

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

**ELECTRONIC APPLICATION OF DUKE ENERGY)
KENTUCKY, INC. FOR: 1) AN ADJUSTMENT OF)
THE ELECTRIC RATES; 2) APPROVAL OF NEW)
TARIFFS; 3) APPROVAL OF ACCOUNTING TO) **CASE NO. 2019-00271**
ESTABLISH REGULATORY ASSETS AND)
LIABILITIES; AND 4) ALL OTHER REQUIRED)
APPROVALS AND RELIEF)**

BRIEF OF NORTHERN KENTUCKY UNIVERSITY

Comes now the intervenor, Northern Kentucky University (“NKU”), by and through counsel, and for its brief, states as follows.

INTRODUCTION

On September 3, 2019, Duke Energy of Kentucky, Inc. (“DEK”) filed its application in this case, which Commission accepted as filed by way of a no deficiency letter dated September 9, 2019. The application was deemed complete on September 19, 2017. DEK requested a total overall revenue of \$45,634,448¹ by using a forecasted test period;² however, the amount was revised to \$46,258,262³ during discovery and was subsequently amended to \$44,222,829⁴ when the Company filed its rebuttal testimony. DEK also

¹ Sarah Lawler Pre-filed testimony, p.5; (Application, Vol. 14, p. 398 of 413).

² *Id.*

³ DEK Response to Staff-DR-03-085, Attachment page 1 of 1.

⁴ Lawler Rebuttal testimony, page 27; DEK Rebuttal Testimony, p. 71 of 242.

requests approval of new tariffs, approval of certain accounting mechanisms and approval of other miscellaneous relief.

Intervention as parties has been granted to the Kentucky Attorney General's Office (AG)⁵, Northern Kentucky University (NKU)⁶, and Kroger⁷. Two other entities⁸ involved with the electric vehicle industry were denied intervention status.

An evidentiary hearing was conducted on February 19 and 20, 2020 and responses to numerous post-hearing data requests have been filed into the record.

Based on the record, the Commission should, at most, award DEK an increase in rates in an amount⁹ as argued by the Attorney General; demand a one-time refund of Duke Energy Business Services LLC's excess accumulated deferred income taxes ("EDIT") of \$215,000¹⁰; accept the Company's class cost of revenue allocation as filed; deny the Company's request for a Major Storm Deferral Mechanism; deny the Company's request for Proposed Battery Storage Project; and deny the Company's request for Electric Vehicle/Transportation Pilot Programs.

⁵ Order dated October 14, 2019.

⁶ Order dated October 14, 2019.

⁷ Order dated October 2, 2019.

⁸ These entities are: Zeco Systems, Inc. d/b/a Greenlots which is a leading provider of electric vehicle charging software, equipment, and services to consumers and utilities; and Chargepoint, Inc, a designer, manufacturer, installer and operator of level 2 and DC fast-charging stations. Dennis, consider striking.

⁹ AG Testimony, Lane Kollen, in general and particularly pp. 3 and 5.

¹⁰ Kollen, pp. 3, 5 and 41-44.

I. THE COMMISSION SHOULD ADOPT THE ATTORNEY GENERAL'S RECOMMENDED REVENUE REQUIREMENT.

NKU adopts and incorporates the AG's recommended revenue requirement for DEK and arguments therefor as though stated herein.

II. THE COMPANY HAS PROPOSED A CLASS COST OF SERVICE STUDY AND RATE DESIGN RESULTING IN A REASONABLE REVENUE ALLOCATION WHICH THE COMMISSION SHOULD APPROVE.

Cost of Service

The Company used the Average of the Twelve (12) Coincident Peaks (12CP) cost of service methodology for allocating costs to its rate classes.¹¹ This is the methodology used by the Company in its last rate cases and is an accepted methodology in the electric utility industry.¹² Kroger, the only other intervenor, has agreed with the company's use of this method.¹³

A CCOSS compares the cost that each customer class imposes on the system to the revenues each class contributes. This relationship is generally presented by comparing the rate of return that a class is providing with the utility's overall jurisdictional rate of return. A rate class that produces a rate of return above the system average rate of return is providing revenue in excess of its allocated class cost of service. It is not only paying

¹¹ James Ziolkowski Pre-filed testimony, p. 6; (Application, Vol. 17, part 2 of 2, p. 280 of 306).

¹² *Id.*

¹³ Kroger Testimony, Justin Bieber, p. 3.

revenues sufficient to cover the cost attributable to it, but in addition, it is paying part of the cost attributable to other classes who produce below system average rates of return.

A rate class that produces a rate of return below the system average rate of return provides revenue that does not recover its allocated class cost of service. The revenue provided by the class is insufficient to cover all relevant costs to serve that class.

By implementing the Company's class cost of service study, the Commission would recognize and accept the overall rate of return calculated by the Company in its CCOSS at present rates as being 3.03%.¹⁴ The results of the Company's 12 CP CCOSS indicate that six rate classes, specifically Rates DS, GS-FL, SP, DT-Secondary, Rate DT-Primary, and TT are providing rates of return above the system average rate of return of 3.03% at present rates. The CCOSS indicates that five rate classes, specifically Rates RS, EH, DP, Lighting, and Water Pumping are providing rates of return below the system average rate of return.¹⁵

The Company uses the results of its recommended CCOSS as a guide in allocating its revenue requirement to its rate classes but does not propose to bring all classes to full cost of service. Because the Company's CCOSS indicated that there were considerable differences among the rate classes with respect to the rate of return provided to the Company at present rates, some classes would experience much greater increases on a

¹⁴ DEK Response to NKU-DR-02-008, Attachment, p. 1 of 1.

¹⁵ *Id.*

percentage basis as compared to other classes in order to bring all classes to cost of service.¹⁶

Revenue Allocation

On the revenue allocation between the classes, the Company noted that the cost of service study indicated that there are significant differences among the rate classes when comparing the actual return earned by each rate class to the 6.711% overall return on rate base being requested. This would translate to greater increases for some rate classes, in terms of percentages, than other classes.¹⁷ To mitigate against the rate shock that might come from eliminating the subsidy/excess among rate classes, the Company proposed to use a two-step process to distribute the proposed revenue increase. The first step would eliminate 5% of the subsidy/excess revenues between customer classes based on present revenues. The second step allocates the rate increases to customer classes based on electric original cost depreciated (OCD) rate base.¹⁸ No other party to the proceeding has offered any significant challenge or alternative to the Company's overall inter-class revenue allocation.

While Kroger does not take issue with DEK's 5% reduction in the class subsidy at DEK's proposed revenue requirement, Kroger recommends that if the revenue increase awarded to DEK is less than the Company has requested, then any reduction in the revenue requirement should be allocated in a two-step process. In the first step, 50% of

¹⁶ Ziolkowski, Pre-filed testimony, p. 25 (Application, Vol. 17, part 2 of 2, p. 299 of 306.)

¹⁷ *Id.*

¹⁸ *Id.*

the reduction to the proposed rate increase should be used to reduce revenue targets for all rate classes by using DEK's proposed method for allocating its proposed revenue increase.¹⁹ For the second step, the remaining 50% of the reduction to DEK's proposed rate increase should be used to reduce inter-class subsidies. This amount should be allocated "to the subsidy-paying classes on a pro-rata basis in proportion to the amount of the subsidy each class is currently paying in its present rates."²⁰ Kroger argues that if this two-step process results in a rate decrease for any class, then that rate class should receive a zero increase, and the remaining benefit should be allocated to all rate classes on a pro rata basis in the same manner as the first step.²¹ In other words, Kroger recommends no class should receive a rate decrease.²²

Summary

The Company's proposal recognizes that some classes would experience large cost of service based increases without some form of rate mitigation. The Company's proposed class revenue allocation results in some movement toward cost of service and appropriately recognizes the principle of gradualism,²³ a rate making principle which has been accepted and applied by the Commission in determining revenue allocation. Kroger's supplemental revenue allocation methodology will decrease the subsidy between rate classes more quickly.

¹⁹ Bieber, p.10.

²⁰ Bieber, p. 11, lines 3-5.

²¹ Bieber, p. 11, lines 6-9.

²² Bieber, p. 11, lines 5-6.

²³ Ziolkowski, Pre-filed testimony, p. 27; (Application, Vol. 17, part 2 of 2, p. 301 of 306.)

Accordingly, given Commission precedent, the reasonableness of the class revenue allocation and the lack of any opposition to the Company's approach, the Commission should adopt the Company's and Kroger's proposed class revenue allocation methods.

III. THE COMPANY'S NOVEL REQUEST FOR A STORM DEFERRAL MECHANISM SHOULD BE DENIED BECAUSE IT FAILS TO ADVANCE ANY PROVEN DEFICIENCY IN THE REGULATORY COMPACT BETWEEN UTILITY EARNINGS AND RATEPAYERS BENEFITS.

DEK's proposed storm deferral mechanism could be classified, for all practical purposes, as a major storm expense tracker.²⁴ Specifically, DEK would "track" actual expenses for major storms and compare the actual expense level to that level of costs built into customer base rates. The difference would be automatically classified, without Commission approval, as a regulatory asset in those instances where actual storm costs exceeded the level built into customer base rates or a regulatory liability where the actual storm costs were less than the amount built into customer base rates.²⁵ Currently, DEK must come to the Commission for approval to defer extraordinary storm expenses.

The use of a tracker engages in single-issue ratemaking, which should only be used in rare instances.²⁶ With single-issue ratemaking, the tracked expense is singled out for assessment during a period of time when all other operations of the utility are not considered. The tracked expense is isolated and fails to account for other utility expenses,

²⁴ Collins, p. 9.

²⁵ Collins, pp. 9-10.

²⁶ Collins, p.10.

which might offset the costs of the tracked expenses, leading to a result where the utility may be collecting enough revenues, or more than enough, to cover all of its expenses. Single-issue ratemaking is also referred to as violating the “all relevant factors” test. This test requires that all relevant factors of a utility cost of service be determined during the same time period. By using a tracker, a utility is violating the all relevant factors test.²⁷ The storm deferral mechanism violates this all relevant factors test because there may be offsetting expenses to storm expenses which would allow the Company to avoid filing a rate case any sooner than necessary. Remarkably, in her rebuttal testimony, DEK witness Lawler suggests that the Commission should not be concerned with single-issue ratemaking. Interestingly, DEK witness Lawler does not rebut the fact that the use of trackers engages in single-issue ratemaking, but that the Commission should not be concerned with its violation. Single-issue ratemaking and the all relevant factors are cornerstones of regulatory principles to ensure just and reasonable rates for utility customers. NKU hopes the Commission does not abandon these principles in deciding this issue.

DEK’s history provides the perfect example of why a storm deferral mechanism is completely unwarranted. The Company experienced excessive storm damage expenses related to Hurricane Ike in 2008 and sought a regulatory asset to recover those extraordinary expenses. However, DEK did not file for a rate case to recover those storm-related expenses until 2017 because, presumably, there were other offsetting

²⁷ *Id.*

expenses that had gone down. “The need for the rate case [in 2017] wasn’t really because of the storms it was because of lots of other things.”²⁸ The Company also testified that the “storm deferral was just one very small portion of that case.”²⁹ These statements demonstrate that recovery of storm costs in 2017 was not a major driver of the decision to file that case.

At the hearing, the Company affirmed its position on the storm deferral mechanism as:

“It's just another mechanism to help de-risk the business for the company and to make sure the customers pay no more or no less for the cost of the storms. It's a, you know, volatile cost for the company and it's one that is very, it's impossible to predict the costs and it's just a mechanism to kind of de-risk things.”³⁰

Hence, not only does DEK not contest the mechanism is single-issue ratemaking³¹, it begs the question that storm-related costs are not volatile as DEK would otherwise argue, given the nine-year lag between the storm expenses and the filing of a rate case to recover them. Moreover, it is disingenuous to claim much risk existed for DEK, given the nine-year time period. Obviously, during the nine-year period between Hurricane Ike and DEK’s rate case, storm expenses were not excessive when compared with the total operations of the utility. In fact, from 2006 to 2017, one can conclude that the storm

²⁸ Lawler testimony, VTE, Day 2, 11:29.

²⁹ Lawler testimony, VTE, Day 2, 11:31.

³⁰ Lawler testimony, VTE, Day 2, 11:30.

³¹ *Id.*

expense built onto rates was sufficient for DEK to have the opportunity to earn its authorized return, not considering the Hurricane Ike expenses that DEK received deferred accounting treatment.

While DEK admits it can seek approval to defer the “incremental cost of major storms,”³² the Company maintains its novel mechanism “is superior in that it eliminates the need to make additional filings with the Commission which creates an unnecessary burden on both the Company and the Commission (and potentially, intervenors if they object).”³³ This argument is specious and can be belied with DEK’s history of filings with the Commission since 2006. In particular, the Company filed a rate case in 2006, then in 2017, and now the current rate case.³⁴ Since 2007, DEK has experienced at least one major storm, that being Hurricane Ike in 2008,^{35,36} and for which the Company sought a regulatory asset.³⁷ Nine (9) years passed between Hurricane Ike and 2017 before DEK filed a rate case.³⁸ Stated another way, almost a decade passed before DEK filed anything with the Commission seeking to recapture its storm-related costs. Furthermore, DEK admits that the 2017 rate case was not predicated on storm recovery expenses. DEK’s

³² Lawler Rebuttal testimony, p. 22; Rebuttal testimony at page 66 of 242.

³³ *Id.*

³⁴ Lawler testimony, VTE, Day 2, 10:51:30

³⁵ Lawler testimony, VTE, Day 2, 10:51:30.

³⁶ Interestingly, the witness had to be reminded that the Company had even experienced a significant storm between its 2006 rate case and the 2017 rate case. This begs the question that the current regulatory framework must be sufficient.

³⁷ Lawler testimony, VTE, Day 2, 10:52.

³⁸ Lawler testimony, VTE, Day 2, 10:53.

position that the deferral mechanism would eliminate filings cannot be substantiated by DEK's history before this Commission.

Under examination by the Vice-chairman, DEK attempted to maintain the proposal would remove volatility in rates.³⁹ In addition, DEK testified that it would still come to the Commission to seek a determination as to what was a major storm.⁴⁰ Moreover, DEK testified that it could file reports annually for a determination as to whether Company would be in an asset or liability position.^{41,42} However, DEK testified its initial proposal to the Commission was "to establish a regulatory liability or asset, whichever way it went, without coming to the Commission for approval."⁴³ Unlike the filing for deferred accounting for excessive storm costs from Hurricane Ike, DEK would be allowed to automatically adjust the tracker for future ratemaking treatment without Commission oversight.

Given the history of DEK, there is no volatility, or even risk, in rates related to storms as evidenced by the time of DEK's filing of a rate case for recovery of the storm related expenses; hence, the mechanism is not needed for "volatility" or "risk" reasons. DEK has not demonstrated a need for the storm tracker. A storm tracker engages in single-issue ratemaking and violates the all relevant factor test—both cornerstone

³⁹ Lawler testimony, VTE, Day 2, 11:21.

⁴⁰ Lawler testimony, VTE, Day 2, 11:22.

⁴¹ Lawler testimony, VTE, Day 2, 11:23.

⁴² Lawler went on to testify that the annual filings would only occur if the Commission wanted DEK to do so. Lawler testimony, VTE, Day 2, 11:26:30.

⁴³ Lawler testimony, VTE, Day 2, 11:33.

principles of utility regulation. For all these reasons, the Commission should oppose the storm tracker.

IV. NKU RECOMMENDED SEVERAL RATEPAYER PROTECTION CONDITIONS FOR IMPLEMENTING THE BATTERY STORAGE PROJECT. DURING THE EVIDENTIARY PHASE OF THE CASE, IT BECAME CLEAR THAT THE BATTERY PROJECT WOULD NOT BE AN ECONOMIC CHOICE FOR RATEPAYERS. THEREFORE, THE BATTERY STORAGE PROJECT SHOULD BE DENIED BY THE COMMISSION.

NKU is actively involved in activities that address the efficient use of energy, including ways to conserve energy. NKU is engaged in its second energy savings performance contract and completed a comprehensive technical energy audit in 2017. As a result, NKU is undertaking various energy cost saving measures to be completed by early 2020 as part of its sustainability strategy. NKU has joined Cincinnati 2030 District to further these efforts and has tasked three individuals with responsibility and oversight for sustainability and energy management to maximize NKU's potential energy savings, or stated differently, mitigate its energy costs.⁴⁴ Succinctly stated, NKU is active both inside and outside of its facilities promoting energy sustainability.

Notwithstanding this effort, NKU cannot support a program for a battery storage project with questionable benefits. This attempt by DEK to engage in a project involving the feasibility of technology new to Kentucky for a learning experience for DEK's

⁴⁴ See NKU Petition for Full Intervention filed in the record on September 26, 2019. See also DEK Hearing Exhibit 3.

shareholders – all at the expense to the ratepayers who will never be repaid – should be denied.

DEK originally proposed a 5 MW battery storage installation near a hospital, but now has revised its proposal to include a 3.4 MW battery storage installation at a different location on the DEK system, the Crittenden Solar Farm.^{45,46} DEK claims the battery storage installation would provide ancillary services that will benefit all customers through the PJM Interconnection LLC (PJM) frequency regulation market, which is the primary application for the deployment of the system.⁴⁷

At the hearing, DEK testified that the location had changed as noted in its rebuttal testimony.⁴⁸ In DEK's rebuttal testimony, as offered by Kuznar, the "project ran into technical complications with the initially selected site that resulted in a change to our proposed battery location after the application was filed. Duke Energy Kentucky is now planning to construct a 3.4 MW/6 MWH battery project at our existing Crittenden Solar Farm. The project will interconnect on the Crittenden 42 circuit. This project's primary application will remain frequency regulation in PJM but will also be used to study the integration of battery storage with solar energy. These potential applications include solar smoothing, solar shifting and voltage support. This project will enable us to study

⁴⁵ Collins, p. 18.

⁴⁶ DEK testifies the size of the battery is 5.5MW; See Kuznar Pre- filed testimony, p. 2. (Application, Vol. 14, p. 375 of 413.)

⁴⁷ Kuznar Pre- filed testimony, pp. 2-3. (Application, Vol. 14, p. 375-376 of 413.)

⁴⁸ Kuznar testimony, VTE, Day 1, 18:26.

how battery storage can mitigate the impact of distributed generation resources on our distribution system.”⁴⁹

With the move to the solar facility, “the primary learning for us with the DEK project is really that participation in kind of PJM. It will really be our first battery that will be on the regulated side that we will be participating in the PJM market.⁵⁰ The annual revenue estimate has also changed from about \$800,000 to \$470,000 because of a smaller capacity sizing related to the change in location.”⁵¹

In its direct testimony, NKU listed several conditions that would need to be implemented before NKU could consider supporting the battery storage project. Those conditions are listed below:

1. DEK be required to document all revenues generated by the Battery Storage Project and provide sufficient information to allow the tracking of those revenues back to customers either through the Rider FAC or Rider PSM.
2. DEK should maintain the necessary information to evaluate the benefits of the Battery Storage Project to DEK customers. To the extent that DEK files another rate case prior to the expiration of the Battery Storage Project pilot program, DEK should be required to file a cost/benefit study for the Battery Storage Program at the time of the rate case. Ideally, this cost/benefit study should be filed in the public record to enable the ratepayers the opportunity to see the

⁴⁹ Kuznar rebuttal testimony, p. 2; Rebuttal testimony at page 30 of 242

⁵⁰ Kuznar testimony, VTE, Day 1, 18:27:38.

⁵¹ Kuznar testimony, VTE, Day 1, 18:28:38

financial “rewards” of the program. If the Pilot Program expires at the end of the proposed 3-year period but before the next rate case, the Company should be required to file a cost/benefit study regarding the Battery Storage Project six months after expiration of the pilot. Again, the study should be filed in the public record if possible.

3. DEK be limited to only that level of investment necessary to install the Battery Storage Project at the solar farm. DEK should be prohibited from further investments in battery storage until a full analysis of the current pilot program is performed and filed with the Commission.
4. If the Commission approves the battery project, any revenues generated from the Battery Storage Project should be returned to customers. Because the Company is not recognizing any O&M costs in rates, sharing revenues from the project through Rider PSM between the Company and customers is reasonable; i.e., 90 percent to ratepayers and 10 percent to DEK’s shareholders.
5. If the Commission approves the battery project, DEK should be prohibited from expanding the Battery Storage Project before the expiration of the current program. If the Commission does allow DEK to seek expansion of the program before the currently proposed expiration by way of a subsequent filing, all parties to the current rate case should be notified by DEK and be afforded the opportunity to participate in the filing or proceeding.

6. Based on Commission approval of the battery project, the Commission should review the results of the pilot program before approving any future battery storage investments on the DEK system.
7. Commission approval of this pilot should not be construed as a carte blanche endorsement of future battery storage investments by NKU, even with the suggested ratepayer protections previously articulated.

In its rebuttal testimony, DEK accepted some, but not all, of the conditions proposed by NKU. Partial acceptance of some of the conditions puts NKU in a position of opposition to the battery storage project.

During the hearing in this case, it became quite clear that DEK is learning as it goes at ratepayers' expense with a proposed battery storage project with little, if any, benefits for the ratepayers. During cross examination, Kuznar was asked to explain the meaning of questions directly from his pre-filed direct testimony. At the hearing, the witness read the following from his rebuttal into the record:

WHAT IS THE PURPOSE OF AND NEED FOR THIS PROJECT?

Energy storage is **expected** to play an increasingly important role in the electric system of the future. As more intermittent generation resources are connected to the grid, the need for ancillary services capable of being provided by battery storage is **expected** to increase. This project will give Duke Energy Kentucky valuable **insight** on how to incorporate energy storage into its existing operation to provide these bulk system benefits to its customers. [Emphasis added.]⁵²

Reviewing the response, Kuznar uses the word "expected" to describe benefits of the battery storage project. "Expected" is hardly a guarantee and can be easily dismissed

⁵² Kuznar testimony, VTE, Day 1, 18:39:54.

when benefits do not occur. It is for this exact reason that NKU insisted on cost benefit studies. In addition, the use of the word “insight” highlights the learning curve concept from the project at ratepayers’ expense.

Mr. Kuznar was also directed to page 9 of his direct testimony at the following question and was asked to read his answer.

PLEASE DISCUSS THE INFORMATION THAT DUKE ENERGY KENTUCKY WILL OBTAIN UNDER THE PILOT.

The benefits of this project will give Duke Energy Kentucky critical insight going forward with regard to energy storage. As technology continues to evolve in the energy space, as assets continue to become more distributed, and as costs continue to decline for technologies such as energy storage, quantifying the values it can provide are important for the Company. This pilot project will allow Duke Energy Kentucky to confirm certain values to the electrical distribution system, such as distribution asset deferral, resiliency, frequency regulation, integration of renewables, and voltage support to name a few. It will also allow Duke Energy Kentucky to gain operational knowledge for these types of systems. The operational experience and information obtained will be invaluable to future energy storage deployments and economic modeling.⁵³

When asked about the question and answer, the witness confirmed that “we will be learning as we integrate the system into our grid.”⁵⁴

In response to questions about DEK’s battery being the first in the PJM market for Duke Energy regulated, the witness testified that “being our first system we will gain learnings as we develop the project.”⁵⁵

Interestingly, under questioning by Commissioner Matthews, the witness stated that Duke has a battery in Ohio in the deregulated half that participates in the PJM.

⁵³ Kuznar testimony, VTE, Day 1, 18:44:28.

⁵⁴ Kuznar testimony, VTE, Day 1, 18:45:20.

⁵⁵ Kuznar testimony, VTE, Day 1, 18:45:50.

However, the witness did not have information on the performance of the battery because of restrictions in sharing information between affiliates.⁵⁶ When questioned about the information restriction, the witness could not cite any specific affiliate prohibition. Notwithstanding these restrictions, all of the Duke affiliates are owned by the ultimate parent company.

The most illuminating testimony on this proposal came from questioning by the Vice-chairman, who succinctly pulled together the critical facts and nuances of the battery proposal. In the interest of preserving that testimony in total, the following questions and answers are restated below.

Q: So, let's go right there to that point. There's a lot of information that can't be shared because of between the regulated and non-regulated.

A: That's correct.

Q: Enlighten me, which regulation is it that...

A: I don't, I'm not the one to give all the details but we basically run a regulated in our commercial business units.

Q: So, is it FERC?

A: It's the affiliate restrictions which I'm sure, I don't have all the details on it. But there is very little information we can share back and forth between the two businesses.

Q: Is this project going to cost approximately 8 million dollars?

A: The project here? Yes.

Q: And the 5.5 megawatt was going to be approximately 8.2 million dollars as well?

A: That's correct.

⁵⁶ Kuznar testimony, VTE, Day 1, 19:01:55.

Q: So, you downsized it for the same amount of money generating \$470,000 estimated revenue versus \$800,000?

A: Right, it's the megawatt hours remain very close between the two projects.

Q: 162,000 dollars a year to operate.

A: That's correct.

Q: Leaving if you wanted to do a straight cash flow of 307,000 dollars a year positive not counting carrying costs or anything else?

A: Correct.

Q: 27 years to recover without carrying cost.

A: With the current market conditions.

Q: Meaning there is no recovery and never will be. It's a fact. I mean you can say yes.

A: Well with the current PJM marketing conditions.

Q: Well do you expect them to change dramatically?

A: We'll see when it's implemented. It's tough to predict.

Q: In your opinion, do you expect it to change dramatically?

A: I think it'll change; I don't know if dramatically.

Q: Okay.

A: That's the right word.

Q: Thank you for being honest with that. So, I've got a two year manufacture warranty. What's the manufacturer's estimated useful life? The manufacturer's estimated useful life?

A: Well it's a two year for just some of, for some of, the balancing equipment. We'll have available kind of energy and availability guarantee on the batteries which will go out much farther than two years.

Q: That's a separate warranty you're going to purchase is it not?

A: It's the way we've done all of our projects, yes.

Q: It's a separate warranty right it's not an original warranty from the OEM. It's a separate warranty.

A: It's with the battery manufacturer.

Q: So, what is the estimated useful life from the manufacturer?

A: Well this project will last for 15 years.

Q: What does the manufacturer say the life of the battery is?

A: Well you basically tell them how long the battery will last and, you, that gets billed into your capital cost.

Q: So, what we're saying is there is an expected failure of the battery so you purchase a warranty in order to replace it and extend it to 15 years?

A: So the way the projects work is the batteries will degrade over time right so you start off and oversize them a little bit right and kind of based in your capital cost. That year for this one it might be depending on as we get into the details of the cycle life and everything like that, you'll replace some cells over the life of that asset. So, you're not replacing the entire system. But you're augmenting the system to ensure that you have that kind of energy and capacity over the life of the project.

Q: What's the cost of that warranty?

A: I don't know if I have it here. The pricing we have here is just based off a lot of projects we've executed in similar size.

Q: So, you've come up with an 8.2 million dollars cost based on initial engineering because you have experience in pricing these out.

A: We've built contracted or under contract for 9 systems.

Q: And do they all represent the same type of cost to operate, expected revenue, and initial capitalized cost?

A: Well depending on the size, the capital, you know we're using Lithium ion for all of them so that is going to be very consistent. We're very confident in our capital costs. The use cases vary for a number of our systems via providing frequency regulation, reliability, you know resiliency, capacity. So, it really depends on the use case. It'll kind of depend on the size we're building.

Q: So, what argument did Duke use to sell other regulators that this was a good thing?

A: Similar to what we're doing here. And they're all very different use cases. Stuff to compare, an asset and PJM to kind of an asset we would do in the Carolinas or Florida.

Q: How many projects do you have in Carolina?

A: We have 200 under construction right now.

Q: So, on 9 projects did you say total?

A: Yes.

Q: 9 projects. No expected rate of return. Recovery of probably if you put carrying costs in there 30 plus years. So that Duke shareholders can learn about the process.

A: What do you mean by no expected rate of return?

Q: Well there isn't going to be any ... there is going to be no recovery. No recovery of your investment. The asset will die before you ever recover the capital.

A: I wouldn't say that for all of our projects.

Q: If it's similar in investment and return, the numbers pretty much speak for themselves.

A: Again, this is the first project in PJM so we're using PJM economics here.

Q: So, your revenue is higher in other states?

A: I didn't say that. I said that use cases are different for other projects.

Q: I'm just taking 3 raw numbers: the capitalized cost which you say you feel confident in, basically 8 million dollars, operating costs are 163,000 annually, the revenue you mention is 470,000 on this particular project.

A: With current Reg D pricing and not including energy and capacity value. That is correct.

Q: So, what would I change that to in the Carolinas?

A: Again, they're very different markets. We don't have a price signal on in the Carolinas for frequency regulation.

Q: Well based on those numbers with no carrying costs, its 27 years before you recover your investment.

A: With the grand pricing, that's correct.

Q: So, I can't get there from here. That's the issue that I have. I'm really concerned that this is a learning experience that ratepayers are being expected to fund for Duke. I don't have any other questions.⁵⁷

This question and answer exchange with the Vice-chairman was very informative and supported conclusions that the NKU sought from its proposed conditions for approval. In the exchange between the Vice-chairman and Kuznar, it has become clear that the majority of the costs of this project will be borne by ratepayers. This is exactly what would be captured by the cost benefit study required by the NKU. If DEK is already recognizing that the majority of the costs will be borne by ratepayers, then the cost benefit study requested by NKU will reveal that battery storage should not be currently pursued. By admitting the loss now, the battery storage project should be abandoned. If DEK is already conceding that the majority of the costs are to be borne by ratepayers, NKU cannot support the battery storage project.

Furthermore, until the sharing of information is defined, the Commission should reject DEK's battery storage project. Under DEK's interpretation, a regulated entity of Duke Energy should invest millions of dollars in a learning project, even if an unregulated subsidiary was not producing the expected benefits solely on the protection of affiliates. This argument clearly lacks merit.

To conclude, the Commission should deny DEK's request for a battery storage program.

⁵⁷ VTE, Day 1, 19:02:55 - 19:10:05.

V. NKU RECOMMENDED SEVERAL RATEPAYER PROTECTION CONDITIONS FOR IMPLEMENTING THE EV PILOT PROGRAMS. DURING THE EVIDENTIARY HEARING, IT BECAME CLEAR DEK'S REQUEST FOR ELECTRIC VEHICLE/TRANSPORATION PILOT PROGRAMS SHOULD BE DENIED BECAUSE BENEFITS ARE TOO RISKY, ONLY SPECULATIVE FOR THE FORESEEABLE FUTURE, AND THE COSTS ARE MORE PROPERLY BORNE BY THE SHAREHOLDERS. THEREFORE, THE EV PILOTS SHOULD BE DENIED BY THE COMMISSION.

As with DEK's battery storage proposal, NKU has reviewed the Company's request for EV pilots with an eye toward promoting energy sustainability. However, DEK's proposal falls short of the goal; hence, NKU cannot support the Company's proposal.

Succinctly stated, DEK has requested approval of five EV Pilot Programs, which are as follows:

1. EV Fast Charging,
2. Electric Transit Bus Charging,
3. Non-Road Electrification,
4. Residential EV Charging, and
5. Commercial EV Charging.⁵⁸

Additionally, the Company requests \$395,000 in education, outreach, marketing, and project management costs.⁵⁹

⁵⁸ Collins, p. 15.

⁵⁹ *Id.*

DEK has offered the following conditions for approval by the Commission for the EV Pilots.

1. DEK will install, own and operate up to 5 EV Fast Charging locations totaling 10 charging stations.
2. DEK will credit customers through the PSM for any net revenues generated by the EV Fast Charging Stations. Note, this will require a modification to the current Rider PSM.
3. DEK will continue to operate the EV Fast Charging Stations beyond the Pilot Program period of 3 years until the end of the assets' useful life (10 years).
4. DEK will deploy EV Bus Charging Stations to prospective customers.
5. DEK will continue to operate the EV Bus Charging Stations beyond the Pilot Program (3 years) until the end of the assets' useful life (10 years).
6. DEK will provide incentive funding to grow Non-road Electrification Usage.
7. DEK will provide incentives for, and monitor up to, 300 Residential Charging Stations.
8. DEK will provide incentives for, and monitor up to, 160 Commercial Charging Stations.
9. DEK will invest approximately \$85,970 towards Marketing, Education, & Outreach for the EV Pilots. In addition, DEK will spend \$308,780 in Project Management.
10. The EV Pilots will last three years.
11. DEK will defer in a regulatory asset all Operation and Maintenance costs associated with the EV Pilots.
12. DEK will file a Report on the EV Pilots six months after the expiration of the EV Pilot Program.
13. DEK proposes \$1.375 million of capital investment and \$1.459 million of O&M for the EV Pilots.

In its direct testimony, NKU recommended several conditions that would need to be implemented before NKU could consider supporting the EV pilots. The following ratepayer protections were listed.

1. The investment and O&M costs in the EV Pilots should be limited to those total dollar values listed on Table 1 of DEK witness Reynolds' direct testimony at page 9. (Application, Volume 16, part 2 of 2, page 11 of 219.) DEK should be restricted to those investment totals until a further evaluation of the program is conducted as stated in point 4 below.
2. All revenues generated from all EV Pilot programs should be recorded as an offset to the deferred O&M costs (regulatory asset) proposed by DEK. To the extent the revenues exceed the O&M costs, then a regulatory liability would be created to capture those revenues to be returned to customers in the next rate case. Note that this approach would negate the need to expand the provisions of the current Rider PSM to include EV programs.
3. No extension of the Pilot Programs recovery of investment in EV Bus Charging Stations and Fast Charging Stations should occur beyond three years without prior Commission approval. If stranded investment occurs because of changes in site ownership, any party is free to argue whatever position they desire regarding recovery of those stranded investments.
4. DEK will maintain all documentation to perform a cost/benefit study either at the conclusion of the EV Pilots or included with the direct testimony of DEK during its next rate case if that rate case occurs before the expiration of the EV Pilots. If DEK is required to file a cost/benefit study prior to the expiration of the EV Pilots, DEK will still be required to file a cost/benefit study at the expiration of the EV Pilots. If possible, the cost benefit analysis should be filed in the public record in order to afford the ratepayers the opportunity to independently assess project benefits.
5. DEK should be prohibited from expanding the EV Pilots before the expiration of the current program. If the Commission does allow DEK to seek expansion of the program before the currently proposed expiration by way of a subsequent filing, all Parties to the current rate case shall be notified by DEK and be afforded the opportunity to participate in the filing or proceeding.

6. Once the pilot program has expired, the Commission should consider whether a separate EV class should be created. This approach would ensure that EV customers pay actual, non-subsidized cost of service rates for this service and help prevent other DEK customers from subsidizing EV investment. This proposal is reasonable because it would help to promote private industry competition in the EV charging station market. Indeed, DEK should not be allowed to exert its monopoly power to restrict, impair or otherwise interfere with competitive entry into the EV charging station market.
7. Any funds received from the Volkswagen Environmental Mitigation Trust Program should be recorded as a regulatory liability to reduce the EV investment in a future DEK rate case.

In its rebuttal testimony, DEK accepted some, but not all, of the conditions proposed by NKU.⁶⁰ Without acceptance of all of the conditions, NKU opposes the EV programs proposed by DEK.

In particular, DEK opposed the condition that a separate EV rate class be established. This condition was recommended to prevent cost subsidization from other rate classes and to allow competitive market entry for the other EV providers. In Case No. 2013-00365,⁶¹ Delta Natural Gas Company (“Delta”) requested Commission approval to construct, own and operate a compressed natural gas (“CNG”) motor vehicle fueling station in its service territory. The Commission denied Delta’s request, finding in part that:

“The reliance on rate base regulation to subsidize CNG used as a motor vehicle fuel in Kentucky raises the same concern regarding anti-competitive activities that are expressed by the CNG Parties. For these reasons, the Commission finds that Delta’s request for a CPCN to construct, own and

⁶⁰ See also Reynolds testimony at VTE, Day 2, 8:45.

⁶¹ See *In the Matter of Application of Delta Natural Gas Company, Inc. for an Order Declaring that it is Authorized to Construct, Own and Operate a Compressed Natural Gas Station in Berea, Kentucky*. Case No. 2013-00365, Before the Kentucky Public Service Commission.

operate a CGN station and place the capital costs and associated revenue and expenses in rate base should be denied.”⁶²

This is the exact same situation that is being proposed by DEK. The Commission should deny DEK’s EV pilot programs.

As a public utility, DEK is a monopoly and enjoys a guaranteed service territory⁶³ with customers who are captive to DEK unless they can generate their own electricity. If DEK believes its earnings, or profits, are below that which it needs to fulfill its fiduciary duty to maximize its profits for current shareholders as well as to attract new investors, the Company can, as it is doing in the instant case, petition the Commission for an adjustment in its rates.⁶⁴ A private business, on the other hand, does not have the right to seek governmental intervention at the PSC and request an adjustment in its rates.⁶⁵ Basic economics demonstrates a private business must compete in the marketplace and adjust its business model in whatever fashion necessary to generate a profit, or perhaps continue to exist. When asked whether it was fair for a monopoly to compete against private business in the EV market, the following exchange took place at the hearing.

Q: Do you believe it’s proper for a monopoly Duke to step forward and compete against a private market in the EV industry, yes or no?

A: I would disagree with the characterization that we are attempting to, the implication of your question is that we are attempting to distort the market and we are trying to support market growth.

⁶² Case No. 2013-00365, Final Order dated March 30, 2015, at page 20.

⁶³ VTE, Day 2, 08:40:52.

⁶⁴ Reynolds testimony, VTE, Day 2, 8:43:40; see also Reynolds, VTE, Day 2, 8:44:23.

⁶⁵ Reynolds testimony, VTE, Day 2, 8:44:19.

Q: I'm not asking whether you are distorting the market, I'm asking is Duke attempting to compete against the private enterprise EV market with this program?

A: As I mentioned in my testimony there's only one EV fast charger in Duke energy KY service territory so I wouldn't characterize the existing state as being a competitive market.

Cicero: So just yes or no is fine.

Q: I'm deferring...that's all I want is a yes or no. Is that a yes?

Cicero: It's a basic question, he's not asking you whether Duke's distorting the market; he's just asking monopoly against private industry, it's a yes or no answer. It's basic economics. It's the only question he's asking.

A. I really don't feel like I can answer the question.

Cicero: I think you can; he's asking for your opinion. It's an opinion; it's your opinion, it's all it is, your testifying to your opinion

A. Sure, my personal opinion would be that yes, it is possible.⁶⁶

The witness was not only recalcitrant in admitting that DEK would be competing against private enterprise but was seemingly indifferent about the EV infrastructure currently in place. In an attempt to argue for DEK's entry into the EV market, the witness maintained that private business is not currently keeping up with projected demand for EV infrastructure and growth. He had earlier testified that there were only 15 level 2 stations and 1 DCFC station, all publicly available, that were 24 hour accessible and non-proprietary in Duke's service territory.⁶⁷

⁶⁶ Reynolds testimony, VTE, Day 2, 8:52.45.

⁶⁷ Reynolds testimony, VTE, Day 2, 8:31:15 – 8:32:01; *See also* Reynolds attachment 1 to rebuttal testimony.

However, DEK did not have the actual data of the utilization review of the 15 existing stations nor even anecdotal notion of the usage.^{68,69} Based on proprietary reasons, the existing stations are reluctant to provide it.⁷⁰ Simply stated, DEK does not even know whether the **current** market would support, on a revenue positive basis, the need for additional charging stations. Any benefits are speculative at best for the foreseeable future.

At the time of the filing of the witnesses' testimony there were only 320 cars in DEK service territory and about 2,200 in Kentucky, overall.⁷¹ Thus, with the extremely small number of current vehicles, and no actual data on station usage, DEK is stretching its argument that more infrastructure is needed, especially at ratepayers' cost. Moreover, insofar as the revenues associated with the current EV registration, the revenues would be minimal to begin with but will increase with EV adoption.⁷² If there is a revenue deficit with the program the ratepayers would be required to pay the costs in the next DEK rate case.⁷³

⁶⁸ Reynolds testimony, VTE, Day 2, 8:33:20.

⁶⁹ See, also, DEK's response to Staff's Post-Hearing Data Requests, DR-01-010.

Request:

Provide copies of any correspondence in which Duke Kentucky or its affiliates have requested usage data from Electric Vehicle Charging Station providers and the response from providers.

Response:

Email correspondence with Electric Service Providers regarding charging station utilization was received in a period beyond the company's email record retention period no longer exists.

⁷⁰ Reynolds testimony, VTE, Day 2, 8:57:30.

⁷¹ Reynolds testimony, VTE, Day 2, 8:33:50.

⁷² Reynolds testimony, VTE, Day 2, 8:37:00-8:37:26

⁷³ Reynolds testimony, VTE, Day 2, 8:37:40.

Delta is directly on point in dismissing DEK's request to have ratepayers, instead of shareholders, fund an EV program. Specifically, the Commission made the following finding regarding the monopoly service of a utility:

"The Commission finds that, as suggested by the CNG Parties and the AG, Delta's stated goals of using natural gas as a clean alternative motor vehicle fuel and reducing reliance on foreign oil could be accomplished through one of its wholly-owned, unregulated subsidiaries, with the risk incurred by Delta's shareholders, rather than requiring subsidization by its ratepayers."⁷⁴

Once again, these same conditions apply to the DEK proposed EV programs.

The EV programs should not be protected at ratepayers' expense.

DEK's request for approval of EV pilots, as now apparent from the lack of any substantive evidence, should be denied given the risk that ratepayers are almost certain to be straddled with additional costs. Importantly, given the Company's officers' fiduciary duty to maximize profits for the shareholders, it would seem abundantly clear the pilot should be undertaken by an unregulated affiliate.

⁷⁴ Case No. 2013-00365, Final Order dated March 30, 2015, at page 19.

WHEREFORE, Northern Kentucky University respectfully requests the Commission 1) deny DEK's revenue request, and in lieu thereof, adopt and award that which the Kentucky Attorney maintains is adequate and demand a one- time refund of Duke Energy Business Services LLC's excess accumulated deferred income taxes ("EDIT") of \$215,000; 2) accept the Company's class cost of revenue allocation as filed; 3) deny the Company's request for a Major Storm Deferral Mechanism; 4) deny the Company's request for Proposed Battery Storage Project; and, 5) deny the Company's request for Electric Vehicle/Transportation Pilot Programs.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I certify that this Brief is a true and accurate copy of the document being filed with the Commission in paper medium; that the electronic filing was transmitted to the Commission on March 16, 2020; that there are no parties that the Commission has excused from participation by electronic means in this proceeding; and that an original and one copy of the filing in paper medium are being delivered to the Commission within two (2) business days.



Dennis G. Howard, II