ORIGINAL

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF SOUTHERN INDIANA GAS AND ELECTRIC COMPANY d/b/a VECTREN ENERGY DELIVERY OF INDIANA, INC. FOR AUTHORIZATION FOR (A) THE TIMELY RECOVERY OF CAPITAL COSTS AND OPERATING EXPENSES RELATING TO THE DENSE PACK PROJECT AT BROWN UNITS 1 AND 2 THROUGH A PERIODIC RATE ADJUSTMENT MECHANISM PURSUANT TO IND. CODE CHAP. 8-1-8.8; (B) IMPLEMENTATION OF THE INITIAL ADJUSTMENT PURSUANT TO SUCH MECHANISM; (C) CONTINUATION OF THE ACCRUAL OF ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION AND THE DEFERRAL OF THE ACCRUAL OF DEPRECIATION EXPENSE FROM THE IN-SERVICE DATE OF THE PROJECT UNTIL IT IS REFLECTED IN THE ADJUSTMENT MECHANISM; (D) AN INCREASE IN THE AUTHORIZED RETURN USED FOR PURPOSES OF THE FAC EARNINGS TEST UNDER IC 8-1-2-42(d)(3) AND IC 8-1-2-42.3 BY THE AMOUNT OF THE AUTHORIZED RETURN ON THE DENSE PACK PROJECT INVESTMENT AND, TO THE EXTENT NECESSARY, AN ALTERNATIVE REGULATORY PLAN FOR SUCH ADJUSTMENT TO THE FAC EARNINGS TEST; AND (E) ALL OTHER APPROPRIATE RELIEF.	)	CAUSE NO. 44067

APPROVED: JUL 11 2012

ORDER OF THE COMMISSION

Presiding Officers:
Kari A.E. Bennett, Commissioner
Aaron A. Schmoll, Senior Administrative Law Judge

On September 13, 2011, Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc. ("Vectren South" or "Petitioner") filed its Verified Petition in this Cause requesting timely recovery of capital costs and operating expenses (including depreciation expense) relating to the installation of Dense Pack technology ("Dense Pack Project" or "Project") at Unit 1 and Unit 2 of the A.B. Brown Generating Station ("Brown Units") pursuant to Indiana Code ch. 8-1-8.8.

Petitions to intervene were filed by the Vectren Industrial Group ("Industrial Group")

(whose members included Countrymark Cooperative, LLP and ADM Milling Co.) and Citizens Action Coalition of Indiana, Inc. ("CAC"), which the Presiding Officers granted on January 4, 2012.

On October 14, 2011, the Indiana Office of Utility Consumer Counselor ("OUCC") filed a Motion for Public Field Hearing. On October 17, 2011, Vectren South filed its Response to the Motion for Public Field Hearing indicating that it had no objection to the field hearing request. The Commission conducted a public field hearing in this Cause at 6:00 p.m. on November 28, 2011, in Evansville, Indiana. At the field hearing, members of the public provided comments to the Commission.

On October 24, 2011, Vectren South and the OUCC filed their Stipulation and Agreement Regarding Schedule. The Commission adopted a procedural schedule for this proceeding in accordance with the agreement of the parties, and vacated the October 25, 2011 Prehearing Conference. On September 14, 2011, Vectren South prefiled the prepared testimony and exhibits constituting its case-in-chief. The OUCC, CAC and Industrial Group filed their respective direct testimony on December 21, 2011. Vectren South filed its rebuttal testimony on January 11, 2012 and its inadvertently omitted rebuttal testimony and exhibits of Ms. Laurie Thornton on January 12, 2012.

Pursuant to notice, duly published as required by law, an evidentiary hearing was held on February 16, 2012, at 1:30 p.m., in Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana. At the hearing, the parties' prefiled evidence was admitted into the record without objection. No members of the public appeared at the hearing.

Based upon the applicable law and the evidence of record, the Commission now finds:

1. **Notice and Jurisdiction.** Due legal and timely notice of the commencement of the public hearing in this Cause was given and published by the Commission as required by law. Vectren South operates a public electric utility as defined in Ind. Code § 8-1-2-1(a) and, as such, is subject to the jurisdiction of this Commission in the manner and to the extent provided by the laws of the State of Indiana. The Commission has jurisdiction over the parties and the subject matter herein.

2. **Vectren South's Characteristics.** Vectren South is a public electric and gas utility incorporated under the laws of the State of Indiana. Its principal office is located at One Vectren Square in Evansville, Indiana. This petition pertains to Vectren South's electric utility business, which is engaged in rendering electric utility service to the public and owns and operates electric generating plant and distribution system for the production, transmission, delivery and furnishing of this service.

3. **Relief Requested.** Vectren South requests timely recovery of capital costs and operating expenses (including depreciation expense) relating to the installation of the Dense Pack Project at its Brown Units pursuant to Ind. Code ch. 8-1-8.8 ("Clean Energy Statute") while it is under construction and after it is placed in service. Specifically, Vectren South asks the Commission to find that installation of the Dense Pack Project constitutes a Clean Energy Project under Ind. Code § 8-1-8.8-2(B), and to grant financial incentives in the form of timely cost

recovery pursuant to Ind. Code § 8-1-8.8-11. Petitioner also requests the Commission authorize implementation of a new rate adjustment mechanism to recover such incentives. Finally, Vectren South requests that in applying the Fuel Adjustment Clause ("FAC") earnings test provided for in Ind. Code §§ 8-1-2-42(d)(3) and 8-1-2-42.3, it be authorized to increase its authorized return by the amount of the return authorized on its Dense Pack Project investment.

4. **Vectren South's Case-In-Chief.**

(a) Wayne D. Games. Wayne D. Games, Vectren South's Vice President of Power Supply, testified regarding installation and operation of the proposed Dense Pack technology at the Brown Units. Mr. Games also identified the estimated costs associated with the Project and the benefits that will be achieved by the Project.

Mr. Games testified that the Brown Units are located on the northern bank of the Ohio River five miles southwest of Evansville, Indiana. Mr. Games stated that Vectren South uses Illinois Basin coal as fuel at the Brown Units. He explained that the Dense Pack Project consists of installation of advanced Dense Pack turbine technology from General Electric ("GE") during a turbine overhaul outage scheduled for 2012 at Unit 1 and 2013 for Unit 2. He explained that the Project improves the steam path efficiency by reducing aerodynamic-profile losses and secondary-flow losses and minimizing leakage losses. He stated that the result of the Project, based on prior experience at Vectren South's Warrick plant and GE data, is an improvement in generating efficiency that allows the steam turbine to generate the same amount of electric energy with less fuel, resulting in a reduction of emissions of all pollutants and lower fuel expense.

Mr. Games testified the Dense Pack Project is different from older turbine designs in that it is more compact with improved aerodynamics and improved seals. Only the outer casing remains and all other components are changed to the new design. He stated that the Project will improve efficiency by about 5%, as demonstrated by comparing pre- and post-outage heat rate performance for each of the Brown Units. As a result, he testified the Project should reduce coal consumption for the same number of kilowatt hours by approximately 5%.

Mr. Games testified that the reduced fuel consumption will reduce fuel expenses and fewer allowances would be required to offset various types of emissions. Carbon dioxide ("CO_2") emissions would also be reduced in anticipation of greenhouse gas ("GHG") regulation.

Mr. Games explained that the Project would require a complete disassembly of the high pressure / reheat pressure turbine. After disassembly, a new inner shell, nozzle block, seals, bearings, turbine rotor and blades and buckets would be installed, aligned and reassembled. He stated that work on each of the Brown Units is projected to take seven weeks. He testified that GE would perform installation of the new technology under Vectren South's supervision and that work is expected to begin in March of 2012.

Mr. Games stated the total estimated cost of the Project is $32 million, which is approximately $3 million less than Vectren South's original estimate presented in its last base rate case in Cause No. 43839. He testified that the original estimate contained price escalators but the revised estimate is based upon a firm price contract.

Mr. Games explained why the value to be derived from the Dense Pack Project justifies incurring these costs. He stated that, while not required by the Clean Energy Statute, Vectren South proposes to recover costs of the Project via a rider mechanism only if its estimated efficiency goal of at least 5% heat rate improvement is achieved. He noted that no other conventional emission reduction technologies can achieve emission reductions and fuel cost savings at a lower construction or operating cost.

Finally, Mr. Games explained that the Project was in the public interest because it achieves the same level of power with reduced use of coal, thereby improving efficiency and reducing fuel costs and plant emissions. He also stated that the Project is in keeping with Vectren South's efforts to sustain reliable and efficient operations that comply with federal regulations.

(b) Scott E. Albertson. Scott E. Albertson, Director of Regulatory Affairs for Vectren Utility Holdings, Inc. ("VUHI"), testified regarding the ratemaking treatment Vectren South proposes for recovery of capital costs and depreciation expense relating to the Dense Pack Project. He said that the Clean Energy Statute provides financial incentives for Clean Energy Projects, including timely recovery of costs incurred during construction and operation. He stated that the Dense Pack Project constitutes a Clean Energy Project and is entitled to incentives afforded under the Clean Energy Statute because it involves the installation of an advanced technology that causes the unit to generate electric energy more efficiently. Mr. Albertson stated that Vectren South requests authorization to recover through a tracking mechanism a return on the construction costs at a fixed rate of return of 7.29%, as well as depreciation expense once each project is placed in service.

He testified that tracking mechanisms have previously been in place for Vectren South's Clean Energy Projects, most recently pursuant to the Commission's Order in Cause No. 42861 dated February 22, 2006 which approved a Qualified Pollution Control Property ("QPCP") multi-pollutant construction cost adjustment. He noted that the Order in Cause No. 42861 also approved a QPCP adjustment. Although these trackers were eliminated and included in base rates pursuant to the Commission's April 27, 2011 Order in Cause No. 43839 (the "2011 Rate Order"), the Commission also found in the 2011 Rate Order that Vectren South may in the future propose similar recovery mechanisms to the extent it makes investments in equipment which qualifies for such treatment.

Mr. Albertson testified that Vectren South proposes to use a new adjustment mechanism, the QPCP Dense Pack Adjustment ("QPCP-3") to recover a return on and of the construction costs of the Dense Pack Project. He explained that Vectren South will file QPCP-3 adjustments annually reflecting the costs incurred as of July 31 of each succeeding year. Vectren South pledged to provide status reports in each annual filing and proposed to allocate the Dense Pack Project revenue requirement to the rate schedules using the production plant allocation factors approved in the 2011 Rate Order. Mr. Albertson proposed that QPCP-3 adjustments be fixed monthly charges or demand charges, depending on the customer's rate schedule. He advocated recovery of Vectren South's proposed Project costs via fixed monthly charges and demand charges because costs associated with the Project are also fixed.

Mr. Albertson sponsored as an exhibit an illustration of the QPCP-3 adjustment factors at the time the Project is completed (Petitioner's Exhibit No. SEA-2, Schedule 1). Based on the

estimated $32,000,000 Project cost, he estimated the billing impact on a residential customer to be $1.08 per month, or $12.96 during the 12 months the QPCP-3 Adjustment is in place after the Project is placed in service. He stated that actual costs incurred will be reconciled with actual recoveries, with any differences included for recovery from or passed back to customers in a subsequent 12-month period.

Mr. Albertson testified that the ratemaking treatment would remain in effect until all of the Project's construction costs and depreciation expenses were recovered or included in base rates per a Commission order in a base rate proceeding. He also stated that fuel efficiency achieved would be reported in the first annual QPCP 3 filing after the Project has been in service for 12 months.

Finally, Mr. Albertson explained the reasoning for Vectren South's request that the Commission approve the Project as an alternative regulatory plan ("ARP") to the extent such approval may be necessary. He testified that the 2011 Rate Order did not include the Project, and accordingly the rates approved in that Order do not provide Vectren South with a return on its investment in the Project. Thus, the authorized return for purposes of the earnings test must be increased to accommodate the Project's return. While Vectren South believes the Clean Energy Statute should be interpreted as authorizing such an earnings test adjustment, Mr. Albertson requested approval of the earnings test adjustment as an ARP to eliminate any doubt. He noted that all prior Clean Energy Statute projects for Vectren South that received Commission approval have qualified for incentives and the FAC earnings test was similarly adjusted.

(c) **Angila M. Retherford.** Angila M. Retherford, Director of Environmental Affairs and Corporate Sustainability and Senior Environmental Counsel for Vectren South, testified regarding federal and state environmental policy and how the Dense Pack Project fits within Vectren South's environmental compliance strategies. She stated that multiple major environmental initiatives will have a significant impact on Vectren South's generating system, including three on air emissions: the Cross State Air Pollution Rule ("CSAPR"), reductions of hazardous air pollutants, and new permitting requirements for GHG emissions.

Ms. Retherford stated that the U.S. Environmental Protection Agency ("EPA") finalized the Clean Air Interstate Rule ("CAIR") which requires further reductions of nitrogen oxides ("NO_x") and sulfur dioxide ("SO_2") beyond those already in effect in other rules. She testified that the CAIR rule was vacated, so in response the EPA proposed the Clean Air Transport Rule ("Transport Rule") in 2010 which dramatically reduces the ability of facilities to meet the required emission reductions through allowance trading. Ms. Retherford indicated that, like CAIR, the Transport Rule set caps for SO_2 and NO_x. The Transport Rule was finalized as CSAPR.[1] She stated that due to these caps and the limited allowance trading available under CSAPR, it is virtually impossible to predict with any certainty the availability of excess allowances for compliance and costs related thereto. She testified that the Dense Pack Project enhances efficiency and results in a reduction in the emission of pollutants. As a result, Ms. Retherford stated the Project will provide a compliance cushion, which is particularly important for the Brown Units due to the ages of the existing scrubbers.

[1] Since Ms. Retherford filed her testimony, CSAPR has been stayed pending judicial review on the merits.

Ms. Retherford also explained the Maximum Achievable Control Technology ("MACT") standards and the Project's impact on compliance with the MACT rule. She stated MACT applies to utility boilers and sets plant-wide emission limits for various hazardous air pollutants. As with CSAPR, she indicated that the Dense Pack Project would provide a compliance cushion, in particular because no allowances are available to transfer from a more efficient plant to a less efficient plant for compliance purposes and because of the age of the existing scrubbers at the Brown Units.

Ms. Retherford next explained how GHG permitting impacts Vectren South. She stated that although Vectren South does not expect Congress to finalize major GHG legislation in the next few years, EPA regulation continues to expand. She also provided specific examples of how such regulations are expanding, including the prevention of significant deterioration ("PSD") program and that it will trigger requirements for review and installation of best available control technology ("BACT").

Ms. Retherford stated that under the Clean Air Act programs of the New Source Review ("NSR") the EPA has established a threshold for GHG permitting applicable to Vectren South. She testified that under these new rules, non-routine repair, replacement or modifications to a generating unit could result in NSR permitting for GHGs.

Ms. Retherford explained that under NSR a modification resulting in increased pollutants (e.g. CO_2) must install BACT pursuant to an EPA review and decision process that includes identification of all commercially available BACT. She stated that no commercially available CO_2 capture technology would qualify as BACT for GHG for a unit under an NSR permitting analysis, so the only commercially available CO_2 emission reduction technology available would be those increasing the efficiency of the coal-fired unit. As a result, Ms. Retherford indicated the Dense Pack Project would fall within the definition of BACT by increasing efficiency 1-5% producing a commensurate reduction in emissions of all pollutants. She stated that the EPA has already designated efficiency enhancement projects as qualifying for BACT, and specifically identified Dense Pack technology as a type of such a project. She also noted that the EPA encourages state permitting authorities to consider energy efficiency options in its GHG BACT analyses for new and modified facilities. Ms. Retherford testified that a significant repair or replacement project at the Brown Units would likely trigger NSR permitting for GHGs, and the only BACT for GHGs is a project such as the one proposed in this cause.

(d) M. Susan Hardwick. M. Susan Hardwick, Vectren South's Vice President, Controller and Assistant Treasurer, testified regarding the accounting issues relating to the Dense Pack Project. Ms. Hardwick explained that Vectren South currently has received accounting relief for the Project in the 2011 Rate Order, which was conditioned on each unit achieving an actual heat rate improvement of at least 5%. She stated that after the 2011 Rate Order the Indiana General Assembly revised the Clean Energy Statute to include advanced technologies that increase the efficiency of existing energy production or generating plants. She testified that the accounting treatment afforded in the 2011 Rate Order acts to prevent earnings erosion on Vectren South's books, but does not provide a cash return on the investment.

Ms. Hardwick explained the process Vectren South will use to segregate the capital costs of the Project which will be recorded as Turbogenerator Units in Account 314, a sub-account of

Account 101, Utility Plant in Service. She said an overhead allocation for general oversight, management and administrative costs will be capitalized to the Project. Ms. Hardwick testified that Allowance for Funds Used During Construction ("AFUDC") will be accrued and recorded in accordance with Electric Plant Instruction in the FERC Uniform System of Accounts, and that Vectren South will use the same AFUDC rate that it uses for other construction projects. She indicated that post-in-service AFUDC would only be recorded on the increment of construction costs not previously incorporated into the QPCP-3 rate. She explained that Vectren South proposes to accrue depreciation on the Project with an annual accrual rate of 2.78% for the associated assets in the Brown Units' sub-account 314 as determined in the depreciation study submitted in Cause No. 43111.

Ms. Hardwick also noted there are some assets being retired as part of the Project and that those assets will be retired against the accumulated provision for depreciation, net of removal costs or salvage recoveries. She stated that actual retirements will be reflected in the annual QPCP-3 filings.

Ms. Hardwick testified concerning Vectren South's proposed rate of return for the Project. She noted that while Ind. Code § 8-1-8.8-11 provides for authorization of up to three hundred basis points above the return that would otherwise be allowed for Clean Energy Projects, Vectren South proposes a fixed rate of return of 7.29% be used for the Dense Pack Project. This rate is equal to the overall weighted cost of capital determined in the 2011 Rate Order.

Ms. Hardwick stated that the estimated cost for the total Project is $32,000,000, with a revenue requirement on the total investment in the Project of $3,951,076, as reflected in Petitioner's Exhibit No. MSH-2, and that there are no expected incremental operating costs from the Project. She proposed that the Commission approve in this proceeding an initial QPCP-3 rate adjustment based on investment in the Project through July 31, 2011 with annual filings thereafter which would capture additional costs incurred during the construction phase and the resulting depreciation expense. Ms. Hardwick explained that the operating income only includes the income tax benefit of interest expense to capture the impact of the investment under construction. She also proposed to adjust Vectren South's earnings test by increasing its authorized return by the amount of return approved on the Project within each QPCP-3 filing.

5. **OUCC's Evidence.**

a. **Tyler E. Bolinger.** OUCC Witness Tyler E. Bolinger, Director of the OUCC's Electric Division, testified in opposition to Vectren South's requested relief. He testified that Vectren South's proposed rate increase and new tracker are unnecessary and inconsistent with the 2011 Rate Order. He testified that the Commission has already provided reasonable relief to Vectren South for the Dense Pack Project. The relief provided in the 2011 Rate Order was also the relief Vectren South proposed in its rebuttal testimony and its proposed order in 2011 Rate Order.

Mr. Bolinger described the inconsistency he believes exists between Vectren South's proposed relief in this case and what the Commission ordered in the 2011 Rate Order, which provided relief in the form of Post-in-service AFUDC and Deferred Depreciation for Dense Pack

Project "until they are included in Petitioner's rate base for purposes of setting base rates...." (p. 107, 2011 Rate Order.) Mr. Bolinger believes that Vectren South's new request would effectively alter what the Commission ordered. The new request does not provide for the ordered Post-in-service AFUDC and Deferred Depreciation for Dense Pack Project "until they are included in Petitioner's rate base for purposes of setting base rates...." Instead, Vectren South's latest proposal calls for a rate increase through a new tracker prior to the next base rate case. Mr. Bolinger testified that it would be unfair to do this without somehow reopening the rate case to consider whether Vectren South's proposed modification would also warrant reconsideration of other elements of the 2011 Rate Order.

Mr. Bolinger provided two examples of the inequity that he said would result for customers if the Commission modifies the relief already provided for the Dense Pack Project. First, he testified that the 2011 Rate Order authorized a return on equity ("ROE") of 10.4% based on an evaluation of Vectren South's risk. He stated that the evaluation of risk could not reasonably have reflected the reduction in risk that would result from approving equipment overhaul trackers of the type that Vectren South now proposes. Mr. Bolinger testified that the Commission should not enhance the relief it provided in the 2011 Rate Order without somehow reopening the rate case to consider whether the enhanced relief would impact Vectren South's risk and cost of equity capital. He testified that new equipment overhaul trackers, like QPCP-3, would reduce Vectren South's risk and warrant a reduction in the authorized ROE.

Second, Mr. Bolinger testified that the 2011 Rate Order provided Vectren South with new rates designed to collect over $70.0 million dollars annually of depreciation expense. He explained that this is cash flow available to Vectren South for various purposes, including turbine overhauls. Moreover, he stated that the annual cash out flows for the Dense Pack Project are dwarfed by the annual cash inflow provided by ratepayers for depreciation expense. He concluded that ratepayers already pay rates that provide for equipment overhauls. According to Mr. Bolinger, the 2011 Rate Order was not based on a regulatory regime of providing vast amounts of depreciation cash flows, combined with separate piecemeal rate trackers to again fund equipment overhauls. He stated that he was concerned that Petitioner's request for enhanced relief could provide duplicative funding for equipment overhaul projects.

Mr. Bolinger summarized the OUCC's concerns by explaining that Vectren South chose to include a request for relief related to the Dense Pack Project in its recent rate case, initially in the form of a step two rate increase. During the rebuttal and proposed order phases of the rate case, Vectren South decided to support an alternative form of relief in the form of Post-in-service AFUDC and Deferred Depreciation. When the Commission issued the 2011 Rate Order, Vectren South received this alternative form of relief requested. The Commission's Order was not appealed. These matters have been decided in the OUCC's view. He recommended that Vectren South's request in this Cause be denied in full, and that the 2011 Rate Order should remain in full force and effect.

(b) Anthony A. Alvarez. OUCC Witness Anthony A. Alvarez, a Utility Analyst with the OUCC, reviewed the Commission's findings regarding the Dense Pack Project in the 2011 Rate Order. Mr. Alvarez also reviewed the Commission's findings regarding Vectren South's Warrick Unit 4 Dense Pack Project in the Commission's Final Order in Cause No. 43568, dated June 17, 2009 (the "Warrick Order"). He stated that in the Warrick Order, the

Commission found that the Dense Pack Project was, in essence, a complete turbine-rebuild, and the resulting reduction in emissions occurs only because the amount of coal per megawatt has been reduced.

Mr. Alvarez articulated GE's claim that the "natural progression" of its steam path design approach began in 1903. He testified that GE introduced its Advanced Design Steam Path ("ADSP") solution in the early 1990's. He then explained that GE describes its Dense Pack offering as a "natural progression" of its ADSP solution. He stated that GE did not claim any "breakthrough technology" in its Dense Pack offering. On the contrary, Mr. Alvarez pointed out, GE is cautious in characterizing the Dense Pack simply as a "natural progression" of its tried and true steam path design experience.

Mr. Alvarez described GE's overall steam turbine design approach and the factors that contributed to owner upgrade decision-making in the early 2000s. He did not agree with Vectren South's characterization of the Dense Pack Project as advanced technology to qualify the equipment for benefits under Ind. Code ch. 8-1-8.8. Mr. Alvarez supported his testimony with several GE-authored materials that characterized and described the various technical aspects of existing GE technology that were incorporated into the Dense Pack technology.

Mr. Alvarez stated that Dense Pack technology should not be confused with GE's High-Efficiency, Advanced Technology ("HEAT") steam turbine which is GE's first introduction of reaction-based technology for the combined cycle market. He contended that Dense Pack is just one of GE's high pressure/intermediate pressure ("HP/IP") upgrade solutions, and because the HP/IP parts are just sections of steam turbine, the Dense Pack Project is simply a turbine section replacement or a complete overhaul.

Mr. Alvarez disagreed with Mr. Games' claim that the Dense Pack Project will provide significant improvement in efficiency, reduction in emissions and lower fuel expense. He testified that the Commission already stated in the Warrick Order that the emissions reduction simply resulted from the reduced amount of coal burned per megawatt produced. He noted that the Commission also stated that any reduction in the amount of coal burned will also yield a lower fuel expense. Mr. Alvarez revealed that in 2004, Brown Unit 2 achieved "significant improvement in efficiency" with just a typical turbine overhaul.

Mr. Alvarez described Vectren South's efficiency gains calculation as unreliable and imprecise. He demonstrated that the components in Vectren South's efficiency gains calculation were arbitrary, not well-defined, and fundamentally different from GE's calculations. Mr. Alvarez testified that if the efficiency calculation was not well-defined, it would give Vectren South the unfair advantage of achieving the contingent 5% heat rate improvement without "breaking a sweat" and make its special treatment claim an unwarranted "sure thing." He explained that Vectren South used the heat rate at the tail end of the turbine's maintenance life-cycle that yielded biased results, and showed high efficiency gains. On the other hand, he stated, GE utilized the turbine's original, "as new" heat rate as its baseline in calculating the efficiency gain benefit of the Brown turbine replacement, yielding an expected heat rate of approximately 2.5%, more in-line with GE's own industry pronouncements of the benefits of Dense Pack technology.

Mr. Alvarez stated that typical turbine overhaul activities such as tightening clearances, replacing packing, realigning the unit and repairing damage may yield efficiency gains close to or even higher than Vectren South's proposed 5% heat rate improvement contingent threshold. He tabulated the efficiency gains of some generating units using Vectren South's calculations and showed that Warrick Unit 4 efficiency gain was considerably higher than 5% after its Dense Pack was installed in December of 2008. For comparison, he testified that if the "after typical turbine overhaul heat rate" was used as the basis in calculating the efficiency gain of the Dense Pack in Warrick Unit 4, the incremental heat rate improvement that can be directly attributed to the Dense Pack was less than 5%.

Finally, Mr. Alvarez addressed Vectren South's project cost estimate for the Dense Pack Project. He said that there was a difference of approximately $9 million between the price quoted by GE to Vectren South and the total project cost provided in this Cause. He stated that the OUCC is concerned that Vectren South may use the difference to fund other projects ancillary to the Dense Pack turbine replacements, such as generator-related work. Because generators are distinct and separate electrical equipment from steam turbines, Mr. Alvarez argued that any generator-related costs should likewise be treated as distinct and separate from the Dense Pack and appropriate regulatory accounting treatment should be applied accordingly.

(c) Duane P. Jasheway. OUCC Witness Duane P. Jasheway, a Utility Analyst with the OUCC, reviewed the financial profile of Vectren South, VUHI and Vectren Corporation. He testified that Vectren South and VUHI both enjoy a solid financial position, with a stable customer base and a supportive regulatory environment. He stated that Vectren South reported an increase in operating revenues of over $74 Million from 2009 to 2010. Mr. Jasheway testified that Petitioner reported net operating income increased by $32 million in 2010 and the Return on Average Equity had increased from 8.28% to 9.9% in 2010. He testified that, based on his analysis, Vectren South experienced this positive year from a financial standpoint, which does not account for the positive effects of a $29 million rate increase as a result of the 2011 Rate Order.

Mr. Jasheway stated that Vectren Corporation, the parent company of Vectren South and VUH1, reported an increase in operating revenues of over $40 Million from 2009 to 2010. He stated that Vectren Corporation reported a net operating income increase of $37 million in 2010. Mr. Jasheway also cited that Vectren Corporation increased its quarterly stock dividend in 2011 which signified the 52nd straight year that Vectren Corporation and its predecessors have increased annual dividends.

Mr. Jasheway noted that Vectren South did not cite financial need as a justification for the treatment that is being requested in this Cause. He opined that Vectren South was granted reasonable relief from the Commission for this Dense Pack Project in the 2011 Rate Order. He said that based on earnings, net operating income and return on adjusted equity in 2010, Vectren South cannot justify the relief being requested for the Dense Pack Project from a financial standpoint.

(d) Wes R. Blakley. OUCC Witness Wes R. Blakley addressed Vectren South's request for specific accounting treatment on its Dense Pack Project, including the request for a fixed rate of return ("ROR") and the request for post-in-service accounting for AFUDC and

depreciation. He said that Vectren South is requesting a fixed rate of return of 7.29% for its Dense Pack Project based on a capital structure approved in the 2011 Rate Order. He demonstrated that using Vectren South's current updated capital structure as of September 30, 2011 and the ROE 10.4% approved in the 2011 Rate Order would produce a current weighted average ROR of 6.92%. He explained that Vectren South, by requesting a fixed 7.29% weighted average rate of return, is essentially asking for an incentive ROE for the Dense Pack Project equal to 85 basis points as of September 30, 2011.

Mr. Blakley opposed the use of a static weighted ROR, and pointed out that the rules for calculating a weighted average ROR for construction work in progress ("CWIP") tracking, spelled out in IAC 4-6-1, does not address the calculation of static weighted ROR. He testified that the only item in the capital structure that is to remain static, according to the rule, is the return of equity, which is to remain the same as approved in Petitioner's last rate case. He acknowledged that a static weighted average ROR had been approved by the Commission as a result of settlement. He said that with a static weighted average ROR, the ROE will fluctuate depending on the changes in cost rates for long-term debt and weightings of capital over time. These changes will affect the ROE, which creates an incentive that Petitioner has not requested. This incentive would not be transparent; it would be moving up or down based on economic conditions and capital requirement mixes. Mr. Blakley stated that the rules require that if an incentive is granted and approved, it should be added on top of the current static ROE in the capital structure. Mr. Blakley advocated against a static weighted average rate of return due to its lack of transparency on the return on equity.

Mr. Blakley stated his belief that the Clean Energy Statute and the rules that govern construction work in process ("CWIP") ratemaking provide adequate financial security for utilities and that the statutes and rules that allow recovery of a cash return on utility investments using the current ROE from its last rate case adequately compensates it for its investments given the current economic climate in Indiana. Mr. Blakley also disagreed with Vectren South's requested post-in-service AFUDC. He explained that during the construction phase of a project, both the debt and equity component of AFUDC is capitalized to the project and that when the asset goes into service after completion, the accrual of AFUDC must cease. After the project is complete, a utility may petition the Commission for continuance of post-in-service AFUDC to improve a utility's financials while the asset is in service but not yet in rates. Mr. Blakley testified that later, either at the time of a base rate case or if the asset is a part of an approved tracker mechanism, the AFUDC is then rolled into the rate base and the energy utility starts receiving a return on and return of the additional AFUDC. He also said that the Statement of Financial Accounting Standards No. 71 ("SFAS 71") does not permit the capitalization of the equity costs after projects have been placed in service; it only permits capitalization of costs which would otherwise be charged to expense. Therefore, Mr. Blakley argued that Vectren South should not capitalize the equity in the calculation of post-in-service AFUDC.

Mr. Blakley addressed other concerns with Vectren South's proposal. He testified that he was not aware of any current QPCP tracker that recovers such costs with a fixed charge. He recommended that Vectren South recover such costs on a per-kilowatt hour basis, consistent with prior QPCP trackers.

Mr. Blakley also expressed his opinion that Vectren South's financial situation did not

warrant the relief sought in this Proceeding. He observed that Vectren South has experienced a reduction of its weighted average ROR of 7.29%, which was approved by the 2011 Rate Order, to 6.92% by September 2011. Second, Vectren South's net utility plant decreased from $1.218 billion to $1.213 billion in that same time period. He opined that Vectren South is requesting a piecemeal adjustment for the Dense Pack Project, while ignoring the decline of its weighted cost of capital as well as the decline of net utility plant between April 2011 and September 2011. He said that while ratepayers cannot seek relief for this change in circumstances, Vectren South requests tracker recovery on a single $32 million project which, in relation to large QPCP projects that take years and hundreds of millions of dollars to complete, is not very large. He argued that if Vectren South is permitted to track this type of maintenance project, the OUCC is concerned many more tracker requests will be forthcoming from all electric utilities in Indiana.

Mr. Blakley recommended that the Commission use discretion in determining what is eligible to be tracked under the Clean Energy Statute and consider the size of the investment relative to the entire plant, what kind of earnings erosion the utility will experience, which of the costs are federally mandated, and whether the project is actually federally mandated. He said many questions need to be answered before the Commission approves a request for expedited cost recovery for a project of this size and type.

6. Vectren Industrial Group's Evidence.

Nicholas Phillips, Jr., a principal with the firm of Brubaker & Associates, Inc., offered testimony on behalf of the Vectren Industrial Group. Mr. Phillips noted that the 2011 Rate Order rejected Vectren South's proposal for a second step base rate increase to coincide with the completion of the Dense Pack Project and instead authorized Vectren South to recover post-in-service AFUDC and deferred depreciation. Mr. Phillips characterized this approved treatment as a deviation from traditional ratemaking where a utility must wait until investment is included in rate base and demonstrate that a revenue deficiency exists before it starts recovering for the project in rates. He explained that this deviation effectively provides Vectren South an incentive just for pursing the Dense Pack Project.

Mr. Phillips also summarized the relief awarded through the Warrick Order for Vectren South's previous investment in Dense Pack technology for its Warrick generating facility. In the Warrick Order, the Commission denied recovery of the Dense Pack Project costs through a rate recovery mechanism, finding a Dense Pack investment was part of normal operation and maintenance ("O&M") that should be recovered through the normal course of ratemaking. The Warrick Order also found that a particular piece of equipment is not automatically eligible for recovery outside a rate case because it renders a generating station more efficient. Mr. Phillips agreed with these findings in the Warrick Order. He testified that regulated utilities have a duty to pursue a least-cost generation resource in return for being granted a monopoly in a geographic area for the provision of service. Upon becoming used and useful, Vectren South would be entitled to recover its investment as well as a reasonable return on that investment. Mr. Phillips characterized the issue presented by Vectren South as whether it should receive additional incentives to invest in the Dense Pack Project through special ratemaking treatment. He believed this issue should be answered in the negative because the Project is the type of project that a well-run electric utility should undertake and that no additional incentive to make the investment is necessary.

Mr. Phillips testified that Vectren South presented no new evidence to justify different treatment of the Dense Pack investment than was afforded in the 2011 Order or Warrick Order other than an amendment to the Clean Energy Statute. He believed it would not be wise or consistent with the intent of the amendment to the Clean Energy Statute to construe it as permitting tracking of any rebuild or maintenance related costs that produce a small increase in efficiency. He stated that utilities should strive to increase efficiency as part of sound management and operations without the need for a special rate recovery mechanism.

Mr. Phillips believed that approving Vectren South's requested relief would result in an unreasonable change to the 2011 Rate Order. Were the Commission to grant Vectren South's relief, Mr. Phillips testified that it would be fair and reasonable to provide for a procedure to allow parties to present evidence concerning the resulting change to the allowed ROE and the resulting changes to base rates. He also stated that he would expect a downward adjustment to Vectren's authorized return on equity.

7. CAC's Evidence.

Kerwin L. Olson, Executive Director for the CAC, commented on the Commission's previous findings regarding Dense Pack Projects in the 2011 Rate Order and Warrick Order and the legislative history of the Clean Energy Statute. Like Mr. Phillips, Mr. Olson believed that the Warrick Order supported treating Dense Pack investments as normal O&M recoverable through the traditional ratemaking process. Mr. Olson testified this continues to be sound policy and consistent with the intent of the Legislature. He did not believe that the Commission needed to provide an incentive or bonus for behavior any well-run utility would engage in. Mr. Olson testified that Vectren South has continued to pursue Dense Pack technology since the Commission's Warrick Order notwithstanding the inability to track the associated costs. While he acknowledged he was not an engineer, Mr. Olson was unaware of any changes in the Dense Pack technology Vectren South is currently installing warranting different treatment.

Mr. Olson summarized the relief granted with respect to the Dense Pack Project in the 2011 Rate Order as a requirement that Vectren South first demonstrate the efficiency gains and attendant savings before receiving rate relief. Mr. Olson believed that this represents sound policy by requiring demonstrated savings from a project Vectren South was already well on its way to completing.

Mr. Olson acknowledged the amendment to the Clean Energy Statute but testified that he was present for and participated in the discussions regarding the amendment and disagreed that the Dense Pack Project is the type of project contemplated by the Clean Energy Statute amendment. He stated that Senator Beverly Gard stated unequivocally in the April 15, 2011 House Committee hearing concerning the amendment that the intent of the legislation was to incentivize *new* investments, not to reward the utilities for past or current behavior. Mr. Olson also testified that there was no discussion or debate with respect to Dense Pack technology in the subcommittee or floor debates. CAC Exhibit A, 6.

Mr. Olson described the legislative history of the bill that amended the Clean Energy Statute, noting that it was a widely publicized and debated piece of legislation with 33 amendments, 16 of which were offered on the floor and voted on. He testified that 70 legislators

made-up of both political parties voted against the bill. Contending Vectren South's construction of the amendment to the Clean Energy Statute would effectively reverse the Commission's decision in the 2011 Rate Order, he believed his construction which did not lead to this result was supported by the reluctance of the General Assembly to interfere with the Commission.

8. **Vectren South's Rebuttal Evidence.**

(a) **Wayne D. Games.** Mr. Games responded to the OUCC's, Industrial Group's and CAC's contentions that the relief sought by Vectren South should be denied because of alleged inconsistencies with the Warrick Order and 2011 Rate Order. Mr. Games also explained why he believes Dense Pack technology constitutes advanced technology that increases the efficiency of existing energy production of generating plants that are fueled primarily by coal or gases from coal from the geological formation known as the Illinois Basin.

Mr. Games testified that the core issue presented by Vectren South in this proceeding is whether its Dense Pack Project constitutes advanced technology to increase the efficiency of an existing coal-fired unit eligible for the timely cost recovery provided by the Clean Energy Statute. Ind. Code § 8-1-8.8-2(1)(B). Mr. Games acknowledged the Commission's findings in the 2011 Rate Order, but stated that the amendment to the Clean Energy Statute dictated a different result. He explained that the Indiana Legislature amended the Clean Energy Statute by specifically adding a new type of project that qualifies for cost recovery: a generation efficiency project. Vectren South initiated this proceeding to advise the Commission of this change in law which authorizes the timely cost recovery originally sought in the rate case for the Dense Pack installation at the Brown Units. He emphasized this was not a case of second guessing a Commission order or trying to get new facts into evidence, but rather a proceeding to consider the impacts of this new legislation specifically added to provide relief for this very type of project.

Mr. Games addressed concerns raised by Mr. Phillips that Vectren South's construction of the amendment to the Clean Energy Statute resulted in the future recovery of costs associated with a rebuild or maintenance item that produces any small increase in efficiency, noting that the language of the statute does not render any rebuild or maintenance item that produces any small increase in efficiency eligible for rate recovery. Mr. Games explained that only investments that constituted "advanced technologies" such as the Dense Pack Project would be eligible for recovery under the mechanisms approved in the Clean Energy Statute.

Mr. Games also addressed disputes about whether the Dense Pack Project constitutes advanced technology designed to improve the efficiency of a coal fired unit eligible for recovery under the Clean Energy Statute. He explained that GE's description of Dense Pack technology as a natural progression of its engineering improvements in the area of turbine technology did not disqualify Dense Pack from being an advanced technology because advances in technology often result from improvements to older technology. Mr. Games also pointed to Mr. Alvarez's own admission that Dense Pack technology represents a pressure upgrade solution that constitutes a steam path redesign. Dense Pack technology is a recognized technology improvement, Mr. Games explained, engineered for the express purpose of improving efficiency. In response to Mr. Games' inquiry, GE also confirmed that the Dense Packs were the most advanced technology improvement available that could be installed on D-5 turbines at an

existing coal fired unit to improve efficiency.

Mr. Games did not believe it was credible to contend that a Dense Pack does not represent advanced technology designed to improve plant efficiency under Indiana law when the EPA already recognizes the Dense Pack technology as advanced technology. Mr. Games further testified that GE itself described its Dense Pack technology as advanced technology, both in its contractual arrangements with Vectren South and in the documents relied upon by Mr. Alvarez. In fact, Mr. Games explained that the Dense Packs being installed at Brown Units are much more advanced in their features than the ADSP technology previously installed in Vectren South's F.B. Culley turbine.

Mr. Games addressed Mr. Alvarez's contentions that other efficiencies resulting from the turbine overhaul performed in connection with the Dense Pack Project will contribute to the overall 5% improvement in each generating unit's heat rate. Vectren South agreed in the 2011 Rate Order that its AFUDC and other rate treatment for the Dense Pack Project be contingent on each unit achieving a 5% heat rate improvement. Mr. Games stated that Mr. Alvarez' concerns missed the point. The Clean Energy Statute does not require Vectren South to guarantee any level of heat rate improvement to qualify for rate recovery, although Mr. Games indicated Vectren South remained willing to abide by this commitment. He stated this proposal was intended to provide assurance to customers of significant benefits in exchange for the rate recovery mechanism that is being sought. The 5% was intended to be a level of efficiency that would ensure customers receive fuel cost savings equivalent to the costs of the project, Mr. Games testified.

Mr. Games explained the disparities between the price quotes in the GE contracts and the Vectren South project estimate. The disparity resulted from Vectren South's inclusion of costs in addition to the GE contract work, including Vectren South labor and project support costs. Mr. Games also responded to Mr. Alvarez's concern that the Dense Pack Project may include ancillary work, noting that through negotiations, GE had reduced the price of the Dense Pack Project significantly and reached their bottom line. Vectren South's Strategic Sourcing Group then negotiated to have GE provide additional work in the scope of the Dense Pack proposal with no additional cost to Vectren South. He affirmed that Vectren South will not include costs not directly related to the HP/IP Section and Low Pressure Section and valves through the proposed cost recovery mechanism.

Mr. Games disagreed with the OUCC's contention that Vectren South's proposal should be rejected as piecemeal ratemaking. He explained that the Indiana Legislature adopted specific legislation providing for the proposed rate relief. He said that the Legislature, not Vectren South, determined that the utility should be provided relief for the costs of this specific type of project without the need for a comprehensive review of the Vectren South's finances. Mr. Games also disagreed with Mr. Phillips's assertion that the Commission should afford parties an opportunity to present evidence of a change in Vectren South's allowed rate of return if the Commission authorizes the statutory cost recovery sought by the Petitioner.

Mr. Games responded to arguments that Vectren South should not be eligible for the rate recovery mechanisms in the Clean Energy Statute because the Dense Pack Project commenced prior to the effective date of amendments. He explained that regardless of need, if a utility has

begun investment in a project that is supported by federal and state legislation, to the point an Indiana statute was amended to apply to such a project, policy favors that the statute covers such a project. Mr. Games also disagreed that the Warrick Order was relevant to the recovery of the Dense Pack Project costs under the amended Clean Energy Statute. He noted that the Order was decided two years prior to the amendment to the Clean Energy Statute.

(b) Angila M. Retherford. Ms. Retherford noted that the EPA had issued a white paper identifying Dense Pack technology as a category of Efficiency Improvement Technology available to achieve BACT at existing coal-fired units. Ms. Retherford did not believe there was any basis to conclude that the advanced efficiency technology supported by the Indiana Legislature when it amended the definition of "clean energy project" would differ from EPA's support of advanced efficiency technology, or BACT, for purposes of reducing emissions of greenhouse gases from existing coal-fired units. She explained that both the EPA and the Indiana Legislature had taken steps to support investment in generation efficiency, the EPA by including Dense Pack as a BACT and the Indiana Legislature by amending the Clean Energy Statute.

(c) M. Susan Hardwick. Ms. Hardwick responded to issues raised by OUCC Witness Blakley concerning Vectren South's proposed accounting. She defended Vectren South's proposal to earn a fixed rate of return on the Project investment once it is in service, noting this approach was approved in Cause No. 42248 related to Vectren South's initial environmental investment and Cause No. 42861 related to Vectren South's phase II environmental investment. Ms. Hardwick disagreed with Mr. Blakley that the use of a fixed rate of return resulted in an incentive increase in Vectren South's ROE for the Dense Pack Project. She testified that use of an incentive return authorized by statute would have resulted in a higher ROE than the 7.29% requested by Vectren South. She further explained that a snapshot of a utility's current ROE at any point in time may be higher or lower than allowed in the last rate case due to any number of capital structure variables that change over time. She also stated that even if the Commission agreed with Mr. Blakley that the use of a fixed ROE in comparison to Petitioner's current capital structure resulted in an implied incentive, the result is within the allowed incentive return authorized by the Clean Energy Statute.

Ms. Hardwick also responded to Mr. Blakley's contention that Vectren South's proposal to continue to record AFUDC after the in-service date of the investment is inconsistent with SFAS 71. She noted that Paragraph 15 and 84 of SFAS 71 support the inclusion of AFUDC equity as a capitalized cost to be included in the basis for depreciation as well as for rate base determination. She explained that this approach is widely practiced in the utility industry. Ms. Hardwick also disagreed with Mr. Blakley that Vectren South should not capitalize the equity in the calculation of post-in-service AFUDC because AFUDC as supported by SFAS 71 and the Uniform System of Accounts includes both debt and equity that is capitalized. She further noted that the Commission has allowed for the inclusion of post-in-service AFUDC in the cost of an asset for future recovery in many other instances, including specifically Cause Nos. 42861 and 43312.

Ms. Hardwick addressed OUCC Witness Jasheway's discussion concerning Vectren South's, VUHI's and Vectren Corporation's financial results and the relationship of those results to the relief sought in this proceeding. First, she noted that Mr. Jasheway's evidence on the

financial results of VUHI and Vectren Corporation is not relevant to any analysis of the financial performance of Vectren South in this proceeding. Second, she commented on Mr. Jasheway's failure to address the drivers of any of the variances in Vectren South's financial data. For example, Ms. Hardwick noted that the primary driver of the increase in revenues was due to fuel costs that are passed through directly to customers and the 9.9% ROE is actually below the 10.4% ROE authorized in the 2011 Rate Order. She also explained that a demonstration of financial need is not a prerequisite to relief under the Clean Energy Statute.

Ms. Hardwick also disagreed with Mr. Bolinger that depreciation expenses recovered in base rates should be used to fund the Dense Pack Project. She explained that the Project was not reflected in the authorized level of depreciation expense approved in the 2011 Rate Order. She also testified that the recovery of depreciation expense relates to the return of invested capital. While she agreed this was a source of cash, she noted that like all other elements of the cost of service, the idea that all capital expenditures can be funded through that recovery is unreasonable. Ms. Hardwick also emphasized that amendments to the Clean Energy Statute was the driver for filing the Petition in this Cause, not a need for cash to fund the Dense Pack Project.

(d) Scott E. Albertson. Mr. Albertson addressed Mr. Blakley's recommendation that QPCP-3 costs should be recovered from customers via a per kWh charge, rather than via fixed or demand charges as initially proposed by Vectren South. Mr. Albertson indicated that Vectren South would agree to modify its proposed QPCP-3 rate design such that Dense Pack costs would be recovered from all customers via energy, or per kWh, charges. This approach will result in an energy-based QPCP-3 charge that is offset by the fuel cost savings from which each customer is expected to benefit. Mr. Albertson sponsored schedules demonstrating the impact of this rate design change on customers.

(e) Laurie Thornton. Vectren South Witness Thornton responded to Mr. Olson's characterization of the purpose for the amendment of the Clean Energy Statute. She attended the same House Committee hearing referred to by Mr. Olson but disagreed with Mr. Olson's contention that Senator Gard, the author of the amendments to the Clean Energy Statute, stated that the intent of the legislation was to incent new investments, not reward utilities for past or current behavior. Ms. Thornton indicated she did not recall any such specific discussion at those hearings relating to the efficiency project amendment. She contacted Senator Gard concerning Mr. Olson's characterizations of her statements. Senator Gard provided an affidavit indicating that Mr. Olson had mischaracterized her comments.

9. Commission Findings and Discussion. Vectren South requests approval of a rate recovery mechanism providing for the timely recovery of capital costs and depreciation expenses incurred as a result of the Dense Pack Project at the Brown Units 1 and 2 pursuant to the Clean Energy Statute. The OUCC and the intervenors have raised numerous issues challenging Vectren South's proposal. We address the threshold issue, which is whether the Dense Pack Project constitutes "advanced technologies" under the Clean Energy Statute.

The Clean Energy Statute defines Clean Energy Projects to include:

> Projects to provide advanced technologies that reduce regulated air emissions from or increase the efficiency of existing energy production or generating plants

> that are fueled primarily by coal or gases from coal from the geological formation known as the Illinois Basin, such as flue gas desulfurization and selective catalytic reduction equipment.

Ind. Code § 8-1-8.8-2(1)(B). Vectren South cited this provision as applicable to its request in this cause. While the Clean Energy Statute includes definitions for many key terms, "advanced technologies" is not defined. However, the Commission previously discussed the Dense Pack Project in the Warrick Order:

> "The description of the Dense Pack Project is, in essence, a complete turbine rebuild. We find this a capital replacement project, within the category of operation and maintenance, which all well-run electric utilities are likely to perform between rate cases to ensure the reliability of their facilities. Even though Dense Pack costs may not have been contemplated during the last base rate case, maintenance and overhaul is usually performed on a schedule, and those costs are included in the normal course of rate making.
>
> The fact that Petitioner has chosen a seemingly logical upgrade and replacement technology that has the benefit of producing incremental electricity with a corresponding reduction in emissions does not make it [a Clean Coal and Energy Project]. Simply because a particular piece of equipment, added or rebuilt, may make the generating station more efficient doesn't automatically make that equipment or action eligible for recovery outside a rate case. Many, if not most, projects involving replacement of parts of a plant will result in some increase in efficiency."

Vectren South, Cause No. 43568, at 9 (IURC, June 17, 2009).

In the Warrick Order, we concluded that the projected efficiency gains did not constitute a reduction in regulated air emissions that would qualify it as a clean coal and energy project as then defined in the Clean Energy Statute. Because of that focus, we did not specifically address whether Dense Pack was "advanced technology." However, our discussion in the Warrick Order does provide significant guidance on the issue, in that we described Dense Pack as "a seemingly logical upgrade and replacement technology" that would provide an "incremental" increase in electricity production. Accordingly, we find that in order to conclude that a technology is "advanced" for purposes of the Clean Energy Statute, the degree of advancement must go beyond the expected advancement over the course of a life cycle of the technology. Otherwise, as Mr. Phillips noted in relation to the purported efficiency gains of Dense Pack, "[i]f the law is interpreted that any small increase in efficiency associated with a rebuild or maintenance item qualifies for a tracking mechanism then almost all projects could qualify for a tracking mechanism. I don't believe that this is wise or intended." Phillips Direct, IG Ex. 1, at 6. Those same concerns apply to defining "advanced technologies."

We do not believe that a "logical upgrade," or a "natural progression" as noted in GE's own materials described by OUCC witness Alvarez, resulting in an "incremental" improvement should be considered among the "advanced technologies" as set forth in the Clean Energy Statute. Further, we do not believe that the incentives available under the Clean Energy Statute

were intended to benefit utilities unless the technology is clearly "advanced." We are concerned that to conclude otherwise, the threshold for demonstrating a technology is "advanced" would be so low that any reasonably developing technology must be considered "advanced." The purpose of the Clean Energy Statute is not to incentivize normal utility plant replacement. *See also Vectren South*, Cause No. 43568, at 9.

In the GE marketing materials included in the record, GE went to great lengths in describing various parts of Dense Pack as "advanced." In isolation, one would be under the impression that Dense Pack is revolutionary. However, these claims appear to be inconsistent with our prior conclusion that Dense Pack is technology that provides an incremental improvement. Advancements in technology are commonplace, if not expected, and over the five to ten years between steam turbine overhauls, one would expect some, if not significant, improvements over the technology that was available when prior overhauls were performed. *Id.* Dense Pack technology has been utilized since 2000, and was installed in 2004 on Warrick Unit 4. *See* Games Direct, Petitioner's Ex. WDG-1, at 2. Ultimately, however, we find that the Vectren South's argument that Dense Pack is "advanced" under the Clean Energy Statute circular and unpersuasive.

Further, we are not convinced that the qualification of Dense Pack as BACT for greenhouse gas emissions under state and federal environmental laws translates to a determination of "advanced" status under the Clean Energy Statute. We have previously noted that the definition of "advanced technologies" is distinct from the definition of "clean coal technologies." *Verified Petition of PSI Energy, Inc., for Approval of Certain Clean Coal and Energy Projects,* Cause No. 42411 S1 at 11, 2004 Ind. PUC LEXIS 361 at *28 (IURC, Nov. 10, 2004). The same is true for the definition of BACT. Accordingly, "an analysis under the provisions on Ind. Code ch. 8-1-8.8 requires a strict analysis of all aspects of a proposed project's qualifications." *Vectren South*, Cause No. 43568, at 9.

We further believe that an advanced technology for plant replacement is one that would support an out-of-cycle installation and result in a significant improvement in efficiency or emission reductions compared to the installation of "non-advanced" technologies. In this case, Vectren South's installation of Dense Pack corresponded with scheduled outages at Brown Units 1 and 2, not an accelerated replacement schedule. *See also* Administrative Notice 1 (Vectren South's 2011 Integrated Resource Plan, p. 91).[2] Moreover, as evidenced in OUCC witness Alvarez's unredacted testimony, the efficiency gains demonstrated historically with the Dense Pack installation at Warrick Unit 4 are roughly comparable to the non-Dense Pack replacement at Brown Unit 2 in 2004. Further, Vectren South's goal of a minimum 5% efficiency gain for this Dense Pack Project is likewise comparable to the efficiency gains realized through the installation of "non-advanced" turbine replacements. We do not believe that similar realized efficiency gains between purported "advanced" technology and "non-advanced" technology justify special treatment under the Clean Energy Statute. Accordingly, we do not find that, as presented in this Cause, the Dense Pack Project should be considered an advanced technology under the Clean Energy Statute.

[2] We do not address whether the decision to install or not install Dense Pack technology is subject to a prudency review under Indiana Code Section 8-1-2-42(d).

In conclusion, the Commission finds that the Dense Pack Project is not an "advanced" technology for purposes of the Clean Energy Statute, and that in failing to pass this threshold, Vectren South's requested relief is hereby denied in its entirety. Because of this finding, we need not address the other issues raised in the case.

10. Confidential Information. On January 24, 2012, Vectren South and the OUCC filed a joint motion for protection for confidential and proprietary information, which was supported by affidavits showing documents to be submitted to the Commission were trade secret information within the scope of Ind. Code § 24-2-3-2 and Ind. Code § 5-14-3-4. The presiding officers issued a docket entry finding such information to be preliminarily confidential, after which such information was submitted under seal. 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. Vectren South's requested relief is denied in its entirety.

2. The Confidential Information submitted under seal in this Cause pursuant to motions for protective orders are determined to be confidential trade secret information as defined in Ind. Code § 24-2-3-2 and therefore exempt from public access and disclosure pursuant to Ind. Code § 5-14-3-4 and Ind. Code § 8-1-2-29.

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

ATTERHOLT, BENNETT, LANDIS AND ZIEGNER CONCUR; MAYS NOT PARTICIPATING:
APPROVED: JUL 11 2012

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