ORIGINAL

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

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| VERIFIED PETITION OF INDIANAPOLIS POWER & LIGHT COMPANY ("IPL"), AN INDIANA CORPORATION, FOR APPROVAL OF CLEAN ENERGY PROJECTS AND QUALIFIED POLLUTION CONTROL PROPERTY AND FOR ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR CONSTRUCTION AND USE OF CLEAN COAL TECHNOLOGY; FOR ONGOING REVIEW; FOR APPROVAL OF THE TIMELY RECOVERY OF COSTS INCURRED DURING CONSTRUCTION AND OPERATION OF SUCH PROJECTS THROUGH IPL'S ENVIRONMENTAL COMPLIANCE COST RECOVERY ADJUSTMENT ("ECCRA"); FOR APPROVAL OF DEPRECIATION PROPOSAL FOR SUCH PROJECT; FOR THE USE OF CONSTRUCTION WORK IN PROGRESS RATEMAKING; AND FOR AUTHORITY TO DEFER COSTS INCURRED DURING CONSTRUCTION AND OPERATION, INCLUDING CARRYING COSTS, DEPRECIATION, AND OPERATION AND MAINTENANCE COSTS, UNTIL SUCH COSTS ARE REFLECTED FOR RATEMAKING PURPOSES, ALL PURSUANT TO IND. CODE §§ 8-1-2-6.1, 8-1-2-6.7, 8-1-2-6.8, 8-1-2-42(a), 8-1-8.4, 8-1-8.7, 8-1-8.8 AND 170 IAC 4-6-1 ET SEQ. | ) | CAUSE NO. 44242<br>APPROVED:<br>AUG 1 4 2013 |

## ORDER OF THE COMMISSION

**Presiding Officers:**
**David E. Ziegner, Commissioner**
**Aaron A. Schmoll, Senior Administrative Law Judge**

On August 31, 2012, Indianapolis Power & Light Company ("Petitioner", "IPL" or "Company") filed its Verified Petition with the Indiana Utility Regulatory Commission ("Commission") initiating this Cause. In its Petition, Petitioner requested approval of clean energy projects and qualified pollution control property ("QPCP") and for issuance of a certificate of public convenience and necessity ("CPCN") to construct, install and use clean coal technology ("CCT") on five units (the "Big Five") at two of Petitioner's generating stations. Petitioner also requested the Commission authorize certain accounting and ratemaking treatment and approve ongoing review.

On September 26, 2012, Petitioner filed its verified direct testimony and exhibits. On October 3, 2012 and October 12, 2012, Petitioner submitted its workpapers.

On October 17, 2012, the Commission issued a Prehearing Conference Order in this Cause which, among other things, established a procedural schedule.

On October 25, 2012, the Citizens Action Coalition of Indiana, Inc. ("CAC") and the Sierra Club (collectively "Joint Intervenor") filed a Joint Petition to Intervene. On November 7, 2012, IPL Industrial Group ("IG") filed a Petition to Intervene. The Presiding Officers granted all petitions to intervene.

A public field hearing was held on January 24, 2013 in Indianapolis, Indiana.

On January 28, 2013, the OUCC, IG and Joint Intervenor filed their respective cases-in-chief. On February 25, 2013, Petitioner filed its rebuttal testimony, exhibits and workpapers. On March 8, 2012, the Commission issued a Docket Entry requesting information from IPL, which information was provided on March 13, 2013.

On March 13, 2013, Petitioner, the OUCC and IG ("Settling Parties") filed their Joint Motion for Leave to Submit Settlement Agreement and for Modification of Procedural Schedule, which motion was granted by Docket Entry dated March 14, 2013. On March 15, 2013, a hearing was conducted to establish a settlement procedural schedule. On March 20, 2013 IPL and the OUCC filed testimony in support of the Settlement Agreement.

Joint Intervenor filed surrebuttal testimony on April 3, 2013 and revised surrebuttal testimony on April 11, 2013. IPL filed surreply testimony in support of the Settlement Agreement on April 12, 2013.

Pursuant to notice of hearing given and published as required by law, proof of which was incorporated into the record by reference and placed in the Commission's official file, a public evidentiary hearing in this Cause was held on April 24 and 25 and continued on May 2, 2013, at which time the Parties presented their respective evidence and offered witnesses for cross-examination..

The Commission, based upon the applicable law, the evidence herein, and being duly advised, now finds as follows:

1. **Notice and Jurisdiction.** Due legal and timely notice of the hearing in this Cause was given and published as required by law. Petitioner is a "public utility" as defined in Ind. Code § 8-1-2-1(a) and an "eligible business" as defined in Ind. Code § 8-1-8.8-6. Pursuant to Ind. Code ch. 8-1-8.8, the Commission has the authority to determine whether clean coal technology is reasonable and necessary, and eligible for financial incentives. Accordingly, the Commission has jurisdiction over Petitioner and the subject matter of this proceeding.

2. **Petitioner's Characteristics.** IPL is a public utility corporation organized and existing under the laws of the State of Indiana with its principal office and place of business at One Monument Circle, Indianapolis, Indiana. Petitioner is engaged in rendering electric utility service in the State of Indiana. IPL renders retail electric utility service to approximately 470,000

retail customers located principally in and near the City of Indianapolis, Indiana, and in portions of the following Indiana counties: Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, Owen, Putnam and Shelby Counties. IPL owns, operates, manages and controls electric generating, transmission and distribution plant, property and equipment and related facilities, which are used and useful for the convenience of the public in the production, transmission, delivery and furnishing of electric energy, heat, light and power.

3. **Requested Relief.** IPL owns and operates 3,353 MW of nameplate capacity. IPL's Big Five consists of Petersburg Units 1 through 4 and Harding Street Station Unit 7 ("HSS 7"). The Big Five comprise 65% of IPL's total generating capacity and more than 82% of its coal-fired capacity. The Big Five are fully scrubbed and have fewer years of service compared to the other primarily coal-fired units in IPL's fleet.

IPL's operations are subject to federal, state and local environmental rules. Such rules establish environmental compliance standards that govern emissions from IPL's electric generating units. In its Petition, IPL requested approval of clean energy projects and qualified pollution control property and issuance of a CPCN to construct, install and use CCT to allow IPL to comply with the United States Environmental Protection Agency ("EPA") Mercury and Air Toxics Standards or ("MATS") Rule. In its Petition, IPL indicates that its proposed CCT will reduce sulfur-based airborne emissions, as well as airborne emissions of other acid gases, mercury ("Hg"), particulate matter and other hazardous air pollutants ("HAPS") from IPL's existing coal-fired steam electric generating units.

Specifically, IPL requests approval to construct, install and operate a Pulse Air Fabric Filter System on Units 2 and 3 at IPL's Petersburg Generation Station ("Petersburg"), and, on all Petersburg Units, other environmental controls and monitoring equipment, including activated carbon injection ("ACI"), sorbent injection, flue gas desulfurization ("FGD") upgrade (Units 1 and 2) and electrostatic precipitator ("ESP") enhancements (Units 1, 3 and 4) and continuous emission monitoring at Petersburg ("Petersburg Project"). IPL also requests approval to construct, install and operate environmental controls on IPL's existing HSS 7 including ACI, FGD upgrade, ESP and Sodium Based Solution System ("SBS") upgrades and continuous emission monitoring ("Harding 7 Project"). The Petersburg and Harding 7 projects are referred to herein as the "Compliance Project."

IPL requested Commission approval of financial incentives, including timely recovery through IPL's existing Environmental Compliance Cost Recovery Adjustment ("ECCRA") of carrying costs during construction and post in-service costs of the Compliance Project, including carrying costs, depreciation and operation and maintenance ("O&M") costs. IPL also requested the Commission approve IPL's proposal regarding the depreciation for the Compliance Project and authorize IPL to defer any unrecovered carrying costs incurred during and after construction and incremental post in-service O&M expenses and depreciation until such costs are recognized and recovered for ratemaking purposes. Finally, IPL requested ongoing review of the Compliance Project and specific accounting treatment of under/over recovery of the Compliance Project costs.

4. **Summary of Evidence of the Parties.** Prior to the submission of the Settlement Agreement, IPL, the OUCC and Intervenors each submitted evidence in this Cause, which is summarized below.

A. **IPL's Case-in-Chief.** Kevin Crawford, IPL's Senior Vice President, Power Supply, summarized the relief requested by IPL, provided an overview of IPL's project management and of the estimated cost of the Compliance Project. He explained that IPL will enter into an engineering, procurement and construction ("EPC") contract with a third party contractor and will manage the EPC contractor using established engineering, procurement and construction management ("EPCM") processes. Shamsul Chishti, IPL's Director of Environmental Construction, provided further details, including a discussion of the role of the Owner's Engineer, Black & Veatch, IPL's proposed use of a firm price EPC Contract, and the EPCM process.

In his supplemental direct testimony, Mr. Crawford identified the EPC contractor and presented the firm price EPC contract and updated cost estimate for the Compliance Project. He also provided the Company's detailed management plan for the Compliance Project. Mr. Crawford explained the competitive bidding process used to select the EPC contractor and explained that IEP (a joint venture between Sargent & Lundy ("S&L") and Kiewitt Corporation) was selected as the EPC Contractor. Mr. Crawford explained that based on IPL's review of the bid responses, Petitioner concluded that IEP provided the best value solution for IPL and its customers.

Mr. Crawford explained that IPL and IEP had entered into a firm price EPC contract. Mr. Crawford provided an overview of the EPC Contract and explained that the firm price EPC Contract sets forth a guaranteed price for the engineering, procurement and construction of work identified in the technical specification necessary to ensure IPL's compliance with the MATS Rule. He explained that the EPC Contractor's right to seek compensation over and above the Firm Price is limited to identified circumstances and added that the EPC Contract includes a liquidated damages provision to ensure timely completion of the Compliance Project by the EPC Contractor.

Mr. Crawford explained that the updated cost estimate totals $510.98 million and is approximately $95 million lower than IPL's initial cost estimate of $606 million.[1] Mr. Crawford testified that the updated cost estimate reflects resolution of the known engineering items, impacts from market conditions derived from the competitive bidding process, and the outcome of negotiating risk/cost commercial terms with the EPC vendor finalists. Additionally, he stated that this process resulted in IPL lowering the overall project cost estimate and that the firm price EPC Contract represents approximately 83% of the total cost of the Compliance Project. Mr. Crawford also stated that demolition costs are included in the EPC Contract but excluded from the $510.98 million requested for ratemaking recognition in the ECR proceedings. Mr. Crawford testified that the estimate for demolition costs has been revised down to $5.819 million. Finally,

[1] These cost estimates exclude allowance for funds used during constructions ("AFUDC") and cost of removal but AFUDC will be recorded in accordance with the Commission's rules and the Settlement Agreement discussed below.

Mr. Crawford testified that the Owner's Cost component of the updated cost estimate includes a 5% contingency of approximately $24 million.

Mr. Crawford presented the Project Execution Plan which defines the EPCM process that will be used to manage all phases of the project. Mr. Crawford explained that IPL provided a Limited Notice to Proceed ("LNTP") to IEP in January, 2013 to begin detailed engineering. He pointed out that the EPC contract terms indicate IPL will provide a full notice to proceed on approximately June 1, 2013, but no later than August 31, 2013 (at which time IEP can request a change order for price adjustment).

IPL witness Thomas W. Moore, Principal Engineer with the Petersburg Environmental Team, described IPL's generating fleet, the existing control equipment installed on the units and the pollution control equipment in the Compliance Project. Mr. Moore explained how the project would be coordinated with the scheduled outage plan. Mr. Moore also provided the detailed cost estimate for the Compliance Project in his direct and supplemental testimony.

IPL witness Angelique Oliger, Senior Environmental Coordinator for IPL Environmental Affairs, summarized the requirements of the MATS Rule and described anticipated future environmental requirements. Ms. Oliger discussed the compliance timeframe and additional environmental permits needed for the Compliance Project. Ms. Oliger testified that IPL and other coal-fired utilities will continue to face new environmental requirements but that IPL does not expect that any of these anticipated requirements would have an impact on the projects that are the subject of this proceeding. She explained that, while IPL's compliance strategy is focused on the MATS requirements, IPL is very aware and mindful of future environmental requirements and that IPL's compliance strategy was developed to maintain flexibility for compliance with these future requirements.

IPL witness James M. Ayers, Director of Corporate Planning and Analysis, explained why the decision to retrofit with the Compliance Project is economically and strategically justified from a resource planning perspective and also consistent with IPL's long term resource plan as identified in its most recently filed integrated resource plan ("IRP"). Mr. Ayers summarized the approach IPL used to evaluate the cost effectiveness of retrofitting IPL's coal-fired units with environmental controls versus retirement and replacement generation. Mr. Ayers testified that the Big Five are IPL's largest, youngest, and most efficient generating units. He stated that together, these units comprise 2,179 MW's of baseload generation. He testified that all of the Big Five units have been fully scrubbed for $SO_2$ with FGD systems, three have selective catalytic reduction ("SCR") technology to control $NO_x$ and have been identified as the long-term baseload core of IPL's generating fleet. He added that these controls also assist in the removal of MATS regulated emissions – including acid gases ("HCl"), mercury ("Hg") and particulate matter ("PM"). Mr. Ayers explained that because the Big Five baseload units are expected to have 20 or more years of remaining life, the cost analysis can be performed by comparing their life cycle costs directly to equivalent replacement baseload generation.

Mr. Ayers identified the Compliance Project costs used in the evaluation and explained that with natural gas prices forecast to remain low relative to historic levels and other forms of fossil generation, comparisons to combined cycle gas turbines ("CCGT") was appropriate. He explained that efficient gas-fired generation is not strictly baseload, especially in the

Midcontinent Independent System Operator ("MISO") region where their projected dispatch costs are greater than IPL's Big Five Units. He also explained that while a direct comparison to a CCGT is not perfect, it does provide a good benchmark or threshold to see if a more detailed evaluation is necessary. Mr. Ayers added that a CCGT was identified in IPL's 2011 IRP as the eventual replacement generation for IPL's small coal-fired units. Mr. Ayers identified the installed cost of new gas-fired CCGT using cost estimates from the IHS CERA Market Briefing Midwest Power Market Fundamentals June 2012 Report ("CERA 2012 Report") but noted that adjustments need to be made to account for the CCGT's higher fuel/dispatch costs, versus the Big Five's higher O&M and future environmental retrofit costs.

Mr. Ayers explained that for the Big Five evaluation, IPL performed a base case present value of revenue requirements ("PVRR") analysis to see if controlling for MATS would make economic sense under expected base case forecast conditions. He added that IPL then conducted a stress test scenario analysis to validate the results and provide input into the investment decision. He further explained that both of these analyses were performed on a comparative breakeven cost basis, whereby the breakeven MATS plus other future environmental capital costs were derived based on comparative baseload generation, and then compared to the projected compliance projects costs. He testified that because Petersburg was receiving the bulk of the MATS controls and costs, the analysis initially focused on this plant.

Mr. Ayers presented the breakeven Petersburg life cycle environmental capital costs derived from his analysis and explained how the calculated breakeven capital cost compared to the expected MATS and Other Environmental capital costs at Petersburg Station. Mr. Ayers testified that the evaluation clearly demonstrates the economic viability of Petersburg Station's compliance plan relative to new replacement generation. He stated that base case conditions would justify total life cycle environmental costs over twice as large as those proposed and forecast. He added that this base case result is also a direct sensitivity scenario in itself in that the Compliance Project and Other Environmental could support capital costs double those forecast. He explained that normally, this wide of a margin would be sufficient to bound any sensitivities. He stated that however, the base case does not include scenarios around the potential for future climate change legislation or the possibility of perpetually low gas prices that could indeed challenge coal's dispatch advantage, and thus comparative value. Mr. Ayers explained that IPL performed a second analysis using conservative assumptions based on these two risk parameters to stress test the base case results.

Mr. Ayers described the decision risk parameters and discussed how they might impact the base case decision result. Mr. Ayers described the stress test case, the evaluation logic around it and the results of the stress test scenario. He explained that from a decision based perspective, the Petersburg projected MATS plus Other Environmental capital expenditures were still well under even this stress test scenario breakeven cost. He concluded that the MATS compliance plan at Petersburg Station passes this test and is economically justified from a plant perspective. Mr. Ayers also explained the other scenarios IPL conducted to assess whether to use control technology to comply with the MATS Rule at the Petersburg Station.

Mr. Ayers also discussed the analysis regarding HSS 7. He stated that HSS 7 is 39 years old with a remaining useful life targeted at over 20 years, is fully scrubbed for $SO_2$ emission control, has an SCR for $NO_x$ emission control and sorbent injection for $SO_3$ and future Hg

control. Ayers Direct, at 17-18. He explained that the Compliance Project plan for HSS 7 is limited to an ESP upgrade and ACI technology at a cost of about $110M ($54 M after giving effect to the reduction resulting from the EPC Contract). Mr. Ayers testified that the summer-rated capacity of HSS 7 is 427 MWs and that the identified costs translate into $258/kW installed MATS compliance costs or about 20% of replacement new intermediate/base gas-fired generation. Ayers Direct, at 18. He further testified that additional future environmental requirements potentially impacting the unit's life cycle costs are relatively less impactful, at about $42M, resulting in $152M or $356/kW total life cycle environmental costs, and about 25% of replacement CCGT costs. He concluded that, based on the earlier Petersburg plant breakeven results and this lower relative cost comparison, the MATS control plan at HSS 7 is clearly economic.

Mr. Ayers testified that IPL's dispatch costs of the Big Five Units will increase as a result of compliance with the MATS Rule but the Big Five Units will continue to burn lower cost high sulfur (and unconstrained Hg) coal in close proximity to the plant keeping dispatch costs lower. Ayers Direct, at 18. Mr. Ayers testified that while the dispatch costs of the Big Five Units will increase, especially for the two non-baghoused Petersburg units, they should remain very competitive in the region because the MATS Rule impacts all utility coal-fired generation and thus dispatch costs will likely be increasing for a large number of coal-fired units in the region. Mr. Ayers testified that in the MISO region, dominated by coal-fired generation, power prices would likely increase as well. He added that regionally, it is expected that IPL's Big Five will continue to dispatch as baseload generation, similar to their historic dispatch levels.

Mr. Ayers concluded that the Compliance Project plus Other Environmental control costs for the Big Five Units are all significantly under the base case breakeven threshold and as demonstrated by the analysis, economically justified. He explained that under a capital cost stress test, even if capital costs for MATS and Other Environmental were significantly greater, the MATS Compliance project would still make economic sense. He stated that under an energy margin stress test scenario, the Big Five with all future environmental retrofit costs would again maintain an economic advantage. Mr. Ayers added that large scrubbed coal-fired generation such as HSS 7 and the Petersburg Station are also strategically valuable in several other respects. He testified that HSS 7 is located in close proximity to IPL's customer load, while Petersburg is situated very close to abundant Indiana based Illinois basin coal reserves, with ample transmission capacity to serve IPL customers. He stated that the difficulty in permitting new coal-fired baseload generation, even beyond the significantly higher capital costs, also makes controlling and maintaining existing large scrubbed coal-fired units both a reasonable low cost option as well as a strategic long term asset for IPL customers. He explained the advantage of existing coal-fired baseload generation could be further enhanced by any New Source Performance Standard ("NSPS") for new coal-fired generation governing $CO_2$ emission rates and thus requiring additional control equipment and costs on new coal-fired units. He testified that the reliability and relative price stability of locally-located and locally-fuel-supplied baseload generation, especially longer term as both a reliability and economic hedge against the expected future expansion of new gas-fired generation and natural gas supply and price risk should not be ignored. He explained that controlled, the Big Five units for MATS compliance makes both economic and strategic sense as these five units will continue to form the core of IPL's baseload generating fleet for the foreseeable future. He added that from a broader resource planning perspective, it is expected that IPL will diversity its portfolio into natural gas generation in the

near future coincident with the likely retirement of its small unscrubbed coal units. He concluded that controlling IPL's Big Five coal-fired units for MATS compliance versus retiring and replacing any of those larger scrubbed coal-fired units best serves IPL customers' capacity and energy needs.

Finally, Mr. Ayers testified that IPL's Petition does not request approval of a control plan for IPL's Small Six coal-fired units in this filing. He stated that these units are being evaluated separately and more broadly looking at all options on a remaining life cycle basis. He noted that the disposition of the Small Six units does not impact or alter the compliance plan for the Big Five. He added that while no final decision has been made on these units, current analysis indicates that it is likely that the Eagle Valley plant will be fully retired ahead of MATS rule implementation. He testified that Harding Street Units 5 and 6 may be retired or repowered as gas-fired peakers. He stated that IPL will seek any necessary approvals from the Commission before proceeding with a compliance or repowering plan for any of the Small Six.

In his supplemental testimony Mr. Ayers testified that because the updated Compliance Project cost estimate on both an overall and individual unit basis was lower than the cost estimate reflected in his analysis, it was not necessary to perform additional analysis to reflect the lower Project cost estimate because the previous analysis bounds the updated costs.

Harold D. Leitze, Petitioner's Manager of Coal and Transportation, described IPL's current coal supply and described the importance of fuel supply as it related to IPL's compliance with the MATS Rule. He discussed coal quality and characteristics, supply testing and the mercury content of Illinois Basin coal and other coal producing regions. He testified regarding what coal supply information was used in the MATS Study conducted by Sargent & Lundy ("S&L"). Mr. Leitze stated that research on the other coal basins around the U.S. shows that Indiana coal is among the lowest in the country in mercury content and that most other coal has more than twice the mercury as Indiana coal. He concluded that switching to coal from another region is not a viable option.

Mr. Leitze testified that IPL investigated whether capital costs for MATS compliance could be eliminated or reduced if IPL were to procure coals with lower mercury content for use as a compliance tool. He testified concerning the coal supply risks, including transportation risk and supply risks. He stated that the supply of low mercury coal is constrained and the data regarding the mercury content is not extensive. He testified that limiting IPL's fuel sources to a small number of mines would not only drive up the price but could place IPL's fuel supply in jeopardy if other Indiana plants did the same. Mr. Leitze stated that because coal has never been priced based upon its mercury content, the market price adder based upon mercury is unknown. He also testified that the ability to forecast a market premium is also hindered by the fact that coal suppliers are unwilling to guarantee the mercury content of the coal. Mr. Leitze testified that parallels can be drawn to the low sulfur coal markets that developed in the 1970's when the sulfur dioxide rules were implemented. He testified that over time a market for low sulfur coal developed that was very distinct from the market for high sulfur coal and, therefore, it is reasonable to assume that a market could develop for low mercury coal. Mr. Leitze testified that there are no low mercury coals that, by themselves, will comply with the MATS Rule and that even low mercury coals will require some type of supplemental controls to comply with the MATS Rule. He stated that any increase in the demand for coal low in mercury content will

deplete those reserves at a faster rate than would normally occur. He testified that, in a relatively short period of time, the supply and demand pressures would cause the price of low mercury coal to increase faster than the price for higher mercury coal causing the gap between the two to widen. Mr. Leitze testified concerning the expected market premium per ton for medium and for lowest mercury coals and stated that these market premiums were added to the representative coals and weight averaged into Petersburg's coal supply, including transportation cost impacts, to determine the total estimated impact of constraining the coal supply on Petersburg's fuel cost. He also testified that due to the characteristics of Harding Street Unit 7 in conjunction with the ESP upgrade, this unit is expected to be able to comply with its current coal supply or other combinations of Indiana coal.

IPL witness David G. Sloat, Project Manager in the S&L Environmental Technology Group, discussed S&L's study that developed the proposed MATS Compliance Plan. Mr. Sloat summarized the relevant environmental regulations and compliance deadline for IPL. Mr. Sloat explained that the recommended Plan had the objective of achieving (1) emissions compliance; (2) generation reliability; and (3) a cost effective compliance plan. Mr. Sloat testified concerning the process used to evaluate the various control technologies and the costs and performance expectations associated with these technologies when applied to IPL's facilities. He also stated how the NPVRR of the capital cost and the control technology's annual expenses were determined. Mr. Sloat testified that the recommended control plan for Petersburg Station provides cost effective compliance with MATS Hg requirements and provides reliable generation of electricity for the Petersburg station. Mr. Sloat explained how the Petersburg Station will comply with the operating target Hg emission rate and reduce filterable PM to below the filterable PM compliance limit and operating target and HC1 target emission rates and limits. Mr. Sloat stated that IPL will install Hg CEMS, PM CEMS, and HCl CEMS at Petersburg and HSS 7 to demonstrate compliance. Mr. Sloat stated that the Petersburg Station and HSS 7 will need the one year extension for MATS compliance to implement the Compliance Plan.

Mr. Sloat testified concerning how the Compliance Plan controls will directly or indirectly reduce airborne emissions associated with the combustion of coal and discussed why the technologies included in the Compliance Plan are advanced and will allow IPL to continue to fire coal from what is known as the Illinois Basin. Mr. Sloat testified that all of the environmental controls which are proposed in the control plan are necessary for IPL to be able to comply with the MATS Rule, which is an EPA regulation that has been promulgated pursuant to the Clean Air Act. He testified that in his opinion, that the public convenience and necessity will be served by use of the Compliance Plan.

James L. Cutshaw, IPL's Revenue Requirements Manager, testified concerning the proposed accounting and ratemaking treatment. Mr. Cutshaw stated how the ECCRA functions and discussed the existing procedures and methodologies that IPL proposes to continue to use. Mr. Cutshaw provided testimony about the implementation of the construction work in progress ("CWIP") ratemaking treatment for the Compliance Project and the accrual of allowance for funds used during construction ("AFUDC"). Mr. Cutshaw testified that to ensure the proper segregation of construction costs associated with the Compliance Project, a project number in IPL's project cost accounting system is assigned to accumulate all capital costs associated with the construction of the Compliance Project. Mr. Cutshaw stated that this is the same process used for the projects approved in Cause Nos. 42170, 42700 and 43403.

Mr. Cutshaw testified that IPL proposes to depreciate the Compliance Project over an 18 year period once the equipment is placed in-service resulting in a depreciation accounting rate of 6.11% when increased by 10% for the net negative salvage and removal value. Mr. Cutshaw testified that this proposed rate is consistent with the approvals granted in Cause Nos. 42170, 42700, and 43403. He stated that IPL requests that it be allowed to recover depreciation expense prospectively to avoid regulatory lag that would otherwise occur. Mr. Cutshaw stated that prospective recovery would allow for the collection of revenues in the same reporting period as when the depreciation expense occurs. He testified that any variances from the forecast expense would be reconciled and included in a future ECRRA proceeding. Mr. Cutshaw testified that IPL also proposes to defer the initial depreciation on the Compliance Project from the in-service date until that point when depreciation expense is reflected in the rates approved in an ECCRA filing. He said that consistent with the approval granted in Cause No. 43403, amounts deferred in Account 182.3 for the initial depreciation on the Compliance Project would be amortized over the life of the asset. Mr. Cutshaw testified that IPL proposes to recover O&M expenses prospectively, so that regulatory lag is avoided by recording revenues in the same reporting period as expenses. Mr. Cutshaw stated that, in each ECCRA filing, following the placement in-service of the Compliance Project, IPL will include an estimate of the expected O&M expenses that will occur during the recovery time period. He also stated that actual O&M expenses will be charged to the appropriate FERC primary accounts and that any differences from the estimate will be reconciled and included in future ECCRA proceedings. Mr. Cutshaw testified that IPL proposes to defer the initial O&M expenses from the in-service date until the point when O&M expense is reflected in the rates approved in an ECCRA filing. He stated that consistent with the approval granted in Cause No. 43403, amounts deferred in Account 182.3 for the initial O&M expense of the Compliance Project would be amortized over 12 months. Mr. Cutshaw testified that if any of the costs of construction are determined to be non-capitalizable under IPL's capitalization policy, the Company will record those costs in Account 182.3, Other Regulatory Assets. He also testified that these costs would be amortized and recovered over the useful life of the Compliance Project, consistent with the methodology approved in ECR 1 and 2 in Cause No. 42170. He stated that the foregoing proposals are consistent with the approvals granted in Cause Nos. 42700 and 43403.

Mr. Cutshaw testified that consistent with what IPL agreed to and the Commission approved in Cause No. 43403, demolition costs will not be reflected in the construction costs upon which IPL will earn a return in the ECCRA. Mr. Cutshaw testified that IPL proposes to use the same methodology for determining the return component and Revenue Conversion factor for the Compliance Project as authorized in Cause No. 43403 for inclusion in future ECCRA filings. He stated that this computation is consistent with the formula set forth in 170 IAC 4-6-14. Mr. Cutshaw testified that IPL is not seeking other financial incentives listed in Ind. Code §8-1-8.8-11(a), which includes authorization of up to three percentage points on the return on shareholder equity that would otherwise be allowed to be earned on the Compliance Project. Mr. Cutshaw testified that consistent with the approvals granted in Cause Nos. 42170, 42700, and 43403, IPL will reflect the authorized return on its QPCP from the most recent ECCRA orders in determining the total authorized net operating income level to be utilized in the I.C. 8-1-2-42(d)(3) test.

In his supplemental testimony, Mr. Cutshaw calculated the estimated rate impact of the updated cost estimate for the Compliance Project and provided testimony comparing the updated

calculation to his original calculation. He stated that based upon the updated cost estimate of $510.983 million of construction costs discussed by Mssrs. Crawford and Moore (which excludes demolition costs and AFUDC) and including projected O&M and depreciation expenses, IPL anticipates that the impact from recovery in the ECCRA will be a compound annual growth rate of 1.8% per year over the period 2013 to 2017 for an average residential customer using 1,000 kWh per month. Mr. Cutshaw also presented updated year by year results.

B. **OUCC's Case-in-Chief.** OUCC witness Anthony A. Alvarez, Utility Analyst within the Resource Planning and Communications Division, presented an overview of the OUCC concerns and recommendations. Mr. Alvarez testified that IPL's request is consistent with its IRP. Mr. Alvarez provided testimony concerning the mercury emissions data, acid gases HAPs and non-mercury metals HAPs for IPL's Big Five units. Mr. Alvarez testified concerning the FGD demister on IPL's units and stated that the OUCC's analysis of the demister's historical records demonstrated there is no justification for the proposed yearly replacement. Mr. Alvarez testified concerning IPL's ESPs. Mr. Alvarez also testified that the OUCC disagreed with IPL's request regarding the depreciation period and proposed post-in-service accounting treatment for the Compliance Project and noted that these matters are addressed by OUCC witness Blakley.

Mr. Alvarez testified that the OUCC recommended the Commission: (1) approve IPL's requested CPCN for the baghouses on Petersburg Units 2 and 3, the ACI and DSI Systems for Petersburg Units 1 - 4, and Harding Street Unit 7, as modified by the recommendations of OUCC witnesses; (2) approve of IPL's request for a CPCN to complete reliability projects for FGDs, with the exception of the more frequent replacement of demister packing; (3) approve CWIP and AFUDC during the construction phase; (4) approve depreciation of the MATS Compliance Project over a twenty (20) year period; (5) deny Petitioner's request to defer and record as a regulatory asset the post-in service depreciation, AFUDC and O&M expense; and (6) deny MATS Compliance Project cost recovery in the ECCRA until Petitioner demonstrates that replaced or upgraded air pollution control devices are not included in base rates, as explained by Mr. Blakley.

OUCC witness Cynthia M. Armstrong, Senior Utility Analyst in the Electric Division testified concerning the appropriateness of IPL's MATS Compliance Plan in light of existing or expected environmental regulations. She testified about the environmental regulations that drive the need for the IPL MATS Compliance Plan, the emissions data from all of IPL's coal-fired generating units, and the purported need for each pollution control project presented in IPL's MATS Compliance Plan. Ms. Armstrong testified that the OUCC recommended: (1) the issuance of a CPCN for the baghouses on Petersburg Units 2 and 3, and the ACI Systems for Petersburg Units 1-4 and Harding Street Unit 7, but only under the conditions stated by the other OUCC witnesses; and (2) the issuance of a CPCN for IPL to complete reliability projects for FGDs subject to the conditions offered by other OUCC witnesses.

OUCC witness Wes R. Blakley, Senior Utility Analyst provided testimony concerning his recommendations for IPL's requested ratemaking treatment for the MATS Compliance Plan. He testified that during the construction phase, the CWIP, and AFUDC requested by IPL should be approved. He stated that the Commission should approve the extension of the depreciation of the projects over a 20 year period instead of the 18 years requested by Petitioner. He stated that the Commission should deny IPL's request to defer and record as a regulatory asset the post-in-

service depreciation, AFUDC and O&M expense. Mr. Blakley testified that in its environmental tracker, IPL should specifically identify pollution control investment included in base rates in Petitioner's last rate case that is now being replaced or upgraded. He testified that ratepayers should receive a reasonable credit in the ECCRA to reflect the revenue requirements embedded in base rates for equipment being replaced or upgraded.

OUCC witness Maclean O. Eke, Utility Analyst in the Resource Planning and Communication Division, discussed the EPC Contract, the EPCM process, and the Compliance Project contingency costs. He stated that the OUCC accepted IPL's EPC Contract approach, including the selection of a single EPC contractor. Mr. Eke stated that the OUCC recommended IPL provide to the Commission its monthly construction reports to enable the Commission to monitor the execution of the Project. He also testified that, in its semi-annual ECCRA filings, IPL should provide the Commission information regarding how the contingency amount contained in the EPC Contract is spent and the balance of the contingency amount; how IPL's ("Owners") undetermined cost is spent and the balance of the amount; and how the 5% contingency of the total project cost is spent and the balance of amount.

OUCC witness Ray L. Snyder, Utility Analyst in the Resource Planning and Communications Division, provided testimony analyzing the Compliance Plan and related cost estimates. He testified concerning the need for each project, the purpose behind major components of certain projects in meeting MATS compliance, the significant deterioration of the ESPs and IPL's justification for the ESP and IPL's stated justification for the ESP project. More specifically, Mr. Snyder stated that there is a difference between an "enhanced" ESP and an "upgraded" ESP and testified concerning the present physical condition of each ESP in the Compliance Plan. Mr. Synder also testified about the cause of the deteriorated condition of the ESPs. He stated that the work on the ESPs does not constitute "enhancements" and/or "upgrades," but agreed that the replacements and major repairs are required for reliability, unit integrity, and basic unit efficiency, all of which are necessary for compliance with the MATS Rule. Mr. Snyder also testified concerning the engineering detail and accuracy of IPL's project cost estimates and how the two cost estimates cannot be compared due to scope differences. Mr. Synder stated that the reduction in the cost estimate is a potential positive for the consumer. He testified that with the remaining uncertainties discussed previously, and the lack of detail with no opportunity to assess a range of accuracy in the revised estimate, the OUCC does not consider the revised estimate as meeting the requirements that two estimates be provided in a CPCN petition. Mr. Snyder testified that the OUCC recommended the Commission: approve the baghouses, ACI, and DSI systems as being necessary for MATS compliance; approve the FGD upgrades as necessary for MATS compliance, with the exception of the more frequent demister packing replacement; and categorize the costs for the ESP projects as replacements.

C. **Industrial Group's Case-in-Chief.** Nicholas Phillips, Jr., Managing Principal of Brubaker & Associates, Inc., provided testimony about: the appropriate allocation of qualified pollution control property to IPL's customer classes and associated ratemaking; the updating of data that is approximately 19 years old for demand allocation purposes; and updating data to determine the return on equity for use in this proceeding. Mr. Phillips testified that it is appropriate to continue to use the 12 coincident peaks ("CP") to allocate the pollution control property on a demand basis but explained that IPL has not updated the 12 CP demand factor that is the basis for allocation the ECCRA revenue requirement increase to rate classes. Mr. Phillips

testified that demand data should be updated and Rate HL treated separately from the rest of the Large Commercial and Industrial Class. Mr. Phillips presented a comparison of sales by rate from the test period in Cause No. 39938 and IPL's 2011 FERC Form 1. He stated that in other proceedings, the Commission had approved the updating of demand factors outside of a general rate case. Mr. Phillips also testified concerning the return on equity compared to current market costs and described the market assessment of IPL's investment risk. He testified that the Commission should use a return on equity that is more reflective of current market conditions.

**D. Joint Intervenor's Case-in-Chief.** Jeremy I. Fisher, PhD, a scientist with Synapse Energy Economics, Inc. ("Synapse"), testified concerning his evaluation of the reasonableness of the Company's application for the CPCN and the testimony and workpapers of Mr. Ayers. Dr. Fisher testified that IPL's methodology was used to justify the new investments and proposed an alternative economic evaluation methodology to determine the economic outcome of the Big Five. Dr. Fisher stated that IPL's application is deficient regarding the economic justification for the Compliance Plan because Mr. Ayer's methodology is insufficient, structurally flawed, inconsistent with the application and materials provided in discovery, and contains numerous errors. Dr. Fisher stated that IPL's analysis does not explore the full range of resource options available to IPL, does not adequately test the sensitivity of the proposed strategy for uncertainties in key assumptions, and does not comport with reasonable planning practice. Based on his review of IPL's analysis and his own cash flow analysis, Dr. Fisher testified that the Commission should deny the CPCN for Petersburg Units 1, 2 and 4 unconditionally. He also testified that the Commission should order IPL to re-file the application for Petersburg Unit 3 and HSS 7 at such time that the Company is able to produce a reasonable and transparent economic analysis of the costs and benefits of retrofitting these units, with adequate alternatives and sensitivities explored and explained.

Mr. Peter Lanzalotta, a Principal with Lanzalotta & Associates LLC, testified concerning the extent to which IPL has studied the effects that retirement of any of its coal-fired Big Five units would have on transmission system reliability. He testified that IPL has not studied the effects of the possible retirement of any of the coal-fired generating units that the Company calls the Big Five Units on electric transmission system reliability, has not determined whether any such retirements would cause violations of required transmission reliability planning levels, and has not determined how expensive it would be to remedy any such violations. He stated that information provided in discovery indicates that the retirement of one or more of the Big Five Units could impact transmission reliability and noted that the studies consistently refer to HSS 7 as being most critical to maintaining area voltage levels. He testified that this suggests that the retirement of this generating unit could, depending on where replacement generating capacity or other system resources are located, require the addition of voltage support or other system reinforcements. He testified that if retirement appears to be a potential least cost option for HSS 7, then an open and transparent evaluation of reliability impacts and solutions should be carried out.

**E. IPL's Rebuttal.** Mr. Crawford testified that the OUCC and Industrial Group appeared to agree that retrofitting the Big Five coal units was the best option. He testified that the valuable EPC Contract benefits customers and this benefit should be maintained via the timely issuance of a CPCN. Mr. Crawford testified that he disagreed with Joint Intervenor's

proposal that the Commission issue a decision that will cause the retirement of three of the Big 5 and more time expended for further study on the other two units.

Mr. Crawford testified that a well-balanced approach provides the best solution for IPL's customers and the environment, one that includes demand side management, renewable energy resources, and base-load coal and gas facilities. He stated that IPL will be retiring and/or repowering its older coal facilities in response to the MATS Rule, that the oldest ten units are scheduled to be retired or repowered over the next several years and that these units comprise approximately 620 MW of capacity and are fueled by coal (69%) and oil (31%). He stated that two of these units (HSS 5 and 6) produce the majority of emissions at the Harding Street facility (87% of $SO_2$, 55% of $NO_x$ and 75% of mercury). He stated that at the conclusion of the MATS Compliance Project, IPL expects total fleet $SO_2$ emissions will be reduced a further 43% from current emissions. He testified that mercury emissions are expected to be reduced approximately 80%.

Mr. Crawford testified that IPL provided cost estimates from US Nels, S&L, and Burns and McDonnell and also secured two fixed EPC bids for the work, which arguably provide the most accurate estimates. With regard to the OUCC's concern regarding possible conflicts and delays stemming from the duties of the EPC Contractor, Owner's Engineer, and EPCM team, Mr. Crawford stated that: (1) the Owner's Engineer is responsible for technical review of specifications, design, and quality of vendor/equipment selection; and (2) the EPCM team is responsible to ensure appropriate levels of interface with plant personnel, operability and maintainability of design, on-site safety and quality control, and management of the EPC Contract. He stated that IPL designed the EPC Contract with these essential roles in mind and does not anticipate any negative impact on cost or schedule.

With regard to the OUCC's request for reporting, Mr. Crawford testified that IPL would provide the OUCC and other parties to the ongoing ECR proceedings quarterly updates on project safety, schedule, budget, cash flow, and use of contingency. He added that detailed monthly updates would be provided in the semi-annual ECR filings and provided a sample report template. He testified that all but one of the previously un-determined costs has been resolved. He stated that IPL can report on the Owner's costs and contingency and explained that because the EPC Contract is a fixed firm price contract, there is no identified contingency in the contract price that can be tracked or reported. He stated that all reporting would need to be subject to the protection of any confidential information included in the reports.

Mr. Crawford testified that IPL is concerned about the impact on customer bills of environmental compliance costs, but disagreed with the implication that IPL's rates are unreasonably high, referring to Mr. Cutshaw's testimony that IPL's rates are among the lowest investor-owned rates in Indiana and will remain comparatively low even with the costs of IPL's proposed plan to comply with the MATS Rule. Mr. Crawford stated that neither the OUCC nor the Industrial Group has challenged the reasonableness of the MATS Compliance Plan costs.

Lester H. Allen, IPL's DSM Program Manager, testified concerning DSM, energy efficiency ("EE") and renewable energy resources. Mr. Allen stated why he disagreed with Dr. Fisher's contention that energy efficiency programs could have important implications for the economics of retrofitting versus retiring the Big Five coal units. He explained that while IPL's

energy efficiency efforts are mitigating future load growth by encouraging and achieving significant savings by customers, it is not practical or prudent to assume that there are sufficient energy efficiency opportunities to offset the need for the continued electric production from the Big Five units. He testified that the results of the recently completed Market Potential Study ("MPS") do not support an assumption that there is sufficient energy efficiency that would impact any decision on the Big Five.

With respect to renewable energy options, Mr. Allen testified that current IPL resource evaluations indicate that wind is not the least expensive supply resource alternative for IPL's customers. He further stated that due to the intermittent nature of renewable resources, they contribute little to capacity and IPL's need for dispatchable resources (such as the Big Five) is not materially diminished by the presence of renewable energy in its generation portfolio. Mr. Allen also testified that in the Commission's Order approving a long-term power purchase agreement from the Lakefield Wind Park in Cause No. 43740, the Commission expressed concern about what the appropriate balance between price and diversity might be, in view of the fact that wind could comprise 7% of IPL's retail sales and in consideration that there is no statutory renewables mandate. He also stated that based upon this caution, the addition of significantly more renewable energy to IPL's portfolio, as recommended by Dr. Fisher, would need to meet a high standard of justification.

IPL witness Leitze testified that IPL purchases 100% of its coal from Indiana, expects to continue to do so, and that there are no coal mines in Indiana that engage in mountain top mining. Mr. Leitze testified that IPL's fuel costs have increased between 2009 and 2011 due to the expiration of two long term contracts with pricing below market. He stated that while these contracts were replaced with contracts at the current market price for coal, IPL's cost of coal is still among the lowest in Indiana.

IPL witness Oliger testified regarding concerns related to environmental regulation, including Dr. Fisher's criticism of IPL's estimates for other environmental projects and his discussion of the possible impact of future carbon regulation. Ms. Oliger stated that the estimate of "other" environmental compliance costs used in Mr. Ayers' analysis falls clearly within and at the higher end of the range of potential capital costs. Ms. Oliger testified that it is not possible to accurately predict the potential form, impact or timing of future carbon legislation, or the success of efforts to pass such future legislation. She testified that it is not reasonable to assume that future legislation would be based upon or similar to prior failed legislation.

She testified that her estimates of "other" environmental costs include costs for complying with future regulation when there is, at a minimum, a proposed rule which has been drafted and is being considered. She stated that without a proposed rule, it is simply speculation to attempt to estimate the potential cost of compliance. Ms. Oliger testified that if one were to speculate about carbon regulation, it is not reasonable to expect cap and trade legislation taking effect in or around 2020. She testified that in the absence of legislation, greenhouse gases will likely be regulated by EPA under Section 111(d) of the Clean Air Act by a New Source Performance Standard ("NSPS"). Ms. Oliger testified that because the NSPS would take into account costs and the remaining life of the units when setting the standard, it is not reasonable to expect that the impact of the NSPS would be stifling to coal-fired generation. Ms. Oliger stated that because there are no existing traditional control technologies for greenhouse gases, EPA

may consider generation efficiency improvements as a basis for the NSPS for existing units, but this has not yet been determined. She testified that the timing for compliance with any NSPS would be affected by various situations, but is expected to be no earlier than 3-4 years after a proposed rule is issued.

Finally, with regard to the impact of coal-fired generation on the environment and health, Ms. Oliger testified that public policy, as determined by laws and regulations, determines the appropriate balance between health and the environment and IPL is meeting the standards set by public policy by meeting all current environmental laws and regulations. She testified that the purpose of this proceeding is to review IPL's Compliance Plan for MATS, that MATS is the result of the public policy process and complying with MATS achieves the goals established by EPA to protect health and the environment.

IPL witness Sloat responded to the OUCC testimony regarding demister replacement and the proposed improvements to the existing ESPs. Mr. Sloat testified that the demisters will need to be replaced more frequently and there will be an increase in cost in order to comply with the MATS Rule. With respect to ESPs, Mr. Sloat explained that MATS imposes both more stringent emission limits and the more stringent averaging times and these are the drivers that require the ESP enhancements and upgrades proposed in his direct testimony. He stated that he disagreed with the contention that the inspection reports reflect years of neglect and lack of adequate inspection and maintenance practices for ESPs. He testified that IPL has performed an appropriate amount of maintenance to meet each unit's operating goals to: (1) meet the permitted PM emission limit and averaging time, (2) minimize forced outages due to the ESP, and (3) operate the unit cost effectively.

Charles F. Adkins, Vice President in the Consulting Practice of Ventyx, LLC ("Ventyx") responded to Dr. Fisher's testimony regarding IPL's evaluation and determination of whether IPL's Big Five units should be retrofit with environmental controls or retired. Mr. Adkins testified that, while Dr. Fisher has raised a handful of technically accurate criticisms, collectively these issues produce very minor impacts on the overall analysis. He testified that retrofit still favors retirement by a wide margin. He stated that that it is only under certain assumptions of a future with high carbon pricing that this margin is affected. Mr. Adkins testified that since future carbon legislation and the impact such legislation would have on existing generation requires considerable speculation, the recommended option is to retrofit the Big Five with the proposed environmental controls.

Mr. Adkins testified that Mr. Fisher raised a number of erroneous issues and failed to understand the role of an IRP and the nature of economic analyses within an IRP framework. Mr. Adkins testified that an IRP is a comprehensive assessment of a utility's present and future operating environment, providing a road map for the utility to meet its customer needs in a reasonable least cost and reliable manner. He testified that, for issues that arise during the interim period between IRPs, the IRP becomes a decision support tool for conducting corporate impact assessments and that typically, the utility will update assumptions to the IRP such as commodity, demand, and energy forecasts; and conduct its corporate impact assessments against the existing filed IRP. Mr. Adkins disagreed with Dr. Fisher's contention that IPL should conduct an IRP. Mr. Adkins testified that this matter is a straight-forward economic analysis for capital investment. He testified that the proper context for this type of capital investment analysis is to

value the respective asset to the market or the most cost-effective replacement resource and then determine if the asset's value exceeds the required capital investment and stated that this is a straight-forward benefit/cost analysis. He stated that if the benefit/cost ratio ("B/C ratio") exceeds one, then IPL should proceed with the required capital investment and if the B/C ratio is less than one, then IPL should further study alternatives to replace or modify the affected units.

Mr. Adkins testified that in its November 2011 IRP, IPL examined a full range of supply-side and demand-side resources and determined that a Combined Cycle Gas Turbine ("CCGT") is the appropriate marginal resource. He testified that Dr. Fisher failed to raise any substantive evidence that a more efficient resource or demand-side alternative is available. Mr. Adkins testified that IPL took a very conservative approach to resource options for replacing the capacity and energy associated with the affected units. He stated that the replacement alternative is a CCGT, augmented with market purchases of energy, the same approach as Dr. Fisher used. He stated that the gas turbine is the marginal capacity unit due to its cost relative to a CCGT and Coal and the CCGT is the marginal energy unit due to a combination of its low capital requirements and low operating costs versus a new coal unit.

Mr. Adkins testified that he found Mr. Ayers' economic justification adequate. Mr. Adkins stated that Mr. Ayers used a spreadsheet model to examine the incremental cost of retiring the Petersburg station and replacing it with a CCGT, augmented by market purchases, versus the impact of retrofitting Petersburg with MATS and "Other" environmental upgrades, which translated to the B/C Ratio of 1.61. Mr. Adkins testified that Mr. Ayers' analysis is consistent with Dr. Fisher's analysis which yielded a B/C ratio of 1.48 (meaning that every dollar invested in environmental upgrades yields one dollar and forty eight cents of value). Mr. Adkins testified that the important question is how likely the B/C ratio is to drop below one. Using Dr. Fisher's spreadsheets, Mr. Adkins testified that retrofit project could withstand an additional cost of $901 million or 48% more.

Mr. Adkins testified that Dr. Fisher based his entire recommendation that the Commission should reject IPL's recommendation on the carbon and gas sensitivities that Dr. Fisher generated. Mr. Adkins stated that there is one data assumption in Dr. Fisher's model that essentially nullifies Dr. Fisher's conclusions and raises significant concerns regarding his analysis. Mr. Adkins stated that Dr. Fisher's analysis significantly favors the retirement decisions because purchases, which are expenses, are represented in the analysis as revenues, and thus reduce the cost to replace the retiring unit. Mr. Adkins also stated that the market purchase prices reflected in Dr. Fisher's model fail the reasonableness test because his model indicated that some locational marginal prices were negative.

Mr. Adkins agreed with Mr. Lanzalotta that IPL could not retire any of the Big Five without studying the impacts on the transmission system. He testified that there is no need to study the transmission impacts of retiring any of the Big Five because the recommended approach is to retrofit the Big Five with the MATS environmental controls. He further testified that if transmission impacts did exist, the result would favor the retrofit decision.

Mr. Adkins testified that the Commission should approve the MATS Compliance Project on the basis that the cost for environmental upgrades is substantially lower than the cost to retire and replace these units and stated that failure to approve will burden IPL customers with

unnecessary costs. With respect to the "other" environmental costs Mr. Adkins testified that IPL has taken a reasonable approach to address the expected cost of future EPA regulations in its life cycle analysis. He stated that because these EPA regulations are still somewhat speculative in nature, the Commission should consider these "other" environmental costs but they should be given little weight as they continue to be speculative and are not directly related to the relief sought in this proceeding.

H.J. Vander Veen, President of Energy Group, Inc. responded to Mr. Phillips' testimony regarding the allocation of the cost of qualified pollution control property to IPL's customer classes. Mr. Vander Veen testified that IPL agrees with Mr. Phillips that the cost should be allocated on the sum of the 12 CP, but disagreed that there have been significant changes in circumstances warranting a change in the class demand allocation factors. He also testified that it is not appropriate to allocate costs to individual rate schedules rather than to classes of service, the long approved historical methodology used by this Commission for IPL.

He testified that starting in Cause No. 32402 in 1971 and continuing thereafter, the Commission has approved the allocation of cost to the rate classes: Residential, Small C&I, Large C&I, Lighting and Wholesale. He stated that in the original establishment of Rider 20 (ECCRA) in 2002 and approved in Cause No. 42170, the Commission also approved the allocation of costs on the basis of rate classes, not rate schedules. He concluded that there is a very long history of consistent practice in the allocation of costs.

Mr. Vander Veen testified that while updating the HL demand can be done at a reasonable cost, this would not require a full class cost of service study. He stated that because the Large C&I class demands and energy continue to mirror the 1994 demand data there is no overriding need for change. Mr. Vander Veen testified that the Rate HL class is being treated fairly in that the approved methodology recognizes both the decline in outright usage as well as the decline in Rate HL usage within the Large C&I class.

Mr. Cutshaw responded to the ratemaking issues raised by the OUCC witnesses. He stated that the 18 year depreciation period proposed by IPL is consistent with IPL's current ECR filings and the governing statute. He testified that Mr. Blakley did not object to the net negative salvage and removal value reflected in the depreciation rate calculation. He stated that IPL understands that the OUCC prefers to spread depreciation expenses over a longer period of time which lengthens the cost recovery period and in doing so lessens the impact on customer rates. He testified that should the Commission agree with the OUCC that the depreciation expense for the MATS Compliance Project should be spread over a 20 year period, the Commission should find that IPL is authorized to utilize a depreciation rate of 5.50% determined using a 20 year life and reflecting a 10% net negative salvage and removal value (1 / 20 x 1.10). He stated that the Commission should further find that while the Parties are not precluded from taking any position regarding the remaining depreciable life of the Project in any future proceeding regarding depreciation rates, IPL will be permitted to fully recover any remaining undepreciated plant value associated with the Compliance Plan.

Mr. Cutshaw testified that Mr. Blakley's proposal regarding the deferral for post-in-service depreciation, AFUDC/carrying costs and O&M expense for the MATS Project is inconsistent with the governing regulatory framework and current practice. He stated that IPL's

proposal is consistent with current practice but presented an alternative procedure, and calculated the impact of the two alternatives on residential customer bills.

Mr. Cutshaw also responded to Mr. Blakley's proposal that ratepayers receive a reasonable credit in the ECCRA to reflect the revenue requirement embedded in basic rates for equipment being replaced or upgraded. Mr. Cutshaw testified that this issue was addressed in Cause No. 43403 by IPL agreeing to exclude demolition costs from the amount recoverable in the ECCRA. Mr. Cutshaw stated that to address Mr. Blakley's concern IPL excluded demolition costs from the MATS Compliance Project cost estimate.

Mr. Cutshaw explained from a regulatory accounting perspective how property retirements are reflected on the Company's books and how that treatment is recognized in the ratemaking process. He testified that he disagreed with Mr. Blakley's position that costs could be double counted, and stated that there is no potential for this to occur until after the new facilities are in-service. Mr. Cutshaw testified that should the Commission agree with the OUCC recommendation to reflect a reasonable credit in the ECCRA for the retirement, due to the ESP replacements and upgrades, of assets in-service at the time of the last rate case, IPL suggests it would be appropriate to adjust the ECCRA revenue requirement at the time of retirement for the same result as previously described for assets in the ECCRA which are replaced. He further explained that the ECCRA revenue requirement and resulting ECCRA rates would be reduced by the depreciation expense which will no longer be recorded for the retired assets which were in-service at the cut-off date in the last rate case. He concluded that the Commission should approve IPL's request to use the CCT timely cost recovery process adopted by the General Assembly for the environmental compliance projects.

**F. Overview of Settlement Agreement and Supporting Testimony.** The Settlement Agreement entered into by and among IPL, Industrial Group and the OUCC ("Settling Parties") is attached hereto and incorporated herein by reference. The Settlement Agreement is not unanimous, as the Joint Intervenor has not joined.

Mr. Crawford stated that Paragraphs 1 and 2 of the Settlement Agreement Terms and Conditions provide that the CPCN requested by IPL should be issued and the cost estimate is reasonable and should be approved. He stated that the approval of the cost estimate is without waiver of IPL's right to request Commission approval of costs in excess of the approved cost estimate through the ongoing review process. It is also without waiver of other parties' rights to challenge such a request. Mr. Crawford testified that he believes the proposed resolution of these matters is within the scope of the evidence presented by the parties on these issues.

Mr. Cutshaw testified that Paragraph 3 of the Terms and Conditions resolves the concerns raised in this docket regarding cost recovery, including timely cost recovery through the ECCRA, timing of rate cases, the return on equity utilized in determining the rate of return and the demand allocators/rate design issues. Mr. Cutshaw stated that Paragraph 3 sets forth the terms applicable to the Settling Parties' agreement that IPL can recover via the ECCRA the MATS Compliance Project depreciation expense and associated operations and maintenance including consumables, and a return component determined utilizing the methodology authorized in Cause No. 43403. Paragraph 3(a) provides that IPL will reflect a credit of $29 million to customers as a direct reduction to the ECR rate base, at increments of $5 million beginning with

the first three ECR filings reflecting the MATS Compliance Plan (anticipated to be ECR 22 filing expected to be filed in December 2013 through ECR 24 filing expected to be filed in December, 2014) and increasing to increments of $7 million in ECR 25 and 26 (ECR 25 is projected to be filed in June 2015). This credit will continue to be a reduction to IPL recoverable MATS Compliance Plan costs in the ECCRA until IPL receives a rate order in a basic rate case approving new basic rates and charges. Mr. Cutshaw testified that the actual capital costs will be reflected on IPL's books and records and such actual costs net of depreciation will be included in IPL's rate base in IPL's subsequent basic rate case filed after the in-service date of the Compliance Project; however, the non-IPL Parties shall retain all rights under Indiana law to make arguments and seek relief concerning post-in-service operating performance of the Compliance Project.

Mr. Cutshaw stated that in IPL's case-in-chief, consistent with Cause No. 43403, IPL proposed to determine the return component on the MATS Compliance Project costs based on a computation of the weighted cost of capital using a cost rate of book equity developed from IPL's last general rate case in compliance with the Commission's rules and current practice in the ECCRA. He stated that Mr. Phillips raised a concern that capital market costs today are lower than at the time of IPL's last rate case but he did not calculate a cost of equity for IPL or undertake an analysis of IPL's fair return or overall rates. Mr. Cutshaw stated that Mr. Blakley suggested that the ratemaking concerns be addressed by including a reasonable credit to ratepayers in the ECCRA to reflect the revenue requirements embedded in base rates for equipment being replaced or upgraded as a result of the MATS Compliance Plan.

Mr. Cutshaw testified that in the settlement process, IPL worked with the OUCC and Industrial Group to facilitate a better understanding of these issues, which in his view boil down to an effort to mitigate the impact on customer bills of environmental compliance. He stated that the Settling Parties agreed in Paragraph 3(a) to credit ECCRA rate base until IPL receives an order in a basic rate case. He stated the application of this credit to the ECCRA rate base is shown Settling Parties' Exhibit 2 and explained that while the rate base credit is not tied to any specific costs in the MATS Compliance Project, it is the reasonable result of compromise and is phased in roughly over the construction period. Mr. Cutshaw testified that this resolution and the related provisions also discussed in his settlement testimony provide a straightforward and readily verifiable means of balancing the cost recovery concerns with the Company's need for flexibility in the timing of its next rate case as explained in the rebuttal and settlement testimony of Mr. Crawford. He stated that this resolution also assures IPL's customers that their bills over the next several years will be lower than they otherwise would have been and it does so without the need for additional, potentially protracted and costly proceedings.

Mr. Cutshaw stated that Paragraph 3b provides that IPL will be authorized to utilize a depreciation rate of 5.50% determined utilizing a 20 year life and reflecting a 10% net negative salvage and removal value (1/20 x 1.10). Mr. Cutshaw stated that this provision clarifies that nothing in this Settlement Agreement shall preclude the Parties from taking any position regarding the remaining depreciable life of these Projects in any future proceeding regarding depreciation rates, provided that the Parties agree that IPL will be permitted to fully recover any remaining un-depreciated plant value associated with this Settlement Agreement; however, the non-IPL Parties shall retain all rights under Indiana law to make arguments and seek relief concerning post-in-service operating performance of the Compliance Project. Mr. Cutshaw stated

that the impact of this reduction in depreciation rate is a lower amount of depreciation expense and amortization of deferred depreciation in each ECR but noted that recoverable depreciation expense will still be calculated on the full amount of Utility Plant in Service for the MATS Compliance Project as the Settling Parties agreed in Paragraph 2 that the requested estimated cost of $511 million is reasonable and should be approved.

Mr. Cutshaw stated that Paragraph 3(c) is another provision included in the overall resolution of the concerns regarding cost recovery, return, and the timing of IPL's last and next rate case. He stated that this provision provides that to the extent the MATS Compliance Project requires the retirement of plant whose in-service date is on or before the cut-off dates in IPL's last rate case (Cause No. 39938), IPL will reflect a reduction of not less than $419,000 in the ECCRA on a going forward basis following its retirement for the depreciation expense which will no longer be recorded on its books and records. This reduction is based upon an alternative proposal identified in his rebuttal testimony and an initial estimate of the assets to be retired. Mr. Cutshaw noted that the same approach is taken with regard to facilities already reflected in the ECR rate base. More specifically, Paragraph 3(c) provides that to the extent the MATS Compliance Project requires the retirement of plant currently reflected in the ECCRA rate base, IPL will reflect a reduction of not less than $156,500 in the ECCRA on a going forward basis following its retirement for the depreciation expense which will no longer be recorded on its books and records. Mr. Cutshaw stated that this reduction is based upon the current procedure for assets in the ECCRA which are replaced and an initial estimate of the assets to be retired. He stated that by expanding an existing procedure to resolve the ratemaking concerns, the approach reflected in the Settlement Agreement should permit the implementation of the Agreement's terms in an efficient manner.

Mr. Cutshaw stated that Paragraph 3(d) provides that IPL will continue to record a regulatory asset for post in-service depreciation and O&M and IPL will reconcile any resulting variances in subsequent ECR filings, consistent with IPL's case-in-chief.

Mr. Cutshaw stated that Paragraph 3(e) provides that the procedures currently in place for AFUDC will continue to be utilized. Under this provision IPL will be authorized to accrue and recover AFUDC on the cost of the MATS Compliance Project calculated in accordance with the Commission's rules and the accrual of AFUDC will continue on any unrecovered value of a particular Project until ratemaking treatment for the value of the property is effective. He stated that this would include post-in-service AFUDC (carrying charges) on costs not yet recognized in the ECCRA from the in-service date until ratemaking treatment reflecting the value of that Property is effective. He testified that this provision is consistent with the approvals granted in Cause Nos. 42170, 42700, and 43403, and IPL's request in its case-in-chief.

Mr. Cutshaw stated that Paragraph 3(f) maintains the current procedures with regard to the Commission's CWIP rules. He stated that this provision states that IPL may add to the value of IPL's property for ratemaking purposes the value of the Projects in accordance with the Commission's CWIP ratemaking rules. Pursuant to 170 lAC 4-6-21, IPL will add the approved return to its net operating income authorized by the Commission for purposes of Ind. Code § 8-1-2-42(d)(3) in all subsequent fuel adjustment charge proceedings, pro-rated for the effective period of the approved rates.

He stated that Paragraph 3(g) of the Settlement Agreement resolves the OUCC concern by excluding the cost of changing the demisters for Petersburg Units 1 through 4 from the ECCRA. He stated that because the cost of the HSS-7 FGD and O&M are currently included in the ECCRA, the Settling Parties agreed that the cost of replacing the mist eliminators for HSS 7 will continue to be recovered though the ECCRA.

Mr. Cutshaw stated that Paragraph 3(h) creates a separate demand allocation factor for Rate HL from within the existing authorized Large C&I factor, using updated demand information. He stated that this is a reasonable and efficient approach that still reflects cost based rates for these customers, and reflects a just and reasonable compromise to the concern raised by the Industrial Group, IPL' s rebuttal, and the OUCC's position. He testified that there will not be a shift in revenue requirement amongst IPL's three classes of service, but there will be a shift in the responsibility within the Large C&I class. Under this provision, the Settling Parties agree that the currently utilized ECCRA demand allocation factor for the Large C&I rate class (42.70%) will be segregated into two components to reflect development of a separate Rate HL demand allocation factor. Mr. Cutshaw stated that although the instant case is limited to the MATS Compliance Project costs, the Settlement Agreement recognizes that it is administratively efficient to apply the new demand allocation factors to the entire ECRRA revenue requirement beginning with ECR 22 (the first filing anticipated to reflect MATS Compliance Project costs in the revenue requirement).

Mr. Crawford stated that Paragraph 4 addresses the MATS Compliance Project ongoing review and reporting. He said the Settling Parties agree to Commission approval of IPL's request for ongoing review. Consistent with IPL's commitment to be transparent and to facilitate ongoing review, the Settlement Agreement provides for ongoing reporting commencing with ECR 22, which is expected to be the first ECR filing that will reflect costs associated with the MATS Compliance Project. He stated his understanding is that ECR 22 is expected to be filed in December 2013. He explained that under the Settlement Agreement, and beginning with ECR 22, and following thereafter on a quarterly basis, IPL will provide the OUCC and other Parties to the ECR proceedings with summary information related to the MATS Compliance Project, including safety, scope, schedule, budget, Owner's cost contingency and cash flow information subject to the protection of any confidential information contained therein. Beginning with ECR 22, IPL will also provide such MATS compliance reports as workpapers to the IURC in the ECR proceeding(s), subject to the protection of any confidential information contained therein. He stated that a sample template for this detailed report was included with his rebuttal testimony

Mr. Crawford also testified concerning the "time is of the essence" language in the Settlement Agreement. He stated that IPL's direct and supplemental testimony explained that the associated construction schedule is necessary to install the proposed facilities within the timeframe allowed by the MATS rule. He testified that IPL is currently on schedule and under budget and noted that IPL Issued a Limited Notice to Proceed (LNTP) to the EPC contractor, IEP in January, 2013 to begin detailed engineering. He stated that when IPL was negotiating the EPC commercial terms in November 2011, IPL successfully included a small window of time between the LNTP and Full Notice to Proceed ('FNTP') to accommodate the unknown schedule requirements of the Commission and other Parties. He stated that the EPC Contract terms indicate IPL will provide a FNTP on approximately June 1, 2013, but no later than August 31, 2013 (at which time IEP can request a change order for price adjustment). Mr. Crawford testified

that it is also important to note that on average, IPL is spending in excess of $200,000 daily under the LNTP.

Mr. Crawford testified that while the Settling Parties disagree with Joint Intervenors that any Big Five Unit should be retired, the Settling Parties have not ignored them. Mr. Crawford testified that the Settlement Agreement reflects a well-balanced approach, and that the terms of the Settlement Agreement are reasonable and serve the public interest. Mr. Crawford stated that IPL believes its resources are and should remain focused on the near term challenges it faces. He stated that these efforts include the timely and cost effective compliance with the MATS Rule.

Mr. Blakley also provided a review of and support for the Settlement Agreement terms. He stated that the cost estimate for the MATS Compliance Project in this settlement is $511 million. He stated that this Settlement Agreement does not prevent IPL from petitioning the Commission in a later proceeding for approval of costs in excess of the amount approved here, nor does the settlement waive the right of any other party to challenge such request.

Mr. Blakley stated that IPL's MATS Compliance request in this Cause includes replacing certain pollution control investment that is included in IPL's current base rates. He stated that the expansion of Indiana statutes in the area of "clean energy" and "federally mandated costs" has made many new types of investment and costs eligible for automatic rate recovery in trackers. He testified that some of the new investment and costs requested for tracking may already be included in a utility's base rates. He testified that the Settling Parties agreed to apply a credit to the rate base in the ECR tracker. He explained that the credit will be phased into the ECR tracker; this will be achieved by netting a portion starting in ECR-22, until it reaches the credit's total value of approximately $29 million in ECR-26 (about the time the MATS Compliance Project will be complete). Thus, for the MATS Compliance Project, investment under construction will be reduced by increments of $5 million in ECR 22 through ECR 24, and by increments of $7 million in ECR-25 and 26. He stated that this will reduce the calculation of return on the MATS Compliance Project and will lower the overall revenue requirement. Mr. Blakley concluded that the OUCC believes that the Settlement Agreement is in the public interest, stating that by addressing the OUCC's concerns, the Settlement reduces the overall financial impact on ratepayers.

G. **Joint Intervenor Response to Settlement Agreement.** In his sur-rebuttal testimony, Dr. Fisher provided testimony regarding the Ventyx MIDAS Analysis, used by IPL to test the economic viability of retrofitting the Big Five. He stated that in the MIDAS Analysis, IPL ran scenarios in which the units were retrofitted with MATS and other environmental compliance equipment (the "retrofit scenarios"), and scenarios in which the units were replaced with equivalently sized natural gas combined cycle ("NGCC") units in 2017 (the "replacement scenarios"). He added that IPL indicated that the net benefit of the retrofit is the difference between these two scenarios. Dr. Fisher stated he believed IPL considered the MIDAS Analysis important but that IPL judged that it was unnecessary to present the analysis as part of its rebuttal case because this analysis confirmed the earlier conclusion.

Dr. Fisher testified that while the MIDAS Analysis includes a number of flaws and omissions that undermine its results, the modeling is far more comprehensive and provides a more viable platform for understanding, evaluating, and commenting upon the Company's

retrofit proposal than the initial analysis provided by Mr. Ayers or his own spreadsheet analysis. Dr. Fisher testified that broadly speaking the MIDAS Analysis is consistent with the economic modeling methodology that utilities typically use to attempt to justify major capital expenditures such as those at issue in this proceeding. Dr. Fisher recommended the Commission and parties use the MIDAS Analysis as the "model of record" – and not use the other analysis provided by Mr. Ayers, Dr. Fisher or Mr. Adkins. Dr. Fisher testified that the Settling Parties "were likely not aware of the MIDAS analysis," which was provided shortly before the Settlement was finalized.

Dr. Fisher testified concerning three errors and inconsistencies in the MIDAS Analysis that he stated are of a significant enough magnitudes to substantially diminish the Company's findings at Petersburg Units 1 and 2 and HSS 7: (1) the coal unit is not replaced at the end of its life: (2) Coal prices have been lowered from initial assumptions; and (3) Gas and market prices are inconsistent. Dr. Fisher stated that each of these problems biases the Company's estimated benefit of retaining the coal units incrementally. He stated that taken together, they indicate that even without consideration of carbon or other risks, three of the Company's coal units are only marginally economic even in the best of cases.

Dr. Fisher adjusted the MIDAS Analysis to account for these errors and inconsistencies and presented net benefit resulted favoring retirement of the three above referenced units. Dr. Fisher testified that with his adjustments to the MIDAS Analysis, the benefits for the units are significantly degraded.

Dr. Fisher testified that the MIDAS Analysis that used a $CO_2$ price forecast (the "moderate environmental scenario") showed that HSS 7 would be clearly non-economic and that Petersburg 1 and 2 are marginally non-economic. Dr. Fisher stated that his adjusted MIDAS Analysis indicates that four of the Big Five units are moderately to significantly non-economic in the face of what Dr. Fisher views as a fairly low price on $CO_2$ and the remaining unit, Petersburg 3, is reduced to only a moderate benefit of retrofit. Dr. Fisher testified that he had five other concerns that he did not have the opportunity to address: (1) Unmitigated carbon risk; (2) connected gas and carbon price; (3) influence of off-system sales; (4) high gas fixed O&M costs; and (5) no avoided maintenance costs. Dr. Fisher concluded that the benefits of the retrofits at Petersburg 1 and 2 are very small, and in the case of HSS 7, nearly non-existent. He recommended the Commission unconditionally deny CPCN for Petersburg Units 1 & 2, and HSS 7 and conditionally deny CPCN for Petersburg Units 3 & 4 until such time that the Company produces an evaluation of these two units in light of his three errors and five additional concerns.

**H. Surreply in Support of Settlement Agreement.** Mr. Adkins testified that in spite of Dr. Fisher's issues, retrofit still favors retire by a wide margin and explained that eight analyses presented in this case demonstrate this.

Mr. Adkins stated that the MIDAS Analysis discussed by Dr. Fisher was an analysis that IPL provided to Joint Intervenor and the other parties in discovery. Mr. Adkins stated that the MIDAS Analysis can be used, but did not support throwing away the previous analyses. He testified that the previous analyses and the subsequent detailed production cost model confirm his assertion that Mr. Ayers' original spreadsheet focused on the vital components of this decision: 1) cost of replacement capacity and energy; 2) capital cost of MATS and "Other" environmental retrofits; 3) annual costs of MATS and "Other" environmental retrofits; and 4)

life cycle costs of the Big Five Units including all forecast maintenance, capital and O&M. Mr. Adkins stated that all of these analyses, from the original spreadsheet evaluation to the detailed production cost analysis, demonstrate that the Big Five environmental retrofits provide a positive benefit to IPL customers. He stated that there is no need to delay this proceeding for further study because the vital component of this decision has not changed in the multitude of analyses already performed.

Mr. Adkins testified that Dr. Fisher misquoted Mr. Adkins' rebuttal testimony and confused the activities of performing production cost modeling and performing a full IRP analysis. Mr. Adkins testified that production cost modeling is a subset of Integrated Resource Planning. Mr. Adkins stated that Benefit/Cost analysis is basic to project decision analysis. He stated it represents a systematic process for calculating and comparing benefits and costs of a project. He stated that the Benefit/Cost analysis has two purposes 1) to determine if it is a sound investment/decision and 2) to provide a basis for comparing projects. He testified that it involves comparing the total expected cost of each option against the total expected benefits, to see whether the benefits outweigh the costs. Mr. Adkins stated that every single analysis that IPL has performed, as well as those analyses presented by Dr. Fisher, is a Benefit/Cost analysis. Mr. Adkins stated that he disagreed that the time frame involved in this case disadvantaged Dr. Fisher.

Mr. Adkins testified that Dr. Fisher's assertions regarding his first issue ("the coal unit is not replaced at the end of its life") were incorrect. Mr. Adkins stated that in the MIDAS Analysis the coal units are replaced at the end of their operating life with market purchases of capacity and energy, which is the proper assumption. With regard to Dr. Fisher's testimony that the units should be replaced by a new CCGT, Mr. Adkins testified that this end effect has an immaterial impact on the overall analysis. He stated that that the vital question is whether the dollars invested for environmental retrofit will yield a positive benefit to IPL customers, and Dr. Fisher's analysis confirms that it does. Mr. Adkins also stated that the benefit of the retrofit increases when Dr. Fisher's analysis is corrected to eliminate double counting and the correct capital recovery factor. Mr. Adkins testified that Dr. Fisher's proposed solution is not the least cost alternative. *Id.* at 11.

Mr. Adkins also testified that Dr. Fisher is mistaken in his claims regarding the IPL coal prices reflected in the MIDAS Analysis. *Id.* at 12. Mr. Adkins stated that IPL used a delivered price of coal to the specific plant. He testified that Dr. Fisher compares this delivered price to the Ventyx reference case coal forecast. Mr. Adkins stated that the Ventyx reference case coal forecast is for a generic coal unit added to the Indiana system and as such, the generic coal price forecast is based on an average delivery cost that covers all of Indiana. Mr. Adkins testified that the IPL coal forecasts are specific and represent the cost to deliver coal to specific locations. He stated that the IPL coal forecast is lower than the Ventyx reference case coal forecast because the IPL units have favorable location, transportation, and delivery conditions. He stated that the IPL coal-fired generators, especially Petersburg, enjoy a strategic geographic advantage of being very near Indiana coal mines that also have very competitive transportation alternatives. Mr. Adkins testified that Dr. Fisher's statement about price spikes ignores the rebuttal testimony of Mr. Leitze, who explained that the historical cost change reflects the expiration of two below market contracts and the replacement of those contracts with agreement at the market price for coal.

Mr. Adkins testified that the MIDAS Analysis was corrected in response to Dr. Fisher's third issue (mismatch between the gas and market price), but showed that Dr. Fisher is incorrect in his solution. Mr. Adkins testified that Dr. Fisher's cost escalation was flawed and Dr. Fisher failed to apply his correction to the retrofit case. While Mr. Adkins did not agree with Dr. Fisher's solution, Mr. Adkins testified that he corrected Dr. Fisher's analysis. Mr. Adkins also testified that his corrected MIDAS Analysis showed that Dr. Fisher's issue lowered the value of the benefit of retrofit by a very small amount. Mr. Adkins also testified that Dr. Fisher's criticism regarding the NCGG capacity factor produced immaterial changes in the outcome of the modeling.

Mr. Adkins testified that Dr. Fisher's suggestion that IPL's analysis ignored carbon costs and exposes customers to significant risks was incorrect. He stated that IPL modeled environmental scenarios. Mr. Adkins testified that the B/C ratio for the retrofit decision translates to a wide margin over the retirement decision and provides IPL with economic headroom to cost effectively meet the impact of the possibility of carbon costs as the future unfolds.

Mr. Adkins testified that the Ventyx carbon price used in the MIDAS Analysis reflects a holistic approach supported by fundamental macro econometric models that represent supply and demand decisions in the electric market, gas market, and emissions market as a result of potential Carbon policy, in contrast to the Synapse forecast. He stated that the Synapse forecasts are not forecasts and should instead be classified as scenarios that fit the Synapse view. He testified that the Synapse "Medium" and "High" forecasts depend on the development of new technologies and other speculative conditions.

Mr. Adkins testified there is some probability of potential Carbon legislation, but stated that no credible form of legislation exists. He stated that Dr. Fisher failed to present any new information supporting potential Carbon legislation; rather, he testified that Synapse attempted to justify its forecast based on outdated and irrelevant information. He stated that Dr. Fisher did not present any level of confidence in these Carbon prices, and testified that Synapse forecast is not based on viable legislation before Congress. Mr. Adkins stated that Dr. Fisher cast very long odds by suggesting that this Commission force the retirement of used and useful assets in anticipation of as yet undefined Carbon legislation. He testified that the retirement of IPL's Big Five units would have devastating consequences on IPL's customers.

Mr. Adkins testified that every analysis conducted to date demonstrates that IPL's customers are better off with retrofit than retire, and the margin is wide, 1.52. He stated that the investments to retrofit are comparatively modest when compared to the capital investment required to retire. He stated that consideration of the costs of future "Other" environmental compliance projects, which are not presently proposed, in addition to the assumption of a price for Carbon, starting at $17/ton commencing in 2021, causes the analysis to narrow. He stated that no legislation is under consideration that anyone reasonably believes could pass that would result in a cost of any sort, let alone a cost of that magnitude. He testified that a Carbon price at that level would amount to a 60% regressive tax on coal and would cause over $200 million per year in cost to IPL's customers. He testified that IPL stress tested its compliance plan using the more severe price-based GHG legislation scenario grounded in the 2009 Waxman Markey bill. He stated that this stress test did not include any additional allowances for load served by coal

generation. He explained that under this stress test, four of five of IPL's Big Five units passed or broke even versus this sensitivity – including the two units receiving the bulk of the Compliance Project's capital costs – the two baghouses on Petersburg Units 2 and 3. Only the fifth unit, HSS 7, under future carbon legislation and other environmental regulations has a B/C ratio below one. He stated that HSS 7 is projected to need only $54M in capital cost to comply with MATS, which he testified was a fairly small and reasonable cost for IPL to keep a productive 427MW coal fired unit economically serving its customers with little downside risk. He testified that while it is proper to model a Carbon future, it would be improper to retire a coal-fired unit based solely on a B/C ratio that narrows only on the assumption of a future Carbon price and other environmental requirements.

With respect to Dr. Fisher's concern about the gas-CO2 price connection in the analysis, Mr. Adkins testified that the correlation between gas prices and $CO_2$ costs is a consequence of increasing demand for natural gas as coal-fired electric generation is reduced due to $CO_2$ costs or taxes. He stated that Ventyx uses the Natural Gas Sub-Module to produce forecasts of monthly natural gas prices at individual pricing hubs. The Operations Component consists of a model of the aggregate U.S. and Canadian natural gas sector. He testified that the retirement or loss of available coal-fired generation applies upward pressure on natural gas prices. Mr. Adkins testified that four of the other models cited by Dr. Fisher agree with Venyx.

Mr. Adkins' testified that Dr. Fisher's analysis regarding off-systems sales was flawed because he removed the sales but failed to remove the production costs associated with those sales. Mr. Adkins stated that any future use of off-system sales margin sharing mechanisms will not have a material effect on the B/C ratios.

With respect to Dr. Fisher's concern regarding fixed O&M, Mr. Adkins testified that Dr. Fisher's claim confused fixed costs with variable costs. Mr. Adkins testified that Dr. Fisher's assertion that IPL should consider avoidable maintenance expenses prior to a unit's retirement is a red herring because all analyses demonstrate that retrofit is the economically best decision for IPL customers.

Mr. Adkins stated his concerns about the market impact of the retirement scenarios. He testified that the economic analysis retirement scenarios are all biased to the low side because the assumed external market conditions for gas and electric markets are unchanged. He stated that the problem with the retirement case is that the assumed market conditions for gas and electric markets include the Big Five as well as other assets that might be affected by MATS. He testified that if the retirement of IPL's Big Five, which are amongst the cleanest units, is necessary, then a great number of other coal units would also be retired. He stated that the assumptions for market conditions for gas and electric markets do not include the impact of retiring low cost coal and replacing those units with higher capital costs and higher operating costs.

He also testified that the forced retirement of 2,179 MW would raise concerns about reliability and such concerns would be further exacerbated with the forced retirement of other coal units. He stated that it is not clear that 2,179 MW of new CCGT could be constructed in time. He testified that it is not clear that the Indiana gas pipelines can accommodate this tremendous increase in gas demand. He stated that a CCGT operating at a 60 to 70% capacity factor will require almost 18,000,000,000 BTUs of fuel, which translates to almost

70,000,000,000 BTUs of additional gas demand. He testified that that gas demand is likely to substantially increase winter demand on the pipeline system. He stated it is possible that even if one were to construct the new CCGT's, one might still have reliability problems if the units are unable to receive sufficient fuel. He testified that the current transmission system is designed with the inclusion of the Big Five, and it is possible that severe transmission constraints could manifest with the replacement of the Big Five with new CCGTs, in different locations.

Mr. Adkins testified that the forced retirement of the Big Five would likely cause market prices and IPL's costs to increase dramatically. He testified that the current market forecast contains the 2,179 MW of existing coal assets, and swapping these low cost assets with higher cost CCGT generation would put upward pressure on the market energy prices and IPL's operating costs. He testified that the present gas forecast does not reflect the additional demand that gas generation will generate. However, Mr. Adkins testified that it is unnecessary to study these issues because the retrofit decision favors retirement by a wide margin. He testified it is simply sufficient to acknowledge that the true cost of retirement is likely to be much higher than what was presented in the MIDAS Analysis.

5. **Commission Discussion and Findings.** Petitioner originally requested relief under various statutes, which are within the sole jurisdiction of the Commission. With certain modifications to the original request, the Settlement Agreement recommends that the Commission make the findings necessary in order to approve the Settlement Agreement. We discuss each of the terms and conditions of the Settlement Agreement, and the requisite statutory review for the respective terms and conditions below.

At the outset, we note that settlements presented to the Commission are not ordinary contracts between private parties. *U.S. Gypsum, Inc. v. Ind. Gas Co.,* 735 N.E.2d 790, 803 (Ind. 2000). When the Commission approves a settlement, that settlement "loses its status as a strictly private contract and takes on a public interest gloss." *Id.* (quoting *Citizens Action Coalition v. PSI Energy,* 664 N.E.2d 401, 406 (Ind. Ct. App. 1996)). Thus, the Commission "may not accept a settlement merely because the private parties are satisfied; rather [the Commission] must consider whether the public interest will be served by accepting the settlement." *Citizens Action Coalition,* 664 N.E.2d at 406.

Furthermore, any Commission decision, ruling, or order - including the approval of a settlement - must be supported by specific findings of fact and sufficient evidence. *U.S. Gypsum,* 735 N.E.2d at 795 (citing *Citizens Action Coalition v. Pub. Serv. Co.,* 582 N.E.2d 330, 331 (Ind. 1991)). The Commission's own procedural rules require that settlements be supported by probative evidence. 170 IAC 1-1.1-17(d). Therefore, before the Commission can approve the Settlement Agreement, we must determine whether the evidence in this Cause sufficiently supports the relief requested and the conclusions that the Settlement Agreement is reasonable, just, and consistent with the purpose of Indiana Code ch. 8-1-2, and that such agreement serves the public interest. Furthermore, we must carefully consider a settlement that has been entered by representatives of all customer classes, including OUCC (that represents all ratepayers), even though there may be intervenors in opposition. *American Suburban Utils.,* Cause No. 41254, at 4-5 (IURC 4/14/99).

A. **Certificate of Public Convenience and Necessity and Determination of Eligibility for Financial Incentives.** Term A.1 of the Settlement Agreement provides that the Settling Parties agree that IPL should receive approval of a CPCN for the MATS Compliance Project, and approve timely cost recovery under IPL's ECR proceedings. IPL's Verified Petition set forth its request for relief under Ind. Code chs. 8-1-8.7 and 8-1-8.8.

Under Ind. Code § 8-1-8.7-4(b), in order to issue a CPCN, the Commission must make the following findings:

> (1) Public convenience and necessity will be served by the construction, implementation, and use of clean coal technology;
>
> (2) Approve the estimated costs;
>
> (3) The facility where the clean coal technology is employed:
>
> A. Utilizes and will continue to utilize Indiana coal as its primary fuel sources; or
>
> B. Is justified, because of economic considerations or governmental requirements, in utilizing non-Indiana coal; after the technology is in place; and
>
> (4) Make a finding on each of the factors described in Ind. Code § 8-1-8.7-3(b), including the dispatching priority of the facility to the utility.

Clean coal technology, under Chapter 8.7, is defined as:

> [A] technology (including precombustion treatment of coal): (1) that is used in a new or existing electric generating facility and directly or indirectly reduces airborne emissions of sulfur or nitrogen based pollutants associated with the combustion or use of coal; and (2) that either: (A) is not in general commercial use at the same or greater scale in new or existing facilities in the United States as of January 1, 1989; or (B) has been selected by the United States Department of Energy for funding under its Innovative Clean Coal Technology program and is finally approved for such funding on or after January 1, 1989.

Ind. Code § 8-1-8.7-1.

The MATS Compliance Project consists of several pollution-reduction technologies, some of which reduce sulfur-based pollutants, and some of which do not. Sorbent injection, FGD upgrades, and SBS upgrades proposed by IPL do reduce sulfur-based pollutants, but ACI, ESP upgrades, and the Pulse Air Fabric Filter Systems reduce mercury or particulate emissions. Clean coal technology under Ind. Code § 8-1-8.7-1 is limited technology that reduces only sulfur or nitrogen based pollutants. Further complicating the issue, IPL has treated the MATS Compliance Project as one combined solution for compliance with MATS, and under the EPC Contract, did not break out the individual components of the MATS Compliance Project. *See* IPL's March 13, 2013 Response to the Commission's March 8, 2013 Docket Entry ("As

explained in Mr. Crawford's supplemental direct testimony (at 6-7) the costs for which IPL is seeking approval are based on the single firm price, EPC (engineer, procure, construct) contract. The firm price contract is not itemized by unit or project. . . .") Thus, while it could have been possible to dissect the MATS Compliance Project into technology that could be subject to Chapter 8.7, and technology that is subject to other provisions under Title 8, the record before us does not provide that detail. Accordingly, we find that IPL has not met its burden of proof to allow the Commission to issue a CPCN under Ind. Code ch. 8-1-8.7 because the record does not delineate specific cost estimates related to CCT under Ind. Code ch. 8-1-8.7.

However, Petitioner also requested relief under Ind. Code ch. 8-1-8.8. Ind. Code ch. 8-1-8.8 differs significantly from Chapter 8.7 in that Chapter 8.8 does not involve the issuance of a CPCN. Instead, the Commission must determine whether Petitioner is an eligible business, whether the MATS Compliance Project is a "clean energy project," and whether the MATS Compliance Project is reasonable and necessary in order for IPL to receive financial incentives under Ind. Code § 8-1-8.8-11. While an eligible business may be entitled to financial incentives for clean energy projects, Ind. Code ch. 8-1-8.8 does not explicitly provide an eligible business the opportunity to update the Commission with the ongoing need of such projects or changes from the initial cost estimate, as provided in Chapter 8.7.

There is no dispute that Petitioner is a "public utility" within the meaning of Ind. Code § 8-1-2-1, a "utility" within the meaning of Ind. Code § 8-1-2-6.8, an "energy utility" within the meaning of Ind. Code §§ 8-1-2.5-2, and an "eligible business" within the meaning of Ind. Code § 8-1-8.8-6. There is also no dispute that the MATS Compliance Project constitutes a "clean energy project" under Ind. Code § 8-1-8.8-2(1)(B).[2] Mr. Sloat testified that the MATS Compliance Project technologies were not generally available in 1990, and no party provided evidence that the MATS Compliance Project technologies are not "advanced."

The main contention between IPL and Joint Intervenors relates to the final finding related to relief under Chapter 8.8, whether the MATS Compliance Project is "reasonable and necessary." While Chapter 8.8 does not set forth any specific factors the Commission should consider in determining the reasonableness and necessity of a clean energy project, the Commission has considered some factors outlined in Chapter 8.7 in other cases. *See Northern Indiana Public Service Co.*, Cause No. 44012 (Phase I Order), at 20 (IURC Dec. 28, 2011) (discussing effect of compliance project on operations and comparing cost of retirement); *see also Indiana Michigan Power Co.*, Cause No. 44182, at 53-54 (IURC July 17, 2013) (Chapter 8.7 factors relevant for LCM Project under Chapter 8.8).

Mr. Sloat's testimony indicated that the MATS Compliance Project technologies will reduce regulated air emissions from existing energy generating plants that are fueled primarily

[2] The provisions of the state environmental statutes providing favorable regulatory treatment to projects using Indiana or Illinois Basin coal have been held to be an unconstitutional interference with interstate commerce, but severable from the rest of the statutes which remain valid. *General Motors Corp.* v. *Indianapolis Power & Light Co.*, 654 N.E.2d 752, 763 (Ind. Ct. App. 1995); *Alliance For Clean Coal* v. *Bayh,* 72 F.3d 556 (7th Cir. 1995), *See also* S. *Ind Gas and Electric Co.,* Cause No. 41864, at 7 (Aug. 29, 2001); *N Ind Pub. Servo Co.,* Cause No. 42150, at 5 n.3 (Jan. 26, 2002); *Indianapolis Power and Light Co.,* Cause No. 42170, at 5 n.1 (Jan. 14, 2002). We will accordingly not rely upon such statutory provisions as a prerequisite for approval of a certificate of clean coal technology or clean energy projects, to obtain QPCP status or to receive any other authority.

by coal and will allow IPL to comply with MATS and continue to utilize its coal-fired generating assets. Absent the addition of the MATS Compliance Project, his testimony also indicated that IPL will be forced to retire the affected units. Accordingly, IPL and Joint Intervenors focused almost entirely on comparing the cost of retrofitting the Big Five to the costs of retiring the Big Five and the associated costs of replacing the generation capacity of the Big Five.

At the outset, we must note that IPL's initial presentation of its cost/benefit study through an overly simplistic analysis was disappointing. This choice represented a poor management decision and demonstrated a lack of due regard for the regulatory process. The proposed MATS Compliance Project is a substantial capital investment, and this Commission expects a petitioning utility to present the best evidence available at the outset of its case, in order to provide the Commission and other parties a reasonable opportunity to fully and fairly evaluate the company's proposal. Two other utilities had already presented production cost modeling similar to the MIDAS Analysis in support of their respective requests for compliance projects. *See Duke Energy*, Cause No. 44217 (IURC Apr. 30, 2013); *Northern Ind. Pub. Serv. Co.*, Cause No. 44012, Phase III Order (IURC, Sept. 5, 2012). Had IPL initially presented its MIDAS Analysis, along with additional modeled sensitivities, it seems likely that much of the initial criticism by Joint Intervenors could have been avoided. The "robust" margins, described by Mr. Ayers and shown in the spreadsheet analysis, were later demonstrated through the MIDAS Analysis to have been substantially eroded. This highlights our concerns with the initial analysis and suggests the lack of weight we should place on the spreadsheet analysis.

Further, in delaying the presentation of the MIDAS Analysis, IPL placed the parties and this Commission under unnecessary pressure to review the new data prior to the continued hearing, which in turn placed additional pressure on this Commission to timely issue an order in this proceeding. However, with that said, we agree that the MIDAS Analysis, at least for the zero carbon cost scenario, confirms the ultimate conclusion from the spreadsheet analysis, that retrofit is more economic than retirement on all affected units.

Shifting focus to the sensitivities, we acknowledge that the MIDAS Analysis indicates that retrofit of some units is not economical in several scenarios, including a moderate environmental scenario. However, it is important to note that the four Petersburg units should be considered together, as IPL stated that MATS compliance at Petersburg will be demonstrated through a "station compliance plan." In a cumulative setting, the MIDAS Analysis indicates net benefits of retrofitting Petersburg Units 3 and 4 total approximately $227 Million over thirty years under a moderate environmental scenario, compared to the approximately $60 Million net costs of retrofitting Petersburg Units 1 and 2, before allowances are considered. Thus, the retrofits for the Petersburg units, as a whole, support a finding of a net benefit to ratepayers.

With respect to HSS 7, the MIDAS Analysis indicates that while retrofit is economical when carbon is not considered, retrofit is not economical under a moderate environmental scenario using a carbon price of $17.37/ton starting in 2021, resulting in a cost of retrofitting through 2046 of $170.7 Million. Even with consideration of allowances, the MIDAS Analysis indicated a cost of retrofitting through 2046 of $105.5 Million. However, we should also note that the cost of retrofitting, based on the PVRR tables shown in Petitioner's Late Filed Exhibit 1 Confidential, indicated that a majority of that cost would be incurred after 2033.

We noted in our April 3, 2013 Order in *Duke Energy*, Cause No. 44217, at 33, "[t]he exact nature of carbon regulations and the date they might take effect is uncertain. Congress has not passed any definitive legislation requiring the limitation of carbon emissions. Further, while the EPA has proposed restrictions on carbon emissions from new power plants, any potential regulations concerning existing power plants [are] speculative in terms of both timing and result." This continues to be the case today. While cost benefit analysis provides useful information for this Commission to consider, it is not the only factor or the defining factor.

The record demonstrates that an environmental regulation-driven decision to retire the Big Five units has the potential to negatively affect ratepayers, through changes in reliability and increases in market prices. We also must view the risks stemming from speculation about future carbon costs against the finality of the decision that IPL and its customers face. The costs of compliance proposed in this Cause are approximately $511 Million to bring the five units into compliance with MATS. The estimated costs to retire these units may exceed $2 Billion.

If we focus on HSS 7 specifically, given the relatively small investment of $54 Million, approving a clean energy project for HSS 7 in order to allow it to continue operating past 2016 seems to present a relatively small risk, compared to the replacement cost of a new CCGT if HSS 7 were retired. IPL testimony suggests that the costs of any carbon regulation could be avoided in the future by simply ceasing operation of the unit, which is an important consideration. Further, any delay to carbon regulation beyond the 2020-2021 timeframe further benefits a decision to retrofit HSS 7. Ultimately, despite the potential for negative cost/benefit of HSS 7 under some of the analyzed scenarios and sensitivities, we find that approving clean energy projects for HSS 7 is reasonable and necessary for its continued operation when weighing the known and unknown future costs. In total, the MATS Compliance Project affords IPL and its customers the flexibility to address an uncertain future concerning carbon costs as well other environmental compliance requirements and marketplace developments.

We are not unmindful of the importance of a diverse resource portfolio but disagree with Joint Intervenor's suggestion that the Big Five capacity may reasonably and cost effectively be replaced by alternative resources, such as energy efficiency, renewables and market purchases. IPL indicated that it intends to provide electricity through an increasingly diverse portfolio. However, as Mr. Allen explained, while IPL's energy efficiency efforts are mitigating future load growth by encouraging and achieving significant savings by customers, it is not practical or prudent to assume that there are sufficient energy efficiency opportunities to offset the need for the continued electric production from the Big Five units. We are also concerned that MATS Compliance by utilities within the MISO footprint, as well as across the nation, will significantly change the purchase power market and may impact natural gas prices beyond 2016.

The record reflects that IPL intends to retire or repower its older coal facilities in response to the MATS Rule. Two of these units (HSS 5 and 6) produce the majority of emissions at the Harding Street facility. Mr. Crawford testified that following the construction and operation of the MATS Compliance Project, along with the retirements or repowering of the Small 12, IPL expects total fleet $SO_2$ emissions will be reduced a further 43% (over and above the significant reductions that occurred when scrubbers were installed on IPL's largest five units). Mercury emissions are expected to be reduced approximately 80%. Accordingly, while approval of the MATS Compliance Project may not yield the complete emissions reductions

sought by Joint Intervenors, the implementation of the MATS Compliance Project, coupled with the additional retirements and conversions of units to natural gas, will result in substantial reductions of $SO_2$, mercury, and HAPs.

Based on our review of the record evidence, we find that the MATS Compliance Project presents a MATS compliance option with a reasonable balance of costs, risks and policy based upon consideration of all the factors impacting the decision, including uncertainties about the future and those factors that are known at this time. Specifically, we find that the MATS Compliance Project is a commercially appropriate solution to allow IPL to: (1) comply with MATS; (2) provide the required amount of energy and capacity to its customers; and (3) mitigate various risks.

Accordingly, we find that substantial evidence demonstrates that IPL's proposed MATS Compliance Project is reasonable and necessary under Ind. Code § 8-1-8.8-11. As part of our reasonable and necessary finding under Chapter 8.8, we limit our approval of these clean energy projects to IPL's proposed cost estimate of $511 Million. Finally, in addition to addressing financial incentives, we discuss an additional modification to the Settlement Agreement below with respect to depreciation expense related to Harding Street 7, and we include that modification as a reasonable and necessary condition for our approval under Chapter 8.8.

**B. Cost Estimate.** Term A.2 of the Settlement Agreement provides that the Settling Parties stipulated that the $511 Million cost estimate is reasonable and should be approved subject to "IPL's right to request Commission approval of costs in excess of the approved cost estimate through the ongoing review process or other proceeding . . ." and subject to rights of any other party to challenge that request.

As we noted above, Chapter 8.8, unlike Chapter 8.7, has no explicit provision for updating the initial cost estimate through the ongoing review process, or for approval of a cost estimate. However, as previously discussed, we have linked our finding that the MATS Compliance Project is reasonable and necessary to the $511 Million cost estimate. *See Northern Indiana Public Service Co.*, Cause No. 44012, Phase III Order at 26-27 (IURC Sept. 5, 2012) (linking cost estimate to grant of CPCN under Chapter 8.7). Under Chapter 8.8, our ongoing review is limited to that necessary to provide timely recovery of costs and expenses approved under Section 11.

The $511 Million cost estimate can be described in essentially two parts. The first part is described within the fixed price EPC Contract, which makes up approximately 83 percent of the $511 Million estimate. The second part consists of the remaining 17 percent of the $511 Million estimate, which is IPL's direct responsibility, and includes a 5 percent contingency. No party disputed the actual costs proposed, and we note that IPL has stated that the $511 Million estimate has a ± 2 percent accuracy.

The evidence presented sufficiently describes the costs associated with the MATS Compliance Project and demonstrates that the components of the MATS Compliance Project offer substantial potential to cost effectively reduce pollutants in a more efficient and risk-averse manner than alternative methods of complying with the MATS rule. Based on our review of the record evidence, we find that IPL's cost estimate for the MATS Compliance Project is

reasonable and should be an integral component of our reasonable and necessary finding. To the extent the MATS Compliance Project costs exceed this amount, these increased costs and incremental AFUDC associated with project costs above $511 Million are not approved at this time and would need to be addressed in a separate docketed proceeding.

C. **Ratemaking Treatment and Depreciation.** Term A.3 of the Settlement Agreement provides that subject to subsections (a) through (h), IPL would recover depreciation, O&M expense, and a return component as set forth in Cause No. 43403 under its ECCRA. IPL has requested ratemaking treatment for CCT and QPCP and under several Indiana statutes, including Ind. Code § 8-1-2-6.8 and Ind. Code § 8-1-8.8-11.

Under Section 6.8, "clean coal technology" is defined as:

> a technology (including precombustion treatment of coal): (1) that is used in a new or existing energy generating facility and directly or indirectly reduces airborne emissions of sulfur, mercury, or nitrogen oxides or other regulated air emissions associated with the combustion or use of coal; and (2) that either: (A) was not in general commercial use at the same or greater scale in new or existing facilities in the United States at the time of enactment of the federal Clean Air Act Amendments of 1990 (P.L.101-549); or (B) has been selected by the United States Department of Energy for funding under its Innovative Clean Coal Technology program and is finally approved for such funding on or after the date of enactment of the federal Clean Air Act Amendments of 1990 (P.L.101-549).

Ind. Code § 8-1-2-6.8(b).

Ind. Code § 8-1-2-6.8 also defines QPCP as "an air pollution control device on a coal burning energy generating facility or any equipment that constitutes clean coal technology that has been approved for use by the commission and that meets applicable state or federal requirements." Ind. Code § 8-1-2-6.8(c).

We find that the MATS Compliance Project meets the definition of CCT and QPCP under Section 6.8 by reducing regulated pollutants under MATS. As previously noted, the MATS Compliance Project is also a clean energy project, and thus, eligible for timely recovery of cost and expenses under Ind. Code § 8-1-8.8-11.

With respect to the additional conditions under Term A.3, we address certain Term A.3 subsections below:

1. **ECR Rate Base Credit.** Term A.3(a) states that IPL will reflect a credit, ultimately totaling $29 Million, through its ECR proceedings, subject to a reservation of rights by other parties to seek relief concerning post-in-service operating performance of the MATS Compliance Project.

We note that the basis for the credit was, in part, a concern by the OUCC and Industrial Group that the 12.1 percent ROE used by IPL no longer reflects current capital costs. We agree with that concern. Each of Indiana's four other investor-owned electric utilities have undergone base rate cases since IPL's rate case in Cause No. 39938. Our February 13, 2013 Order in Cause

No. 44075 represents our most recent rate decision, in which the Commission determined that 10.2 percent represented an appropriate ROE for Indiana Michigan Power. On average, Indiana's investor-owned electric utilities, excluding IPL, have a Commission-approved equity return of 10.325 percent.

As we noted in our August 25, 2010 Order in Cause No. 43526, a utility's "operational and financial performance were appropriate considerations in determining a utility's cost of equity." *Northern Ind. Pub. Serv. Co.*, Cause No. 43526, at 32 (Aug. 25, 2010). In Cause No. 43526, we stated that the "Commission has a unique role in regulating its jurisdictional utilities, which at times requires us to send a clear and direct message to utility management concerning the need for improvement in the provision of its utility service. Our determination of the authorized cost of common equity capital can be a very direct means to incent improved service." *Id.*

As discussed above, IPL's presentation of its case in this proceeding fell below our expectations given the size of the proposed capital investment, the timeframe in which this Commission was provided to make a decision, and the contested nature of the proceeding that should have been anticipated prior to filing this Cause. The initial decision to not present production cost modeling was the main driver for this misstep. While we recognize that this case is not a base rate proceeding, it does provide us an appropriate opportunity to send a direct message to IPL management concerning how this proceeding should have been conducted, which we hope ultimately results in an improved record in future docketed cases. Ultimately, this Commission has a responsibility to insure that the regulatory process involves the presentation of the best evidence possible, given the facts and circumstances of a particular case. Merely chastising IPL in this Order would not, in our opinion, have a lasting impact on insuring the quality of the support in the regulatory process. Instead, this Commission should provide feedback to a utility in a manner that provides an incentive for improving quality, while moving the regulatory process forward. This is especially true given that the Commission has ultimately found that IPL's proposed retrofit of the Big Five is reasonable and necessary and in the best interests of its ratepayers.

Under IPL's original proposal, which utilized 12.1 percent for its cost of equity, the annual revenue requirement for the capital investment for IPL in ECR 27 would be $53,771,000.[3] With the ECR Rate Base Credit, the revenue requirement in ECR 27 would be reduced by approximately $2,991,000 to $50,780,000.[4] Based on Settling Parties' Exhibit 2 and modifying its identified inputs (*see* Line 35, page 1 of 2), the result of the full implementation of the Rate Base Credit appears to be roughly equivalent to utilizing 10.9 percent for the cost of equity. While the ECR Rate Base Credit may serve as a reasonable mechanism for reducing the overall return on the MATS Compliance Plan, we find that to approve the Settlement Agreement, the ECR Base Rate Credit must be increased in order to directly express our concerns about the quality of IPL's initial case presentation discussed above. However, we must also be cognizant of the effect that modifications to the Settlement Agreement may have on IPL's acceptance of those modifications, especially in light of the efforts of the Industrial Group and the OUCC, the statutory representative for all ratepayers, to reach a settlement in the first place. We recognize

[3] Petitioner's Exhibit JLC-R3, line 36.
[4] Settling Parties' Exhibit 2, line 38.

that the ECR Rate Base Credit is only one element of the Settlement Agreement, which has several other credits that further reduce the ECR revenue requirement, as well as additional conditions negotiated by the Settling Parties.

Accordingly, we find that the ECR Rate Base Credit shall be increased by $10 Million, for a total of $39 Million. The additional $10 Million shall be applied in similar proportion to the proposed ECR Rate Base Credit. We believe that $10 Million is material and sends an appropriate message to IPL. We further note that our determination in this case should not be construed as an implicit finding as to an appropriate return on equity that this Commission would make in a general rate proceeding.

2. **Depreciation Expense Reduction.** Term A.3(c) describes two credits related to retirement of plant currently reflected in either IPL's base rates or its current ECCRA rate base. As discussed above, as a condition of our finding of reasonableness and necessity of the clean energy projects that comprise the MATS Compliance project, we find that a third depreciation expense item must be included for Commission approval.

We have previously discussed the economic risks related to HSS 7 should carbon regulation come to fruition. HSS 7 is also at economic risk if other environmental regulations ultimately result in higher costs than currently anticipated. IPL has indicated, and we agree, that this risk can be mitigated by removing HSS 7 from service if future costs make running that unit uneconomic. However, in the event HSS 7 is taken out of service, we find that IPL should not continue to collect depreciation expense for the HSS 7 clean energy projects that are included in the MATS Compliance Project and approved in this Order. IPL shall effectuate this directive by establishing a credit to customer rates from the date the unit is no longer used and useful should this date occur before the affected clean energy projects are fully depreciated. While we find that the $54 million allocated cost of the MATS Compliance Project represents a reasonable risk for ratepayers to take in order for IPL to keep HSS 7 in service past the MATS compliance date, IPL must also bear some risk associated with its cost avoidance strategy.

3. **Other Ratemaking Conditions.** Terms A.3(d) through (f) discuss additional stipulations related to ratemaking for the MATS Compliance Project. Ind. Code § 8-1-8.8-11 provides the Commission authority to approve financial incentives to encourage clean energy projects, and we find that the proposed ratemaking treatment provides for timely recovery of costs and expenses.

We note, however, that Term A.3(f) refers to the Commission's QPCP rule, 170 IAC 4-6. As noted in our CPCN discussion above, the MATS Compliance Project is not strictly CCT under 170 IAC 4-6 because it includes technology that does not reduce sulfur or nitrogen-based pollutants. IPL did not provide sufficient evidence that would allow the Commission to separate out the different technology for disparate treatment under Chapter 8.7, Chapter 8.8, or 170 IAC 4-6, which is why we have addressed the entire project under Chapter 8.8. As such, we find that pursuant to our authority under Ind. Code § 8-1-8.8-11(a)(5), IPL may add the approved return to its net operating income pursuant to Ind. Code § 8-1-2-42(d)(3) in subsequent fuel adjustment charge proceedings.

4. **Ongoing review.** Term A.4 describes the stipulation relating to ongoing review of the MATS Compliance Project. While Chapter 8.8 does not contain an explicit provision for ongoing review, we find that ongoing review described in Term A.4 is reasonable in order for IPL to obtain timely recovery of costs and expenses pursuant to Ind. Code § 8-1-8.8-11. However, as noted above, our approval in this Order provides for ongoing review limited to approving costs and expenses up to the approved cost estimate.

**D. Conclusion.** Having considered the evidence in this Cause, we find that the MATS Compliance Project is reasonable and necessary as set forth above. We further find and conclude that the Settlement Agreement, as modified, provides terms regarding accounting, accelerated depreciation, and ratemaking that are consistent with Commission practice and provide reasonable and cost effective means of addressing and resolving the OUCC and IG concerns while recognizing IPL's operational needs.

The resolution of the pending matters set forth in the Settlement Agreement and herein is within the scope of the evidence presented by the parties, and is consistent with the applicable legal framework that has been established by statute. The record establishes that the Settlement Agreement was the result of significant negotiations, with the Parties considering various options and evaluating the issues. Given the issues raised in the prefiled testimony, it is likely that continuing litigation would be costly and time consuming. Our decision to approve a modified settlement reduces the likelihood of potentially protracted litigation and permits a more efficient process. There is evidence that customers will benefit if this matter is resolved by issuance of a final order within a time frame that will preserve the EPC Contract Firm Price, and we have done so. Because our decision to approve a modified settlement maintains and expands existing procedure to resolve the ratemaking concerns, the approach reflected herein resolves the disputed issues in an efficient manner, and represents a just and reasonable compromise of those issues.

In conclusion, the record shows and we find that Settlement Agreement, as modified, presents a balanced and comprehensive resolution of the issues in this case. Our decision permits the Company to move forward with a MATS Compliance Plan. Approval of the MATS Compliance Project, as modified by the Settlement Agreement and this Order, will allow IPL's Big Five Units to continue to serve customer needs in a manner that mitigates the risk and rate impact on those customers. Therefore, the Commission finds that the Settlement Agreement, as modified herein, is reasonable and in the public interest and should be approved. A copy of the Settlement Agreement is attached to this Order and incorporated herein by reference. With regard to future citation of this Order, we find that our approval herein should be construed in a manner consistent with our finding in *Richmond Power & Light*, Cause No. 40434, 1997 Ind. PUC LEXIS 459 (IURC March 19, 1997).

**E. Confidentiality Findings.** IPL filed motions for Protection and Nondisclosure of Confidential and Proprietary Information on September 26, 2012, January 7, 2013, February 6, 2013, and April 12, 2013, all of which were supported by affidavits showing documents to be submitted to the Commission were trade secret information within the scope of Ind. Code §§ 5-14-3-4(a)(4) and (9) and Ind. Code § 24-2-3-2. The Presiding Officers issued Docket Entries on October 16, 2012, January 10, 2013, February 12, 2013, and April 15, 2013, respectively, finding such information to be preliminarily confidential, after which such information was submitted under seal. There was no disagreement among the parties as to the

confidential and proprietary nature of the information submitted under seal in this proceeding. We find all such information is confidential pursuant to Ind. Code § 5-14-3-4 and Ind. Code § 24-2-3-2, is exempt from public access and disclosure by Indiana law and shall be held confidential and protected from public access and disclosure by the Commission.

**IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION THAT:**

1. The Settlement Agreement shall be and hereby is approved as modified.

2. The cost estimate provided by IPL in this Cause for the Compliance Project ($510,983,000) shall be and hereby is approved.

3. The Compliance Project shall be and hereby is determined to constitute "qualified pollution control property" and is eligible for the ratemaking treatment described in Ind. Code § 8-1-2-6.8 and provided in the Settlement Agreement and this Order.

4. The Compliance Project shall be and hereby is determined to constitute a "clean energy project" under Ind. Code §8-1-8.8 and is therefore eligible pursuant to Ind. Code § 8-1-8.8-11(a)(1) for timely recovery of costs and expenses through IPL Standard Contract Rider No. 20 – Environmental Cost Recovery Adjustment ("ECCRA") in six month intervals in accordance with the Settlement Agreement and this Order.

5. IPL shall be and hereby is authorized to add to the value of IPL's property for ratemaking purposes the value of the Compliance Project in accordance with the Commission's construction work in progress ratemaking rules and the Settlement Agreement. In accordance with the Settlement Agreement and this Order, IPL shall add the approved return to its net operating income authorized by the Commission for purposes of Ind. Code § 8-1-2-42(d)(3) in all subsequent fuel adjustment charge proceedings.

6. Subject to the ECR Rate Base Credit and Depreciation Expense Reduction set forth in the Settlement Agreement and as modified in this Order, IPL shall be and hereby is authorized to recover through the ECCRA its costs during construction and operation of the Compliance Project, with such costs to include the depreciation expense and associated operations and maintenance expenses, and a return component determined utilizing the methodology authorized in Cause No. 43403.

7. In accordance with the Settlement Agreement, IPL shall be and hereby is authorized to utilize a depreciation rate of 5.50% determined utilizing a 20-year life and reflecting a 10% negative net salvage value for the Compliance Project.

8. In accordance with current ECCRA procedures and the Settlement Agreement, IPL shall be and hereby is authorized to defer and record as a regulatory asset post in-service depreciation and operations and maintenance expense associated with the Compliance Project, with any resulting variances reconciled in subsequent ECR filings.

9. In accordance with the Settlement Agreement, IPL shall be and hereby is authorized to accrue and recover AFUDC on the cost of the Compliance Project, and the accrual

of AFUDC shall continue on any unrecovered value of a particular Project until ratemaking treatment for the value of the property is effective, including post-in-service AFUDC on costs not yet recognized in the ECCRA from the in-service date until ratemaking treatment reflecting the value of that Property is effective.

10. IPL shall comply with the ongoing reporting requirements set forth in the Settlement Agreement.

11. Commencing with ECR 22, the currently utilized ECCRA demand allocation for the Large C&I rate class will be segregated into two components as set forth in the Settlement Agreement.

12. The information filed in this Cause pursuant to motion for protective order is deemed confidential pursuant to Ind. Code § 5-14-3-4 and Ind. Code 24-2-3-2, is exempt from public access and disclosure by Indiana law, and shall be held confidential and protected from public access and disclosure by the Commission.

13. This Order shall be effective on and after the date of its approval.

**ATTERHOLT, LANDIS AND ZIEGNER CONCUR; BENNETT AND MAYS ABSENT:**

**APPROVED:** AUG 14 2013

**I hereby certify that the above is a true and correct copy of the Order as approved.**

Brenda A. Howe

**Brenda A. Howe**
**Secretary to the Commission**

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

| | |
|---|---|
| VERIFIED PETITION OF INDIANAPOLIS POWER & LIGHT COMPANY ("IPL"), AN INDIANA CORPORATION, FOR APPROVAL OF CLEAN ENERGY PROJECTS AND QUALIFIED POLLUTION CONTROL PROPERTY AND FOR ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR CONSTRUCTION AND USE OF CLEAN COAL TECHNOLOGY; FOR ONGOING REVIEW; FOR APPROVAL OF THE TIMELY RECOVERY OF COSTS INCURRED DURING CONSTRUCTION AND OPERATION OF SUCH PROJECTS THROUGH IPL'S ENVIRONMENTAL COMPLIANCE COST RECOVERY ADJUSTMENT ("ECCRA"); FOR APPROVAL OF DEPRECIATION PROPOSAL FOR SUCH PROJECT; FOR THE USE OF CONSTRUCTION WORK IN PROGRESS RATEMAKING; AND FOR AUTHORITY TO DEFER COSTS INCURRED DURING CONSTRUCTION AND OPERATION, INCLUDING CARRYING COSTS, DEPRECIATION, AND OPERATION AND MAINTENANCE COSTS, UNTIL SUCH COSTS ARE REFLECTED FOR RATEMAKING PURPOSES, ALL PURSUANT TO IND. CODE §§ 8-1-2-6.1, 8-1-2-6.7, 8-1-2-6.8, 8-1-2-42(a), 8-1-8.4, 8-1-8.7, 8-1-8.8 AND 170 IAC 4-6-1 ET SEQ. | CAUSE NO. 44242 |

## STIPULATION AND SETTLEMENT AGREEMENT

Indianapolis Power & Light Company ("IPL" or "Company"), Intervenor Industrial Group ("Industrials"), and the Indiana Office of Utility Consumer Counselor ("OUCC"), (collectively the "Parties" and individually "Party") solely for purposes of compromise and settlement and having been duly advised by their respective staff, experts and counsel, stipulate and agree that the terms and conditions set forth below represent a fair, just and reasonable

resolution of all matters pending before the Commission in this Cause, subject to their incorporation by the Indiana Utility Regulatory Commission ("Commission") into a final, non-appealable order ("Final Order") without modification or further condition that may be unacceptable to any Party. If the Commission does not approve this Stipulation and Settlement Agreement ("Settlement Agreement"), in its entirety, the entire Settlement Agreement shall be null and void and deemed withdrawn, unless otherwise agreed to in writing by the Parties.

## A. TERMS AND CONDITIONS

1. CPCN. The Parties stipulate and agree to Commission approval of IPL's request for approval of clean coal and energy projects and qualified pollution control property and to issuance of a certificate of public convenience and necessity for the construction and use of these facilities as described in IPL's prefiled direct and supplemental testimony and exhibits (hereinafter referred to as the "MATS Compliance Project") and to timely cost recovery through IPL Standard Contract Rider No. 20 -- Environmental Cost Recovery Adjustment ("ECCRA") in six month intervals subject to the terms set forth below.

2. Cost Estimate. The Parties stipulate and agree that an estimated cost for the Compliance Project in the amount of $511 Million is reasonable and should be approved. This Agreement is without waiver of IPL's right to request Commission approval of costs in excess of the approved cost estimate through the ongoing review process or other proceeding and it is without waiver of the OUCC's and Industrial Group's right (and right of any other party to an ongoing review proceeding) to challenge such a request.

3. Resolution of OUCC and Industrial Group Concerns Regarding Cost Recovery, Including Timely Cost Recovery through ECCRA, Timing of Rate Case, the Return on Equity utilized in determining the rate of return and Demand Allocators/Rate Design. Subject to the terms set forth below, the Parties stipulate and agree that IPL can recover via the ECCRA the depreciation expense and associated operations and maintenance expenses, including consumables, and a return component determined utilizing the methodology authorized in Cause No. 43403:

a. ECR Rate Base Credit. IPL will reflect a credit of $29 million to customers as a direct reduction to the ECR rate base, at increments of $5 million beginning with the first three ECR filings reflecting the MATS Compliance Plan (anticipated to be ECR 22 filing expected to be filed in December 2013 through ECR 24 filing expected to be filed in December 2014) and increasing to increments of $7 million in ECR 25 and 26 (ECR 25 is projected to be filed in June 2015). This credit will continue to be a reduction to IPL recoverable MATS Compliance Plan costs in the ECCRA until IPL receives a rate order in a basic rate case approving new basic rates and charges. The actual capital costs will be reflected on IPL's books and records and such actual costs net of depreciation will be included in IPL's rate base in IPL's subsequent basic rate case filed after the in-service

date of the Compliance Project; however, the non-IPL Parties shall retain all rights under Indiana law to make arguments and seek relief concerning post-in-service operating performance of the Compliance Project.

b. Depreciation Period. The Parties stipulate and agree that IPL will be authorized to utilize a depreciation rate of 5.50% determined utilizing a 20 year life and reflecting a 10% net negative salvage and removal value (1 / 20 x 1.10). Nothing in this Settlement Agreement shall preclude the Parties from taking any position regarding the remaining depreciable life of these Projects in any future proceeding regarding depreciation rates, provided that the Parties agree that IPL will be permitted to fully recover any remaining un-depreciated plant value associated with this Settlement Agreement; however, the non-IPL Parties shall retain all rights under Indiana law to make arguments and seek relief concerning post-in-service operating performance of the Compliance Project.

c. Depreciation Expense Reduction.

i. to the extent the MATS Compliance Project requires the retirement of plant whose in-service date is on or before the cut-off dates in IPL's last rate case (Cause No. 39938), IPL will reflect a reduction of not less than $419,000 in the ECCRA on a going forward basis following its retirement for the depreciation expense which will no longer be recorded on its books and records.

ii. to the extent the MATS Compliance Project requires the retirement of plant currently reflected in the ECCRA rate base, IPL will reflect a reduction of not less than $156,500 in the ECCRA on a going forward basis following its retirement for the depreciation expense which will no longer be recorded on its books and records.

d. Record as a regulatory asset the post-in-service depreciation and O&M expense. In accordance with current ECCRA procedures, the Parties stipulate and agree that IPL will continue to record a regulatory asset for post in-service depreciation and O&M. IPL will reconcile any resulting variances in subsequent ECR filings.

e. AFUDC. The Parties stipulate and agree that IPL will be authorized to accrue and recover AFUDC on the cost of the MATS Compliance Project calculated in accordance with the rules of the Indiana Utility Regulatory Commission and the accrual of AFUDC will continue on any unrecovered value of a particular Project until ratemaking treatment for the value of the property is effective. This would include post-in-service AFUDC (carrying charges) on costs not yet recognized in the ECCRA from the in-service date until ratemaking treatment reflecting the value of that Property is effective and is consistent with the approvals granted in Cause Nos. 42170, 42700, and 43403.

f. CWIP Ratemaking Rules. The Parties stipulate and agree that IPL may add to the value of IPL's property for ratemaking purposes the value of the Projects in accordance with the Commission's CWIP ratemaking rules. Pursuant to 170 IAC 4-6-21, IPL will add the approved return to its net operating income authorized by the Commission for purposes of Ind. Code §§ 8-1-2-42(d)(3) in all subsequent fuel adjustment charge

proceedings, pro-rated for the effective period of the approved rates.

g. Demisters. IPL agrees to exclude the cost of changing the demisters for Petersburg Units 1-4 from the ECCRA. For Harding Street 7, the cost of replacing the mist eliminators will continue to be recovered through the ECCRA mechanism. The cost of the HSS-7 scrubber and O&M are currently included in the ECCRA.

h. Development of a Rate HL Demand Allocation Factor From Within Large Commercial and Industrial ("C&I") Rate Class. The Parties stipulate and agree that the currently utilized ECCRA demand allocation factor for the Large C&I rate class will be segregated into two components to reflect development of a separate Rate HL demand allocation factor as follows:

| MW 12 CP Demands | 12 Months Ended March'12 | % of Total | Demand Allocation Factors |
|---|---|---|---|
| Rate HL | 2,963 | 24.77% | 10.58% |
| Remainder of Large C&I rate class | 8,998 | 75.23% | 32.12% |
| Large C&I rate class (per Petitioner's Exhibit HJV-R2) | 11,961 | 100.00% | 42.70% |

These demand allocation factors will be applied to the entire ECRRA revenue requirement beginning with the ECR-22 (the first filing anticipated to reflect MATS Compliance Project costs in the revenue requirement).

4. MATS Compliance Project Ongoing Review and Reporting. The Parties stipulate and agree that IPL's request for ongoing review of its construction of the MATS Compliance Project shall be approved. Beginning with ECR 22, and following thereafter on a quarterly basis, IPL will provide the OUCC and other Parties to the ECR proceedings with summary information related to the MATS Compliance Project, including safety, scope, schedule, budget, Owner's cost contingency and cash flow information subject to the protection of any confidential information contained therein. Beginning with ECR 22, IPL will also provide such MATS compliance reports as workpapers to the IURC in the ECR proceeding(s), subject to the protection of any confidential information contained therein.

5. Time is of the essence. The Parties stipulate and agree that terms agreed to in this Settlement Agreement serve the public interest. The Parties recognize the benefit to be obtained through the timely issuance of a Commission order approving this Settlement Agreement without change unacceptable to any Party. In particular, the issuance of a Final Order by May 31, 2013 will permit IPL to issue a Notice to Proceed within the time frame that will preserve the attractive EPC Contract Firm Price. This benefits customers and is a valuable consideration. Any settlement should recognize and support the need for timely Commission approval.

## B. PRESENTATION OF THE SETTLEMENT TO THE COMMISSION

1. The Parties shall support this Settlement Agreement before the Commission and request that the Commission expeditiously accept and approve the Settlement Agreement. The concurrence of the Parties with the terms of this Settlement Agreement is expressly predicated upon the Commission's approval of the Settlement Agreement in its entirety without any modification or any condition that may be unacceptable by any Party. If the Commission does not approve the Settlement Agreement in its entirety and without change, the Settlement Agreement shall be null and void and deemed withdrawn, upon notice in writing by any Settling Party within fifteen (15) business days after the date of the Final Order that any modifications made by the Commission are unacceptable to it.

2. The Parties shall jointly move for leave to file this Settlement Agreement and supporting evidence. Such evidence together with the evidence previously prefiled by the Parties in this Cause will be offered into evidence without objection and the Parties hereby waive cross-examination. The Parties propose to submit this Settlement Agreement and evidence conditionally, and that, if the Commission fails to approve this Settlement Agreement in its entirety without any change or with condition(s) unacceptable to any Party, the Settlement and supporting evidence shall be withdrawn and the Commission will continue to hear Cause No. 44242 with the proceedings resuming at the point they were suspended by the filing of this Settlement Agreement.

3. A Final Order approving this Settlement Agreement shall be effective immediately, and the agreements contained herein shall be unconditional, effective and binding on all Parties as an Order of the Commission.

4. The Parties shall jointly agree on the form, wording and timing of public/media announcement (if any) of this Settlement Agreement and the terms thereof. No Party will release any information to the public or media prior to the aforementioned announcement. The Parties may respond individually without prior approval of the other Parties to questions from the public or media, provided that such responses are consistent with such announcement and do not disparage any of the Parties. Nothing in this Settlement Agreement shall limit or restrict the Commission's ability to publicly comment regarding this Settlement Agreement or any Order affecting this Settlement Agreement.

## C. EFFECT AND USE OF SETTLEMENT

1. It is understood that this Settlement Agreement is reflective of a negotiated settlement and neither the making of this Settlement Agreement nor any of its provisions shall constitute an admission by any Party to this Settlement Agreement in this or any other litigation or proceeding. It is also understood that each and every term of this Settlement Agreement is in consideration and support of each and every other term.

2. This Settlement Agreement shall not constitute and shall not be used as precedent by any person in any other proceeding or for any other purpose, except to the extent necessary to implement or enforce the terms of this Settlement Agreement.

3. This Settlement Agreement is solely the result of compromise in the settlement process and except as provided herein, is without prejudice to and shall not constitute a waiver of any position that any of the Parties may take with respect to any or all of the items resolved here and in any future regulatory or other proceedings.

4. The Parties agree that the evidence in support of this Settlement Agreement constitutes substantial evidence sufficient to support this Settlement Agreement and provides an adequate evidentiary basis upon which the Commission can make any findings of fact and conclusions of law necessary for the approval of this Settlement Agreement, as filed. The Parties shall prepare and file an agreed proposed order with the Commission as soon as reasonably possible.

5. The communications and discussions during the negotiations and conferences and any materials produced and exchanged concerning this Settlement Agreement all relate to offers of settlement and shall be privileged and confidential, without prejudice to the position of any Party, and are not to be used in any manner in connection with any other proceeding or otherwise.

6. The undersigned Parties have represented and agreed that they are fully authorized to execute the Settlement Agreement on behalf of their designated clients, and their successors and assigns, who will be bound thereby.

7. The Parties shall not appeal or seek rehearing, reconsideration or a stay of the Final Order approving this Settlement Agreement in its entirety and without change or condition(s) unacceptable to any Party (or related orders to the extent such orders are specifically implementing the provisions of this Settlement Agreement). The Parties shall support or not oppose this Settlement Agreement in the event of any appeal or a request for a stay by a person not a party to this Settlement Agreement or if this Settlement Agreement is the subject matter of any other state or federal proceeding.

8. The provisions of this Settlement Agreement shall be enforceable by any Party before the Commission and thereafter in any state court of competent jurisdiction as necessary.

9. This Settlement Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

ACCEPTED and AGREED as of the 13 th day of March, 2013.

INDIANAPOLIS POWER & LIGHT COMPANY

Name: Kevin W. Crawford
Its: Senior Vice President, Power Supply

INDUSTRIALS

Name: Timothy L. Stewart
Its: Attorney

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

Name: Scott C. Franson
Its: Deputy Utility Consumer Counselor

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Indianapolis Power & Light Company
Determination of Rate Impact for MATS for Costs to be Recovered through ECCRA

**Bolded / Italicized items reflect changes from Petitioner's Exhibit JLC-R3 due to settlement agreement**

Exclusive of Demolition Costs and AFUDC

| Line | | | | ECR-21 | ECR-22 | ECR-23 | ECR-24 | ECR-25 | ECR-26 | ECR-27 | ECR-28 | ECR-29 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Construction begins (beginning of month) | Mar-13 | | | | | | | | | | |
| 2 | ECR Rate Base Cutoff (end of month) | | | May-13 | Nov-13 | May-14 | Nov-14 | May-15 | Nov-15 | May-16 | Nov-16 | May-17 |
| 3 | | | | | | | | | | | | |
| 4 | ECR Rates Effective (beginning of month) | | | Sep-13 | Mar-14 | Sep-14 | Mar-15 | Sep-15 | Mar-16 | Sep-16 | Mar-17 | Sep-17 |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | Completion | Per TWM-S3 | | | | | | | | | |
| 9 | | Date | Project Total | | | | | | | | | |
| 10 | Pete 1 ESP | Apr-15 | 30,176,000 | 1,655,000 | 6,616,000 | 12,698,433 | 26,076,718 | 29,043,718 | 29,903,718 | 30,172,718 | 30,175,718 | 30,175,718 |
| 11 | Pete 2 Baghouse | Apr-15 | 202,189,000 | 19,643,618 | 86,677,191 | 120,728,308 | 157,982,140 | 195,659,125 | 200,255,125 | 202,166,125 | 202,189,125 | 202,189,125 |
| 12 | Pete 3 ESP & Baghouse | Apr-16 | 189,387,000 | 14,577,441 | 31,833,441 | 69,532,692 | 103,690,502 | 140,681,638 | 168,684,641 | 189,364,201 | 189,387,201 | 189,387,201 |
| 13 | Pete 4 ESP | Apr-15 | 35,090,000 | 1,810,000 | 9,140,000 | 14,526,296 | 30,634,431 | 33,761,431 | 34,757,431 | 35,085,431 | 35,089,431 | 35,089,431 |
| 14 | HS 7 ESP | Apr-16 | 54,141,000 | 1,363,000 | 2,745,000 | 4,853,000 | 6,288,000 | 11,301,000 | 34,621,015 | 54,135,525 | 54,141,525 | 54,141,525 |
| 15 | Cumulative Construction Costs | | 510,983,000 | 39,049,059 | 137,011,632 | 222,338,729 | 324,671,791 | 410,446,912 | 468,221,930 | 510,924,000 | 510,983,000 | 510,983,000 |
| 16 | | | | | | | | | | | | |
| 17 | Note: Assumed equal monthly expenditures from date cash flow begins to completion date | | | | | | | | | | | |
| 18 | Note: Assumed that cumulative construction costs would be reflected in first ECR which had rate base cut-off six months after date construction begins | | | | | | | | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |
| 21 | Pete 1 ESP | | | | | | | - | 415,000 | 1,245,000 | 2,075,000 | 2,905,000 |
| 22 | Pete 2 Baghouse | | | | | | | - | 2,780,000 | 8,340,000 | 13,900,000 | 19,460,000 |
| 23 | Pete 3 ESP & Baghouse | | | | | | | | | - | 2,604,000 | 7,812,000 |
| 24 | Pete 4 ESP | | | | | | | - | 482,500 | 1,447,500 | 2,412,500 | 3,377,500 |
| 25 | HS 7 ESP | | | | | | | | | - | 744,500 | 2,233,500 |
| 26 | Amortization of Deferred Depreciation | | | | | | | | 78,500 | 235,500 | 464,000 | 764,000 |
| 27 | Total Accumulated Depreciation | | | - | - | - | - | - | 3,756,000 | 11,268,000 | 22,200,000 | 36,552,000 |
| 28 | | | | | | | | | | | | |
| 29 | ***Note: The amounts of Accumulated Depreciation in each ECR are lower due to the use of a 5.50% depreciation rate instead of the proposed 6.11% rate*** | | | | | | | | | | | |
| 30 | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | |
| 32 | Net Book Value Subject to Return | | | 39,049,059 | 137,011,632 | 222,338,729 | 324,671,791 | 410,446,912 | 464,465,930 | 499,656,000 | 488,783,000 | 474,431,000 |
| 33 | ***Agreed Upon Credit to ECCRA Rate Base*** | | | | ***(5,000,000)*** | ***(10,000,000)*** | ***(15,000,000)*** | ***(22,000,000)*** | ***(29,000,000)*** | ***(29,000,000)*** | ***(29,000,000)*** | ***(29,000,000)*** |
| 34 | ***Net Book Value Subject to Return Adjusted*** | | | ***39,049,059*** | ***132,011,632*** | ***212,338,729*** | ***309,671,791*** | ***388,446,912*** | ***435,465,930*** | ***470,656,000*** | ***459,783,000*** | ***445,431,000*** |
| 35 | x Rate of Return | based upon 11/30/12 cap structure (CF-1 MPP2 Pg 3 ECR-20) | | | 7.44% | 7.44% | 7.44% | 7.44% | 7.44% | 7.44% | 7.44% | 7.44% |
| 36 | Net Operating Income | | | - | 9,821,665 | 15,798,001 | 23,039,581 | 28,900,450 | 32,398,665 | 35,016,806 | 34,207,855 | 33,140,066 |
| 37 | x Revenue Conversion Factor | for capital investment from CF-1 MPP2 Pg 1 ECR-20 | | | 1.45016 | 1.45016 | 1.45016 | 1.45016 | 1.45016 | 1.45016 | 1.45016 | 1.45016 |
| 38 | Annual Revenue Requirement - Capital | | | - | 14,243,000 | 22,910,000 | 33,411,000 | 41,910,000 | 46,983,000 | 50,780,000 | 49,607,000 | 48,058,000 |
| 39 | Semi-Annual Revenue Requirement - Capital | | | - | 7,121,500 | 11,455,000 | 16,705,500 | 20,955,000 | 23,491,500 | 25,390,000 | 24,803,500 | 24,029,000 |
| 40 | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | |
| 44 | | | Annual | Semi-annual | | | | | | | | |
| 45 | | | Amount | Amount | | | | | | | | |
| 46 | Pete 1 ESP | | 1,660,000 | 830,000 | | | | - | 830,000 | 830,000 | 830,000 | 830,000 |
| 47 | Pete 2 Baghouse | | 11,120,000 | 5,560,000 | | | | - | 5,560,000 | 5,560,000 | 5,560,000 | 5,560,000 |
| 48 | Pete 3 ESP & Baghouse | | 10,416,000 | 5,208,000 | | | | | - | 5,208,000 | 5,208,000 | 5,208,000 |
| 49 | Pete 4 ESP | | 1,930,000 | 965,000 | | | | - | 965,000 | 965,000 | 965,000 | 965,000 |
| 50 | HS 7 ESP | | 2,978,000 | 1,489,000 | | | | | - | 1,489,000 | 1,489,000 | 1,489,000 |
| 51 | Amortization of Deferred Depreciation | | | | | | | | 157,000 | 157,000 | 300,000 | 300,000 | 300,000 |
| 52 | ***Credit for Depr Exp on Anticipated Retired Assets in service at last rate case @ existing depr rate*** | | | | | | | | | ***(419,000)*** | ***(419,000)*** | ***(419,000)*** | ***(419,000)*** |
| 53 | ***Credit for Depr Exp on Anticipated Retired Assets currently in ECRRA @ existing ECCRA depr rate*** | | | | | | | | | ***(156,500)*** | ***(156,500)*** | ***(156,500)*** | ***(156,500)*** |
| 54 | Total Depreciation Expense | | 28,104,000 | 14,052,000 | - | - | - | - | 7,512,000 | 6,936,500 | 13,776,500 | 13,776,500 | 13,776,500 |
| 55 | | | | | | | | | | | | |
| 56 | Note: Depreciation Rate | **5.50%** rate utilized in ECCRA (**20** years with net salvage of 10%) | | | | | | | | | | |
| 57 | ***Note: The amounts of Depreciation Expense and Amortization of Deferred Depreciation in each ECR are lower due to the use of a 5.50% depreciation rate instead of the proposed 6.11% rate. However,*** | | | | | | | | | | | |
| 58 | ***Depreciation Expense is still calculated on the full amount of Utility Plant in Service*** | | | | | | | | | | | |
| 59 | | | | | | | | | | | | |

Indianapolis Power & Light Company
Determination of Rate Impact for MATS for Costs to be Recovered through ECCRA

Exclusive of Demolition Costs and AFUDC

**Bolded / Italicized items reflect changes from Petitioner's Exhibit JLC-R3 due to settlement agreement**

| Line | | | | ECR-21 | ECR-22 | ECR-23 | ECR-24 | ECR-25 | ECR-26 | ECR-27 | ECR-28 | ECR-29 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60 | | Annual | Semi-annual | | | | | | | | | |
| 61 | | Amount | Amount | | | | | | | | | |
| 62 | Pete 1 ESP | 4,958,000 | 2,479,000 | | | | - | 2,479,000 | 2,479,000 | 2,479,000 | 2,479,000 | 2,479,000 |
| 63 | Pete 2 Baghouse | 5,595,000 | 2,797,500 | | | | - | 2,797,500 | 2,797,500 | 2,797,500 | 2,797,500 | 2,797,500 |
| 64 | Pete 3 ESP & Baghouse | 6,421,000 | 3,210,500 | | | | | | - | 3,210,500 | 3,210,500 | 3,210,500 |
| 65 | Pete 4 ESP | 15,519,000 | 7,759,500 | | | | - | 7,759,500 | 7,759,500 | 7,759,500 | 7,759,500 | 7,759,500 |
| 66 | HS 7 ESP | 3,611,000 | 1,805,500 | | | | | | - | 1,805,500 | 1,805,500 | 1,805,500 |
| 67 | Amortization of Deferred O&M | | | | | | | 5,432,000 | 5,431,000 | 2,090,000 | 2,090,000 | |
| 68 | ***Exclude Pete 1-4 Demister Packing Cost*** | | | | | | - | ***(225,000)*** | ***(225,000)*** | ***(300,000)*** | ***(300,000)*** | ***(300,000)*** |
| 69 | Total O&M Expense | 36,104,000 | 18,052,000 | - | - | - | - | 18,243,000 | 18,242,000 | 19,842,000 | 19,842,000 | 17,752,000 |
| 70 | | | | | | | | | | | | |
| 71 | | | | | | | | | | | | |
| 72 | Total Semi-Annual Operating Expenses | | | - | - | - | - | 25,755,000 | 25,178,500 | 33,618,500 | 33,618,500 | 31,528,500 |
| 73 | x Revenue Conversion Factor | for expense from CF-1 MPP2 Pg 1 ECR-20 | | | 1.01994 | 1.01994 | 1.01994 | 1.01994 | 1.01994 | 1.01994 | 1.01994 | 1.01994 |
| 74 | Semi-Annual Revenue Requirement - Expense | | | - | - | - | - | 26,269,000 | 25,681,000 | 34,289,000 | 34,289,000 | 32,157,000 |
| 75 | | | | | | | | | | | | |
| 76 | | | | | | | | | | | | |
| 77 | Total Semi-Annual Revenue Requirement | | | - | 7,121,500 | 11,455,000 | 16,705,500 | 47,224,000 | 49,172,500 | 59,679,000 | 59,092,500 | 56,186,000 |
| 78 | x Jurisdictional Allocation | per ECCRA filings | | | 99.85% | 99.85% | 99.85% | 99.85% | 99.85% | 99.85% | 99.85% | 99.85% |
| 79 | Jurisdictional Revenue Requirement | | | - | 7,111,000 | 11,438,000 | 16,680,000 | 47,153,000 | 49,099,000 | 59,589,000 | 59,004,000 | 56,102,000 |
| 80 | | | | | | | | | | | | |
| 81 | | | | | | | | | | | | |
| 82 | | | | | | | | | | | | |
| 83 | | | | **2013** | | **2014** | | **2015** | | **2016** | | **2017** |
| 84 | Calendar Year Jurisdictional Revenue Requirement | | | - | | 14,736,000 | | 51,928,000 | | 104,543,000 | | 116,268,000 |
| 85 | | | | | | | | | | | | |
| 86 | | | | | | | | | | | | |
| 87 | Allocation of Jurisdictional Revenue Requirement | | | | | | | | | | | |
| 88 | Residential | 37.01% | per ECCRA filings | - | | 5,454,000 | | 19,219,000 | | 38,691,000 | | 43,031,000 |
| 89 | Small C&I | 20.29% | per ECCRA filings | - | | 2,990,000 | | 10,536,000 | | 21,212,000 | | 23,591,000 |
| 90 | ***Rate HL*** | ***10.58%*** | | - | | ***1,559,000*** | | ***5,494,000*** | | ***11,061,000*** | | ***12,301,000*** |
| 91 | ***Other Large C&I*** | ***32.12%*** | 42.70% per ECCRA filings | - | | ***4,733,000*** | | ***16,679,000*** | | ***33,579,000*** | | ***37,345,000*** |
| 92 | | 100.00% | | - | | 14,736,000 | | 51,928,000 | | 104,543,000 | | 116,268,000 |
| 93 | ***Note: Reflects segregation of Large C&I Allocation Factor into two components*** | | | | | | | | | | | |
| 94 | | | | | | | | | | | | |
| 95 | | | | Retail MWH | | Retail MWH | | Retail MWH | | Retail MWH | | Retail MWH |
| 96 | | | | Sales - 2013 | | Sales - 2014 | | Sales - 2015 | | Sales - 2016 | | Sales - 2017 |
| 97 | Residential | | | 5,033,180.5 | | 5,026,420.3 | | 5,027,439.7 | | 5,032,123.9 | | 4,974,791.8 |
| 98 | Small C&I | | | 1,896,528.3 | | 1,941,236.6 | | 1,990,224.7 | | 2,027,626.0 | | 2,034,919.2 |
| 99 | ***Rate HL*** | | | ***2,060,677.8*** | | ***2,081,677.7*** | | ***2,109,740.1*** | | ***2,141,766.0*** | | ***2,138,981.0*** |
| 100 | ***Other Large C&I*** | | | ***5,061,211.6*** | | ***5,125,563.8*** | | ***5,215,690.9*** | | ***5,299,474.9*** | | ***5,299,728.8*** |
| 101 | Projected Annual Retail MWH Sales | | | 14,051,598.2 | | 14,174,898.4 | | 14,343,095.4 | | 14,500,990.8 | | 14,448,420.8 |
| 102 | | | | | | | | | | | | |
| 103 | Calculation of Adjustment Factor per MWh | | | | | | | | | | | |
| 104 | Residential | | | - | | 1.0851 | | 3.8228 | | 7.6888 | | 8.6498 |
| 105 | Small C&I | | | - | | 1.5403 | | 5.2939 | | 10.4615 | | 11.5931 |
| 106 | ***Rate HL*** | | | - | | ***0.7489*** | | ***2.6041*** | | ***5.1644*** | | ***5.7509*** |
| 107 | ***Other Large C&I*** | | | - | | ***0.9234*** | | ***3.1979*** | | ***6.3363*** | | ***7.0466*** |
| 108 | | | | | | | | | | | | |
| 109 | | | | | | | | | | | | |
| 110 | Impact on Average Residential Customer using 1,000 kWh per month | | | **2013** | | **2014** | | **2015** | | **2016** | | **2017** |
| 111 | | | | | | | | | | | | |
| 112 | Monthly Amount on Bill for Average Residential Customer for MATS Costs in ECCRA | | | $ - | | $ 1.09 | | $ 3.82 | | $ 7.69 | | $ 8.65 |
| 113 | | | | | | | | | | | | |
| 114 | | | | | | | | | | | | |
| 115 | Increase in Monthly Amount on Bill from Prior Year | | | $ - | | $ 1.09 | | $ 2.73 | | $ 3.87 | | $ 0.96 |
| 116 | | | | | | | | | | | | |
| 117 | Beginning of Year Monthly bill with adjustment mechanisms | | 7/1/12 per IURC Bill Survey | $ 94.73 | | $ 94.73 | | $ 95.82 | | $ 98.55 | | $ 102.42 |
| 118 | % increase | | | 0.0% | | 1.2% | | 2.9% | | 3.9% | | 0.9% |
| 119 | | | | | | | | | | | | |
| 120 | End of Year Monthly bill with adjustment mechanisms | | | $ 94.73 | | $ 95.82 | | $ 98.55 | | $ 102.42 | | $ 103.38 |
| 121 | | | | | | | | | | | | |
| 122 | Compound Annual Growth Rate | | | 0.0% | | 0.6% | | 1.3% | | 2.0% | | 1.8% |