consists of MPCo, Alabama Power Company, Georgia Power

⁸⁷ See Direct Testimony of Kimberly D. Flowers, p. 17 (Jan. 16, 2009).

⁸⁸ Appendix I to Exhibit___(KDF-1) to Direct Testimony of Kimberly D. Flowers (Jan. 16, 2009).

⁸⁹ See Direct Testimony of Kimberly D. Flowers, p. 16-17 (Jan. 16, 2009).

⁹⁰ *Id.* at 17.

Company, Gulf Power Company, and Southern Power Company (collectively the Southern Operating Companies).⁹¹ The Southern Operating Companies function as a single, integrated, public utility system through adherence to the Southern Company Intercompany Interchange Contract (IIC), an agreement approved by and on file with the Federal Energy Regulatory Commission (FERC).⁹² The SES, through the IIC, operates its power pool using traditional concepts of economic dispatch.⁹³ The SES power pool is a coordinated pool, not a centralized pool.⁹⁴ While all of the generating facilities of each Southern Operating Company are committed to a centralized economic dispatch, each individual Southern Operating Company, including MPCo, retains the responsibility for providing the generation and transmission facilities necessary to meet the requirements of its customers.⁹⁵ Stated differently, MPCo is responsible for meeting the capacity and energy needs of its own customers, and cannot rely upon the power pool for that purpose.

94. MPCo is authorized by Mississippi law to exercise the right of eminent domain to acquire the easements and property rights reasonably necessary for the construction, operation, and maintenance of its electric power works, lines, substations, natural gas pipelines, CO₂ pipelines, water pipelines and related facilities used and useful in connection with the Company's service to its customers.⁹⁶

B. MPCo's GENERATION SCREENING AND EVALUATION ACTIVITIES

⁹¹ See Direct Testimony of Garey C. Rozier, p. 4 (Jan. 16, 2009).

⁹² *Id.*

⁹³ *Id.* at 5.

⁹⁴ *Id.* at 4.

⁹⁵ *Id.* at 6.

⁹⁶ MISS. CODE ANN. §§ 11-27-41, 11-27-45 & 11-27-47 (Rev. 2011).

95. In 2006, the Company's internal analysis identified a need for new capacity beginning in the 2013 time frame, and it undertook an investigation of the alternatives available to meet that need. On November 7, 2006, in Docket No. 2006-UN-0581, MPCo filed its Notice Requesting Approval of Accounting Treatment for Generation Resource Planning, Evaluation and Screening Activities requesting approval by the Commission of the Company's proposed treatment of the costs associated with its undertaking generation resource planning, evaluation, and screening activities.

96. On December 21, 2006, the Commission issued an order finding that the Company's process of periodically and thoroughly screening and planning for new generation facilities was prudent, reasonable and necessary, and in the public interest. Further, the Commission authorized the Company to create and recognize a regulatory asset to charge the costs associated with this generation evaluation and decision. By subsequent orders of the Commission on December 28, 2007, and April 6, 2009, the Commission amended its previous orders and instructed the Company to continue to charge all costs associated with generation screening and evaluation to the regulatory asset and deferred the disposition of the regulatory asset.

97. In its April 6, 2009, order, the Commission also requested that the Staff continue its on-going investigation of the prudence of MPCo's pre-construction expenditures in conjunction with the Staff's review of the Company's Certificate Filing in this Docket. The Commission further found that following the completion of the Staff's review and the submission of a report to the Commission and MPCo, the Commission would hold hearings, if necessary, and make findings on the prudence of such pre-construction costs in this Docket No. 2009-UA-14. Finally, the Commission ordered MPCo to continue to charge all of pre-

construction costs to the regulatory asset until the Commission makes findings and determinations as to the recovery of the Company's prudent expenditures in this Docket.

98. During the screening process, the Company identified two primary risks associated with the existing fleet that will challenge MPCo's ability to serve customers reliably and at the lowest reasonable cost over the long-term—environmental compliance and fuel volatility.⁹⁷ First, the parties in this proceeding and the Commission itself have all determined that some type of carbon legislation or regulation is likely in the near future.⁹⁸ As carbon compliance cost increases, coal unit retirements sharply increase MPCo's "reliability" need for new baseload capacity. Recent developments in other environmental regulations for conventional emissions (i.e. mercury, NO_x, SO₂ and particulates), indicated to MPCo that control equipment rather than allowances, will be required for continued operations of pulverized coal plants, and will likely need to be installed by November 2014.⁹⁹ Second, recent developments in the natural gas and coal markets and the demonstrated volatility of those markets elevated the Company's concern regarding any increasing degree of reliance on natural gas and, to a lesser degree, high rank coals.¹⁰⁰ All of the experts who testified in this proceeding agree that volatility of natural gas prices will continue and must be considered when making long-term resource decisions.¹⁰¹

99. Given the range of MPCo's need for new capacity established by the order in Phase One and recognizing the Company's legal obligation to provide reliable and adequate

⁹⁷ See Direct Testimony of Kimberly D. Flowers, pp. 6-7, 9-12, 18-19 (Jan. 16, 2009).

⁹⁸ See Phase One Hearing Transcript, pp. 46, 61, 460, 467, 552-553.

⁹⁹ See Phase Two Direct Testimony of Kimberly D. Flowers, p. 6 (Dec. 7, 2009).

¹⁰⁰ *Id.* at 3.

¹⁰¹ See Phase One Hearing Transcript, pp. 75, 112, 134, 358.

service to its customers, the Commission confirms its finding that it was prudent for the Company to take steps to meet its capacity need, as it did, so that both the Company and the Commission can reasonably ensure that an adequate supply of capacity exists in the future to serve MPCo's territorial load. The Commission recognizes that a utility's capacity and energy needs are typically met from one or a combination of resource alternatives that fit into three categories: (i) DSMs and energy efficiency (EE) programs; (ii) wholesale capacity and energy purchases; and (iii) self-build generation.

100. As we found in Phase One, MPCo has a well-established and effective program for identifying and evaluating DSM and EE programs.¹⁰² They are continually evaluated by the Company and the benefits of these programs are included in the Company's annual Load and Energy Forecast and in the Company's regular integrated resource planning process.¹⁰³ The evidence presented by the Company in its filing and at the hearings demonstrates that, despite MPCo's numerous cost-effective current and planned DSM programs, those programs are inadequate to fully meet MPCo's needs.¹⁰⁴ The Company's evidence demonstrated that the Company evaluated the remaining two categories of alternatives in the following manner:

First, MPCo selected, screened and evaluated the various self-build alternatives available to meet the identified need in a prudent and cost-effective manner. This process was approved by orders of the Commission in Docket No. 2006-UN-0581. To determine the best alternative for meeting the generation needs identified, MPCo, with the assistance of Southern Company Services (SCS), began by identifying the types of generation technology that were

¹⁰² Order Finding Need for Generating Capacity and Energy, p. 14 (Nov. 9, 2009).

¹⁰³ Exhibit ___ (DFS-1) to Phase Two Direct Testimony of David F. Schmidt and Garey C. Rozier, pp. 35-38 (Dec. 7, 2009).

¹⁰⁴ *Id.* at 7.

reasonably available in the relevant time frame. A multitude of qualitative and quantitative factors were utilized to determine whether a new resource or a market solution best fits MPCo's need. Comparisons among the various alternatives considered issues such as technology availability, reserve margin levels, generation mix, fuel diversity, capital spending, on-going O&M costs, environmental issues, risk management, construction lead times, and the availability of financial incentives.¹⁰⁵

Second, a detailed economic analysis was conducted by the Company to compare the cost of the self-build alternatives identified in the screening process to determine the overall least-cost option based upon the net present value of revenue requirements over a forty-year period. All alternatives were scaled to the same net summer peak capacity so that each alternative could be compared on a dollar per kW basis. The forty-year revenue requirements were then discounted at MPCo's after-tax weighted average cost of capital to calculate a cumulative net present value for each alternative. The Company testified that its economic evaluation and analysis indicated that the Project is the best self-build generation resource alternative available to meet MPCo's identified need in 2014, and is in the overall best interest of customers.¹⁰⁶

Third, throughout the screening and evaluation process, MPCo issued two separate Invitations for Indicative Proposals of Solid Fuel-Fired Generating Capacity in 2007 and 2008, to test the wholesale market for viable generation alternatives that could adequately meet MPCo's need and that might compare favorably to the Kemper County IGCC self-build

¹⁰⁵ See Phase Two Direct Testimony of F. Sherrell Brazzell, pp. 3-4 (Dec. 7, 2009).

¹⁰⁶ See Phase Two Hearing Transcript, pp. 2030-31.

alternative.¹⁰⁷ The conforming proposals from both invitations were compared to the Company's Kemper County IGCC Project and an economic analysis similar to that used to compare the Company's other self-build alternatives was performed. MPCo concluded that the IGCC self-build alternative was the most cost-effective solid-fuel option available, and that no wholesale market offerings provided better value.¹⁰⁸ Evidence presented by intervenors and by Dr. Roach at the hearings in Phase One suggested that MPCo's Invitations for Indicative Proposals were too limiting and that they indicated MPCo's bias for solid-fuel baseload capacity to the exclusion of natural gas options available in the wholesale market.¹⁰⁹ Based upon all of the evidence presented regarding the requests for indicative proposals, the Commission determined that it was prudent and in the public interest to allow market participants to submit resource alternatives in Phase Two pursuant to a Commission-sanctioned and monitored process that included the use of an independent evaluator. While MPCo questioned its usefulness, no party formally objected to the implementation of this additional market analysis. The Commission's findings of fact and conclusions of law regarding the market solicitation process, the resource alternatives presented, and the analyses of those alternatives are addressed later in this Order.

C. DESCRIPTION OF THE KEMPER COUNTY IGCC PROJECT

101. According to the testimony of Kimberly D. Flowers, MPCo's Vice President and Senior Production Officer, and Thomas O. Anderson, MPCo's Vice President Generation Development, the Kemper Project consists of: (i) a lignite-fueled two-on-one (2-on-1) integrated gasification combined-cycle baseload electric generating facility with a net summer output capacity of 582 MW (Plant); (ii) environmental equipment for the reduction of various

¹⁰⁷ Direct Testimony of Garey C. Rozier, p. 9 (Jan. 16, 2009).

¹⁰⁸ *Id.*

¹⁰⁹ See Phase One Hearing Transcript, pp. 726-728, 755-756, 767-768.

emissions from the Plant, including without limitation, equipment and facilities for the capture of approximately 65% of the CO₂ emissions from the Plant; (iii) approximately sixty miles of electric transmission lines with voltages varying from 115 kV to 230 kV; (iv) three new electric transmission substations; (v) approximately five miles of natural gas transportation facilities to accommodate natural gas deliveries to the Plant; (vi) approximately 30 miles of water transportation facilities to accommodate the delivery of the City of Meridian treated wastewater to the Plant site for the Plant's cooling and process water needs; (vii) mineral leases, mining facilities and equipment and all related facilities needed to mine lignite; (viii) the option to own the approximately 55 miles of CO₂ pipeline necessary to transport CO₂ from the Plant boundary to oil fields suitable for EOR; and (ix) the related facilities, rights-of-way, and other rights necessary for the efficient and effective construction, acquisition, operation, repair, and maintenance of the Plant (Kemper Project).¹¹⁰

102. The Project has a designed net summer peak capacity of 582 MW.¹¹¹ Electrical power will be generated at 18 kV by the gas and steam turbine generators.¹¹² The generators have dedicated step-up transformers to increase voltage to 230 kV.¹¹³ The Plant capacity includes 522 MW of lignite-fueled base capacity and 60 MW of duct-fired peaking capacity fueled by natural gas.¹¹⁴

103. The Project consists of two major system classifications: a gasification island and a combined cycle generating unit. The Plant will incorporate the air-blown Transport Integrated

¹¹⁰ See Direct Testimony of Kimberly D. Flowers, pp. 35-36 (Jan. 16, 2009); Phase Two Direct Testimony of Thomas O. Anderson, pp. 5-6 (Dec. 7, 2009)

¹¹¹ Phase Two Direct Testimony of Thomas O. Anderson, p. 5 (Dec. 7, 2009).

¹¹² Direct Testimony of Kimberly D. Flowers, pp. 35-36 (Jan. 16, 2009)

¹¹³ *Id.*

¹¹⁴ Phase Two Direct Testimony of Thomas O. Anderson, p. 5 (Dec. 7, 2009).

Gasification (TRIG™) technology jointly developed by Southern Company, Kellogg Brown & Root, LLC (KBR), and the U.S. Department of Energy (DOE).¹¹⁵ The Plant will be fueled primarily by lignite mined in Kemper County, Mississippi.¹¹⁶ The lignite will be converted to synthesis gas (syngas) by the TRIG™ gasifier for use in a 2-on-1 combined cycle generating unit.¹¹⁷

104. Randall E. Rush, General Manager Gasification Technology, SCS and Dr. Larry S. Monroe, Senior Research Consultant for SCS, testified that the TRIG™ technology was specifically developed for power production, and is based upon the well-known Fluid Catalytic Cracking (FCC) technology utilized in the petroleum industry for nearly 70 years. The witnesses testified that the primary benefit of the TRIG™ design is its unique capability to economically and effectively use lower rank, abundant, and low and stable priced fuels such as lignite and sub-bituminous coals.¹¹⁸ According to Mr. Rush and the documentary evidence presented by the Company, the TRIG™ technology has been developed and tested at the Power Systems Development Facility (PSDF) in Wilsonville, Alabama, over the course of 15 years, through a collaborative effort among Southern Company, KBR, and DOE.¹¹⁹ The Company witnesses testified that Mississippi lignite has been tested successfully at PSDF over the course of many hours and that all of the units involved in the syngas production process worked with a high

¹¹⁵ Exhibit___(TOA-1) to Phase Two Direct Testimony of Thomas O. Anderson, p. 20 (Dec. 7, 2009).

¹¹⁶ Phase Two Direct Testimony of Thomas O. Anderson, p. 20 (Dec. 7, 2009).

¹¹⁷ Direct Testimony of Kimberly D. Flowers, p. 35 (Jan. 16, 2009).

¹¹⁸ See Phase Two Direct Testimony of Dr. Larry S. Monroe and Randall E. Rush, pp. 5, 7 (Dec. 7, 2009).

¹¹⁹ *Id.* at 4.

degree of reliability.¹²⁰ In total, the Company has run three separate test campaigns using Mississippi lignite, which totaled 1,795 hours of TRIG™ gasifier operation.¹²¹

105. The Plant is located near the unincorporated community of Liberty in Kemper County, Mississippi, and is situated wholly within the certificated service area of East Mississippi Electric Power Association. A more detailed description of the Plant site is included with the Certificate Filing and is incorporated herein by reference. The Plant site is comprised of approximately 1,750 acres, which includes sufficient land for the Plant and all associated facilities and equipment.¹²² At the time of the Phase Two Hearings, MPCo owned approximately 770 acres of the site and possessed options to purchase the remaining acreage needed.¹²³

106. The Project will utilize lignite from the Damascus Reserve. Mr. Anderson testified that the Company will own and develop the mine, all associated mineral interests, and all of the equipment and facilities related to the mine and mining operations.¹²⁴ The Company undertook an evaluation of competent mining companies with lignite experience and selected North American Coal (NAC) to perform all mining operations on behalf of MPCo, including development and permitting of the mine.¹²⁵ According to the Company witnesses, NAC has significant experience and expertise in the development and operation of lignite mines and in the development and operation of lignite delivery systems for power generation projects.¹²⁶ For this Project, NAC has formed a subsidiary, Liberty Fuels, LLC, to perform the mining services for

¹²⁰ *Id.* at 7-8.

¹²¹ *See* Phase II Direct Testimony of Thomas O. Anderson, p. 10 (Dec. 7, 2009).

¹²² *Id.* at 6.

¹²³ *Id.*

¹²⁴ *Id.* at 20.

¹²⁵ *Id.*

¹²⁶ *Id.*

MPCo. Under this “management fee” mining arrangement with Liberty Fuels, LLC, MPCo will pay the costs associated with all mining activities and will pay a management fee based upon the amount of lignite actually delivered (as measured in mmBtu) to the Plant.¹²⁷ As of the Company’s December 7, 2009, Third Supplemental Filing, MPCo had 72 mineral leases in place covering 8,820 surface acres.¹²⁸ The estimated cost of the lignite over the forty year life of the Project was included in Mr. Anderson’s testimony and exhibits. Due to the confidential and competitive nature of the pricing information it is not being restated in this Order.

107. The Project has been designed with technology to reduce emissions that result in full compliance with the Clean Air Act and all applicable regulations promulgated thereunder to date.¹²⁹ The syngas cleanup processes planned for the Project are an integral part of the overall gasification process design, and are included as a means to reduce stack emissions. The emission rates expected by utilizing these processes represent the best available air pollution control technologies and will allow MPCo to permit the Plant in accordance with all federal and state ambient air quality standards.¹³⁰

108. As proposed by the Company and based upon the evidence presented, the Plant will be designed to capture approximately 65% of its CO₂ output.¹³¹ This level of carbon capture makes the Project’s CO₂ emissions equivalent to similarly sized natural gas fired generation.¹³² The Commission found in its Phase One Order that some type of climate change legislation

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ Exhibit __ (TOA-1) Appendix A to Phase Two Direct Testimony of Thomas O. Anderson, p. 11, 15 (Dec. 7, 2009).

¹³⁰ *Id.*

¹³¹ Phase Two Direct Testimony of Thomas O. Anderson, p. 5 (Dec. 7, 2009).

¹³² Supplemental Direct Testimony of Kimberly D. Flowers, pp. 2-3 (July 8, 2009).

enacted by the Congress—and/or regulations imposed by the Environmental Protection Agency—is likely and would result in explicit or implicit requirements to capture and sequester CO₂ from stationary sources, including power generation facilities.¹³³ The Company also testified that it believed it will be unable to obtain the funding and governmental approvals necessary to construct the Project without some level of carbon capture capability.¹³⁴ MPCo has studied several alternatives for various levels of CO₂ capture, and, based upon this analysis, the Company believes that it would be in the best interest of customers to design, build and operate the Plant with an approximate 65% capture level.¹³⁵ The carbon capture process being utilized for the Project is a commercial technology referred to as Selexol™. Mr. Anderson testified that the Selexol™ process is a commercial technology that uses proprietary solvents, but is based upon technology and design principles that have been in commercial use in the chemical industry for over 40 years.¹³⁶ Only Mr. Schlissel, in his direct testimony on behalf of Sierra Club, raised concerns about the Company's ability to capture the level of CO₂ contemplated by the Company, but his testimony offered no specific basis for his opinion that the Selexol™ process would be ineffective.¹³⁷ The Company witnesses testified in rebuttal that there are significant differences between “post-combustion” carbon capture processes and “pre-combustion” carbon capture process such as Selexol™ which has a forty-year track record of success in the chemical industry.¹³⁸ No other party contradicted the Company testimony on this issue.

¹³³ Order Finding Need for Generating Capacity and Energy, p. 13 (Nov. 9, 2009).

¹³⁴ Supplemental Direct Testimony of Kimberly D. Flowers, p. 3 (July 8, 2009).

¹³⁵ Phase Two Direct Testimony of Thomas O. Anderson, p. 21 (Dec. 7, 2009).

¹³⁶ *Id.* at 22.

¹³⁷ Direct Testimony of David A. Schlissel, pp. 18-19 (Dec. 7, 2009).

¹³⁸ *See* Rebuttal Testimony of Thomas O. Anderson, p. 13 (Jan. 5, 2010).

109. The Company plans to sell 100% of its captured CO₂ to one or more counterparties that operate enhanced oil recovery (EOR) projects in Mississippi, and the surrounding region.¹³⁹ According to the Company witnesses, EOR is a process by which a compressed gas (e.g. CO₂) is used to increase the productivity of depleted oil fields.¹⁴⁰ MPCo witnesses testified that the Company had been in discussions with multiple firms that have expressed an interest in purchasing the CO₂ produced at the Plant for use in EOR projects.¹⁴¹ In fact, MPCo's Motion for Reconsideration contained an executed Letter of Intent from one of the two CO₂ Offtakers evidencing their intent to purchase the captured CO₂ on general terms consistent with MPCo's economic assumptions.¹⁴² The Company also testified that it believes EOR activity and that industry's requirements for CO₂ will provide a vibrant market for the sale of the Project's captured CO₂.¹⁴³ Based upon this evidence, the Commission finds that the Company's design of the Project to capture 65% of the CO₂ output from the Plant and plan to sell the captured CO₂ to third parties is prudent and in the public interest.

110. The Company has requested that the Commission, as part of any certificate of public convenience and necessity issued in this proceeding, include in such grant the right for MPCo to own the CO₂ pipeline that would transport the CO₂ from the Plant site to the EOR projects. As proposed, MPCo would notify the Commission when it determines whether or not the option to own the CO₂ pipeline will be in the best interest of customers.¹⁴⁴

¹³⁹ Phase Two Direct Testimony of Thomas O. Anderson, pp. 22-23 (Dec. 7, 2009).

¹⁴⁰ *Id.*

¹⁴¹ See Direct Testimony of Kimberly D. Flowers, p. 47 (Jan. 16, 2009), and Phase Two Direct Testimony of Thomas O. Anderson, p. 23 (Dec. 7, 2009).

¹⁴² Confidentially-filed Exhibit C to Mississippi Power Company's Motion for Reconsideration (May 10, 2010).

¹⁴³ Phase Two Direct Testimony of Thomas O. Anderson, (Dec. 7, 2009), p. 22.

¹⁴⁴ The Commission has since approved MPCo's ownership, construction and operation of the

111. The Project will also require extensions to and upgrades of MPCo's existing transmission lines and substation facilities. Mr. James D. Cochran, General Manager of Transmission Design and Construction, Southern Company Transmission, testified as to the various transmission facilities required as a result of the Project.¹⁴⁵ A detailed description of the facilities is included in Mr. Cochran's testimony and exhibits, as supplemented and revised in the Company's update provided in its Third Supplemental Filing on December 7, 2009, per the Commission's order. No parties offered any testimony contradicting the need for, descriptions of, or cost estimates developed for the transmission and substation facilities proposed by the Company in support of the Project. The Commission finds that there is substantial evidence in the record describing and supporting the need for the proposed 115 kV and 230 kV transmission and substation facilities and we adopt the descriptions of the transmission and substation projects as set forth in Mr. Cochran's testimony, including the general locations of said facilities, the right-of-way requirements necessary for the reliable and safe operation of those facilities, and the cost estimates for the facilities.

112. In its Third Supplemental Filing, the Company updated certain aspects of its Project economics and capital cost estimates. One of the items updated was the Company's decision to utilize the City of Meridian's treated municipal wastewater, also referred to as "gray water," for the Plant's cooling and process water requirements.¹⁴⁶ According to the Company witnesses, the addition of the pumping, pipeline and storage facilities will increase the capital costs of the Project, but those costs are more than offset over the life of the Project by the savings

approximately 60 miles of CO₂ pipeline by separate order issued in Docket No. 2011-UA-290. Docket No. 2011-UA-290 Order, p. 7 (Jan. 11, 2012)

¹⁴⁵ See Phase Two Direct Testimony of James D. Cochran, pp. 2-4 (Dec. 7, 2009).

¹⁴⁶ See Phase Two Direct Testimony of Thomas O. Anderson, p. 12 (Dec. 7, 2009).

of avoiding water treatment facilities and the operations and maintenance costs associated with treatment facilities.¹⁴⁷ The Plant will be a zero liquid discharge facility, meaning that no process water will be discharged into any rivers or streams.¹⁴⁸ We find that this feature significantly enhances the environmental benefits of the Project. The pipeline facilities for the City of Meridian gray water will be approximately 30 miles in length (total) and located in Lauderdale and Kemper Counties. The rights-of-way required for these water facilities are expected to be 50 feet in width, with 25 feet of additional width to be used during construction. The description and location of the water pipeline facilities are shown in Exhibit ____ (TOA-1), Appendix H, to Mr. Anderson's testimony. Therefore, the Commission adopts the descriptions of the pipeline project as set forth in Mr. Anderson's testimony, including the general locations of said facilities, and the right-of-way requirements necessary for the reliable and safe operation of those facilities, and the cost estimates for the facilities.

113. Ms. Flowers testified that the Project will require approximately five miles of natural gas transportation facilities and associated rights-of-way to accommodate natural gas deliveries to the Plant.¹⁴⁹ The gas lateral will commence at the proposed site and run east approximately five miles where it will tie into an existing gas transmission pipeline.¹⁵⁰ The gas lateral will be located in Kemper County, Mississippi. The rights-of-way required for these natural gas facilities are expected to be 50 feet in width, with 25 feet of additional width to be used during construction.¹⁵¹ Therefore, the Commission adopts the descriptions of the pipeline

¹⁴⁷ *Id.* at 12-13.

¹⁴⁸ *Id.* at 13.

¹⁴⁹ Direct Testimony of Kimberly D. Flowers, p. 3, 37 (Jan. 16, 2009).

¹⁵⁰ *Id.* at 37.

¹⁵¹ *Id.*

project as set forth in Ms. Flowers's testimony, including the general locations of said facilities, and the right-of-way requirements necessary for the reliable and safe operation of those facilities, and the cost estimates for the facilities.

114. The Company submitted extensive testimony on the various federal, state, and local incentives available to reduce the overall costs of constructing and operating the Project. To date, the Company has been granted approximately \$270 million under the DOE's Clean Coal Power Initiative (CCPI).¹⁵² The Company's Motion for Reconsideration later confirmed that the Company received notification that the final EIS had been approved for publication satisfying the last procedural requirement before the DOE issues its NEPA ROD committing DOE to provide the previously awarded CCPI funds.¹⁵³ In addition, the Company was allocated approximately \$133 million in Internal Revenue Code Section 48A Investment Tax Credits (Phase I ITCs), and, as updated in its Motion for Reconsideration, additional Section 48A Investment Tax Credits (Phase II ITCs) totaling \$279 million.¹⁵⁴ The Company is also seeking DOE loan guarantees.¹⁵⁵ As the Company discussed in its Supplemental Filing on July 8, 2009, and in its Third Supplemental Filing on December 7, 2009, the Project's lignite gasification equipment would be eligible for ad valorem tax exemption under certain conditions.

115. According to the testimony of various MPCo witnesses, the Company conducted a Front End Engineering Design (FEED) study to gather the pertinent cost and other data necessary for the evaluation of the Kemper County IGCC Project.¹⁵⁶ By way of example, the

¹⁵² See Exhibit ____ (FT-11) to Phase Two Direct Testimony of Frances Turnage (Dec. 7, 2009).

¹⁵³ MPCo's Motion for Reconsideration, pp. 21-22 (May 10, 2010).

¹⁵⁴ See Phase Two Direct Testimony of Frances Turnage, pp. 7-8 (Dec. 7, 2009).

¹⁵⁵ *Id.* at 7.

¹⁵⁶ Phase Two Rebuttal Testimony of Thomas O. Anderson, p. 4 (Jan. 5, 2010).

FEED included conceptual design for the gasification island and other items such as the cooling towers and coal handling equipment, process flow diagrams, equipment specifications and foundation designs and layouts. The FEED study represents a comprehensive effort by the Company, utilizing expertise in numerous specialty areas such as chemical, mechanical, electrical, and civil engineering as well as construction layout and process design. The Company testified that the FEED study produced a thorough estimate of cost and performance for the Project.¹⁵⁷ As stated earlier, the quality of the estimate based on a FEED Study is higher than that normally presented at the certification stage.

116. The Company was the only party that produced detailed evidence as to the costs of the Project. The Company's cost estimates were presented in substantial detail in the testimony and exhibits of Ms. Flowers, as updated in the testimony and exhibits of Mr. Anderson in December 2009 per the Commission's order and as analyzed by Mr. Brazzell in his economic analysis. The cost estimate was developed through the FEED study, through various bid solicitations for major components of the Plant and through the experience of the Company and SCS. A breakdown of the estimated capital costs of the Project was presented in Exhibit ____ (TOA-1), Appendix B, filed confidentially, which is incorporated herein by reference. Other parties questioned the level of accuracy that can be expected from a FEED Study in general,¹⁵⁸ but no party presented any evidence to suggest the Company's FEED Study was flawed.

117. As explained in detail later in this order, the Commission finds that the Company's estimate was reasonably derived. Given the limited activities that a utility is

¹⁵⁷ Direct Testimony of Kimberly D. Flowers, p. 34 (Jan. 16, 2009).

¹⁵⁸ Phase Two Hearing Transcript, p. 1195.

authorized to do prior to receiving a certificate, it is generally unreasonable to expect the Company to produce, at this stage, a more detailed or accurate estimate. In fact, the Commission notes that the Company's FEED Study efforts exceed the level of detail that is typically undertaken in certificate proceedings. Nevertheless, the Commission must always be mindful of the uncertainties that may exist in an estimate and the possible consequences to customers that can arise. The Commission finds that the significant efforts to monitor the Project utilizing construction and engineering experts, and the cost cap established for the majority of the Kemper Project will sufficiently mitigate the risks associated with not having final estimates based on a detailed design.

D. ECONOMIC EVALUATION METHODOLOGY AND NATURAL GAS FORECASTS

118. MPCo's evaluation compared the cost of all alternatives under consideration to determine the overall least-cost option for customers by calculating the net present value of incremental revenue requirements over the life of each alternative.¹⁵⁹ The revenue requirements include all fixed costs associated with the alternative, including recovery of construction capital, ongoing maintenance capital, fixed operation and maintenance (O&M), insurance, ad valorem tax, administrative and general, and fixed fuel.¹⁶⁰ These costs reflect any available incentives the alternative could receive.¹⁶¹ The revenue requirements also include all variable costs including fuel, variable O&M, emission allowances/taxes, and system production cost savings.¹⁶² These costs are also reduced by any incentives or benefits from salable product revenues that an

¹⁵⁹ Phase Two Direct Testimony of F. Sherrell Brazzell, p. 3 (Dec. 7, 2009).

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

alternative may provide.¹⁶³ All alternatives were scaled to the same capacity rating so each alternative could be compared on a dollar per kW basis.¹⁶⁴ The revenue requirements calculated using this data were then discounted at MPCo's expected marginal after-tax weighted average cost of capital to calculate a cumulative net present value for each alternative.¹⁶⁵

119. The same 16 scenarios used in the Company's Phase One needs analysis were also used for the Company's Phase Two economic evaluation of the self-build alternatives. Four fuel scenarios were constructed using a range of gas prices.¹⁶⁶ Four climate-change legislative scenarios were modeled for each of the four fuel scenarios.¹⁶⁷ This resulted in 16 individual, internally-consistent outlooks of correlated fuel prices and carbon compliance costs, electricity demand and prices, and capacity and energy mixes.¹⁶⁸ These 16 scenarios represent fully integrated results as opposed to the single-point estimates and sensitivities which have been used in past IRPs.¹⁶⁹

120. The Company consistently testified that it was important to use a range of assumptions (represented by the collection of scenarios) when evaluating resource options, particularly long-term resources.¹⁷⁰ Boston Pacific's Dr. Roach agreed with the Company on this point:

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 4.

¹⁶⁵ *Id.*

¹⁶⁶ Phase Two Direct Testimony of David F. Schmidt and Garey C. Rozier, pp. 4-5 (Dec. 7, 2009).

¹⁶⁷ *Id.* at 5.

¹⁶⁸ *Id.*

¹⁶⁹ *Id.* at 4.

¹⁷⁰ Phase Two Direct Testimony of Kimberly D. Flowers, p. 4 (Dec. 7, 2009); Phase Two Direct Testimony of David F. Schmidt and Garey C. Rozier, p. 4 (Dec. 7, 2009); Phase Two Direct Testimony of Christopher Ross, pp. 4-5 (Dec. 7, 2009).

The use of scenarios is a good way to measure the risks. We would tend to pick the option that wins in a majority or more of the scenarios because it means that the option is the best deal for Mississippi ratepayers no matter how the future unfolds.¹⁷¹

While certain parties took issue with some of the assumptions used to generate the scenarios, no party presented evidence against using a scenario approach for evaluating the various options. For the above reasons, the Commission finds that the use of a range of scenarios to evaluate the relative economics of the alternatives is a reasonable and prudent approach.

121. All of the resource options (including the IPP bids) were evaluated across MPCo's 16 scenarios of gas price and carbon compliance forecasts. In addition, the Commission directed MPCo to conduct the evaluation of proposals on behalf of the Commission and directed the independent evaluator, Boston Pacific, Inc. to monitor and evaluate the evaluation process undertaken by MPCo. In addition, Boston Pacific, Inc. performed its own evaluation utilizing its own methodology. Finally, in the order, the Commission required that the evaluations include a sensitivity for fuel prices set 20% lower than those contained in MPCo's low natural gas forecast.¹⁷² The Commission included a lower gas forecast for use in the range of scenarios as a proxy for significantly lower gas prices caused by an abundance of shale gas on the market, which was proffered as a plausible scenario by several parties. This addition resulted in a total of 20 scenarios of gas price and carbon compliance forecasts.

122. Considerable testimony was provided in both Phase One and Phase Two concerning the relative credibility of the various natural gas price forecasts presented by the parties for the Commission's consideration. MPCo's testimony explained that its four natural

¹⁷¹ Report of the Independent Evaluator, p. 3 (Jan. 25, 2010).

¹⁷² Mississippi Public Service Commission Order Granting Motions for Reconsideration, p. 2 (Dec. 15, 2009).

gas forecasts represented what it deemed to be a reasonable “range of future policy initiatives as well as a range of assumptions for other key variables that affect the demand for, and supply of, natural gas”¹⁷³ Three expert witnesses testified that MPCo’s natural gas and CO₂ price forecasts represented a reasonable range from which to make long-term decisions.¹⁷⁴ The Sierra Club’s expert Mr. Schlissel testified that MPCo’s natural gas forecasts were too high when compared to recent Energy Information Agency (EIA) forecasts and recent trades posted to the NYMEX futures market.¹⁷⁵ Several parties also testified that the recent increase in shale gas production represented a fundamental shift in the natural gas markets such that low and stable natural gas prices could be expected well into the future.¹⁷⁶ Additional testimony regarding the various natural gas prices was heard during Panel B of the Phase Two Hearings.

123. While natural gas prices are relatively low today as compared to the recent past, evidence in the record demonstrates to the Commission that natural gas markets and prices are and will continue to be volatile.¹⁷⁷ The record contains several different forecasts of future natural gas prices that indicate a wide range of possible prices. MPCo demonstrated through several graphs and slides how volatile natural gas prices have been historically.¹⁷⁸

124. After carefully reviewing the record, we find that the conflicting evidence on natural gas forecasts points out the difficulty in predicting long-term future natural gas prices. In

¹⁷³ Phase Two Rebuttal Testimony of Kimberly D. Flowers, David F. Schmidt and Garey C. Rozier, p. 6 (Jan. 5, 2010).

¹⁷⁴ See generally Phase Two Rebuttal Testimony of Christopher Ross (Jan. 5, 2010); Phase Two Rebuttal Testimony of Dr. Frank Clemente (Jan. 5, 2010); Phase Two Rebuttal Testimony of David Montgomery (Jan. 5, 2010).

¹⁷⁵ Direct Testimony of David A. Schlissel, p. 3 (Dec. 7, 2009).

¹⁷⁶ Rebuttal Testimony of Rebecca Turner, pp. 5, 11-13 (July 28, 2009); Direct Testimony of Robert Michaels and Samuel Van Vactor, pp. 5-6 (July 17, 2009).

¹⁷⁷ Phase One Hearing Transcript, pp. 112, 358; Phase Two Direct Testimony of Christopher Ross, pp. 4-6 (Dec. 7, 2009); and Phase Two Rebuttal Testimony of Frank Clemente, Ph.D., pp. 3-6 (Jan. 5, 2010).

¹⁷⁸ See MPCo’s Late Filed Exhibits (Feb. 22, 2010).

order for the Commission to confidently pick one as more probable than the other, the Commission would be required to predict the outcome of several different variables, including but not limited to, the long-term availability of shale gas, the extent to which natural gas exports are permitted, the timing and severity of CO₂ compliance costs, the extent to which nuclear generation is expanded domestically, the extent to which natural gas demand increases due to the tightening of environmental regulations on coal generation, the extent to which traditional coal-fired generation is employed in the future, and the expanded use of natural gas as a transportation fuel.¹⁷⁹ For the reasons stated in the next section, the Commission does not adopt any one or a set of natural gas forecasts for the purpose of evaluating the relative economics of the alternatives under consideration. Instead, the entire range of scenarios was considered by the Commission.

E. ECONOMIC EVALUATION OF KEMPER PROJECT VERSUS IPP BIDS

125. On December 7, 2009, MPCo submitted its updated cost estimate for the Kemper Proposal, and the results of its updated 2010 IRP and its self-build alternative economic evaluation. Also, on December 7, 2009, Entegra, KGen, and Calpine¹⁸⁰ submitted multiple purchase power proposals (PPAs) with terms ranging from 10 years to 25 years in duration and offering different fuel arrangements. All of the PPA bids received were from natural gas combined cycle facilities. In addition, some of the IPPs offered one or more of the generating assets in their portfolios to MPCo for purchase. The Sierra Club declined to propose a specific

¹⁷⁹ See e.g., Second Supplemental Testimony of Kimberly D. Flowers, Frances V. Turnage and David F. Schmidt, pp. 14-15 (Aug. 28, 2009).

¹⁸⁰ Although a party to the proceeding, Magnolia did not submit a resource proposal for consideration in Phase Two.

alternative. Of all of the alternatives, the Kemper Project represents the only resource fueled by something other than natural gas, since no renewable proposals were received.

126. The Commission, in its order establishing the minimum bid requirements for resource proposals, indicated our preference for offers that included mechanisms for reducing the price volatility and escalation associated with natural gas fired generation. Any party wishing to provide price stability or to fix the price of natural gas during the duration of the contract period could do so in any manner it deemed necessary. In response to the Commission's request, two IPPs included offers to the Company that purported to provide fuel price protection for MPCo's customers for ten years commencing in 2014. The specific terms of all of the proposals are confidential and will not be restated in this order.

127. Each individual proposal, including the Kemper Project, was evaluated by the Company at the Commission's direction and by the Commission's independent evaluator, Boston Pacific, Inc., through Dr. Craig Roach and his staff. During the evaluation period, the Company and Boston Pacific shared information and collaborated to ensure consistency in input data and identify differences in methodology and results. At the conclusion of the evaluation period, on January 25, 2010, MPCo and Boston Pacific, Inc. each submitted separate and independent evaluation reports into the record prior to the Phase Two hearings. No party objected to the process established for the solicitation of resource alternative proposals, and no party objected to the use of Dr. Roach and Boston Pacific, Inc., as the independent evaluator of the bids or to the role of the Company in the bid evaluation process. The Commission finds that the market solicitation process utilized by the Commission in this proceeding afforded any interested party ample opportunity to participate in this proceeding and to submit a competitive offer for an asset sale or PPA. Moreover, the Commission finds that the use of the independent

evaluator to review the Company's evaluation methodology and to conduct its own independent evaluation created a robust and transparent process that served the public interest in this proceeding. The Commission's use of this solicitation and evaluation process was implemented in an attempt to ensure overall benefits to customers.

128. MPCo's economic evaluation used a methodology sometimes referred to as the Fill In Method to compare the IPP bids to both the Project and MPCo's natural gas combined cycle self-build alternative. The Company's Evaluation Report results indicated that the Project was more economic than the PPA offers in 15 of the 16 scenarios analyzed.¹⁸¹ The asset purchase offers compared slightly better than the PPAs, but the Project was still more economic in 12 of the 16 scenarios analyzed.¹⁸² The Company excluded the IPP fixed gas bids from its detailed evaluation because, after further inquiry, MPCo determined that the fixed gas bids were not credible.¹⁸³

129. Boston Pacific's Bid Evaluation used two different evaluation methods to provide the Commission with what it referred to as long-term and short-term strategic preferences. Other strategic preferences presented in Boston Pacific's Evaluation Report include excluding the fixed gas bids, including only bids with terms of twenty years or more, including only asset purchase offers, and including only plants that are located in Mississippi.¹⁸⁴ Additional sensitivities evaluated the Kemper Project assuming that costs exceeded the estimate by 10% and 20%. Boston Pacific's Evaluation Report concluded that the "winner" depended upon the

¹⁸¹ Phase Two Supplemental Testimony of David F. Schmidt and Garey C. Rozier, p. 11 (Jan. 25, 2010).

¹⁸² *Id.* at 16-17.

¹⁸³ *Id.* at 17-20.

¹⁸⁴ Report of the Independent Evaluator, pp. 2-3 (Jan. 25, 2010).

Commission's strategic preference for long-term or short-term alternatives and its judgment of the credibility of the cost parameters of the various proposals.¹⁸⁵

130. In this proceeding, it was necessary to compare the forty-year Kemper Project with IPP bids of lives varying from ten to twenty-five years. The Company's Fill-In Method used a self-build alternative at the expiration of each bid to "fill in" the remaining years of the evaluation period. According to the Company witnesses, this method ensured that each resource alternative is treated consistently over the entire forty-year evaluation period.¹⁸⁶ Boston Pacific's Extension Method assumed that the submitted bids continue to be selected by escalating the bid costs where appropriate to "extend" the term of the bid to fill in the remaining years of the evaluation period.¹⁸⁷ Both methods compared all of the bids over a forty-year period, and both produced results that concluded that Kemper is the best economic option for customers in the overwhelming majority of scenarios and across the many strategic preferences.¹⁸⁸

131. At the hearings, a number of issues were raised by the Company witnesses concerning the Boston Pacific Extension Method. It was first claimed that a weakness of the Extension Method is that it assumes that the bid is available all forty years at the same terms and conditions as originally proposed.¹⁸⁹ The Company claims this assumption ignores the possibility that a bidder may often be willing to provide a lower bid in the short-term that the bidder may be unwilling to continue throughout the entire evaluation period, and, therefore, has

¹⁸⁵ *Id.* at 3-4.

¹⁸⁶ Phase Two Supplemental Testimony of David F. Schmidt and Garey C. Rozier, p. 9 (Jan. 25, 2010).

¹⁸⁷ Report of the Independent Evaluator, p. 27 (Jan. 25, 2010).

¹⁸⁸ Compare Exhibit____(MPC-Eval-5) to Phase Two Supplemental Testimony of David F. Schmidt and Garey C. Rozier (Jan. 25, 2010) to Tables E-8, E-9, E-10, E-11, E-12, E-13 & E-14 to Report of the Independent Evaluator (Jan. 25, 2010).

¹⁸⁹ Phase Two Hearing Transcript, pp. 1732-33, 1744, 1748.

the potential effect of unfairly favoring lower bids.¹⁹⁰ The Extension Method also ignores the possibility that lower cost options are available at the expiration of the bid.¹⁹¹ Instead, the terms and cost of each bid are simply assumed to be extended for forty years.¹⁹²

132. Boston Pacific also provided results from a second evaluation using the Modified Annuity Method. This method differs from the Fill In and Extension Method in that it does not require that all of the resources be evaluated over forty years.¹⁹³ According to Dr. Roach, this method “ignor[es] what happens after the shorter-term investment expires.”¹⁹⁴ According to Dr. Roach, this method would be relevant in the event the Commission chose a strategic preference for shorter-term alternatives, but less relevant if the Commission was looking for a long-term resource.¹⁹⁵ The results of the Modified Annuity Method indicated that the Project was less economic than the “fixed gas” proposals in the majority of scenarios, but still remained competitive with the other PPA and asset purchase bids when the fixed gas proposals were excluded.¹⁹⁶ Therefore, Dr. Roach testified that if the Commission determined a strategic preference for a shorter term solution, such a decision would very much depend upon the Commission’s judgment of the credibility of the fixed gas proposals.¹⁹⁷

133. The Company also objected to the use of Boston Pacific’s Modified Annuity Method in the evaluation. Boston Pacific justified the use of its Modified Annuity Method as a

¹⁹⁰ *Id.* at 1748-53.

¹⁹¹ *Id.*

¹⁹² *Id.*

¹⁹³ Report of the Independent Evaluator, p. 27 (Jan. 25, 2010).

¹⁹⁴ *Id.*

¹⁹⁵ *Id.* at 27-28.

¹⁹⁶ Appendix E to Report of the Independent Evaluator, Tables E-2 & E-9 (Jan. 25, 2010).

¹⁹⁷ Phase Two Hearing Transcript, pp. 1121-28.

tool to analyze the best short-term option available for those instances where the Commission wishes to “lock in the early-year savings and worry later about what comes next.”¹⁹⁸ MPCo claimed the Modified Annuity Method is fundamentally flawed because it ignores and fails to address what happens after the shorter-term option expires.¹⁹⁹ MPCo’s witnesses also claimed that the Modified Annuity Method only accounts for the first ten years of energy savings provided by Kemper and completely ignores the energy savings to customers provided throughout the remaining life of the Plant (i.e. 40 years or longer), which is a primary benefit of the plant.²⁰⁰ The Company claims that such a short-term approach is not an accepted industry practice and could never justify the construction of a baseload facility, because long-term benefits that these facilities provide are heavily discounted or ignored in the analysis.²⁰¹

134. MPCo also claimed that Boston Pacific’s entire evaluation erroneously excluded a number of costs associated with the bids, thereby understating the true cost of the bids. These include the exclusion of certain transmission improvement costs necessary to deliver firm service to MPCo, certain equity costs necessary to maintain the Company’s capital structure and credit quality if an IPP option was selected, and certain pre-construction costs that were prudently incurred to evaluate all options available to meet the need.²⁰² The Commission takes notice that many of these cost issues have been the subject of controversy across the country in similar proceedings for years, but have never been specifically addressed in Mississippi. While these costs appear appropriate to include in the economic evaluation of IPP bids, the Commission finds

¹⁹⁸ Report of the Independent Evaluator, p. 27 (Jan. 25, 2010).

¹⁹⁹ Phase Two Hearing Transcript, pp. 1724-25, p. 1854.

²⁰⁰ *Id.* at 1725-27, 1729.

²⁰¹ *Id.* at 1591-92.

²⁰² *Id.* at 1772-75, 1782, 1785-87, 1916-18, 1920.

it unnecessary to resolve this conflict because the resolution is not integral to the Commission's decision. The Commission does take into consideration, however, that these omitted costs would serve to improve the relative economics of the Kemper Project, meaning that the results provided in the Boston Pacific Report represent a conservative approach to an economic comparison. This conservative approach provides more evidence that the Kemper Project is the most economic choice, and that the Commission's cost cap, which is discussed more thoroughly below, is supported by the appropriate and most credible evidence.

135. According to Dr. Roach, in order to properly interpret and weigh the credibility of the economic evaluation evidence contained in the record, the Commission must decide on certain "strategic preferences,"²⁰³ namely (i) whether the Commission believes that a long-term or short-term solution is the overall best alternative for MPCo and its customers and (ii) the relative credibility of the fixed gas proposals and the Kemper cost and performance estimates. The Commission in its April and May Orders did not make specific findings concerning these issues, which we now believe is necessary to fully explain and support our conclusion to approve the Kemper Project.

136. Boston Pacific indicated in its report that the economic "winner" depended upon whether the Commission preferred long-term or short-term resource solutions:

Who wins this competition – who wins the right to sell power to Mississippi ratepayers – is influenced importantly by what we have termed strategic preferences. The threshold strategic question is "What time horizon does the Commission want to consider?" The Commission has been offered primarily ten- and twenty-year resource options or solutions by the Bidders, but Kemper is offered as a forty-year option. There is no analytic or business reason to require all options to offer a forty-year solution. The proper time horizon is a matter for the Commission to decide.

²⁰³ Phase Two Hearing Transcript, pp. 1122-23.

* * *

[T]he answer to the question “Who Wins?” in the competition between Kemper and the Bidders depends on the Commission’s strategic preference. The most important of these is the choice of time horizon.²⁰⁴

While recognizing the importance of the strategic preference identified, Dr. Roach was definitive in noting that the policy decision between a long-term or short-term solution is left to the sound discretion of this Commission.²⁰⁵

137. During the Phase Two Hearing, Dr. Roach described, in a very casual but accurate manner, some of the policy considerations facing this Commission regarding the time horizon preference.²⁰⁶ For example, Dr. Roach indicated that if the Commission wanted to “lock in” savings in the first twenty years, as compared to Kemper, and be able to wait and see whether the future brought new technology or new information then a short-term solution would be best.²⁰⁷ But, if the Commission wanted “a 40-year guarantee . . . a solution for 40 years, or . . . I just want a diversified fuel for 40 years,”²⁰⁸ then a long-term solution favors Kemper.

138. Dr. Roach consistently characterized a short-term or natural gas option as a possible bridge to the future where new technologies might await to satisfy our capacity and energy needs.²⁰⁹ Boston Pacific’s report noted the Bidders offered only natural gas-fired combined cycle alternatives for ten or twenty years “consistent with the popularized view of natural gas as a ‘bridge’ to the future – that is, it will serve America’s energy needs for ten or

²⁰⁴ Report of the Independent Evaluator, pp. 3-4, 6 (Jan. 25, 2010).

²⁰⁵ *Id.* at 4; Phase Two Hearing Transcript, pp. 1733-35.

²⁰⁶ Phase Two Hearing Transcript, pp. 1733-36.

²⁰⁷ *Id.* at 1734.

²⁰⁸ *Id.* at 1735.

²⁰⁹ *Id.* at 1556-57.

twenty years as new technologies are developed and perfected.”²¹⁰ The IE, however, recognized that “[u]ncertainty over the future path for natural gas prices is the primary risk of choosing any of the Bids since they are all based on existing, natural gas-fired combined cycle power plants. Recent history shows us just how volatile natural gas prices can be and that volatility illustrates the uncertainty in any forecast.”²¹¹

139. However, with approximately 53% of MPCo’s generating capacity using natural gas as the primary fuel,²¹² MPCo witnesses sharply disputed the notion that natural gas was a bridge to its future. The future, MPCo contended, is now; and the question is about baseload resources, not short-term options.²¹³

140. Witnesses for MPCo offered compelling testimony that the prospect of change was a part of the utility world and always had been. Mr. Rozier pointedly noted that prior to Kemper the utility industry had made important decisions in the face of two Arab oil embargos, deregulation, open access to transmission, the advent of IPPs, a ban on the use of natural gas in electric utility boilers, numerous federal environmental laws, and the large-scale move away from coal-fired power.²¹⁴ As Mr. Rozier accurately stated:

And I will tell you there's nothing unique about the fact that we're in a state of change and a lot of dynamics in the electric utility industry.

* * *

²¹⁰ Report of the Independent Evaluator, p. 3 (Jan. 25, 2010).

²¹¹ *Id.* at 22.

²¹² See Direct Testimony of Kimberly D. Flowers, p. 17 and Appendix I to Exhibit ____ (KDF-1) (Jan. 16, 2009).

²¹³ Phase Two Hearing Transcript, pp. 1557-58, 1570-74, 1578-80, 1653-62.

²¹⁴ Phase Two Hearing Transcript, p. 1657

There's nothing unique about change that is going on in the industry. The particular things that are going on might be different, but it's the world we live in.²¹⁵

Dr. Montgomery drew the sharpest focus, framing the issue as follows:

The issue I think we've all been talking about is whether in 10 years we will actually know more about the subsequent 40 years than you do today. I think that's the question you asked, and my answer to that would be I agree with the panel, the company witnesses.

The uncertainty about what is going to be the best investment option over the next 40 years would be just as great 10 years from now as it is today, and that means, technically, that there's no value in waiting.²¹⁶

141. Whether its oil embargos, nuclear catastrophes, environmental regulations, climate change, renewables or shale gas, the one certainty is that change, ingenuity, innovation and hope for a better future will always exist. Nevertheless, a public utility must prudently plan for its future, in part, to guard against uncertainty. The Kemper Project provides a long-term baseload generation solution that exists today and will provide a diversified and stable fuel source for the future, avoiding an overreliance on natural gas and its corresponding price volatility. The Commission finds that there is no benefit to waiting for ten more years to find a forty year solution that exists today.

142. Satisfying society's electricity needs reliably and economically always presents cost challenges. Undoubtedly, if natural gas prices persist at historic low levels for the long term then the Kemper Project will turn out more costly than a natural gas alternative. Also, Kemper has greater upfront capital costs, whereas the greatest cost (and the greatest risk) of a natural gas alternative lies in the fuel cost. After reviewing the range of possible fuel cost and carbon constrained scenarios, Kemper proves to be the dominant economic choice, even though the

²¹⁵ *Id.*

²¹⁶ *Id.* at 1662.

economics look different from a shorter-term, natural gas alternative. For example, Ms. Turnage explained the comparison between Kemper and a natural gas alternative, as follows:

And it shows, for example, in our reference case, which is the moderate gas with a \$10 CO₂, over its life, Kemper would save customers \$4.2 billion.

And most of that, as I think you're pointing out, Mr. Young, is in the latter years of the life of facility. That's why you invest in baseload generation is to get those savings on the back end.²¹⁷

143. Long-term planning, particularly with baseload generation, spreads costs and benefits out over time. As Mr. Rozier observed:

This is Mississippi Power's current fleet, and you see there the Greene County Units are 48, 49 years old, Watson, 41 to 46 years old, Daniel, 33 to 37 years old. Other units even longer age.

I think we can agree that we have to look to the long-term. We have to look over a wide range of scenarios, and that the payback for the capital we invest is not totally certain, and the fuel costs we're going to experience is not completely certain.

There are those issues that we have to deal with, but by and large, you invest in the long-term assets to produce long-term stable rates, and a short sided approach will not serve Mississippi's customers well.

And you know, we have a good range of fuel prices that have been looked at in the 16 scenarios the company looked at. The Commission indicated maybe they wanted to look at a lower set of gas prices, which as our witnesses have told you are not sustainable over the long-term.

Long-term assets have to be put in place to get long-term benefits financed by long-term financial commitments, and that's to the benefit of Mississippi Power's customers.²¹⁸

144. Costs and benefits of long-term, baseload assets are also spread out and equalized between generations of ratepayers. Again, as accurately explained by Mr. Rozier:

²¹⁷ *Id.* at 1573.

²¹⁸ *Id.* at 1570-71.

While -- when the Kemper facility comes in, it is at the beginning of its life. It is producing benefits in every year. It's stabilizing energy -- our energy costs. Customers are benefiting from that.

Over time, that capital we invested will pay itself off in terms of a long-term investment decision, but at the same time customers are paying those rates that include Kemper, they're paying the highly depreciated rates for those units that were built 20 and 30 years ago, and it all bundles together.

We're not going to be going to any customers and asking them to pay Kemper rates. They're going to be paying the rate for the total fleet which includes investing in that fleet over the long haul, and that's the only way you can look at a baseload decision is over the long haul, because we're benefiting from those baseload decisions in the current rates.²¹⁹

145. Focusing on short-term solutions, and particularly the cost of a shorter term option in comparison to a longer-term solution, can lead to bad decision making. Dr. Montgomery best illustrates this point in the following testimony:

We've now gotten to Mr. Schlissel is now applying that calculation in a way that leads directly to the conclusion that no one would ever build a baseload power plant, and I'm afraid that is exactly the direct -- and that is the implication that I take from Mr. Young's questions.

If we look only at the first 10 years of a baseload power plant, we would -- that has a high capital cost, whether it is coal or hydro or nuclear or renewables, we would conclude that, over that time period, you would be much better off buying a PPA that has a small capital charge.

The problem is that when you got to the end of that 10-year period, you would conclude exactly the same thing, and the next 10-year period you would conclude exactly the same thing.

So over 40 years, if you made your decisions in this sequential shortsighted way, you would consistently choose something that at the end of those 40 years you would look back and say that was a really stupid decision, because if I had just looked forward enough, I would have realized it was worth paying the cost of that baseload power plant, and that's the fallacy of trying to look for these years in which there is a break even.

²¹⁹ *Id.* at 1578-79.

You can't say that it's a good idea to be shortsighted, look out only 10 years, and in fact -- in fact, I think that there is a very important -- since you're looking at revenue requirements, it's very important to remember the point that . . . Mr. Rozier said that in a regulated environment, the ratepayer gets the benefit of having depreciated out the cost of an old power plant.

Now, if MPCo had, throughout its entire history, been buying power from independent power producers on PPAs, those power producers would have always been earning a profit.

In fact, those 60-year old power plants would right now hold the MPCo consumers is paying is the fuel and operating cost would have been earning a profit for their IPP owners.

So if at that point MPCo went out and built a baseload power plant, there would be a big rate shock, because you would be adding a capital charge on top.

What's happening now as described is simply a sequence of investments which are made and then depreciated out, made and depreciated out, and as we do that over time, you come out much more cheaply than you would have been buying power at a much higher price over that period.²²⁰

This Commission favors a long-term solution over a short-term option.

146. Building and crossing a natural gas bridge to the future would require this Commission to embrace the historic volatility of natural gas prices and to potentially compound that decision by forcing MPCo to rely almost exclusively on natural gas. As testified by one of its witnesses, a natural gas option would move the Company's energy portfolio to 70% reliance on natural gas.²²¹ The Commission finds significant potential harm in such overreliance and does not favor this approach.

147. Dr. Roach agreed, as exhibited by this exchange with Commissioner Bentz during the Phase Two Hearing:

²²⁰ *Id.* at 1591-93

²²¹ Phase Two Hearing Transcript, p. 1602.

COMMISSIONER BENTZ: Dr. Roach, I'm hearing a lot about this gas and 10 years. The question I need to ask, do you feel the utility company is being prudent to the ratepayers if they're 70 percent dependent on natural gas?

DR. ROACH: That's -- you know, I haven't really addressed that. I think that is a worry. There's no doubt about it. Fuel diversity matters. I think I've been presuming, although it's not my place to presume, that you would not go forward, necessarily, with the gas option if it didn't offer you some fixed gas prices so you wouldn't face that risk, you wouldn't have that risk. So that's my presumption, but you'll make your decision.²²²

Additionally, Boston Pacific noted that without producing innovative fixed-price natural gas supply deals the natural gas industry would not be able "to secure a place for base load gas-fired electricity generation."²²³

148. The Commission finds that fuel diversity matters, particularly because fuel price stability matters. The Kemper Project offers both, giving MPCo a third fuel source for its generation fleet and utilizing a lignite resource owned by the Company and mined at the mouth of the Kemper plant. Lignite will be subject to neither transportation costs nor market pressure, thereby offering near price certainty and transparency.²²⁴

149. Having reviewed the evidence concerning the different methodologies, the Commission finds that a long-term baseload solution is in the best interest of customers. Because MPCo and the Commission have obligations under the Act to ensure that customers are being served safely, reliably in a cost-effective manner, it is not prudent to consider evaluations that fail to consider what happens after the short-term option expires or is no longer available.²²⁵ The regulated utility industry is characterized by large, long-lived capital investments, which

²²² *Id.* at 1604-05.

²²³ Report of the Independent Evaluator, p. 24 (Jan. 25, 2010).

²²⁴ *See, e.g.*, Phase Two Hearing Transcript, pp. 1803-04.

²²⁵ Phase Two Hearing Transcript, pp. 1724-25, 1854.

does not easily allow for a utility to ignore long-term planning needs or the consequences of making a short-term decision. Based upon these findings, the Commission determines that a long-term resource alternative is the overall best option for MPCo and its customers at this time.

150. Although the Commission's finding in favor of a long-term baseload solution leaves little need to pass upon the fixed-price natural gas bids, the Commission will, nevertheless, consider the matter.

151. Considerable testimony and evidence was presented both in favor of and against the inclusion of the fixed gas bids in the economic analyses. As a result of this testimony, we are concerned that none of the parties in the proceedings were themselves able or willing to provide a fixed natural gas price to MPCo's customers for even ten years. Certainly, no "strong letter of intent" or actual contract was forthcoming.²²⁶ The IPPs claimed that such an arrangement could be accomplished through a financial institution although all of the parties agreed that a ten-year fixed gas contract had not been done in the past and was entering "new territory."²²⁷ MPCo testified that despite its best efforts to date, a fixed gas contract for the term proposed was impossible to execute, because there were no willing counterparties and the credit risks were too high.²²⁸ MPCo also testified that the potential cost, if available, to secure even a ten-year fixed gas deal could be over \$1 billion for only ten years of limited fuel price protection within some narrow range around the price of the gas commodity.²²⁹ After reviewing the proposals and the

²²⁶ *Id.* at 1608-08.

²²⁷ *Id.* at 1800, 1839-40.

²²⁸ *Id.* at 1832-34, 1955, 2019-20. Margining Risk would arise when MPCo's mark to market exposure for the financial hedge transaction exceeds the credit thresholds and the Company has to post collateral. Phase Two Supplemental Testimony of Frances Turnage, p. 7 (Jan. 25, 2010). Counterparty risk is the risk that MPCo's counterparty is unable or unwilling to perform under the hedging contract, exposing MPCo to the natural gas price risk that it thought it had hedged to avoid.

²²⁹ Phase Two Supplemental Testimony of Frances Turnage, p. 7 (Jan. 25, 2010).

testimony contained in the record, the Commission finds that the fixed gas proposals offered by the IPPs are not credible. The fixed gas proposals only amount to a suggestion that MPCo seek additional hedging contracts with financial institutions that have not provided offers and were not parties to this proceeding.²³⁰

152. 10-year fixed gas price contracts, economical or otherwise, appear to be fiction at this point, as illustrated by Commissioner Bentz at the Phase Two Hearings:

COMMISSIONER BENTZ: Mr. Sweeney, have you ever done a fixed price 10-year deal?

MR. SWEENEY: Never done a fixed price 10-year deal, but yes, I have done 10-year buys.

COMMISSIONER BENTZ: Entegra, have they ever done a 10-year fixed deal?

MR. BRONNER: We've done 10-year tolling arrangements, but we -- I have not done 10-year gas arrangements.

COMMISSIONER BENTZ: Mr. Hempling, why are we stuck on this 10 years?

MR. HEMPLING: Well, I don't know the answer to that, sir.

COMMISSIONER BENTZ: Why aren't we talking 20 and 30 years?

MR. HEMPLING: Sir?

COMMISSIONER BENTZ: Why are we talking 10 years, I'm wanting you to give me some advice. Are we not trying to fix the problem for 20, 30, 40 years down the road?²³¹

The Commission finds that the fixed gas proposals are not credible and excludes them from consideration.

²³⁰ Phase Two Hearing Transcript, pp. 1613-14, 1816-19, 1824-34.

²³¹ *Id.* at 1838.

153. When the fixed gas proposals are removed from consideration and a strategic preference for long-term resources is made, the economic evidence becomes much clearer and more convincing to the Commission. MPCo's Fill In Method and Boston Pacific's Extension Method produced comparable results,²³² and both indicated that the Kemper Project was the clear economic winner in the overwhelming majority of scenarios, which examined all relevant IPP bids and the self-build natural gas option.²³³ In both of these methods combined, the Kemper Project wins in 47 of the 56 scenarios considered if the fixed gas proposals are eliminated.²³⁴ Even the Modified Annuity Method results (a short-term evaluation method) indicate that the Kemper Project is more than economic when the fixed gas bids are removed from consideration.²³⁵ Dr. Roach's testimony agrees with these findings—namely, that if Kemper's costs are considered more credible than the fixed gas bids²³⁶ and/or if the Commission has a strategic preference for longer-term options,²³⁷ then the Kemper Project is the economic “winner.” Therefore, the Commission finds that the overwhelming weight of the credible evidence in the record concerning the economic performance of the various alternatives, including a self-build natural gas option, indicates that the Kemper Project is the economic option in a significant majority of the scenarios and under the many strategic preferences presented.

²³² Report of the Independent Evaluator, p. 35 (Jan. 25, 2010).

²³³ Compare Exhibit ____ (MPC-Eval-5) to Phase Two Supplemental Testimony of David F. Schmidt and Garey C. Rozier, pp. 12, 17 (Jan. 25, 2010) to Tables E-8, E-9, E-10, E-11, E-12, E-13 & E-14 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

²³⁴ See Figures 2 & 4 in Phase Two Supplemental Testimony of David F. Schmidt and Garey C. Rozier (Jan. 25, 2010); Table E-9 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

²³⁵ See Tables E-2 & E-4 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

²³⁶ Phase Two Hearing Transcript, p. 1126.

²³⁷ Phase Two Hearing Transcript, pp. 1128, 1851-52.

154. The Commission is not required to adopt any gas forecast (to the exclusion of others) to support its finding that the Kemper Project is in the overall best interest of MPCo's customers. Instead, the Commission has considered the effect of the various natural gas prices on the economic analysis of the Kemper Project under all of the credible scenarios presented. We find only that the range of gas price forecasts were supported by evidence in the record and are reasonable. Moreover, the range of possible outcomes based upon the various natural gas price forecasts demonstrates that the Kemper Project is the economic choice in several different possible futures, making the Kemper Project the most robust decision from a risk mitigation perspective. In other words, the Commission finds that the fuel diversity and price stability offered by the Kemper Project's baseload capacity and energy provides substantial benefits to MPCo's customers beyond the obvious economic benefits presented in a number of the scenarios evaluated, a finding to which we assign significant weight.

F. POTENTIAL RISKS OF KEMPER PROJECT

154. Throughout this proceeding, MPCo has described the significant strategic and economic benefits associated with the Kemper County IGCC Project. However, the proposed Project represents one of the largest electric generation projects ever proposed in the State of Mississippi, and if built, would become one of the first IGCC plants in commercial operation with carbon capture in the world for the generation of electricity. Several parties have pointed out and the Commission has been concerned about the potential risks to the Company and customers posed by the Project, including capital cost risk, performance risk, first of a kind technology risk, project cancellation risk, and the potential loss of federal incentives.

155. Testimony provided shows that MPCo's cost estimates for the Project are subject to multiple uncertainties. MPCo's witness stated that as of the hearing, only ten percent (10%) of

the estimated construction cost was confirmed.”²³⁸ MPCo’s Motion for Reconsideration later updated this figure to approximately twenty percent (20%) of the total construction cost estimate.²³⁹ A cost is confirmed if there is a contract, memorandum of understanding or a letter of intent; or if MPCo has received bids in response to a request for proposals.²⁴⁰ Therefore, the record before the Commission shows eighty percent (80%) of the current construction cost estimates are internal MPCo estimates that have not been “confirmed.”

156. The fact that most of the Project costs were estimates is not, in itself, fundamentally a concern. All facility certificates are issued based upon estimates, especially electric generation and transmission facilities. As explained below, MPCo has demonstrated that its estimating process is reasonable and sound and that the Company has the requisite expertise to prepare facility cost estimates. However, every estimate contains elements of uncertainty, and depending upon the magnitude, these uncertainties can represent a significant risk to customers.

157. As the Commission has stated in this Order, the certificate process provided under the Act requires that a utility request approval prior to final design, obtaining all permits, executing all construction and procurement contracts, etc., which necessarily creates a level of uncertainty in the cost estimate that is unavoidable. However, we feel it is helpful to briefly summarize the record evidence concerning several of these uncertainties associated with MPCo’s Kemper Project cost estimates:

Plant Design. The Company has not yet completed detailed design. Concerning the gasification island, MPCo’s witness stated “. . . we do not have hardly any of the detailed

²³⁸ Phase Two Hearing Transcript, p. 1138.

²³⁹ MPCo’s Motion for Reconsideration, p. 26 (May 10, 2010).

²⁴⁰ Phase Two Hearing Transcript, p. 1137.

design done.”²⁴¹ The fact that detailed design was not complete on much of the plant creates cost uncertainties in the Company’s estimates, although the lack of detailed designs is not unique to the Kemper Project application.

Ash Storage. MPCo bases its cost estimate on a sixty-five (65) acre storage unit, which would store the ash. The cost estimate applies to the first five (5) years of Kemper operation only. An alternative storage concept posed by MPCo is the development of 500 acres, an activity which is not covered by its cost estimate. Mr. Anderson testified that the cost of the additional acreage could range from \$20 to \$100 million, a range made necessary by the uncertainty concerning EPA regulations affecting ash storage.²⁴² Additionally, MPCo’s Motion for Reconsideration indicated that the EPA’s Pre-Publication Version of its Proposed Rule for Coal Combustion Residuals, confirmed that this rule is not likely to apply to the Kemper Project, removing this cost estimate uncertainty.²⁴³

Right-of-Way. Our April Order mistakenly stated that there were no arrangements in place to acquire rights-of-way for three (3) pipelines critical to Kemper’s operation. MPCo’s Motion for Reconsideration clarified the evidence in the record that the Company had entered into several option contracts that provide a contractual right to purchase much of the needed right-of-way upon issuance of a certificate.²⁴⁴ Nevertheless, a significant portion of the rights-of-way for the Project remained unacquired and not subject to option as of the date of the Company’s Motion, creating uncertainty in the Company’s overall cost estimate to complete. The Commission takes notice, however, that MPCo is authorized to exercise the

²⁴¹ Phase Two Hearing Transcript, pp. 1268-70.

²⁴² *Id.* at 1260-66; *see also* MPCo’s Response to Entegra 1-23 (April 8, 2009).

²⁴³ MPCo’s Motion for Reconsideration, p. 16 (May 10, 2010).

²⁴⁴ *Id.*; As of the date of the Motion for Reconsideration, MPCo had optioned 34% of the transmission, 21% of the gray water pipeline and 48% of the natural gas pipeline rights-of-way. *Id.*

power of eminent domain, which reduces the risk that any necessary rights-of-way cannot be acquired at market value.

Lignite Leases. As of the date of the Phase Two Hearings, MPCo had acquired lignite leases for only about half of the necessary supply, reflecting about 5,000 acres.²⁴⁵ In addition, MPCo's original proposal in 2009 assumed it would purchase lignite for forty (40) years at a fixed price. MPCo now expects to own the mine, paying a contractor to mine the lignite for a fee, but this arrangement is not exactly the same as a fixed-price contract. MPCo provided a confidential estimate of the capital cost of owning the mine.²⁴⁶ Because only a portion of the necessary mineral leases have been acquired, MPCo's lignite price projections contain some level of uncertainty. The uncertainty of this category of cost is increased by the fact that neither MPCo nor its parent has ever owned a lignite mine.²⁴⁷

Transmission. To transmit Kemper's output to the MPCo's electric grid reliably, MPCo asserts it needs to construct sixty (60) miles of transmission system upgrades and three (3) new substations. It has not acquired the rights-of-way for these facilities; nor has it completed detailed design work.²⁴⁸ These factors render its cost estimates uncertain. The Commission takes notice, however, that MPCo is authorized to exercise the power of eminent domain, which reduces the risk that any necessary rights-of-way cannot be acquired at market value.

By-Product Revenues. Kemper's operation would produce by-products: CO₂, ammonia and sulfuric acid. MPCo hopes to sell these by-products, with the revenues offsetting Kemper's cost to ratepayers. MPCo offered estimates of these revenues, but those estimates

²⁴⁵ Phase Two Hearing Transcript, p. 1247-49.

²⁴⁶ *Id.* at 1352.

²⁴⁷ *Id.* at 1299.

²⁴⁸ *Id.* at 1273-74.

were not supported by any contracts.²⁴⁹ MPCo's witnesses at hearing described a large national market for these products, but their assertions did not sufficiently take into account transportation associated with selling the ammonia and sulfuric acid to that large geographic area; nor did they reflect any study of the number and viability of competing sellers of the by-products.²⁵⁰ Based upon these facts, the revenue stream from by-product sales contained in the Company's economics is uncertain.

Liquidated Damages Clauses. The April Order indicated that the record was absent of any specific evidence on the value or likelihood of liquidated damage provisions, which we found created uncertainty as to the ratepayer risk for under performance or vendor default. However, the Company's Motion for Reconsideration cited substantial evidence already contained in the record concerning the Company's efforts during the procurement process to negotiate reasonable warranty and liquidated damages provisions where commercially available.²⁵¹ However, no warranty or liquidated damages clause was negotiated for the TRIG™ gasification technology. Therefore, the Commission finds that the Company is taking reasonable efforts to obtain contractual protections when available, but uncertainty still remains with respect to the TRIG™ technology.

Environmental Permits. Kemper's construction requires environmental studies, permits and other approvals. As of the date of the April Order, MPCo did not have a final Environmental Impact Statement ("EIS") under the federal National Environmental Policy Act ("NEPA"), nor did it have an air permit revision requested from the Mississippi Department of

²⁴⁹ MPCo's Motion for Reconsideration did, however, include a copy of a recently executed Letter of Intent from one of the CO₂ offtakers expressing an intent to purchase the captured CO₂. Confidentially-filed Exhibit C to MPCo's Motion for Reconsideration (May 10, 2010).

²⁵⁰ Phase Two Hearing Transcript, pp. 1346-48.

²⁵¹ MPCo's Motion for Reconsideration, pp. 19-20 (May 10, 2010).

Environmental Quality (“MDEQ”), to reflect the turbine characteristics.²⁵² The Commission’s initial concern was that delays in project completion due to delays in permit acquisition would add to Kemper’s cost. However, MPCo’s Motion for Reconsideration provided significant updates for both the EIS NEPA Record of Decision (“ROD”) and the MDEQ’s revised PSD Air Permit that largely resolves the Commission’s concern with these uncertainties.²⁵³

Government Incentives. MPCo’s estimates, and its assertions of Kemper’s cost-effectiveness, assume a variety of government-funded benefits, including grants, tax incentives and loan guarantees. The values include a \$296 million reduction in upfront capital costs and a reduction of over \$1 billion in operating costs.²⁵⁴ These benefits vary in their certainty—MPCo has secured DOE approvals for the CCPI funds (DOE funding is contingent upon NEPA ROD) and Section 48A Phase I ITCs, but as of the Phase Two Hearings the Company had not yet been allocated the Section 48A Phase II ITCs and the loan guarantee.²⁵⁵ While the allocation of the \$279 million in Phase II tax credits helps,²⁵⁶ until fully realized and collected, the government incentives are another source of uncertainty for ratepayers.

158. Between April 2009 and December 2009, MPCo increased its estimate of Kemper construction cost by over nine percent (9%), from \$2.465 billion to \$2.695 billion (these numbers would be reduced by the government-provided incentives). In pre-filed testimony and at hearing, MPCo’s witness described the reason for each element of this increase.²⁵⁷ The

²⁵² Phase Two Hearing Transcript, pp. 1298-99.

²⁵³ MPCo’s Motion for Reconsideration, pp. 20-22 (May 10, 2010).

²⁵⁴ Exhibit____(TOA-1) to Phase Two Direct Testimony of Thomas O. Anderson (Dec. 7, 2009); Exhibit____(FT-11) to Phase Two Direct Testimony of Frances Turnage (Dec. 7, 2009).

²⁵⁵ See Phase Two Direct Testimony of Frances Turnage, p. 8 (Dec. 7, 2009).

²⁵⁶ MPCo’s Motion for Reconsideration, p. 22 (May 10, 2010).

²⁵⁷ See Phase Two Direct Testimony of Thomas O. Anderson, pp. 15-16 (Dec. 7, 2009).

reasons included changes in plant design, as well as increases in cost estimates for equipment, labor, and materials. There was also an increase in the contingency. MPCo testified that much of the cost increase was a result of scope and design changes that provided net benefits in the form of lower overall cost to customers over the life of the Project. This argument does not change the Commission's concern; the question is not whether the cost increases are justified but whether the Commission can rely on MPCo's cost estimates given the preliminary nature of the FEED Study as evidence of the final Kemper Project costs that will ultimately be asked to be borne by customers.

159. In a long-term construction project, it is not unusual for various cost items to be uncertain at the time a utility files a petition for a certificate. As we have stated, the Act does not require or even contemplate every cost component to have detailed evidentiary support, and every permit to be in place. But in this case, the cumulative effect of the possibility of construction cost increases and delays, the cost of any delays, and feasibility questions relating not only to the technology, but also to the acquisition of basic ingredients like leases, land and permits, combine to create too much uncertainty for the full risk to be borne solely by ratepayers. Although the Commission believes that the significant benefits of Kemper (described below) support an overall decision to approve the Project, based upon all of this evidence, the Commission finds there is a risk of cost increases. To appropriately balance these risks between the Company and customers, certain conditions have been created that are discussed later in this Order. These conditions have the effect of allocating an appropriate level of risk to MPCo, consistent with the economic evaluations produced in the record and consistent with the public interest.

G. APPROVAL OF THE KEMPER PROJECT

160. After carefully evaluating both the benefits and risks to customers of the Kemper Project and recognizing the Legislative policy determinations applicable to new baseload technologies, the Commission finds that the evidence presented by MPCo in this matter was sufficient to meet the Company's burden of proof to support a need for the construction, acquisition, and operation of the Kemper County IGCC Project. For the following reasons, the Commission finds that the Kemper County IGCC Project is the best overall alternative available to serve the Company's growing customer demand over the long term and to meet other strategic objectives important to the Commission, the Company and customers:

First, the Commission finds that the Project will enhance the fuel diversity and asset mix of MPCo's generating fleet, thereby mitigating the supply and price volatility risks associated with the predominant use of any one fuel. The Commission believes that fuel diversity is critical to keeping MPCo's prices to customers low and stable over the long-term. Today, MPCo's generating fleet is limited to two fuels, traditional coal and natural gas. If Plant Watson Units 4 and 5 remained uncontrolled, over 70% of MPCo's existing fleet will be burning natural gas. Such dependence on one fuel source is not prudent for the Company or its customers. Specifically, the TRIGTM IGCC technology will allow MPCo to use a third fuel source—lignite, a lower-rank (i.e. lower heating value) fuel whose cost is both lower and less volatile than the cost of natural gas and higher-ranked coals.²⁵⁸ The record has extensive evidence on natural gas prices since they were deregulated in the 1970's, and two things are not rebuttable: During that time natural gas prices have been extremely volatile, and their trend in pricing has been upward for the last 50 years. Kemper will provide MPCo and its customers a long-term, low stable-priced fuel in locally mined lignite. The fuel diversity and price stability

²⁵⁸ Direct Testimony of Kimberly D. Flowers, pp. 6-7 (Jan. 16, 2009).

offered by Kemper to the customers of MPCo is a significant factor supporting the Commission's decision. The Commission finds that maintaining long-term fuel diversity is critical to keeping MPCo's prices to customers low and stable over the next several decades.

Second, because of the immense lignite reserves located in the State of Mississippi, particularly the Damascus Reserve, the Plant can be located adjacent to nearby lignite reserves in a mine-mouth arrangement that will effectively eliminate fuel transportation costs and insulate the Company from fuel supply and transportation market fluctuations.²⁵⁹ The Commission finds that the lignite mining agreement with Liberty Fuels, LLC will provide a lower and more stable fuel price over the life of the Plant, which is estimated to be at least 40 years. Because of these factors, we find that over the life of the Project the energy benefits provided by the Project far out-weigh the higher initial capital costs to construct.

Third, we find that the Project provides the Company and the Commission with far greater flexibility to address significant environmental compliance decisions that will face the Company in the 2013-2015 time frame for Plant Watson Units 4 and 5. As we determined in our Phase One Order, the Company's plans to retire Plant Eaton Units 1-3 and Plant Watson Units 1-3 are reasonable.²⁶⁰ The Company sought and was granted authority in Docket No. 2010-UA-279 to construct and install flue gas desulfurization equipment at Plant Daniel Units 1 and 2 for commercial operation by the end of 2015.²⁶¹ Due to its baseload characteristics, the Kemper County IGCC Project provides MPCo with additional baseload capacity and energy that will allow the Company to defer a decision on the appropriate strategy to employ for Plant Watson

²⁵⁹ *Id.* at 7.

²⁶⁰ Order Finding Need for Generating Capacity and Energy, p. 11 (Nov. 9, 2009).

²⁶¹ MPSC Docket No. 2010-UA-279, Final Certificate Order (April 3, 2012).

Units 4 and 5.²⁶² By deferring a decision to control Plant Watson Units 4 and 5, the Company and Commission can better assess and delay the ultimate impacts and compliance options and costs to customers for meeting any future limitations on carbon emissions, potentially avoiding all together hundreds of millions of dollars in additional capital expenditures.²⁶³

Fourth, we find that the Plant will include state-of-the-art equipment to reduce various emissions from the Plant, including equipment for the capture of approximately 65% of the Plant's CO₂ emissions, all of which will ensure compliance with existing environmental laws and regulations and mitigate the future risk associated with the passage of climate change legislation which the Commission finds to be probable.

Fifth, we find that support for clean coal technologies, such as that proposed for the Kemper County IGCC Project, has been very strong at the federal, state and local levels. As a result, there are significant financial incentives available that help lower the overall cost of the Project to the Company and its customers. These financial incentives include Section 48A Phase I and Phase II ITCs, DOE loan guarantees, external funding from the DOE's CCPI, and various other state and local support. Cumulatively, these benefits exceed \$332 million (Total Company) in construction cost reductions and \$1,372 million (Total Company) in operations and maintenance (O&M) expense reductions over the life of the Project.²⁶⁴ Considerable resources and effort from all levels of government have been allocated and expended specifically to support the Project. The Commission finds that the Company should exercise all reasonable diligence to apply for and obtain all of the federal, state, and local financial benefits it has identified and any others for which the Project qualifies.

²⁶² Phase Two Direct Testimony of Kimberly D. Flowers, pp. 11-12 (Dec. 7, 2009).

²⁶³ *Id.*

²⁶⁴ See Revised Exhibit____(FT-11) to the Phase Two Direct Testimony of Frances Turnage.

Sixth, we find that the Project is expected to have a considerable economic development impact at both the state and local levels. According to the un-refuted Company testimony, approximately 1,000 jobs will be created at the peak of the construction phase (500 jobs on average) and approximately 260 to 280 permanent, quality jobs will be created in both the power and mine facilities.²⁶⁵ The Project will also result in increased state and local tax revenues, the infusion of mineral royalties into the Kemper County area and the opportunity for increased commercial and industrial development both related and unrelated to the operation of the Project.²⁶⁶

Seventh, we find that because the Plant will be fueled by Mississippi lignite, the Project will demonstrate the value of lignite and provide the catalyst to expand lignite business opportunities in the State. The Company estimates that Mississippi has approximately four billion tons of recoverable lignite reserves, representing significant untapped potential for economic development in Mississippi and the region.²⁶⁷ We find that the Project presents a unique opportunity to position lignite as another potential fuel source in a carbon-constrained environment by utilizing a relatively untapped Mississippi natural resource.

Eighth, we find that the Project has the opportunity to provide considerable strategic and economic development value to the State and the nation. Utilizing Mississippi lignite in a cost-effective, environmentally responsible manner furthers both the State's and the nation's stated goal of increased energy independence, as well as the federal agenda of developing clean coal technologies and utilizing EOR as an effective solution for carbon sequestration and reduction of greenhouse gases. In fact, the DOE submitted three separate

²⁶⁵ Direct Testimony of Kimberly D. Flowers, p. 8 (Jan. 16, 2009).

²⁶⁶ *Id.*

²⁶⁷ *Id.*

filings in this proceeding specifically supporting the Project and indicating its important role in developing clean coal technology for the nation.²⁶⁸

Ninth, we find that the carbon capture capabilities of the Plant, beyond their potential environmental benefits, will foster the development of EOR projects in the State. These EOR projects are expected to translate into an increase of domestic oil production of several million barrels a year.²⁶⁹

Tenth, as detailed above, we find that the results of the IRP performed by the Company and the economic evaluations conducted in this proceeding clearly indicate that the Kemper Project is the most economic resource alternative available to meet MPCo's identified need in the majority of the credible scenarios analyzed. The Commission determined that there was a need for additional capacity in its Phase One Order. The Commission finds that the Company conducted a detailed screening and evaluation, including a robust economic analysis, which indicates overwhelmingly that the proposed Kemper County IGCC Project is the best generation resource alternative to meet MPCo's identified need. The Project was selected from a variety of alternatives, including nuclear, pulverized coal, combined cycle natural gas fired, and combustion turbine natural gas fired.

Eleventh, as previously found in this order, the Kemper Project is the clear economic choice when compared to the natural gas IPP bids, including the natural gas self-build option, offered in Phase Two. The Commission's strategic preference for a long-term resource and the Commission's finding that the Kemper Project is more credible than the fixed gas bids,

²⁶⁸ Letter from Steven Chu, US Energy Secretary to Mississippi Public Service Commission (May 19, 2010) (on file in MPSC Docket No. 2009-UA-14); Phase Two Direct Testimony of James J. Markowsky (Jan. 29, 2010); Informational Filing on Behalf of United States of America, Department of Energy (Oct. 1, 2009).

²⁶⁹ Direct Testimony of Kimberly D. Flowers, p. 9 (Jan. 16, 2009).

confirm that the Kemper Project is the most economical alternative in the overwhelming majority of scenarios.

161. All of these findings combined, which are supported by substantial evidence in the record, clearly support a finding that the public convenience and necessity requires or will require the construction, acquisition, operation, and maintenance of the Kemper Project. Based upon all of the evidence in the record and cited in detail in this order, the Commission finds that in terms of long-term strategic value, compared to the other alternatives, the Project provides a combination of lower and more predictable fuel costs, available financial incentives, favorable environmental benefits, CO₂ capture and economic development benefits. All of these benefits are important to MPCo's customers and the State of Mississippi as a whole. The Commission also finds that the Kemper Project is the overall most economical solution available to fill the need determined by the Commission in Phase One. Based upon these findings, the Commission finds that MPCo met its burden of proving by substantial evidence that the present and future public convenience and necessity requires and will require the acquisition, construction, operation and maintenance of the Kemper County IGCC Project.

162. As discussed above, however, the Kemper Project, like any utility project, does present several potential risks to both MPCo and its customers; and the Commission is charged by the Act to ensure that these risks are appropriately balanced. The Commission finds that the balancing of these risks also requires the placement of conditions on the Company's certificate for the Kemper Project pursuant to the authority in § 77-3-13, each of which is supported by substantial evidence and is otherwise in the public interest.

VI. CONDITIONS TO CERTIFICATE

163. The Commission has described the risks that the proposed Project places upon customers and the Company.²⁷⁰ Dr. Roach raised concerns that the Kemper Project could exceed its cost estimate by as much as 10% to 20%.²⁷¹ The Sierra Club's witness Mr. Schlissel also testified concerning the potential for cost overruns based upon cost overruns experienced with other utilities in other jurisdictions.²⁷² Several risk mitigation measures were suggested by the Commission, briefed by the parties, and discussed at length at the hearings.

164. At the hearings, Mr. Anderson testified on behalf of the Company concerning the Project design, cost estimates, performance assumptions, mining plan, lignite price and by-product revenues.²⁷³ In both his pre-filed and oral testimony, Mr. Anderson explained the extensive experience that MPCo and Southern Company have in constructing large utility capital projects.²⁷⁴ Based upon this experience and the FEED Study completed by the Company, Mr. Anderson expressed confidence in the various cost estimates, performance assumptions, contingencies and revenue assumptions used in the economic evaluation.²⁷⁵ However, MPCo's witnesses consistently testified that it would not be in the best interest of customers for the Commission to require that MPCo guarantee the various estimates and assumptions used to evaluate the Kemper Project, because of the adverse impact to the Company's financial strength

²⁷⁰ See *infra* Section V.F.

²⁷¹ Phase Two Hearing Transcript, p. 1888.

²⁷² Phase Two Direct Testimony of David Schlissel, (Dec. 7, 2009); Phase Two Hearing Transcript, pp. 1092-96.

²⁷³ Phase Two Hearing Transcript, pp. 1129-1401.

²⁷⁴ Phase Two Rebuttal Testimony of Thomas O. Anderson, pp. 2-5 (Jan. 5, 2010).

²⁷⁵ *Id.* at 4.

and credit quality and the inability to make economic adjustments to the Project scope of design that increased the capital cost but made the overall Project more economic.²⁷⁶

165. At the conclusion of the hearings, the Commission encouraged MPCo to reconsider its position on the various customer protection measures discussed and voluntarily provide a proposal to the Commission concerning these issues.²⁷⁷ In the Commission's February 11, 2010, order the Commission specifically requested risk mitigation proposals from all of the parties.

166. In connection with its filings on March 12, 2010, the Company provided a proposal to the Commission containing a number of customer protection measures, including but not limited to, a provision for cancellation of the Project, a cost cap, a performance penalty related to the TRIG™ gasifier, and an operational and cost performance-based plan.²⁷⁸ The performance plan contains indicators that would measure the Project's heat rate, capacity, availability, fuel price and other costs, and adjust the Company's allowed return based upon actual performance as compared to estimates.²⁷⁹

167. Subsequently, the Company offered another suite of customer protection measures in its Motion for Reconsideration. While the Company proposed a construction cost cap of 20%, it still maintained that 100% recovery of CWIP financing costs beginning in 2012 and regularly scheduled prudence reviews were needed in order to obtain financing for the

²⁷⁶ *Id.* at 12; *see also* Phase Two Hearing Transcript pp. 1393-1401, 1894-95.

²⁷⁷ Phase Two Hearing Transcript, pp. 2413-14.

²⁷⁸ *See* MPCo's Phase Two Post-Hearing Submission (Mar. 12, 2010).

²⁷⁹ *See* MPCo's Revised Rate Schedule "CNP" (Mar. 26, 2010).

Project.²⁸⁰ The Company's Motion also stated that the Commission's operational cost and performance parameters were too vague for the Company to properly evaluate.²⁸¹

168. Through the issuance of this order, the Commission has decided to place specific conditions upon the certificate of public convenience and necessity being granted herein pursuant to its authority under § 77-3-13(3). Each condition is designed to address and mitigate one or more of the risks previously identified in this order and all conditions are supported by substantial evidence in the record. Moreover, MPCo has previously agreed to these same conditions as part of our granting the Final Certificate Order in June 2010. Finally, through the affidavit of Thomas O. Anderson, included with MPCo's proposed order submitted on April 2, 2012, the Company has confirmed its agreement with these conditions being attached to the certificate of public convenience and necessity issued herein. Based upon all of the foregoing, by agreement of MPCo and pursuant to our authority under § 77-3-13(3), the Commission, in its judgment, finds that the following conditions are in the best interest of MPCo and its customers and are required to satisfy and protect the public convenience and necessity.

A. COST CAPS

170. While the Company expressed confidence in its estimates, certain things can occur during the development, construction, and operation of a project of Kemper's magnitude that truly are outside the control of the Company. Moreover, the Company may be presented with opportunities to improve the overall benefits of the Project, which may result in changes in design and in construction plans and costs. Notwithstanding our previous orders in this matter, the Commission understands that the certificate process requires that the Company submit and

²⁸⁰ MPCo Motion for Reconsideration, p. 4 (May 10, 2010).

²⁸¹ *Id.*

this Commission must consider “estimates” of the cost of certificated projects.²⁸² This Commission has made findings in this order based upon undisputed evidence in the record that MPCo’s estimation process is reasonable. The Company is not authorized under Mississippi law to proceed through construction design or to enter into all of the required contracts for the Project before the Commission issues a certificate of public convenience and necessity for the facilities proposed. The primary purpose of 77-3-11, 77-3-13 and 77-3-14 is to prevent a regulated utility from spending substantial sums of money on a project before this Commission gets to review whether the public convenience and necessity actually requires it.

171. Still, the Commission must be able to rely upon the reasonableness of the estimates presented to it by a regulated utility and assure itself of the reasonable accuracy of those estimates for the benefit and protection of the ratepayer. To protect customers from cost increases, a cost recovery cap or guarantee was suggested by several parties. Under variations of a cap mechanism, the recovery of costs over the established cap would be limited or disallowed in the discretion of this Commission.

172. Section 77-3-14 requires a public utility to submit an estimate of construction costs, and the Commission must review and approve the estimate before granting a certificate allowing construction.²⁸³ As to facilities treated under the Baseload Act, such as Kemper, “recovery of any construction costs incurred in excess of the amount estimated by the public utility in a certificate proceeding will be addressed by the commission in a proceeding after the generating facility is completed and commences commercial operation, upon petition by the

²⁸² MISS. CODE ANN. § 77-3-14 (Rev. 2011).

²⁸³ MISS. CODE ANN. § 77-3-14(4).

public utility.”²⁸⁴ Thus, the law contemplates that cost overruns should be addressed by the Commission after they occur and the plant is placed into commercial operation. Consequently, the Company’s approximate \$2.4 billion estimate, in which MPCo expressed such confidence, serves as the first measure of cost recovery protection for ratepayers. Utilizing these traditional tools, the Company cannot recover any amounts in excess of \$2.4 billion until such time as this Commission has scrutinized those costs for prudence, which will occur, at the Commission’s discretion, upon petition of MPCo at such time after the Plant has been completed and entered into commercial operation. Estimates, although not required with great precision or detailed design, do have consequences for the Company. To recover anything beyond the estimated \$2.4 billion, the Company must demonstrate to the Commission the prudence and necessity for such variation. If a cost estimate is conservative and if MPCo is confident in those estimates then exceeding the estimate should not be a necessity.

173. The Commission could stop with these legal protections in place and utilize further proceedings to address any cost overruns should they arise. Even so, the Commission finds that to better balance the risk between Company and ratepayer the Commission should establish a “hard” cost cap, an outer limit beyond which even prudent costs cannot be recovered from the ratepayers.²⁸⁵ To be clear, this hard cap is an imposition on the Company and an additional protection to the ratepayer beyond what is required by law.²⁸⁶

174. The record contains substantial evidence regarding the risk and probability of cost overruns for the Kemper Project as well as the economic impact of various levels of cost overruns. The risk of overruns is detailed in Section V of this Order. The evidence of the

²⁸⁴ MISS. CODE ANN. § 77-3-105(1)(d).

²⁸⁵ See MISS. CODE ANN. § 77-3-13(3).

²⁸⁶ *Id.*

economic impact of various overrun scenarios was provided by two parties: (1) MPC through a figure contained in the testimony of Mr. Thomas Anderson; and (2) Boston Pacific through 15 different economic evaluation tables contained its report. This evidence was also discussed and supported by the sponsoring parties during the Phase Two Hearings.

175. Mr. Anderson's testimony provided a figure that analyzed the margin over which Kemper was more economic than the Sweatt Combined Cycle Alternative (Sweatt Alternative) in terms of capital cost overruns for Kemper. The Anderson Figure indicated in the high gas scenarios Kemper could withstand between a \$550 and \$920 million capital cost overrun and still be equal to or better than the cost of the Sweatt Alternative over the forty-year life of the alternatives.²⁸⁷ That range represents between a 23% and 38% Kemper economic advantage in favor of Kemper over the Sweatt Alternative.²⁸⁸ According to the figure, Kemper's economic advantage decreases as natural gas prices decrease.²⁸⁹ Thus, the Anderson Figure could support a construction cost cap between 0% and 38% over the \$2.4 billion cost estimate, depending upon the scenario selected. However, as noted above, the Commission has declined to select any one scenario as the most probable.

176. Boston Pacific's Report contained 15 different tables comparing the relative economics of Kemper versus all other alternatives under various cost overrun assumptions.²⁹⁰ Specifically, Boston Pacific assumed that the Kemper Project experienced a 10% cost overrun and a 20% cost overrun over the Company's \$2.4 billion estimate and generated economic results versus the IPP bids and the Sweatt Alternative (Bid 19). As discussed earlier in this

²⁸⁷ Figure 1 to Phase Two Rebuttal Testimony of Thomas O. Anderson, p. 11 (Jan. 5, 2010).

²⁸⁸ *Id.*

²⁸⁹ *Id.*

²⁹⁰ See Tables E-15, E-16, E-17, E-18, E-19, E-20, E-21, E-22, E-24, E-25, E-26, E-27, E-28, E-29 and E-30 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

order, many of the Boston Pacific tables drop from primary consideration once this Commission makes certain strategic preferences. This same logic holds true for the Commission's establishment of a cost cap. Because of this Commission's preference for a long-term resource and evaluation methodology, all of the tables generated from the Modified Annuity method are removed from consideration.²⁹¹ This Commission's finding that the fixed gas bids lacked sufficient credibility eliminates several other Boston Pacific Tables from consideration.²⁹² After weighing the relative credibility of the various "strategic preferences" represented by the different Boston Pacific tables, Tables E-9, E-11, E-27 and E-29 remain for further review and analysis. Under base case assumptions, Kemper is the overwhelming winner, winning 16 of 20 scenarios.²⁹³ Even assuming a 20% Kemper cost overrun, Kemper wins in 13 of the 20 scenarios.²⁹⁴

177. Several aspects of Mr. Anderson's Figure 1 and the assumptions contained therein cause this Commission to rely more heavily upon the Boston Pacific cost overrun evidence. The Anderson Figure generates capital cost overrun data by comparing two-self build alternatives—the Kemper Project and the Sweatt Alternative. This Commission has already detailed the several uncertainties associated with the Company's cost estimates for Kemper, many of which also apply to the Sweatt Alternative. In fact, the estimate for the Sweatt Alternative was even more uncertain than the Kemper Project estimate, because no site-specific design had taken place and the estimate was not based upon a FEED study. Instead, the Sweatt

²⁹¹ See Tables E-15, E-16, E-19, E-20, E-24, E-25, E-26, E-28 and E-30 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

²⁹² See Tables E-17, E-18, E-21 and E-22 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

²⁹³ See Tables E-9 and E-11 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

²⁹⁴ See Tables E-27 and E-29 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

estimate was based upon the Company's Technology Data Book containing generic, high-level estimates generated from conceptual design and past combined cycle plants constructed.²⁹⁵

These uncertainties create a strong possibility that the Sweatt Combined Cycle alternative, if actually constructed, will vary from the current Technology Data Book estimate. Although the Sweatt Alternative estimates are sufficient for the purposes of reviewing a certificate petition under the Act, such information is too general and incomplete to solely rely upon in establishing a hard cost cap, which is intended to disallow even prudent costs incurred in excess of the cap.²⁹⁶

178. Because this Commission recognizes the seriousness and significance of a cost cap, in order to reasonably rely on this information to establish an appropriate cost cap, the Anderson Figure 1 percentages would need to reflect a hypothetical 10% and 20% cost overrun experienced by the Sweatt Alternative. This additional analysis is not contained in the record, making the Company's evidence on this issue incomplete.

179. The Commission finds that there are additional concerns with the Anderson Figure. Once the Commission decided to elicit more market oriented proposals, i.e. the IPP bids, both Boston Pacific and MPCo evaluated these bids and the self-build alternatives using somewhat different inputs and methodologies, both of which this Commission found reasonable. When MPCo examined the IPP bids against its Sweatt Alternative, one asset sale bid performed very similarly to the self-build option.²⁹⁷ When MPCo compared Kemper against this asset sale bid, Kemper was the dominant economic choice, prevailing in 12 of 16 scenarios and showing

²⁹⁵ See Direct Testimony of F. Sherrell Brazzell, pp. 3, 6-7 (Jan. 16, 2009); *see also* Exhibit____(FSB-2) to the Phase Two Direct Testimony of F. Sherrell Brazzell (Dec. 7, 2009).

²⁹⁶ The Commission notes that MPCo never proposed the Sweatt Alternative as an option to fill the Company's need so it is unreasonable at this stage to expect a more detailed estimate.

²⁹⁷ Phase Two Supplemental Testimony of David F. Schmidt and Gary C. Rozier, p. 16, Figure 3 (Jan. 25, 2010).

cost savings in excess of \$480 million dollars in 9 of 16 scenarios.²⁹⁸ Kemper's performance against the competitive asset sale bid, and as compared against the Sweatt Alternative to the asset sale bid, shows Kemper producing cost savings significantly greater than those presented in the Anderson Figure.²⁹⁹ MPCo's examination of the alternatives in Phase Two raises significant questions about the Anderson Figure for purpose of arriving at a cost cap.

180. Because more credible evidence presented by the Commission's independent expert, Boston Pacific, is contained in the record, this Commission finds it unnecessary to rely upon the Anderson Figure to support the cost cap established herein.

181. The Commission notes that the IPP bids do not suffer from the same capital cost uncertainties that utility self-build alternatives do, because the IPP bids represent the actual capacity cost that can be expected to be borne by customers.³⁰⁰ This point was repeatedly argued by the IPPs as well as the Sierra Club throughout the Phase Two Hearings. In fact, the primary argument made in favor of the IPPs bids was that there was no construction cost risk borne by the customer, because the plants had already been constructed and the terms of the bid provided only limited opportunity for the bidder to flow capacity cost increases to customers.³⁰¹ This point was even conceded by the Company's witnesses.³⁰² Therefore, this Commission finds that the Boston Pacific cost overrun analysis is the more credible and more reasonable analysis to use

²⁹⁸ *Id.* at 17, Figure 4.

²⁹⁹ Compare Phase Two Supplemental Testimony of David F. Schmidt and Garey C. Rozier, pp. 16-17, Figure 3-4 with Phase Two Rebuttal Testimony of Thomas O. Anderson, p.11, Figure 1 (Jan. 5, 2010).

³⁰⁰ See Report of Independent Evaluator, p. 2 (Jan. 25, 2010).

³⁰¹ See, e.g., Phase Two Hearing Transcript, pp. 1083-86; see also Rebuttal Testimony of Rebecca Turner, pp. 13-15 (July 28, 2009).

³⁰² See Phase Two Hearing Transcript, pp. 1463-64.

in support of a construction cost cap, because it included the IPP bids as well as MPC's self-build Sweatt combined cycle bid.³⁰³

182. Boston Pacific's Evaluation Report establishes rather conclusively that under the strategic preferences selected by the Commission that Kemper still wins in the majority of scenarios, which are based upon a range of fuel forecasts and carbon compliance costs, even with a 20% capital cost overrun.³⁰⁴ In support of his analysis, Dr. Roach specifically testified at the hearings that in his expert opinion a 20% cap would be reasonable.³⁰⁵ Dr. Roach's primary support for this cap level is Table E-27 from the Boston Pacific Independent Evaluator Report:

COMMISSIONER PRESLEY: Dr. Roach, I'd just like to follow up with a couple of questions. . . . Would you just enumerate for the Commission, when you say that the company should give some guarantees, that's your opinion. Tell us what those guarantees should be. What should we be looking for guarantee wise?

DR. ROACH: I think this would be the subject of negotiation. Let me try to be as –

COMMISSIONER PRESELEY: Just some bright points in there would be helpful.

. . .

DR. ROACH: All right. Okay. So what I would do – if that table [Boston Pacific E-27] is your justification, then I would say – I would say to Kemper, again, I'm not signing a blank check. What I'm going to do is you still do okay with even a 20 percent capital cost overrun. So I'm going to tell you today – but if it went

³⁰³ The Sierra Club argued on appeal that the Boston Pacific cost overrun evidence was improperly relied upon because the analysis did not include the Sweatt Alternative, which the Sierra Club claims was the "second best" alternative. It is this contention that the Sierra Club uses to support its assertion that the only proper evidence to use to support a cost cap is the Anderson Figure. The Sierra Club incorrectly interprets Boston Pacific's report. Boston Pacific's evaluation clearly included the Sweatt Alternative (i.e. Bid 19) as one of the bids evaluated. *See* Table D-1 of Appendix D to Report of the Independent Evaluator (Jan. 25, 2010); *see also*, Phase Two Hearing Transcript, pp. 1739-40.

³⁰⁴ *See* Tables E-17 & E-18 of Appendix E to Report of the Independent Evaluator (Jan. 25, 2010).

³⁰⁵ Phase Two Hearing Transcript, pp. 1882-84.

beyond that, you would begin to lose.

So I'm going to tell you today that I'm not going to entertain, once you're finished with this, the equivalent of anything above a 20 percent capital cost increase.

I'm just not going to entertain it. I'm not going to tell you that any cost increase is prudent today, but I'm just giving you a warning up front I'm not going over that number.

Now, you – can say to the company now, if you have a capital cost overrun but you offset that by lower lignite prices and you win a better deal there or higher by-product sales prices, I'll let you do that, but I'm telling you now that I'm not going to go above that.

I also – that would be the cost cap. I would – I would have – beyond that, I would have the Commission have its own what I would call owner's engineer, owner's auditor. And I would have that auditor responsible to judge all the components of what the ratepayer is paying for, monitor cost overruns on capital, cost of lignite, as well as operating costs, as well as by-product sales. Is that –

COMMISSIONER PRESELY: Those two main things, the cost caps and then some sort of independent engineer/auditor mechanisms.

DR. ROACH: Right.³⁰⁶

The above quoted testimony of Dr. Roach was undisputed by any party in the case other than MPCo, which was advocating that no cap be implemented.

183. Based on all of the evidence cited above, particularly Boston Pacific Table E-27, this Commission finds that even with a 20% cost overrun the Kemper Project is more economic than the other alternatives presented in this case in a majority of the scenarios under consideration.³⁰⁷ Therefore, this Commission finds that a 20% cost cap above the Commission-approved capital cost estimate constitutes a reasonable protection for customers against

³⁰⁶ *Id.* (emphasis added).

³⁰⁷ As noted herein, *supra* at pp. 70-71, the Boston Pacific analysis offers a conservative comparison of Kemper to alternatives. Meaning, benefits of Kemper are likely understated by comparison to the alternatives and the costs are likely overstated.

construction cost increases, while allowing for prudent deviations from the original cost estimate so as not to unduly punish the Company. In granting MPCo flexibility to exceed its original estimates for the distinct reasons set forth herein, the Commission is following the principle that a utility's obligation to act prudently always includes making investments that reduce total lifetime cost to the ratepayers. The Commission does not intend the construction cost caps to conflict with that principle.

184. This Commission finds that the cap established herein will adequately mitigate the risk to customers of a significant capital cost overrun, while allowing for a reasonable level of prudent deviation from the original approved cost estimate. This approach recognizes that because our certificate statutes require that estimates be provided before all final design, procurement and bidding can be conducted, the Company's estimates will not prove to be exact. Therefore, this Commission finds that the following cost cap conditions are reasonable and adequately balance the risks of the Company and its customers:

a. Construction Cost Cap: The Commission finds that a hard cap of 20% in excess of the net construction cost estimate of \$2.4 billion for the items described in Exhibit ____ (TOA-1), Appendix B (excluding the lignite mine and CO₂ pipeline which are not included in the \$2.4 billion estimate) is appropriate, provided that no amounts in excess of the overall estimate of \$2.4 billion will be approved for recovery, unless and until this Commission reviews the prudence of those expenditures and the Company is able to justify such costs by demonstrating that they are prudent and required by the public convenience and necessity. Therefore, the total construction cost recoverable from ratepayers must not exceed \$2.88 billion total, (which figure is net of government construction cost incentives (\$296 million)), unless the cap is increased pursuant to the specific authority provided in this order.

b. Exceptions to the Construction Cost Cap: The Commission, in its discretion, will approve MPCo's request for an increase in the recoverable amount for any or all of the following reasons:

i. The Company demonstrates that the purpose and effect of the construction cost increase is to produce efficiencies that will result in a neutral or favorable effect on the ratepayers, relative to the original proposal.

ii. MPCo accompanies its proposed cost increase with an equal or greater revenue requirement decrease associated with one (1) or more of the other estimates (e.g., operational performance, sales of byproducts,) in its original proposal.

iii. To the extent the Commission does not allow 100% CWIP (which the Company assumed when making its \$2.4 billion estimate), it will allow an increase in that figure to reflect the AFUDC cost that CWIP would have obviated.

iv. The Company demonstrates the occurrence of force majeure events such as Acts of God, natural disasters, war, terrorism, sabotage or similar catastrophes which were unavoidable through prudent utility practice or a change in law or regulation effective after the date of this Commission's May Order.

B. OPERATIONS COST AND REVENUES

179. The economics of the Project are dependent upon the accuracy of the Company's cost and performance estimates. Material deviations in O&M cost, lignite price, heat rate, availability, capacity and by-product revenues could have a significant impact on the comparable economics of the Project against other alternatives. Although the Company has testified that it is confident in its estimates, for the same reasons as the construction cost cap, namely, to mitigate the risk of costs exceeding reasonable levels (defined as the cost level in which the Company's

expert witnesses expressed confidence), the cost to ratepayers from operating the Kemper IGCC Project must not exceed the costs associated with the operational assumptions in MPCo's original filing (specifically, the assumptions concerning availability factor, heat rate, lignite heat content, and by-product revenues), unless the operational parameters are modified in a manner that makes the net result at least neutral in terms of costs to ratepayers over the life of the plant or unless the Commission finds that the public interest would be served by any variance from the Company's operating assumptions due to force majeure events such as Acts of God, natural disasters, war, terrorism, sabotage or similar catastrophes which were unavoidable through prudent utility practice or a change in law or regulation effective after the date of this Commission May Order. By "availability factor," we mean the availability to burn lignite, not natural gas, because the Company's ratepayer cost estimates for Kemper assume the low and stable cost of lignite rather than the volatile cost of gas, a contrast the Company emphasized. With these cost and revenue protections in place the ratepayer will not face the prospect of overpaying for an underperforming asset. Put simply, if Kemper doesn't perform as advertised then the ratepayers will not pay for it.

180. Within twelve months prior to commencement of commercial operation, and from time to time thereafter as MPCo or the Commission deems necessary, MPCo shall file with the Commission proposed rate schedules and tariff change(s) to implement the purposes of the above paragraph. The Commission will consider alternate proposals presented if it determines these proposals provide a better means of analyzing the Project's operating costs and revenues and protecting customers from undue risk.

C. USED AND USEFUL

181. Given the first of a kind technology risk associated with the Southern Company TRIG™ technology, cost and performance guarantees were also suggested. MPCo testified that it is usual for some original equipment manufacturers to provide some type of performance guarantee upon the purchase or license of a particular design or piece of equipment.³⁰⁸ In fact, MPCo has been obtaining performance guarantees from third-party equipment vendors where practicable and these guarantees will inure to the benefit of the customers through rates if collected.³⁰⁹ However, the Company claimed that a performance guarantee on the gasification technology would not be proper in this case, because the owners of the technology are not charging MPCo a licensing fee.³¹⁰ The Company also testified that the technology had been tested for over 15 years at the PSDF facility, including over a 1,795 test hours on Mississippi lignite, and, therefore, the risk of technology failure was low.³¹¹ Several parties, including Dr. Schlissel testified that because the TRIG™ technology had never been used at the scale proposed, the risk of failure was largely unknown, and under the Company's initial proposal, this risk would be completely borne by customers.³¹²

182. To address the first-of-a-kind technology issue (or any other issue that may arise), the Commission finds that nothing contained in this order or the Baseload Act shall diminish the Commission's authority to ensure that ratepayers do not pay for investments that are not "used or useful."³¹³ The Commission finds that the "used or useful" doctrine is distinct from the Baseload

³⁰⁸ Phase Two Hearing Transcript, pp. 1341-42.

³⁰⁹ *Id.*

³¹⁰ *Id.* at 1284-88.

³¹¹ Phase Two Direct Testimony of Thomas O. Anderson, pp. 9-10 (Dec. 7, 2009); *see also* Phase Two Hearing Transcript, pp. 1288-90.

³¹² Phase Two Direct Testimony of David Schlissel, p. 37 (Dec. 7, 2009); Phase Two Hearing Transcript, pp. 1216-17.

³¹³ *See, e.g.,* MISS. CODE ANN. §§ 77-3-33, -43.

Act and rejects and declines any application of the Baseload Act that would undermine the independent safeguards of the used and useful doctrine.

D. PLANT CANCELLATION

182. The Commission and certain other parties in the proceeding have raised concerns about the binding effect under the Baseload Act of prudence determinations made during construction.³¹⁴ Specifically, we are concerned about the risk that customers would be required to pay for all costs found to be prudent by the Commission prior to a decision by the Commission or Company to cancel the Project for any reason. Therefore, the Commission wishes to make clear that any determination of prudence made by the Commission in connection with the Kemper Project shall not diminish the Commission's authority under Miss. Code Ann. § 77-3-105(1)(e), providing that in the context of an abandonment or cancellation without Commission approval, the Commission shall:

“determine whether the public interest will be served to allow (i) the recovery of all or part of the prudently incurred pre-construction, construction and related costs in connection with the generating facility and related facility, (ii) the recovery of a return on the unrecovered balance of the utility's prudently-incurred costs at a just and reasonable rate of return to be determined by the commission, or (iii) the implementation of credits, refunds or rebates to ratepayers to defray costs incurred for the generating facility.”

E. GOVERNMENT INCENTIVES

183. MPCo's Petition assumes the availability of various government incentives, such as loan guarantees, grants and tax credits. MPCo has stated that based on its research of these

³¹⁴ The Commission finds that the Baseload Act is enabling and not mandatory. Nothing in the Baseload Act is meant to remove minimum ratepayer protections such as the “used or useful” doctrine. The Commission reiterates its finding that the used or useful doctrine is distinct from the Baseload Act and rejects and declines any application of the Baseload Act that would undermine the independent safeguards of the used and useful doctrine. The used or useful doctrine is, and remains, a separate protection or potential upper limit on cost recovery.

matters and its communications with relevant government authorities, it is confident of these amounts. There is risk, however, that these amounts will not be available, thereby raising Kemper's cost to customers. Should any portion of these amounts become unavailable, the Commission will allow recovery of the resulting increase in Kemper cost, if MPCo demonstrates: (a) it has made best efforts to procure the incentive before it became unavailable, and (b) the resulting increase in ratepayer cost is consistent with the public interest. If MPCo is successful in obtaining additional federal funding for the Kemper project, it shall file a Petition with the Commission notifying the Commission of the amounts and details of such funding.

F. ENVIRONMENTAL PERMITS

184. The construction of Kemper requires environmental studies, permits and other approvals. MPCo shall exercise diligence in obtaining the necessary permits and approvals and report to the Commission the receipt of the approvals and permits as soon as practical, provided that the Company shall not commence construction until it has obtained those permits necessary for the commencement of construction of the project. Any legal challenges to such permits shall not prevent the Company from moving forward, so long as the Company keeps the Commission informed as to the status of such challenges.

G. PROJECT VIABILITY

185. MPCo has a continuing obligation to ensure that Kemper is in the public interest. Pursuant to Miss. Code Ann. § 77-3-33 and applicable case law, MPCo has an obligation to take all actions necessary to serve its retail ratepayers at a just and reasonable cost. That obligation includes using its expertise to ensure that the path that it has urged continues to be the best path. The Commission's granting of a certificate does not diminish this obligation. The first-of-a-kind nature of this project, its unprecedented size and cost, and the uncertainty concerning the cost of

alternatives to Kemper, call for special measures to ensure that the certificate issued is consistent with the public convenience and necessity. The Commission therefore makes explicit what is implicit: MPCo has a continuing obligation to ensure that Kemper remains consistent with the public convenience and necessity, in light of feasible alternatives. MPCo shall therefore file with the Commission (a) annually, starting with May 1, 2011 and ending on May 1, 2014, (b) with each request for a prudence determination, and (c) at any other time that the facts require, a report that supports MPCo's continuing conclusion that Kemper remains consistent with the public convenience and necessity. The Commission finds that this economic viability analysis addresses concerns raised by intervenors regarding changing natural gas prices.

VII. ANALYSIS OF COST TO CUSTOMERS

A. APPLICATION OF BASELOAD ACT

186. In its Certificate Filing, MPCo requested that the Commission exercise its authority to implement the provisions of the Baseload Act in connection with its approval of the Project. Specifically, the Company requested that the Commission find, among other things, (i) that the Project constitutes a "generating facility" as defined in the Baseload Act; (ii) that the Company's pre-construction activities and the costs incurred and to be incurred in connection therewith are reasonable, necessary, prudent, and in the public interest; (iii) that MPCo's prudently incurred pre-construction, construction, operating, and related costs in connection with the Project be included in MPCo's rate base and rates, as used and useful components of furnishing electric service; (iv) that the Company's proposed recovery of financing costs on CWIP in rate base is just and reasonable and should be approved; and (v) that the recovery mechanism proposed by the Company, including the establishment of periodic prudence reviews for the Project on a quarterly basis is just and reasonable and should be approved.

187. The Commission has carefully reviewed the provisions of the Baseload Act and the characteristics of the Kemper County IGCC Project as proposed by MPCo. Based upon the Company's Certificate Filing, including the extensive information submitted describing the characteristics of the Project, and based upon the substantial evidence presented in the record in this proceeding, we find that the Kemper County IGCC Project constitutes a "generating facility" as defined in § 77-3-103(a) of the Baseload Act. Specifically, we find that:

- a. the Project is a coal gasification, clean coal project that will generate in excess of 300 MW or greater of electric power;
- b. the Project will be owned and controlled in whole or in part by MPCo, an electric public utility certificated by the Commission in Docket No. U-99, as supplemented and amended from time to time, to operate within a certificated electric service area in Mississippi;
- c. the Project is intended, in whole or in part, to serve retail customers of MPCo in Mississippi; and
- d. the Project utilizes technology to reduce or minimize regulated air emissions, including CO₂, which the Commission finds is likely to become a regulated air emission.

B. RECOVERY OF CONSTRUCTION FINANCING COSTS

188. The Commission recognizes that building baseload generating capacity such as the Project requires significant capital investment and takes several years to complete. We further recognize that because the uncertainty created by the magnitude of cost, the length of construction period and the traditional two-step process to obtain recovery, financial markets and credit rating agencies are requiring increased legislative and regulatory assurances of cost recovery. In passing the Baseload Act, the Legislature acknowledged that these difficulties

would prohibit the construction of baseload generation without increased certainty of cost recovery. In order to facilitate public utilities' ability to finance and construct baseload generation, the Legislature authorized the Commission to utilize an alternate method of cost recovery for certain baseload generation when it is in the best interest of customers and the public to do so.

189. The Company testified that maintaining a strong 'A' credit rating will sustain the Company's low cost of financing, permit the Company to successfully construct the Project and is in the best interests of the Company and its customers.³¹⁵ A credit rating downgrade would increase MPCo's cost of capital, not just for this Project, but for the Company's entire business, and make access to capital markets more difficult.³¹⁶ Any credit downgrade will make construction of the Project more difficult.³¹⁷ For these reasons, the Company testified that it will not be able to proceed with this Project, unless the Commission allows recovery of 100% of the financing costs on CWIP, provides a periodic and expedited prudence review process, and establishes a special rate mechanism for cost recovery.³¹⁸ Ms. Turnage testified that this approach reduces the overall cost to the customer and allows the Company to maintain the financial strength needed to complete the Project and make the necessary investments required in MPCo's ongoing business of providing electric service.³¹⁹ This proposed financing and cost recovery plan would provide the best protection against a credit downgrade during construction.

³¹⁵ See Phase Two Direct Testimony of Frances Turnage, pp. 6-7 (Dec. 7, 2009).

³¹⁶ *Id.* at 3-4.

³¹⁷ *Id.* at 4-5.

³¹⁸ *Id.* at 4-6, 18.

³¹⁹ *Id.* at 3-5.

190. The Baseload Act grants the Commission the authority to use ratemaking that enables the timely recovery of the financing costs on the construction expenditures during construction, including a current return on CWIP in rate base. The primary purpose of this legislation and one of the primary reasons why the Commission would consider such an option is to save Mississippi retail customers money. The Company projects that the ability to collect the financing costs of the Project timely during construction would save retail customers between \$500 and \$600 million over the forty-year life of the Project.³²⁰

191. The Commission is committed to helping the Company maintain its strong 'A' credit rating by implementing measures to help sustain when reasonable and practicable the Company's currently strong quantitative and qualitative credit measures. To do so, the Commission must provide the Company enough cash flow during the construction period that is reasonably required to maintain the credit metrics for a strong 'A' credit rating. The Company testified that even with 100% recovery of financing costs on CWIP, its credit metrics will temporarily fall below the 'A' category rating.³²¹ However, Mr. Fetter testified that sustaining or enhancing MPCo's quantitative measures through supportive regulation would likely prevent a credit downgrade during construction.³²² This evidence is undisputed by any party.

192. While §77-3-105(1)(a) itself does not state a standard, the Commission has determined its authority to allow a current recovery of financing costs on CWIP is bounded by the requirement of §77-3-33, that rates be "fair, just and reasonable." The Company therefore should receive recovery of construction costs on CWIP to the extent, and only to the extent, necessary to ensure that electric rates meet this standard.

³²⁰ *Id.* at 17-18.

³²¹ Phase Two Hearing Transcript, pp. 2178-80.

³²² *Id.*

193. Applying this principle to the record evidence, the Commission finds that although the Company's arguments for a recovery of financing costs on CWIP have merit conceptually, its request for a current recovery, starting in 2012, of 100% of financing costs on CWIP without any potential for adjustment as conditions materially change is not appropriate. Further, even if present conditions support current recovery of 100% of financing costs on CWIP, there is no reason to assume those conditions will persist, without change, for the entire construction period. The necessity and desirability of allowing recovery of financing costs on CWIP will vary as financial conditions vary. The strength of the national economy; the availability of capital and its cost generally; the financial community's perceptions of the utility industry, of Southern Company generally, and of MPCo's operations other than Kemper; -- all these factors will affect the necessity and desirability of CWIP. Committing ratepayer dollars to CWIP, without regard for these changing factors, and without the ability of the Commission to review such changing factors, could result in higher costs to customers than may be necessary.

194. The Commission understands that there can be positive benefits associated with CWIP, and desires that the Company remains in a financial position to fund the construction of the Project as well as the remainder of its on-going business operations at the lowest practical cost to customers. The Commission therefore, finds and adopts the following CWIP treatment for the Project:

For 2010 and calendar year 2011, no CWIP for the Project will be included in retail rate base and no retail financing costs will be recovered during 2010 and 2011 for any of the construction costs incurred for the Project through 2011. The Company shall accrue AFUDC in 2010 and 2011. The Commission bases its decision for this recovery treatment in 2010 and 2011 on the information provided by the Company in its Motion. Specifically, the Company's

additional allocation of \$279 million more in Phase Two investment tax credits and its stated expectation of receiving authority to advance the recognition of \$245 million of CCPI2 funds for construction cost reductions,³²³ and in an effort to allow the Mississippi economy to rebound from the recent recession, the Commission finds that there is no longer a compelling reason to provide a current return of financing costs on CWIP through 2011.

For calendar years 2012, 2013, and 2014, the Company is hereby authorized to include 100% of all construction costs (subject to prudence reviews as provided herein) in CWIP for the purpose of allowing recovery of the financing costs therein, provided that the amount of CWIP allowed is (i) reduced by the amount of any government construction cost incentives received by the Company in excess of \$296 million to the extent that such amount increases cash flow for the pertinent regulatory period and (ii) justified by a showing that CWIP allowance will benefit customers over the life of the plant.

As part of its annual rate filings during construction beginning for the 2012 regulatory period, the Company shall present its CWIP return requirements for the project year (based upon 100% CWIP adjusted for government construction cost incentives described in the above paragraph) and shall include the Company's then current credit ratings from Moody's, Fitch's and Standard & Poor's. If the Company's credit rating has been downgraded below an "A" rating by any of the three rating agencies, the Commission may require the Company to submit additional information supporting its inclusion of a current recovery of financing costs on CWIP. In such event, the Commission may, based upon substantial evidence, make a finding that is specific to current conditions and may only adjust such amounts up or down based upon the evidence presented after notice to the Company and after an opportunity to be heard.

³²³ MPCo's Motion for Reconsideration, p. 31 (May 10, 2010).

195. Because the statute limits CWIP recovery to a return on actual prudent costs, rather than estimated costs, the following true-up procedure is necessary. After the close of each period during which CWIP return has been earned, the Company will report its actual expenditures. The Commission then will determine the portion of actual expenditures that were prudent expenditures. The Commission then will adjust rates for the next period to correct any discrepancy in the prior period. The mechanism thus will result in the ratepayers paying no more than MPCo's actual financing costs associated with prudent actual capital expenditures through the period.

196. The Commission will not allow a current return on CWIP beyond May 1, 2014, unless the Company has demonstrated that such extra CWIP recovery is consistent with the conditions set forth in the Final Order. In no case shall the Commission allow the recovery of CWIP return on amounts exceeding the Company's approved estimate³²⁴ or prudent construction costs, whichever is less.

C. PRUDENCE REVIEWS AND DETERMINATIONS

197. The Company has testified that timely and systematic reviews are essential to achieving the goals of the Baseload Act and preserving MPCo's financial strength. Absent periodic prudence reviews, MPCo's risk profile would significantly increase due to the significant portion of costs incurred by MPCo for which cost recovery is still uncertain. Ms. Turnage and Mr. Fetter both testified that such an increase in risk would adversely impact the Company's credit quality such that one or more downgrades could be expected and an increase in the cost of capital would result.³²⁵ No party provided testimony at the hearings to contradict

³²⁴ See MISS. CODE ANN. § 77-3-105(d).

³²⁵ Phase Two Hearing Transcript, p. 2178.

any of the Company testimony concerning the effect of prudence reviews on the Company's credit rating.

198. As authorized by Miss. Code Ann. §77-3-105(2)(a), added to our statutes by the Baseload Act, the Commission will conduct periodic prudence determinations, on a schedule to be determined by the Commission in Docket No. 2011-UN-135. The Company requested in its original proposal that these determinations occur quarterly. To determine prudence, the Commission must have sufficient perspective concerning the reasons for particular costs, the effectiveness of cost decisions, and the alternative ways to incur costs. That perspective does not always come into focus at pre-set time intervals; it depends on surrounding facts. The Commission recognizes the benefits associated with giving MPCo certainty about cost recovery, and find that periodic prudence reviews are reasonable and necessary for the successful development of the Project and the implementation of CWIP rate recovery under the Baseload Act. The Commission will take those benefits into account in determining the schedule for prudence determinations.

199. Regardless of the schedule for prudence determinations, the Commission will establish a procedure for independent monitoring of cost accounting so that the Commission has full and current information of what dollars are spent and for what purpose. The Commission therefore will establish filing requirements including, in part, variance reports and ongoing analysis of resource options. Pursuant to Miss. Code Ann. §77-3-105(2)(b), added to our statutes by the Baseload Act, the reasonable costs of Commission and Staff hired monitors will be borne by MPCo and recovered from ratepayers.

D. KEMPER PROJECT RATE IMPACTS

200. Pursuant to Appendix “A,” Schedule 3 of the Commission’s Rules, the Company submitted in Phase Two significant documentation and data in both public³²⁶ and confidential³²⁷ form related to the estimated rate impacts of the Kemper Project. The Company submitted projected annual revenue requirement calculations over the life of the Kemper Project containing several different assumptions.³²⁸ The underlying rate and revenue requirement data and information is presented generally in Ms. Turnage’s testimony,³²⁹ and more specifically in MPCo’s response to data request Entegra 3-5.³³⁰ In its response, MPCo estimated that its retail customers would experience rate increases of 5% in 2011, 6% in 2012, 9% in 2013 and 10% in 2014 (first year of commercial operation) but would begin decreasing in 2015.³³¹ In 2014, the cumulative impact of the Kemper Project on rates would be approximately 30% compared to 13% for a natural gas alternative; however, after that date the impact for Kemper begins to decline as the natural gas alternative continues to rise.³³²

³²⁶ See Phase Two Direct Testimony of Ms. Frances Turnage, pp. 9-12 and Figure 1 thereto (Dec. 7, 2009); MPCo’s Responses to Entegra 4-3, 4-5, 4-6, 4-13 (Jan. 27, 2010); MPCo’s Responses to Boston Pacific 3-7, 3-12, 3-13, 3-14, 3-17, 3-19, 3-21, 3-23, 3-24, 3-25, 4-2a (Jan. 8, 2010 and Jan. 22, 2010); MPCo’s Responses to MPSC 4-2, 4-5 (Jan. 26, 2010); and MPCo’s Non-Confidential Responses to MPUS (LA) 2nd, 3rd, 7th, 8th, 9th and 10th Set of Data Requests (Apr. 17, May 28, Dec. 4, Dec. 8, Dec. 11, 2009 and Jan. 26, 2010) concerning detailed pre-construction costs.

³²⁷ See Exhibit____(FT-12); Exhibit____(FT-13); Exhibit____(FT-14); Exhibit____(FT-15); Exhibit____(FT-16) (Dec. 7, 2009); MPCo’s Response to Boston Pacific 3-15, 3-22a, 3-27 (Jan. 8, 2010); MPCo’s Responses to MPSC 4-18, 4-19, 4-20 (Jan. 26, 2010); and MPCo’s Confidential Responses to MPUS (LA) 2nd, 3rd, 7th, 8th, 9th and 10th Set of Data Requests (Apr. 17, May 28, Dec. 4, Dec. 8, Dec. 11, 2009 and Jan. 26, 2010) concerning detailed pre-construction costs.

³²⁸ See Exhibit____(FT-12); Exhibit____(FT-13); Exhibit____(FT-14); Exhibit____(FT-15); Exhibit____(FT-16) (Dec. 7, 2009).

³²⁹ See *supra* notes 326 and 327.

³³⁰ MPCo’s response to Entegra 3-5 was originally filed confidentially but was later made public.

³³¹ The Commission notes that MPCo’s rate impact estimates in this response assumed 100% Baseload Act rate treatment beginning in 2011, which was not ultimately approved by the Commission. Attachment A to MPCo’s response to Entegra 3-5.

³³² *Id.*

201. The Company also provided specific rate increase percentages on annual basis in several of the different scenarios considered in the economic evaluation.³³³ These impacts were presented as a differential between the Kemper County IGCC alternative and relying on a natural gas alternative to fill the Company's identified need. This was conducted for 8 of the scenarios considered in the economic evaluation. In summary, the cumulative net impact of the Kemper alternative on retail rates in the reference case compared to the expected rate increases associated with a self-build natural gas alternative is approximately 8% higher than this alternative in 2014, continues around that level through 2020, and then decreases until around 2024, when at that point, and for the rest of its useful life, the rate impacts of Kemper are lower than the alternative.³³⁴

202. These rate impacts are estimations and are still subject to Commission ratemaking proceedings, which include rate design issues, potential disallowances and other dynamics. That is to say, the rate impacts are what the Company expects or may ask; it is not necessarily the rates that will be approved.³³⁵

203. MPCo currently serves approximately 186,000 retail customers in 123 municipalities and unincorporated communities in southeastern Mississippi. Despite learning about the expected up-front rate impacts of the Kemper Project, all of the comments from MPCo's larger customers support the Kemper Project. In fact, the Commission has received over fifteen letters of support from large commercial and industrial customers of MPCo and other governmental entities or business trade groups that represent the interests of many of

³³³ See Figure 1 to Phase Two Direct Testimony of Frances Turnage, p. 12 (Dec. 7, 2009).

³³⁴ *Id.*

³³⁵ On appeal, Sierra Club, as well as some media outlets, claimed that Kemper would lead to a 45% increase in rates. The Commission finds no support for that position in the record. As shown herein, the projection peaks at a possible 30% impact in 2014 and then begins to decline.

MPCo's customers.³³⁶ Just as important, however, is the fact that the Commission has not received one comment from a large commercial or industrial customer of the Company against the Kemper Project. History has shown that many of MPCo's large customers will intervene and oppose those measures that they believe will be detrimental to their interests.

204. SMEPA, MPCo's largest and most sophisticated customer, fully supports the Project and even provided pre-filed and hearing testimony in this proceeding. SMEPA will be responsible for approximately 30% of the cost of the Project if built through its FERC approved wholesale rates, and is working to purchase an ownership interest in the Project above and beyond this cost responsibility. Therefore, SMEPA has a significant interest in ensuring that MPCo maintain the most reliable and lowest cost electricity possible. As a public utility, SMEPA understands the importance of Kemper in accomplishing those goals:

In order to keep costs stable, utilities must maintain a diverse mix of generating resources. This requires evaluating resource alternatives, considering risks and maintaining a willingness to make decisions to minimize risks. Based on SMEPA's preliminary evaluation of the proposed IGCC project, we believe that the project is a viable available alternative to minimize risks and to help provide long-term rate stability for MPC's wholesale and retail customers. In addition, SMEPA is evaluating a joint ownership position in the project as an option to minimize risks and provide long-term rate stability to SMEPA's members.³³⁷

205. Based upon this evidence in the record, the Commission finds that adequate rate impact information was provided by the Company. We also find that the evidence contained in the record from many of MPCo's customers, including several large commercial and industrial customers, supports a finding that the rate impacts of the Kemper Project, while significant in the

³³⁶ Phase One Late Filed Exhibit Nos. 17 & 18; Phase Two Late Filed Exhibit No. 32.

³³⁷ Phase Two Direct Testimony of Nathan Brown and John Carley, p. 15 (Jan. 5, 2010).

short-term, are outweighed by the long-term benefits provided by the Kemper Project as detailed above.

E. RATE SCHEDULE “CNP”

205. In connection with its Certificate Filing, the Company originally requested that the Commission approve its proposed Rate Schedule “CNP”. The proposed rate schedule would implement the provisions of the Baseload Act by adjusting rates annually, on a projected basis, pursuant to a filing made by the Company in August of each year. Throughout the proceeding, Rate Schedule “CNP” was revised several times by the Company to address various issues identified. Pursuant to the previous orders issued by the Commission, the Company has filed for approval of Rate Schedule “CNP-A” and Rate Schedule “CNP-B” in Docket No. 2011-UN-135. The approval of these rate schedules will be addressed by the Commission in that docket.

F. APPROVAL OF PRUDENTLY INCURRED PRE-CONSTRUCTION COSTS

206. In Docket 2006-UN-581, the Commission authorized MPCo to charge costs associated with its generation planning, screening, and evaluating of its next generation option to a regulatory asset. These costs were to remain in the regulatory asset account until the earlier of June 30, 2008, or upon certification of the next generation resource. The Commission subsequently amended the order to defer the beginning of the amortization period to January 1, 2009. On April 6, 2009, the Commission issued an order consolidating Docket 2006-UN-581 with the docket at hand. In the April 6 Order, the Commission ordered that all of MPCo’s pre-construction costs were to be charged to and remain in the regulatory asset until the Commission made findings as to the recovery of MPCo’s prudent expenditures in this Docket. The Commission requested the Staff to continue its on-going investigation of the prudence of MPCo’s pre-construction expenditures. During the Phase Two Hearing, the Commission heard

evidence on this issue. The Commission finds that it was prudent for MPCo to perform the pre-construction activities at issue to meet its duty to provide adequate, reliable electric service to its customers.

207. Larkin was engaged by the Staff to perform a detailed review and verification of charges for preconstruction costs that were recorded into the regulatory deferral account to evaluate the usefulness for inclusion in customer rates.

208. The record reflects that Larkin found that MPCo, at the end of March 2009, had recorded \$50,470,935 of pre-construction costs. Larkin further found that \$4,470,098 of the costs they reviewed were inadequately documented, questionable or inappropriate and recommended that the Commission remove these costs from MPCo's March 31, 2009 pre-construction cost balance.

209. At the hearings, MPCo's Comptroller, Ms. Cynthia Shaw, offered testimony attempting to justify the value provided by MPCo's service company affiliate in terms of the relative costs of hiring third parties and the reasonableness of the rates paid to SCS for its engineering and related services, including the fact that those services are invoiced "at cost" in accordance with FERC rules. Ms. Shaw testified that the use of SCS for engineering work on the Kemper Project was beneficial to customers and therefore, SCS cost, including variable pay and overheads, should be allowed for recovery. SCS, like independent third-party contractors, includes variable pay and overhead costs in its billings. Ms. Shaw testified that unlike other contractors, SCS does not charge a profit. MPCo asserted that the exclusion of SCS variable pay and overheads from recovery would be unreasonable and without merit and would motivate MPCo to hire more expensive engineering firms.

210. The Commission finds the testimony of Mr. Smith to be persuasive and adopts his recommendation. Pursuant to our authority to allow recovery of prudently incurred costs, added to our statutes by the Baseload Act, we will allow recovery of these costs. However, we reserve the authority to revisit the issue of the recovery of SCS variable pay and overheads in a future proceeding. Specifically, the Commission finds that \$46,000,837 out of the total \$50,470,935 in pre-construction costs are reasonable and prudent and we adopt Mr. Ralph Smith's testimony to that effect. Those prudently incurred pre-construction costs, to the extent allowed under FERC and Commission accounting rules and under generally accepted accounting principles, should be capitalized to the applicable capital work order for the project. To the extent such costs cannot be capitalized under the applicable accounting rules, we find that such costs should be amortized through an appropriate rate schedule to be determined in a subsequent proceeding. We note Ms. Shaw's testimony regarding SCS variable pay and overheads and reserve our authority to revisit and address such costs in a future proceeding regarding review of pre-construction costs incurred from April 2009 through the month of the Commission's Order.

VIII. MISCELLANEOUS MATTERS

A. APPROVAL OF PROJECT ESTIMATE

211. Under § 77-3-14(4) "no certificate shall be granted unless the commission has approved the estimated construction costs." According to the Company's Certificate Filing, the total estimated cost to construct the Kemper plant is equal to \$2,399,700,000, net of incentives and excluding certain items of costs that were still being considered by MPCo, such as the lignite mine and CO₂ pipeline. No other estimate is contained in the record; however, as discussed above, some concerns relating to certain aspects of the estimate were raised in the testimony. The Commission finds the Company's construction estimate is reasonable and hereby approved

solely for the purpose of granting a certificate of public convenience and necessity. The Commission's approval of the cost estimate is not a finding of prudence and shall not be construed in any way as approving the prudence any of the costs contained therein, unless specifically addressed in this or subsequent orders of the Commission issued after a prudence review in compliance with Mississippi law. This approved estimate may only be amended by subsequent order of the Commission upon a petition by the Company and upon a finding based on substantial evidence that such amendment is reasonable, beneficial to customers and in the public interest.

212. The Commission is required under Miss. Code Ann. § 77-3-13(4) "to ascertain that all labor, property or services to be rendered for any proposed project will be supplied at reasonable prices." As provided above, the Company's Project estimates were thorough and based upon reasonable assumptions that are typical for projects of similar scope and size. The Company provided testimony that the engineering, procurement and construction portion of the Project would be conducted and managed by SCS, an affiliate of MPCo, who provides cost-based services to all of the Southern Company operating companies. Mr. Anderson and Ms. Shaw specifically testified that the rates and charges for SCS were reasonable and below prevailing industry rates for similar services.³³⁸ No party challenged the specific assumptions made by the Company regarding its estimates for labor, property or services. Therefore, the Commission finds that the Company's estimates contain reasonable assumptions for labor, property or services, and, in accordance with the procedures set out below, the Commission and

³³⁸ Phase Two Rebuttal Testimony of Cynthia Shaw, pp. 9-10 (Jan. 5, 2010); Phase Two Rebuttal Testimony of Thomas O. Anderson, p. 5 (Jan. 5, 2010).

Staff will continue to monitor the Company's construction progress to ensure that all costs are reasonable and prudent.

B. MONITORING PLAN

213. Under § 77-3-14(5), the Commission is required to maintain an ongoing review of the construction of the Project. We find that our statutory monitoring duties and rights provide one of the most important risk mitigation measures available to protect customers. Given the unprecedented scope and cost of the Project, the Commission believes that the public interest is served by retaining certain experts to assist the Commission in its monitoring duties. In fact, the Baseload Act specifically authorizes both the Commission and the Staff to retain such experts to assist them. The Independent Monitor shall assist the Commission in its statutory duties by monitoring the progress of the Project, reviewing costs and plans, advising on questions of prudence, and providing reports, from time to time, on the status and viability of the Project. The Independent Monitors may also have responsibilities concerning review of operations once construction is completed.

214. The Commission has and will retain these experts by contract, the Company will pay these experts' fees as approved by the Commission, and the Commission will expeditiously allow recovery from ratepayers of the Company's payments. MPCo shall file a Rider Schedule that will ensure timely recovery of these incurred costs.

215. The Commission will develop procedures for how these Independent Monitors will submit reports to the Commission, and how the Company and others will comment on such reports, at a later time.

216. In addition to the Commission's monitoring duties, the Staff is hereby directed pursuant to § 77-3-13(4) to monitor and inspect periodically the progress of Project construction.

Included in this duty to monitor, the Staff is directed to submit a written progress report to the Commission concerning any deviations or variances in the Project scope, cost schedule, and any other significant item found by the Staff that may affect the Company's ability to complete the Project on schedule and within the approved cost estimate. The Staff will make its reports public on a schedule set by the Commission. The Commission expects its consultants and the Staff to coordinate their actions and share the information. The Staff may retain and compensate experts for this purpose in like manner as provided herein for the Commission.

217. If the U.S. DOE provides loan guarantees for the project, it may require similar oversight and review of project costs. To minimize cost to customers, it is our intent to coordinate with DOE to the extent practical to avoid duplication and unnecessary work. To facilitate that coordination, the Commission orders MPCo to report to the Commission on DOE oversight activities as they become known.

218. All of the consultants retained by the Commission and Staff in this proceeding is being done under the authority of § 77-3-105(2)(b). The Commission will require all independent consultants and monitors to execute any confidentiality and nondisclosure agreements the Commission deems necessary to protect information legitimately asserted to be proprietary or trade secret information related to the project.

219. MPCo shall provide and maintain, at its offices and at project construction site, office space and facilities sufficient to accommodate the Commission and Staff monitoring functions discussed here.

220. MPCo shall allow the Commission's experts and Staff's experts access to any information or observations about the plant and its operations, and to key personnel employed or retained by MPCo, to the extent deemed necessary by the Commission, the Staff or their experts.

MPCo shall ensure that any contractors it retains agree to grant comparable access to the Commission's experts and the Staff's experts.

221. Pursuant to § 77-3-14(5), MPCo is hereby directed to submit monthly written reports, with sufficient copies, to the Commission, the Staff, their respective consultants and any party of record requesting a copy, detailing the actual Project-related costs incurred in the preceding month (Monthly Cost Report). The purpose of the Monthly Cost Report is to provide the sufficient information regarding the costs incurred on the Project to allow the Commission, Staff and their consultants to adequately and timely audit such costs and monitor the status and progress of the Project. The Monthly Cost Report shall be in a form and manner as prescribed by the Commission so as to standardize the Project information and assist the Commission, Staff and their consultants in their monitoring duties.

C. THE MISSISSIPPI ECONOMY

222. The record in this proceeding demonstrates and quantifies the significant economic benefits to the State of Mississippi from the construction of Kemper. Separate and independent studies assessing the economic impact of Kemper were performed by the John C. Stennis Institute of Government of Mississippi State University and by Ernst & Young.³³⁹ By way of illustration, the Ernst and Young study estimated the statewide economic impacts as follows: Direct Economic Impact—310 permanent jobs, \$28 million of additional Mississippi income during the first full year of operations, and royalty payments of \$18 million that same year; Indirect Economic Impact—703 jobs and \$37 million in personal income; Total Ongoing Economic Impact—1,013 jobs and \$67 million in personal income to Mississippi residents from 2013 to 2022; Fiscal Impact of Operations--\$17.1 million in additional state tax revenues and

³³⁹ MPCo Response to Entegra Data Request 1-39 (April 8, 2009).

\$8.3 million of local tax revenue, increased state tax revenue of \$3.5 million and \$.7 million local tax revenue, resulting in total state tax revenues of \$20.6 million and local tax revenues of \$9 million during the first ten years of operation.³⁴⁰

223. In light of the contribution that Mississippi ratepayers will make to the construction of this plant, and in light of the risks that this project involves to our ratepayers, it is important that these and other types of benefits accrue to the state. To that end, the Commission therefore encourages MPCo to utilize Mississippi labor, resources and services during the design, procurement, construction and operation of this project, to the extent consistent with its legal obligations.

D. REMAINING PROCEDURAL MATTERS

224. Thomas A. Blanton filed a Motion to Intervene out of time on March 21, 2012. Mr. Blanton's motion was filed over three years after the Company's initial Certificate Filing. Proper notice of these proceedings was provided as required by law, and, in fact, the Commission provided two separate opportunities to intervene in Phase One and Phase Two. Mr. Blanton chose to ignore both opportunities. Further, the Commission's Rules require that motions to intervene out of time show good cause for why the movant is out of time.³⁴¹ Mr. Blanton's motion fails to provide any reason for his gross tardiness. Finally, as explained above, the Commission has determined that no additional evidentiary hearings are necessary, and this Final Order on Remand resolves all remaining contested issues in this matter. Therefore, Mr. Blanton's motion is hereby denied.

³⁴⁰ *Id.*

³⁴¹ Rule 6.121(5).

225. During the appeal of this matter, the Sierra Club claimed that the Commission failed to rule on a past motion filed by the Sierra Club during Phase Two related to the confidential nature of certain data and information submitted by MPCo in support of its Certificate Filing. A review of the record indicates that the Sierra Club's attorneys and expert witnesses were provided the confidential information prior to the Phase Two Hearings, and were therefore, not prejudiced during the hearings. In addition, some, if not all, of the confidential rate information that was subject of the Sierra Club's motion has since been made public through various public records requests. Finally, the Commission opened a rulemaking docket (Docket No. 2010-AD-259), wherein the Commission implemented significant revisions to the rules governing the filing of confidential information. This revised rule addresses the public policy concerns expressed in the Sierra Club's motion. Sierra Club's request appears to be moot, or at least not germane to the Commission's present task. To the extent any procedural issues remain outstanding from the Sierra Club's motion, they are hereby denied.

IT IS THEREFORE, ORDERED, that, based upon all of the above, including all of the pre-filed testimony filed in this proceedings, the pleadings, briefs, letters, exhibits, data request responses and all other documents contained in the record, and all of the oral testimony provided at the hearings in this matter and as found by this Commission as is more fully described in this order, the public convenience and necessity requires and will require the construction, acquisition, operation, maintenance, repair and renewal of the Kemper County IGCC Project to fill the need for additional electric generation previously determined by the Commission in its Phase One Order. It is further,

ORDERED, that the Company's Petition filed in this cause, as conditioned and provided for herein, be, and is hereby, granted. It is further,

ORDERED, that because the Project will provide significant economic benefit to the Kemper County area and the State in general and in order to maximize these benefits, the Commission encourages MPCo to utilize Mississippi labor, resources and services in a prudent and cost effective manner, where ever lawfully possible during the design, procurement and construction of the Project. It is further,

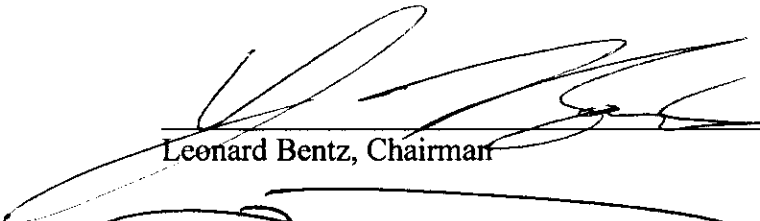
ORDERED, that those prudently incurred pre-construction costs, to the extent allowed under FERC and Commission accounting rules and under generally accepted accounting principles, should be capitalized to the applicable capital work order for the Project. To the extent such costs cannot be capitalized under the applicable accounting rules, we find that such costs should be deferred in a regulatory asset until such costs are authorized to be amortized over a time period to be determined by the Commission.

This Final Order shall be deemed issued on the day it is served upon the parties herein by the Executive Secretary of the Commission who shall note the service date in the file of this Docket.

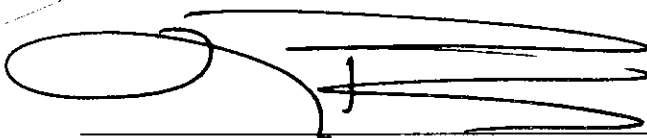
Chairman Leonard Bentz voted aye; Vice-Chairman Lynn Posey voted Aye; and Commissioner Brandon Presley voted NO

SO ORDERED by the Commission on this the 24th day of April, 2012.

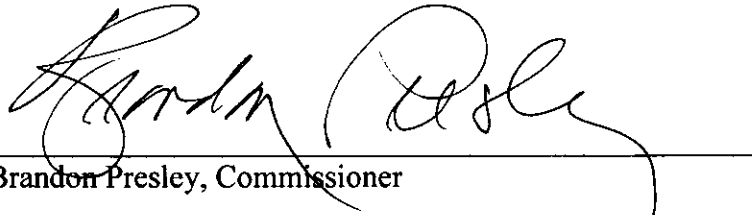
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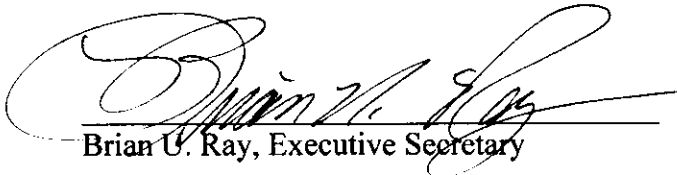
Leonard Bentz, Chairman

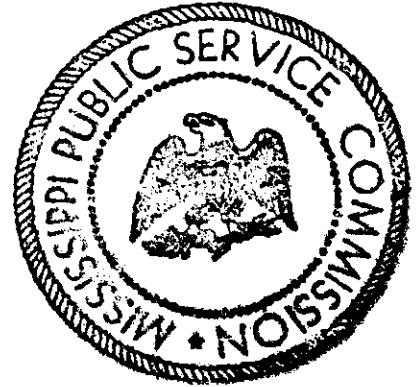


Lynn Posey, Vice-Chairman


Brandon Presley, Commissioner

ATTEST: A True Copy


Brian U. Ray, Executive Secretary



Effective this the 24th day of April, 2012.