STATE OF INDIANA
INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION OF	)	
THE CITY OF FRANKFORT, INDIANA	)	**CAUSE NO. 44856**
FOR APPROVAL OF A NEW	)	
SCHEDULE OF RATES AND CHARGES	)	
FOR ELECTRIC SERVICE	)	

FILED
SEP 27 2016
INDIANA UTILITY
REGULATORY COMMISSION

DIRECT TESTIMONY
of
SCOTT D. BOWLES, P.E.

On
Behalf of
Petitioner,
City of Frankfort, Indiana

Petitioner's Exhibit 3

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Scott D. Bowles and my business address is 5524 North County Line Road East, Auburn, Indiana 46706-9302.

Q. WHAT IS YOUR PROFESSION AND BY WHOM ARE YOU EMPLOYED?

A. I am a registered professional engineer in the State of Indiana as well as ten other states. I am a Principal and the President of Spectrum Engineering Corporation.

Q. PLEASE DESCRIBE SPECTRUM ENGINEERING CORPORATION AND ITS AREAS OF EXPERTISE.

A. Spectrum Engineering Corporation, located in Auburn, Indiana, has been a privately held business for 36 years. Spectrum offers professional engineering services for electric utilities, including: system studies, design, testing, commissioning and assistance with negotiations with vendors and contractors. Supplementary expertise in contract administration, project management and broadband (fiber to the home) feasibility studies, as well as design and deployment, have also become a strong part of Spectrum's services. In addition, Spectrum Engineering has developed cost of service studies for its municipal utility clients.

Q. MR. BOWLES, WILL YOU PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE?

A. For my undergraduate studies, I attended Michigan Technological University as a student of both Electrical Engineering and Applied Physics with a minor in

Mathematics. While at Michigan Technological University, I worked as a cooperative student; sponsored by Bechtel Power Corporation at the Enrico Fermi II Nuclear Facility in Newport, Michigan, then later at the Belle River Coal Fired generating facility in the East China Township of Michigan. I transferred to Tri-State University to complete my Electrical Engineering degree. In 1986, I graduated from Tri-State University cum laude with a Bachelor of Science degree in Electrical Engineering (Power Option). I also have completed extensive coursework in Mechanical and Civil Engineering. In 1992, I earned a Master's Degree in Business Administration (MBA) from Indiana University.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to present the results of the cost of service study filed in this proceeding by Petitioner, Frankfort City Light and Power ("Frankfort" or the "Utility"), and to discuss the underlying methodology I used to conduct the cost of service study. My testimony also presents and explains Frankfort's proposed design of rates and charges. I sponsor Petitioner's schedules of rates and charges. In addition, I describe and provide support for the proposed Economic Development Rider and certain changes to Frankfort's non-recurring charges. I also provide support for and describe Frankfort's capital improvement plan to be funded with the proposed electric revenue bonds.

Q. PLEASE IDENTIFY THE ATTACHMENTS YOU ARE SPONSORING IN THIS PROCEEDING.

A. I am sponsoring the following Attachments, and will discuss each Attachment and associated schedules in the applicable sections of my testimony:

SDB-1 Electric Cost of Service Study

SDB-2 Description of Allocation Factors

SDB-3 Red-lined Version of Proposed Electric Rates

SDB-4 Clean Version of Proposed Electric Rates

SDB-5 Impact Study of Proposed Rates on Smallest Customers of Each Class

SBD-6 Proposed Economic Development Rider (with statement of benefits application attachment)

SDB-7 Impact Study of Proposed Economic Development Rider

SDB-8 Determination of Non-Recurring Charges

SDB-9 Proposed Capital Improvement Plan Estimates

Q. DID YOU PREPARE OR DIRECT THE PREPARATION OF EACH OF THE IDENTIFIED ATTACHMENTS?

A. Yes.

ELECTRIC COST OF SERVICE STUDY

Q. PLEASE EXPLAIN THE BASIS FOR YOUR EVALUATION AND DESIGN OF RATES.

A. The municipal ratemaking process generally can be categorized into three steps. First, the utility's total revenue requirements are determined to assess whether an adjustment to overall revenues from rates and charges is necessary. Petitioner's witness Andrew Lanam of Reedy Financial Group sponsors the evaluation of Petitioner's revenue requirements. Second, the utility must consider how the amount of any proposed increase in revenues is to be distributed among the various customer classes, based on the cost to serve each class. Finally, individual tariffs are designed to produce the required amount of revenues for each customer class to reflect the cost of serving customers within the class. The guiding principle at each step is cost of service.

Q. PLEASE DESCRIBE FURTHER THE PROCESS OF ALLOCATING THE REVENUE INCREASE TO THE APPROPRIATE CUSTOMER CLASS.

A. Each customer class should, to the extent reasonably practicable, produce revenues equal to the cost of serving that particular class. The standard tool for determining this is a class cost of service study, which determines the cost to serve, and the revenues recovered from each class of service. Rate levels should be modified so that each class provides approximately the same rate of return. This assures a correct match between the rates charged each class and the cost of serving it. In designing individual tariffs, the goal should also be to relate the rate design to the cost of service so that each customer's rate tracks, to the extent practicable, the utility's cost of providing that service.

Q. PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY WITH RESPECT TO THE COST OF SERVICE STUDY.

A. Allocating Frankfort's overall historical test year costs to the various classes of service in a manner that reflects the relative costs of providing service to each class was accomplished through analyzing costs and assigning each customer or rate class its proportionate share of the utility's total costs within the historical test year. In order to allocate costs to the various classes, I reviewed Frankfort's expense and plant accounts and the relative costs of providing facilities and services for each rate class and analyzed the key factors that cause the costs to vary.

Q. WHY IS IT IMPORTANT TO ADHERE TO BASIC COST OF SERVICE PRINCIPLES IN THE RATE DESIGN PROCESS?

A. It is important to use cost of service as the primary factor in the rate design process because it achieves the principles of equity, engineering efficiency (cost minimization), conservation and stability.

Q. HOW IS EQUITY ACHIEVED BY BASING RATES ON COSTS?

A. When rates are based on cost, each customer (to the extent practical) pays what it costs the utility to serve that customer. If rates are not based on cost of service, some customers contribute disproportionately to the utility's revenues and subsidize the service provided to other customers, which may be inequitable.

Q. HOW DO COST-BASED RATES FURTHER ENGINEERING EFFICIENCY?

A. Cost minimization can be better achieved when customers receive the appropriate price signals from the rates they are charged. When the rates are designed so that energy costs, demand costs, and customer costs are properly reflected in the energy, demand, and customer components of the rate schedules respectively, customers are provided with the proper incentives to minimize their costs. This in turn can minimize the costs to the utility.

Q HOW DO COST BASED RATES FURTHER CONSERVATION?

A. Conservation is more apt to occur when wasteful or inefficient uses of electricity are discouraged. When rates for electric power are based on actual cost of service, customers receive a balanced price signal on which to base their consumption decisions. If rates are not based on the cost to serve the customers, customers may be induced to use electricity inefficiently. It is important to note that Frankfort's existing rate structure is based on declining block principles whereby the more energy is consumed, the lower the unit energy price to the consumer. This method sends incorrect pricing signals regarding consumption efficiency. Further, the existing structure is incongruent with Frankfort's wholesale purchase power agreement where a single flat rate per kWh is charged for the energy consumed.

Q. HOW DO COST BASED RATES PROMOTE STABILITY?

A. The earnings impact on the utility attributable to changes in customer use patterns can be mitigated when rates are designed to track changes in the level of costs. From the perspective of the customer, cost-based rates provide a more reliable means of determining future levels of power costs.

Q. DID YOU PERFORM AN ELECTRIC COST OF SERVICE STUDY FOR FRANKFORT?

A. Yes. I worked with staff of Frankfort and completed the study in August of 2016. In order to allocate costs to the various classes, I reviewed Frankfort's expense and plant accounts and studied the relative costs of providing facilities and services for each rate class and analyzed the key factors that cause the costs to vary. The results of the electric cost of service study and associated proposed electric rates and charges are presented in Petitioner's Attachment SDB-1 Electric Cost of Service Study.

Q. WAS THE COST OF SERVICE STUDY USED TO ESTABLISH INITIAL REVENUE RESPONSIBILITY LEVELS AT FRANKFORT'S PROPOSED REVENUE REQUIREMENT FOR EACH RATE CLASS?

A. Yes. I used the cost of service study as the basis for designing the rates proposed in this proceeding. Clean and red-lined versions of the proposed revised rate schedules are set forth in Attachments SDB-3 Redlined Version of Proposed Electric Rates and SBD-4 Clean Version of Proposed Electric Rates.

Q. WAS AN ELECTRONIC COPY OF THE COST OF SERVICE STUDY MODEL PROVIDED TO THE COMMISSION AND THE OFFICE OF THE UTILITY CONSUMER COUNSELOR?

A. Yes. A CD containing the electric cost of service study in Excel format with formulas intact is included with the working papers provided to the Commission and the OUCC as a confidential working paper.

Q. IN PERFORMING THE COST OF SERVICE STUDY YOU ARE SPONSORING, DID YOU BECOME FAMILIAR WITH THE ELECTRIC SYSTEM OWNED AND OPERATED BY FRANKFORT?

A. Yes. In fact, I have worked with the Utility on various system projects for more than 30 years.

Q. WHAT IS THE GUIDING PRINCIPLE THAT SHOULD BE FOLLOWED WHEN PERFORMING AN ELECTRIC COST OF SERVICE STUDY?

A. As previously mentioned, cost causation is the fundamental principle applicable to all cost of service studies. Cost causation addresses the question of which customer or group of customers causes the Utility to incur particular types of costs. In order to answer this question, it is necessary to establish a relationship between the services used by a utility's customers and the particular costs incurred by the utility in serving those customers.

Q. WHAT IS THE GENERAL FRAMEWORK OF A COST OF SERVICE STUDY?

A. The most important theoretical principle underlying a cost of service study is that cost incurrence should follow cost causation. In other words, costs assigned or allocated to particular customers should be those costs that the particular customers caused the utility to incur because of their usage characteristics.

Q. WHAT ARE THE STEPS OF PERFORMING A COST OF SERVICE STUDY?

A. In order to establish the cost responsibility of each customer class, initially a three step analysis of the utility's total operating costs must be undertaken. The three steps are: (1) cost functionalization; (2) cost classification; and (3) cost allocation.

Q. DID YOU APPLY THE ABOVE STEPS IN DEVELOPING FRANKFORT'S COST OF SERVICE STUDY?

A. Yes.

Q. PLEASE DESCRIBE COST FUNCTIONALIZATION AND ITS APPLICATION TO FRANKFORT.

A. Cost functionalization identifies and separates plant and expenses into specific categories based on the various characteristics of utility operation. Frankfort's primary functional cost categories associated with electric distribution service include: Distribution, General Plant, Meters, Lighting and Services.

Q. PLEASE DESCRIBE COST CLASSIFICATION.

A. Cost classification further separates the functionalized plant and expenses categories described above according to the primary factors that determine the amount of costs incurred. These factors are: (1) the number of customers; (2) the need to meet peak demand requirements that customers place on the system; and (3) the amount of electricity consumed by customers. These classification categories have been identified for the cost of service study as 1) Customer Costs; 2) Demand Costs; and 3) Energy Costs.

Q. PLEASE DESCRIBE FURTHER HOW THESE COST CLASSIFICATION CATEGORIES RELATE TO THE AMOUNT OF COSTS INCURRED BY FRANKFORT.

A. *Customer* Costs are incurred to extend service to and attach a customer to the distribution system, meter any electric usage, and maintain a Frankfort customer's account. Customer Costs are largely a function of the number of customers served and continue to be incurred whether or not the customer uses any electricity. They may include capital costs associated with minimum size distribution systems, services, meters, and customer billing and accounting expenses.

Demand Costs are capacity-related costs associated with the plant that is designed, installed, and operated to meet maximum hourly or daily electric usage requirements, such as transmission lines, transformers and substations, or more localized distribution facilities which are designed to satisfy individual customer maximum demands.

Energy Costs are those costs that vary based on the amount of kilowatt hours ("kWh") sold to customers.

Q. DO A SIGNIFICANT PORTION OF FRANKFORT'S COSTS VARY BASED ON THE AMOUNT OF KWH SOLD TO CUSTOMERS?

A. No. The vast majority of Frankfort's costs are fixed with respect to energy usage. Very little of Frankfort's remaining delivery service cost structure is energy-related.

Q. PLEASE DESCRIBE COST ALLOCATION

A. Cost allocation involves the allocation of each functionalized and classified cost element to the individual customer or rate class that benefits from the cost. Customers generally are divided into customer classes based on the type and character of services they require.

Q. CAN A LARGE PORTION OF THE PLANT AND EXPENSES OF A UTILITY BE DIRECTLY ASSIGNED TO A SPECIFIC CUSTOMER OR CERTAIN CUSTOMER CLASSES?

A. Some can, but most cannot be directly assigned to particular customers or customer classes. The nature of utility operations is characterized by the existence of facilities used jointly or commonly by multiple customers and classes. To the extent that a utility's plant and expenses cannot be directly assigned to customer classes, allocation methods must be derived to assign or allocate the remaining costs to the customer classes.

Q. DID YOU DEVELOP ALLOCATION FACTORS IN CONNECTION WITH THE PREPARATION OF FRANKFORT'S COST OF SERVICE STUDY?

A. Yes. The cost of service study I prepared uses a number of allocation factors to fairly and accurately distribute the appropriate costs to each rate class. Attachment SDB-2 contains a description of each allocation factor and its use in the cost of service study.

Q. WHAT IS THE SOURCE OF THE COST DATA ANALYZED IN FRANKFORT'S COST OF SERVICE STUDY?

A. Cost data was extracted from Frankfort's revenue requirement data set forth in the exhibits of Andrew Lanam of Reedy Financial Services for the historical test year ending March 31, 2016. Where more detailed information was required, the data was derived from the historical books and records of Frankfort and information provided by Utility personnel.

Q. HOW DID YOU FUNCTIONALIZE AND CLASSIFY FRANKFORT'S COSTS?

A. I started by identifying each of Frankfort's accounts. Each account was assigned to a specific function. Costs were then classified in accordance with the applied allocation factor described in Attachment SDB-2 Description of Allocation Factors. The allocation factors were designed to account for the variability of costs within each functionalized classification.

Q. PLEASE DESCRIBE THE RATIONALE USED IN THE DEVELOPMENT OF THE ALLOCATION FACTORS.

A. Several allocation factors were needed to accurately distribute revenues and costs among the customer classes; the basis of which can be categorized as Revenue, Energy and Demand.

Revenue for each rate class was recorded monthly by type of charge (energy, cost adjustment, demand, code adjustment and customer), then adjusted to match the audited financial reports. This information was used to calculate the revenue allocation cost factors for each rate class.

Similarly, *Energy* consumption was recorded monthly for each rate class, then adjusted to match audited financial reports. System loss factors were applied to each rate class in order to adjust total consumption to match wholesale purchases from the Indiana Municipal Power Agency ("IMPA") for the test year. I then used this information to calculate energy allocation cost factors for each rate class.

Demand charges were determined monthly for each rate class, excluding lighting loads. Direct measurements were used in classes having metered demand rates. Rates without demand metering were assigned a pro rata share of the remaining unmetered demand coincident with the system demand.

Q. HAVE YOU EXAMINED THE PERCENTAGE RATE INCREASES THAT WOULD BE REQUIRED FOR EACH RATE SCHEDULE PER THE COST OF SERVICE STUDY?

A. Yes. As described in the testimony of Mr. Andrew Lanam, Frankfort revenues were found to be 10.09% deficient. Applying the cost of service study requires metered rate class increases ranging from 9.50% to 11.81%. Lighting rates will increase from 19.33% to 19.65%.

Q. HOW MUCH PROFIT DID YOU BUILD INTO YOUR MODEL?

A. No profit or extra margin has been built into the model. Frankfort is only looking for the proposed increase to cover costs associated with purchase power, needed capital improvements, and operating costs. Frankfort City Light and Power is a Municipal Electric Utility. As such, the shareholders of the Utility are its rate payers.

Q. DO THE PROPOSED RATES ASSUME THE TRACKER RESETS TO ZERO?

A. Yes. The Cost of Service Model accounts for the projected increase in purchase power cost from IMPA through March 31, 2017.

Q. PLEASE DESCRIBE PETITIONER'S ATTACHMENTS SDB-3 AND SBD-4.

A. Attachments SDB-3 and SDB-4 are red-lined and clean version of Frankfort's rate schedules, respectively.

Q. DO YOU BELIEVE THE PROPOSED RATES ARE FAIR AND EQUITABLE AND REPRESENT REASONABLE AND JUST RATES AND CHARGES FOR ELECTRIC SERVICE?

A. Yes. The rates designed for Petitioner target the recovery of each class's cost of service. That is to say, the rates determined in the cost of service study recover the true cost to serve, with no subsidy between classes.

Q. HAVE YOU STUDIED THE IMPACT OF THE PROPOSED RATE INCREASE TO SMALL USERS IN EACH CUSTOMER CLASS?

A. Yes. I performed an Impact Study for each rate class to ensure that ratepayers were not being unduly burdened. Specifically, I studied July 2016 billings for the five smallest users in the residential class and the five smallest users in each of the remaining customer classes. I then compared the proposed rates to Frankfort's July 2016 rates for these customers. The resulting analysis is depicted in Attachment SDB-5 Impact Study of Proposed Rates on Smallest Customers of Each Rate Class. Study over the last year of the smallest residential rate payers indicates that the proposed rate increase would average $6.78 per month. Over the same period, the smallest Class B commercial customers rate would increase an average of $7.84. The most heavily impacted commercial customers are being studied now. The Utility intends to proactively speak with the most impacted customers, and where practical, offer solutions to lessen the impact. It is also my understanding that the Utility is working with each customer to evaluate rate class changes to benefit the customer.

INCREASED CUSTOMER CHARGE

Q. IS Frankfort PROPOSING TO INCREASE THE CUSTOMER CHARGE FOR EACH OF ITS RATE CLASSES?

A. Yes. Frankfort is proposing to increase its monthly customer charges as follows:

Class	Current Customer Charge	Cost-Based Customer Charge	Proposed Customer Charge
Rate A - Residential	$4.00	$14.95	$15.00
Rate B - Commercial	$6.00	$22.63	$20.00
Rate C - General Power	$15.00	$175.37	$45.00
Rate PPL – Primary Power		$4,409.43	$60.00
IP – Industrial Power			$600.00

Q. WHY IS Frankfort PROPOSING TO INCREASE ITS CUSTOMER CHARGES FOR THE IDENTIFIED CUSTOMER CLASSES?

A. The customer charges were adjusted to reflect the true fixed costs associated with interconnecting the customer to the Utility system. This fixed cost associated with interconnecting each customer is shown as "cost based" customer charge, which can be found near the bottom of Worksheet 7 Rate Development of the Electric Cost of Service Study included as Attachment SDB-1.

Q. COULDN'T FRANKFORT ELIMINATE THE PROPOSED INCREASE IN THE CUSTOMER CHARGE AND RECOVER THIS INCREASED COST THROUGH ITS VARIABLE RATES?

A. No. Artificially low customer charges require more of its fixed costs to be recovered through a markup in the variable energy charge. This approach to pricing provides inefficient price signals that distort customer's consumption decisions by setting the marginal price far above the marginal cost of either consuming, or foregoing consumption of, additional kilowatt-hours of electricity. In contrast, if all of the fixed costs of electricity production are recovered in a fixed customer charge, the variable energy charge can be set at a level that reflects the marginal cost of production. This two-part rate structure allows the Utility to recover its full revenue requirement, including fixed costs, while also efficiently giving customers appropriate price signals that allow them to determine whether the price justifies the marginal benefit of additional consumption.

Q. ARE THERE OTHER BENEFITS TO RECOVERING A GREATER SHARE OF FIXED COSTS IN THE FIXED MONTHLY CUSTOMER CHARGE?

A. Yes. An additional benefit is that it promotes margin stability for the benefit of both Frankfort and the customer classes who pay the increased customer charge. For Frankfort a rate design that recovers a smaller proportion of fixed costs in a variable energy charge improves the ability of the utility to recover its revenue requirements. Once the rates approved by the Commission go into effect, Frankfort may sell either more or less than the pro forma test year kWh and, other things being equal to the extent that a large amount of fixed costs are loaded into the variable charge, Frankfort will tend to either over-recover or under-recover its costs in years when weather causes usage to depart from the expected norm. Similarly, when a large margin to recover fixed costs is built into the variable energy charge, the bills of weather sensitive customers would increase more than necessary in years when weather drives greater usage.

Q. ARE YOU PROPOSING TO RECOVER ALL OF FRANKFORT'S FIXED COSTS THROUGH THE CUSTOMER CHARGE?

A. We are looking to recover all in the residential rate class and most in the commercial service. As the rate classes increase, the recovery of fixed costs lessens. Recovering all the utility's fixed costs through a customer charge would cause some customers in Frankfort's polyphase commercial classes (Rate C – General Power and PPL – Primary Power), undue financial burden. Therefore, Frankfort's fixed costs for polyphase rate classes remain more heavily subsidized by the variable rate than Frankfort's other rates.

Q. DOES INCREASING THE FIXED CUSTOMER CHARGE NEGATIVELY IMPACT CONSERVATION?

A. No. The delivery of electricity causes the Utility to incur both fixed costs and variable costs. When a rate structure recovers fixed costs in variable energy charges, the rate structure overstates the marginal cost of electricity and discourages consumption that would be efficient in the sense that the marginal benefit of consuming additional units of electricity exceeds the marginal cost of the energy required to produce and deliver that electricity.

Q. DO YOU BELIEVE FRANKFORT'S INCREASED FIXED CHARGE WILL ADVERSELY IMPACT LOW-INCOME CUSTOMERS?

A. No. First, the increase in the customer charge is necessary to move the rate structure closer to one that recovers the costs of providing that service regardless of consumption. This in turn lowers the energy charge and allows for a rate design that better reflects the true costs of service. This methodology also provides more appropriate price signals to promote efficient usage. Moreover, low-income households do not necessarily use less electricity than other households. In fact, many low-income customers use more than the residential average amount.

Q. WHAT DO YOU RECOMMEND WITH RESPECT TO THE PROPOSED INCREASES TO THE CUSTOMER CHARGE?

A. I recommend that the Commission approve Frankfort's proposed increases in the customer charges, which will enable Petitioner to recover most of its fixed costs in the customer charge.

NEW INDUSTRIAL POWER RATE

Q. ARE EACH OF THE RATE SCHEDULES INCLUDED IN ATTACHMENT SDB-3 EXISTING RATE SCHEDULES?

A. All of the rates currently exist, aside from a proposed new Industrial Power tariff and the proposed new Economic Development Rider.

Q. WILL ANY OF FRANKFORT'S EXISTING CUSTOMERS RECEIVE SERVICE UNDER THE NEW INDUSTRIAL POWER TARIFF?

A. No. Currently, there are no Frankfort customers that meet the requirements of the Industrial Power tariff, which include having a minimum demand of 10 MW and being directly fed from the Utility's 69 kV Transmission system.

Q. GIVEN THAT NO CUSTOMERS CURRENTLY ARE ELIGIBLE FOR THE RATE, WHY IS FRANKFORT PROPOSING A NEW INDUSTRIAL POWER TARIFF?

A. Although no customers exist on the Frankfort system that are eligible for this rate today, Frankfort wants to be proactive and offer an approved rate that reflects the cost to serve large users. Frankfort wants to be able to respond quickly and favorably to industries looking to locate in its service territory and/or existing customers that may be considering a significant expansion.

Q. HOW WAS THE PROPOSED INDUSTRIAL POWER TARIFF DESIGNED?

A. The Industrial Power tariff was modeled after Frankfort's existing Primary Power Rate, with certain adjustments for unrelated costs, such as a portion of the distribution costs, adjusted out. There are two characteristics that allow a customer to receive service under the Industrial Power tariff as opposed to the Primary Power Rate. First, any potential customer in the Industrial Power class is expected to consume more power (10 MWD) than a Primary Power customer. Second, a potential Industrial Power customer will take service only at transmission levels while a Primary Power customer takes service at the distribution level. In addition, as a practical matter, a cursory review of the existing transmission path was conducted to determine if enough building sites exist along said route, since any Industrial Power customer must be connected directly to the transmission system.

Q. WHAT IMPACT DOES THE PROPOSED INDUSTRIAL POWER TARIFF HAVE ON EXISTING CUSTOMERS?

A. There is no impact on existing customers. The Industrial Power tariff is not expected to be subsidized by the existing customers. Should a customer qualify for the Industrial Power rate, the Utility intends to perform a cost of service study after said rate has been in use for 2 years.

Q. IN YOUR OPINION, SHOULD THE COMMISSION APPROVE THE PROPOSED INDUSTRIAL POWER RATE FOR USE BY ELIGIBLE Frankfort CUSTOMERS?

A. Yes, I believe it should.

<u>ECONOMIC DEVELOPMENT RIDER</u>

Q. WHY IS Frankfort PROPOSING TO IMPLEMENT AN ECONOMIC DEVELOPMENT RIDER?

A. The Mayor of Frankfort, Frankfort's Electric Superintendent, and other government officials requested an Economic Development Rider ("EDR") be developed to stimulate business growth within the community.

Q. PLEASE DESCRIBE IN FURTHER DETAIL THE GOAL OF THE EDR.

A. The goal of the EDR is to incent business growth for both new and existing businesses. Any new load qualifying for the EDR may not be of a lesser quality than the existing aggregate load of the Utility. A load of lesser quality would either make less efficient use of the existing infrastructure or cause Frankfort to make capital investments to correct for the lesser quality load's deficiencies. Please refer to Attachment SDB-6 regarding details of the proposed Economic Development Rider.

Q. HOW WILL THE PROPOSED EDR IMPACT BILLS OF ELIGIBLE CUSTOMERS?

A. Customers that meet the eligibility requirement of the EDR will receive a 15% discount on the Demand charge in Year 1, then 10% in Years 2 through 4, with Year 5 declining to 5%, provided the load remains in compliance.

Q. WHAT QUALITIES WILL FRANKFORT REVIEW TO DETERMINE WHETHER CUSTOMERS QUALIFY FOR THE EDR?

A. The EDR is restricted to customers that meet certain criteria relating to the quality of the load. These criteria include minimum size, Total Harmonic Distortion, Load Factor, Power Factor, compliance with applicable standards, Business Type, and Jobs Creation.

Minimum Size was used as a criteria to make efficient use of the administrative process. That is to say, a minimum load was developed to limit the number of applicants to those creating a more significant impact for the Utility, thereby maintaining engineering and administrative efficiency.

Total Harmonic Distortion is an important criterion to guard against a new load injecting unwanted harmonics onto Frankfort's grid. Unwanted harmonics often lead to premature heating and degradation of the serving transformer. Harmonics also can negatively impact Frankfort's other customers and lead to process disruption and costs associated with determining the cause and remediation.

Load Factor for Frankfort's existing customer base averages 70%. Any new load having a load factor greater than 70% will use the infrastructure at the same level of efficiency or more efficiently than Frankfort's existing customer base. A load factor under 70% results in less efficient use and leads to costs ultimately being borne by the entire class of customers.

Power Factor for Frankfort's existing customer base averages 98%. Any new load having a power factor greater than 98% will use the infrastructure at the same level of efficiency or more efficiently than the existing community. A power factor under 98% results in less efficient use and leads to costs ultimately being borne by the entire class of customers.

Compliance with Applicable Standards assures safety and reliability for the public.

Q. PLEASE COMMENT ON THE DESIGN OF THE ECONOMIC DEVELOPMENT RIDER.

A. In addition to the quality restrictions outlined above, the EDR is designed to attract growth in business as determined by leadership to be desirable to the community that would not otherwise locate within the service territory. As previously mentioned, to guard against any undue subsidy, the benefit of the EDR is limited to a 10% discount on the Demand charge only for Year 1, and 5% for Years 2 through 5 provided the load remains in compliance. Also, the new or expanded load must result in the creation of at least ten full time equivalent jobs.

Q. IF APPROVED, WOULD THE EDR RESULT IN COSTS BEING SHIFTED TO FRANKFORT'S REMAINING CUSTOMERS?

A. The EDR is not subsidized by the existing customers over its length of term. The Customer charge and Energy consumption are billed in full. Customers qualifying for the EDR under the Primary Power rate are subsidized by 0.93% for the first year with the subsidy being recovered in the second year. No further subsidy exists over the life of the EDR. Similarly, customers qualifying for the proposed EDR under the newly proposed Industrial Power (IP) rate, would be subsidized in the first year by 1.68%. The subsidy is fully recovered in about 2.5 years. No further subsidy exists over the life of the EDR. Customers would have to agree to remain connected to the system for a period of five years to keep the benefit of the EDR. Please refer to Attachment SDB-7 Impact Study of Proposed Economic Development Rider for the complete analysis. It is my opinion that the EDR as designed will not have any adverse impact on existing rate payers. Should the customer exit prior to the term of the EDR, the customer must forfeit all discounts taken.

Q. IS THE PROPOSED EDR AVAILABLE TO EXISTING CUSTOMERS?

A. Yes, provided they meet the requirements outlined in the EDR. To be clear, the EDR is only available for new load added by an existing customer.

Q. IN YOUR OPINION, IS FRANKFORT'S PROPOSED EDR "NON-DISCRIMINATORY, REASONABLE, AND JUST?"

A. In my opinion, yes. The discounts provided to an eligible customer under the EDR will not result in the shift of costs to Frankfort's other customers. Moreover, the discounts provided to an eligible customer under the EDR may assist in attracting new businesses and employment opportunities to the City of Frankfort and thereby benefit all Frankfort customers.

<u>CHANGES TO NONRECURRING CHARGES</u>

Q. IS Frankfort PROPOSING TO CHANGE ANY OF ITS NON-RECURRING CHARGES?

A. Yes. Frankfort is proposing to change or add to its non-recurring charges, the following: (i) Reconnect/Disconnect Fee; (ii) Return Check Fee; (iii) Meter Test Fee; (iv) Service Call Fee; (v) Temporary Service Charge; and (vi) Late Payment Charge.

Q. PLEASE DESCRIBE HOW THE CHANGE TO THE RECONNECT/DISCONNECT FEE WAS DERIVED.

A. The reconnect disconnect/fee was derived so that it would recover Frankfort's costs of reconnecting and disconnecting service. The equipment cost and hourly labor cost were provided by the Utility. Labor overheads and benefits were not included in this calculus. The tasks and time to complete each function were identified and quantified in conjunction with utility operating staff. Please refer to

Attachment SDB-8 Determination of Non-Recurring Charges for the details of the calculation.

Q. HOW WAS THE PROPOSED NEW RETURN CHECK FEE DETERMINED?

A. The revised return check fee was established to recover most of the cost associated with a returned check. In general, the cost of a returned check due to non-sufficient funds is the greater of either $15 or 5% of the value returned, plus the Utility's direct costs of administration. Labor overheads and benefits were not included in this calculus. Please refer to Attachment SDB-8 Determination of Non-Recurring Charges for complete details. The hourly labor cost and the average time allocated to process and follow-up on the returned check was provided by Frankfort.

Q. HOW DID YOU DETERMINE THE METER TEST FEE?

A. Again, the meter test fee was established sufficient to recover the cost of performing a meter test and rounded up to the nearest whole dollar. The equipment cost and hourly labor cost were provided by the Utility. Labor overheads and benefits were not included in this calculus. The tasks and time to complete each function were identified and quantified in conjunction with utility operating staff. Attachment SDB-8 Determination of Non-Recurring Charges contains a detailed calculation.

Q. PLEASE DESCRIBE HOW THE CHANGE TO THE SERVICE CALL FEE WAS DERIVED?

A. As with the other non-recurring charges, Frankfort provided the equipment cost and hourly labor cost. Labor overheads and benefits were not included in this calculus. The tasks and time to complete each function were identified and quantified in conjunction with utility operating staff. The rate, which is designed to recover these costs, is calculated in Attachment SDB-8 Determination of Non-Recurring Charges.

Q. HOW DID YOU DETERMINE THE PROPOSED TEMPORARY SERVICE CHARGE?

A. The Temporary Service Charge recovers most of the cost associated with establishing and later removing the temporary service. Please refer to Attachment SDB-8 Determination of Non-Recurring Charges for complete details.

Q. HOW WAS THE PROPOSED LATE PAYMENT FEE DETERMINED?

A. The material, and hourly labor cost was provided by the Utility. Labor overheads and benefits were not included in this calculus. The tasks and time to complete each function were identified and quantified in conjunction with utility operating staff. The cost was then divided by the average residential bill, based on the proposed rates. The resulting percentage was then rounded down to the nearest whole percentage point. Please refer to Attachment SDB-8 Determination of Non-Recurring Charges for complete details.

CAPITAL IMPROVEMENT PLAN AND EXTENSIONS & REPLACEMENTS REVENUE REQUIREMENT

Q. ARE YOU FAMILIAR WITH THE PROPOSED CAPITAL IMPROVEMENT PLAN?

A. Yes, I am. Spectrum Engineering was engaged in 2015 to perform the power system study and develop a plan for the Utility. Spectrum worked closely with Frankfort's staff to prepare the study and proposed capital improvement plan. Each recommendation was then carefully reviewed to ensure that each project in the plan was necessary for Frankfort to continue to provide adequate and reliable service and that the cost estimates in the plan were reasonable.

Q. PLEASE DESCRIBE ATTACHMENT SDB-9.

A. Attachment SDB-9 Capital Improvement Plan, describes a total of twenty capital projects and purchases required by the Utility to keep functioning in a safe, reliable, efficient manner.

Q. WHAT STEPS DID SPECTRUM ENGINEERING TAKE TO REVIEW THE PROPOSED CAPITAL IMPROVEMENT PLAN?

A. I was provided with a copy of the Frankfort's Capital Improvement Plan. I then reviewed each capital project carefully to ensure compliance with the following criteria: 1) necessity, 2) capital cost accuracy, and 3) priority.

Q. PLEASE DESCRIBE THOSE CRITERIA AND HOW THEY APPLY TO FRANKFORT'S CAPITAL IMPROVEMENT PLAN.

A. With respect to *necessity,* a review of line congestion at peak times supported the need for and location of the new substation included in Frankfort's Capital Improvement Plan. Other points of congestion on Frankfort's system also support the need for the line rebuild identified in the Capital Improvement Plan. My inspection of the Utility's aging substation infrastructure supports replacement and upgrade recommendations presented in the Capital Improvement Plan. Also, my inspection of the Utility's aging vehicle fleet supports the fleet replacements recommended in the Capital Improvement Plan. In sum, my inspection validated the necessity of all proposed projects.

With respect to *capital cost accuracy*, I directed staff to develop construction cost estimates in 2016 dollars using recent quotes for like materials on similar projects within 150 miles of Frankfort. Staff also considered how the Utility plans to execute the work. Most of the construction cost estimates included a 20% contingency. Items 2, 3, 4, 6, and 19 were based on firm quotes and contain no contingency.

All qualifying, proposed projects were collaboratively reviewed with the operating staff of the Utility. *Priority* was given to projects with the greatest need and/or urgency.

Q. **PLEASE PROVIDE AN OVERVIEW OF THE PROJECTS SET FORTH IN THE CAPITAL IMPROVEMENT PLAN.**

A. The projects included in the capital improvement plan are summarized in the table below:

	Proposed Project	**Budget**
1)	Install cutouts on radial taps to isolate disturbances.	$137,750.00
2)	Update the existing distribution protective relay settings.	$16,850.00
3)	Update/install Arc Flash Labels based on protective device coordination results/recommendations.	$4,250.00
4)	Vehicle Fleet Additions (2 service Pick-ups replace #2-4 and #2-4A with one and #2-7 with the other).	$50,259.00
5)	Voltage Regulators installed to remedy voltage issues on selected circuits, Burlington Sub feeder 5, Fairgrounds Sub Feeder 3, Westside Sub Feeder 3, Westside Sub Feeder 4.	$481,424.00

6) Vehicle Fleet Additions (2 service trucks to replace service trucks #2-9 and #2-14).	$335,150.00
7) Re-conductor distribution circuits to increase ampacity (reduce bottleneck), WSS6 OH SW16 & 11516 – from 336 to 477 ACSR (Approx. 100 feet), WSS4 from Sub to IN 28 pole 11715 – from 336to 477 ACSR (Approx. 2400 feet), FGR4 OH Fairground & Prairie – from 336 to 477 ACSR (Approx. 600 feet), BUR8 OH Wash Ave.	$360,719.00
8) New Substation Northwest 69/13.2 kV with 8 feeders.	$2,645,000.00
9) West Side Substation Upgrades (Replace two (2) circuit switchers with SF6 breakers, Two new 69/13.2 kV 20/26.7/33.3 MVA Transformers, Main-tie-main switchgear with 8 feeders, new relays, and metering.	$2,265,412.00
10) West Side Substation Preventative Maintenance.	$38,650.00
11) Burlington Substation Upgrades (New 69/13.2 kV, 30/40/50 MVA Transformer, Upgrade distribution switchgear (breaker and relays), maintain existing building for 69 kV relaying & storage).	$1,591,744.00
Proposed Project	**Budget**
12) Burlington Substation Preventative Maintenance.	$38,650.00
13) Fairgrounds Substation Upgrades (Replace existing high side circuit breaker with SF6 breaker, upgrade existing SEL protective relays to 351S relays, SEL Communication processor for future SCADA).	$242,172.00
14) GIS/Mapping System Upgrades.	$209,415.00
15) Fairgrounds Substation Preventative Maintenance.	$39,460.00
16) S.R. 28 3-phase rebuild	$549,170.00
17) AMI Pilot for Industrial Customers	$168,785.00
18) Utility IT, Communication network upgrades to support AMI, SCADA and increasing bandwidth needs for the Utility Operations.	$450,000.00
19) Pole Replacements – 20,000 poles in 50 years~avg 400 per year @ $290.50 ea. = $116,200/year.	$813,400.00
20) S.R. 28 Road Widening Project 2018	$1,400,000.00
Total	**$11,838,260.00**

Q. PLEASE PROVIDE A GENERAL NARRATIVE OF THE SCOPE FOR EACH PROJECT AS WELL AS ITS JUSTIFICATION.

A. Each of the projects are described below in the order presented in the table above.

1) Install cutouts on radial taps to isolate disturbances. $137,750

Project Scope: Full system deployment of Cutouts and Fuses on radial distribution taps. Refer to the chart provided in the Device Coordination section of the

Full System Study report to determine the fuse size to best coordinate with the upstream device.

Justification: The existing distribution system predominately relies on substation feeders to clear feeder faults. This technique subjects hundreds of customers to problems that could be isolated to just a few. Installing cutouts and fuses on radial taps will improve overall system reliability and reduce the number of customers affected by an outage. Fuses should be sized based on the peak load for each tap and the upstream protection. Fuses on Feeders should be 65A fuses for small radial taps with light loading (<65A peak). Fuses on larger radial taps can be 150A fuses. Refer to the Device Coordination section of this study for a chart to determine the downstream fuse size.

2) Update the existing distribution protective relay settings. $16,850

Project Scope: Based on the Device Coordination section of the full system study. Update the settings on the existing relays to coordinate the settings in the relays with all downstream devices. Settings developed as part of the system study will need to be loaded in the relays and tested for expected relay operations.

Justification: Inspection of the 15kV protective relay settings has found several areas where coordination can be improved. The goal is to ensure that downstream devices are given an opportunity to clear faults before upstream devices attempt to clear faults. There are areas where a fault with the existing protection settings will interrupt power for more customers than is necessary. Protection settings should be modified to prevent overreach and to increase system reliability. The existing relay settings and proposed settings are shown in the Device Coordination section of the full system study.

3) Update/install Arc Flash Labels based on protective device coordination results/recommendations. $4,250

Project Scope: Use the Arc Flash values generated by the full system study to create labels for equipment and verify proper PPE levels for general working environments.

Justification: Install Arc Flash Labels on equipment as necessary. Substation switchgear should have their PPE level clearly marked. Utilize the Arc Flash spreadsheets to determine the PPE at locations. Wear the proper PPE clothing when working near energized equipment, operating equipment, racking breakers in/out and opening/closing breakers. Ensure that personnel have the proper PPE to work energized equipment. There are locations that exceed PPE of 2 and require higher PPE to work while energized. Arc Flash analysis assumes that protective equipment functions at nameplate ratings. Ensure that protection settings and protective devices have been tested for functionality and are routinely maintained as recommended by their manufacturers.

4) Vehicle Fleet Additions (2 service Pick-ups replace #2-45 and #2-4A with one and #2-7 with the other). $50,259

Project Scope: Replace three (3) existing fleet service pick-ups with two (2) new service pick-ups.

Justification: As the existing fleet of vehicles has reached the end of life (service pick-ups #2-4, #2-4A vintage 1990, and #2-7 vintage 1997) and facing additional maintenance costs, it is beneficial to ensure proper operating vehicles for the staff to use to conduct daily functions.

5) Voltage Regulators installed to remedy voltage issues on selected circuits, Burlington Sub feeder 5, Fairgrounds Sub Feeder 3, Westside Sub Feeder 3, Westside Sub Feeder 4 $481,424

Project Scope: Based on the load flow scenarios run on the updated system model in ETAP, add 3-phase Voltage Regulators in the recommended locations to ensure the voltage levels do not dip below 95% nominal system voltage. Project includes the purchase of equipment and installation

Justification: Load flow scenarios conducted as part of the full system study indicated voltage sags (voltages <95% nominal) on four (4) circuits throughout the system. These include Burlington Sub circuit 5, Fairgrounds Sub circuit 3, Westside Sub circuit 3, Westside Sub Circuit 4. Proper voltage level is needed to ensure system deliverable reliability and power quality at the customer location. Voltage issues can cause interruption to service and/or equipment damage if not monitored and controlled to be within the tolerance specified by the industry and specified by the utility.

6) Vehicle Fleet Additions
(2 service trucks to replace service trucks #2-9 and #2-14) $335,150

Project Scope: Replace two (2) existing fleet service trucks with two (2) new service trucks.

Justification: As the existing fleet of vehicles has reached the end of life (service trucks #2-9 vintage 1994, #2-14 vintage 2000) and facing additional maintenance costs, it is beneficial to ensure proper operating vehicles for the staff to use to conduct daily functions.

7) Re-conductor distribution circuits to increase ampacity $360,719

Project Scope: Re-conductor distribution circuits to increase ampacity (reduce bottleneck), WSS6 OH SW16 & 11516 – from 336 to 477 ACSR (Approx. 100 feet), WSS4 from Sub to IN 28 pole 11715 – from 336to 477 ACSR (Approx. 2400 feet), FGR4 OH Fairground & Prairie – from 336 to 477 ACSR (Approx. 600 feet), BUR8 OH

Justification: to take down substations for maintenance or in emergency situations it is important for the distribution system to have enough capacity to carry feeders from multiple directions. This requires that the major arteries between substations be large enough to carry a significant amount of power. The Load Flow section of the system study identified the areas with conductor capacities that are too small and should be upgraded. These areas are noted in the Project Scope above.

8) New Substation Northwest 69/13.2 kV with 8 feeders $2,645,000

Project Scope: Design and construction activities related to the addition of a new 69/13.2 kV substation located in the Northwest quarter of the FCL&P service area. This substation will consist of a new transformer and switchgear capable of 8 new feeder circuits.

Justification: Westside Substation is heavily loaded – carrying well over half of the of 65 MVA total system peak load. In fact, Westside serves 66% of the total system load. Fairgrounds and Burlington Substations are not capable of carrying the additional load if Westside Substation goes down.

With the current system configuration, the natural location to add system capacity and redundancy is near the northwest industrial area of the FCL&P service territory. This is due to several factors: load would be removed from heavily burdened Westside Sub, land appears to be readily available, a 69kV transmission line is in the area, and several industrial feeders already converge in this region. Future industrial development will likely occur along county Road Zero.

9) West Side Substation Upgrades (Replace two (2) circuit switchers with SF6 breakers, Two new 69/13.2 kV 20/26.7/33.3 MVA Transformers, Main-tie-main switchgear with 8 feeders, new relays, and metering $2,265,412

Project Scope: Design and construction activities related to the removal and upgrade of existing equipment at the West Side Substation.

Justification: West Side Substation is comprised of two power transformers (T1 - 25/37.3MVA and T2 - 25/46.7MVA), 15kV switchgear (Main-Tie-Main with 8 Feeders), and two 69kV circuit switchers. The Substation is heavily loaded and nearing end of useful service life. Neither power transformer can reasonably assume load if the other one is taken down for service. Transformer T1 becomes overloaded at 110% if T2 is taken off line. Likewise, Transformer T2 becomes overloaded at 88% if T1 is taken off line.

The addition of two new 20/26.7/33.3MVA transformers with new switchgear will improve the system reliability. Additionally, either or both new transformers can now be taken out for maintenance.

10) West Side Substation Preventative Maintenance $38,650

Project Scope: Testing and Preventative Maintenance activities based on IEEE/NETA and OEM recommendations. Includes reports and testing results in database format for tracking purposes.

Justification: Substations have many critical components that require regular maintenance, inspections, testing, and upgrades. Failure to properly maintain equipment can lead to outages, equipment damage and human injuries. Most electrical equipment must be maintained every 3 – 5 years. The safety of personnel, equipment, and outage durations are dependent on equipment operating as expected.

To pull routine maintenance on substations, FCL&P must be able to take down any one piece of equipment at any time. This would require each substation to have a backup source for maintenance.

11) Burlington Substation Upgrades (New 69/13.2 kV, 30/40/50 MVA Transformer, Upgrade distribution switchgear (breaker and relays), maintain existing building for 69 kV relaying & storage) $1,591,744

Project Scope: Design and construction activities related to the removal and upgrade of existing equipment at the Burlington Substation.

Justification: Burlington Substation is comprised of one 30/40/50 MVA Power Transformer protected by one (1) 69kV Circuit Switcher, 15kV switchgear (Main with 8 Feeders), and three 69kV oil filled circuit breakers (OCB's). The 15kV Switchgear is nearing end of useful service life.

The addition of a new 15kV switchgear with modern SEL relays will improve the distribution system reliability.

The 69kV oil filled circuit breakers (OCB's) should be scheduled for replacement. Upgrading too modern SF6 filled breakers will improve reliability, reduce maintenance costs and potential outage time, and eliminate EPA SPCC requirements for oil filled breakers within the substations. SF6 Breakers offer superior arc quenching capabilities and can interrupt higher fault currents in a very short period.

12) Burlington Substation Preventative Maintenance $38,650

Project Scope: Testing and Preventative Maintenance activities based on IEEE/NETA and OEM recommendations. Includes reports and testing results in database format for tracking purposes.

Justification: Substations have many critical components that require regular maintenance, inspections, testing, and upgrades. Failure to properly maintain equipment can lead to outages, equipment damage and human injuries. Most electrical equipment must be maintained every 3 – 5 years. The safety of personnel, equipment, and outage durations are dependent on equipment operating as expected.

In order to pull routine maintenance on substations, FCL&P must be able to take down any one piece of equipment at any time. This would require each substation to have a backup source for maintenance.

13) Fairgrounds Substation Upgrades (Replace existing high side circuit breaker with SF6 breaker, upgrade existing SEL protective relays to 351S relays, SEL Communication processor to monitor and collect data from existing protective relays for future SCADA) $242,172

Project Scope: Remove and replace high side circuit breaker and upgrade the aging relays with modern micro-processor based relays to match the relays at the other FCL&P substations.

Justification: Fairgrounds Substation is comprised of one 20/26.7/33.3 MVA Power Transformer protected by one (1) 69kV SF6 filled Circuit Breaker, 15kV switchgear (Main with 4 Feeders).

The existing 15kV switchgear is fitted with outdated SEL 251 relays. These relays should be replaced with modern SEL 351S relays to maintain uniformity with the other substation feeder relaying. This upgrade will allow for interface with SCADA and will improve the distribution system reliability.

14) GIS/Mapping System Upgrades $209,415

Project Scope: Upgrade the GIS system to enable integration to the CRM items as well as SCADA and AMI infrastructure additions.

Justification: Data is the driving force behind better more efficient operations and customer service. Upgrades to the GIS system will allow FCL&P to track all infrastructure items in a geospatially correct environment. This will help in asset verification and integration of future projects along with provide valuable data analytics for customer service.

15) Fairgrounds Substation Preventative Maintenance $39,460

Project Scope: Testing and Preventative Maintenance activities based on IEEE/NETA and OEM recommendations. Includes reports and testing results in database format for tracking purposes.

Justification: Substations have many critical components that require regular maintenance, inspections, testing, and upgrades. Failure to properly maintain equipment can lead to outages, equipment damage and human injuries. Most electrical equipment must be maintained every 3 – 5 years. The safety of personnel, equipment, and outage durations are dependent on equipment operating as expected.

In order to pull routine maintenance on substations, FCL&P must be able to take down any one piece of equipment at any time. This would require each substation to have a backup source for maintenance.

16) S.R. 28 3-phase rebuild $549,170

Project Scope: Upgrade the conductor in many locations and replace aging poles along the SR28 corridor East of the Walmart.

Justification: This circuit has been extended over the years and has multiple sizes of conductor along the path which now causes issues when trying to maintain consistent voltage levels along the entire length of this rural circuit. Additionally, several poles must be replaced from age and or damage.

17) AMI Pilot for Industrial Customers $168,785

Project Scope: Develop the specifications, bid documents and system configurations for a fully integrated AMI pilot for the major industrial customers, along with provisions for future deployment to residential customers too.

Justification: Real time meter information will be beneficial to the utility operations as the utility continues to focus on controlling the wholesale power costs that are upwards of 70% of the costs to the utility. This project will also allow for better usage information to be shared with the consumer and allow FCL&P to be in a better position as demand management and other regulatory changes that may develop soon.

18) Utility IT, Communication network upgrades to support AMI, SCADA and increasing bandwidth needs for the Utility Operations $450,000

Project Scope: Update the servers and communication network in the IT Datacenter along with areas of fiber communication backbone to fully connect substation and remote devices on the FCL&P system.

Justification: Reliable and safe communication and data repository capability has become a necessity in the industry. SCADA, AMI and System Coordination devices all require a safe, secure, high-speed network in which to operate over. While FCL&P has deployed fiber in the past some areas will need to be connected to fully support the full system communication network additions provided earlier in the plan.

19) Pole Replacements:
20,000 poles in 50 years~avg 400 per year @ $290.50 ea. = $116,200/year $813,400

Project Scope: Replace aging infrastructure components, specifically poles and cross-arms throughout the distribution system.

Project Schedule: 400 poles per year for seven years

Justification: While the life span of utility infrastructure stretches for several years, it is important to have a plan in place for review and upgrades as the weather, physical damage, and age degrades the reliable and safe application of these structures. With a multi-year replacement plan FCL&P will ensure that the entire pole plant will be reviewed and replaced over time. The Seven year time period was chosen because it is likely that the Utility will need to perform another cost of service in 7 years.

20) S.R. 28 Road Widening Project 2019. $1,400,000

Project Scope: Relocate the existing electric infrastructure along the S.R. 28 widening proposed by INDOT.

Justification: INDOT plans to widen S.R. 28 from the existing split 4 lane section at IMI Irving Materials on the West side of the city through the downtown corridor to the East side of town in front of the Walmart. This widening project affects 77 single phase poles and 73 three-phase poles along this route.

Q. CAN DETAILED COST ESTIMATES BE FOUND TO SUPPORT EACH OF THE FOREGOING PROJECTS?

A. Yes. Please refer to Attachment SDB-9 for a table depicting the breakdown by phase into design, equipment purchase, construction, and final commissioning. Following said table, please find a detailed cost estimate for each of the foregoing projects.

Q. HOW WERE THE COST ESTIMATES IN THE CAPITAL IMPROVEMENT PLAN DETERMINED?

A. As stated before, construction cost estimates are presented in 2016 dollars and were developed using recent quotes for like materials on similar projects within 150 miles of Frankfort. These cost factors have been further modified to directly apply to Frankfort's construction standards and available resources. Budget estimates have been prepared using data for the proposed projects and actual values recently experienced on similar projects, under similar conditions, located within a 150-mile radius. Most of the construction cost estimates included a 20% contingency. Items 2, 3, 4, 6, and 19 were based on firm quotes and contain no contingency.

Q. WHAT IS YOUR PROFESSIONAL OPINION OF THE PROPOSED CAPITAL IMPROVEMENT PLAN?

A. The proposed Capital Improvement Plan was carefully reviewed for accuracy and necessity. The Frankfort staff provided sound rationale for each of the requested improvements, its respective priority or sequence, and capital cost estimates. After reviewing all proposed projects and capital purchases, I find the plan to be prudent and necessary. I also find the estimates set forth in the plan to be reasonable.

CONCLUSION

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, at this time.

VERIFICATION

The undersigned affirms under the penalties for perjury that the foregoing testimony is true to the best of his knowledge, information and belief.

Scott D. Bowles

Scott D. Bowles, P.E.

ATTACHMENT SDB-1
ELECTRIC COST OF SERVICE STUDY

On
Behalf of
Petitioner,
Frankfort City Light and Power

Petitioner's Exhibit 3

Summary of Results

Frankfort City Light and Power

WORKSHEET 1

SHEET 1 OF 2

Revised 08/30/2016

Revenues were found to be 10.09% deficit which required metered rate class increases ranging from 9.50% to 11.81% and lighting rates to increase from 19.33% to 19.65%. A brief description of the sources, methods and analyses used to determine new rates follows:

Revenue for each rate class was recorded monthly by type of charge (energy, cost adjustment, demand, code adjustment and customer) then adjusted to match financial reports. Revenue allocation cost factors were then calculated for each rate class. Energy consumption was recorded monthly for each rate class then adjusted to match financial reports. System loss factors were applied to each rate class in order to adjust total consumption to match wholesale consumption purchases for the test year. Energy allocation cost factors were then calculated for each rate class. Demand charges were determined monthly for each rate class, excluding lighting loads. Direct measurements were used for the largest capacities. Rates without demand metering were assigned a value equal to the product of the (difference between the total system demand minus the total metered demand) multiplied by the ratio of each specific rate class consumption divided by the total consumption for all rates without demand metering, for each month. Test year capacities were annualized, averaged and adjusted to match system totals. Transmission & Distribution demand, energy and customer charge allocation cost factors were then calculated for each rate class. Operating revenues and expenses were then distributed to each rate class by various allocation factors. New rates were calculated to include the deficits found. The Table below summarizes results of the Study.

Active Rate Codes		Elec. Plant In-Service	Operating Expense	Revenue % Tracker	Distribution Factors			Before Study	Revenue Increase	After Study	Projected Monthly Rates / Customer			$ -
					Customer	Energy	Demand				kWhrs.	kVA	Billing	Revenue/mo.
Rate A - Residential Service	7,582	24.09%	26.02%	44.42%	82.56%	19.43%	9.32%	24.74%	9.58%	24.65%	820	0.7	$ 91.71	$ 695,341
Rate B - Commercial Service	1,201	4.43%	5.36%	45.39%	13.08%	3.80%	1.81%	5.28%	11.81%	5.37%	1,011	0.8	$ 126.10	$ 151,482
Rate C - General Power Service	341	11.37%	11.49%	49.89%	3.71%	9.88%	14.07%	11.66%	11.74%	11.85%	9,269	22.7	$ 980.08	$ 334,124
Rate PPL	60	58.70%	56.38%	24.43%	0.65%	66.41%	74.80%	57.59%	9.50%	57.34%	356,625	691.3	$ 27,143.86	$ 1,617,322
Rate Schedule SL	-	1.05%	0.52%	18.25%	0.00%	0.31%	0.00%	0.51%	19.65%	0.55%	98,054	-	$ -	$ 15,541
Rate Schedule OL	-	0.36%	0.23%	25.73%	0.00%	0.19%	0.00%	0.22%	19.33%	0.24%	60,777	-	$ -	$ 6,761
9,184	Totals	100.00%	100.00%	33.42%	100.00%	100.00%	100.00%	100.0%	10.09%	100.00%	526,556	715.5	$ 28,341.75	$ 2,820,571

Approximately 27.1% of the requested increase is due to announced wholesale power cost increases from IMPA while about 40.9% of the increase is due to Capital Improvements and E&R necessary to provide safety and reliability for employees and customers as well as improvements and efficiencies to system operations.

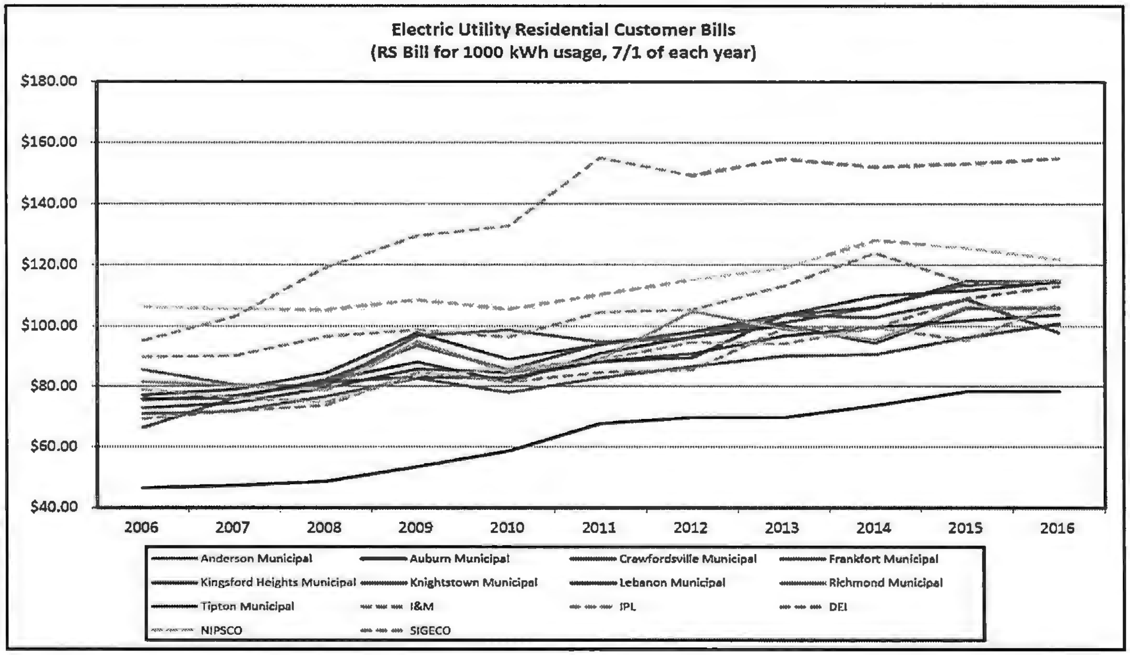
Summary of Results

Frankfort City Light and Power
Exhibit A - Electric Rate Study Workbook
Twelve Months Ended March 31, 2016

WORKSHEET 1
SHEET 2 OF 2
Revised 08/30/2016

	Utility Rate Comparisons Indiana Utility Regulatory Commission Jurisdictional Electric Utility Residential Customer Bill Comparison as of July 1, 2016. Average for 1000 kWh = $110.60.				
	Utility		500kWh		1000 kWh
1	* Southern Indiana Gas & Electric Co.	$	83.01	$	155.03
2	* Northern Indiana Public Service Co.	$	66.43	$	121.86
3	* Duke Energy Indiana	$	67.95	$	114.84
4	# Knightstown Municipal	$	59.85	$	114.84
5	# + Lebanon Municipal	$	62.14	$	114.51
6	# + Anderson Municipal	$	67.04	$	114.38
7	* Indiana Michigan Power Company	$	60.18	$	113.05
8	**#+ FCL&P Proposed 2017**	**$**	**61.78**	**$**	**108.57**
9	* Indianapolis Power & Light Company	$	67.44	$	107.42
10	#+ Crawfordsville Electric Light & Power	$	60.49	$	105.98
11	# + Richmond Power & Light Municipal	$	60.67	$	105.81
12	# Tipton Municipal	$	54.87	$	103.75
13	# Kingsford Heights Municipal	$	50.67	$	97.84
14	+ Auburn Electric Municipal	$	42.65	$	78.30
A	Average	$	61.35	$	110.60
	Tipmont REMC	$	80.69	$	132.37
	Northeastern REMC	$	74.19	$	125.94
	# + Peru Municipal	$	58.56	$	110.82
	+ Mishawaka Municipal (-tracker)	$	56.46	$	101.61
	+ Logansport Municipal Utilities (-trkr)	$	52.91	$	99.60
	# + Columbia City Municipal (-tracker)	$	53.10	$	95.19
	#+ FCL&P - 2016	**$**	**55.53**	**$**	**100.77**
	#+ FCL&P - 2015	**$**	**53.28**	**$**	**96.28**

* Investor Owned Utility
\# Indiana Municipal Power Agency Member
\+ Indiana Municipal Electric Association Member



Frankfort City Light and Power

Pro Forma Results of Operations - Revenue Allocation Factors

Twelve Months Ended Mach 31, 2016

WORKSHEET 2

SHEET 1 OF 2

Revised 08/30/2016

Line No.	Item	System Total	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Rate IP	Street Lighting Service	Lighting Service	CHECK
	From Meter Consumption Data Reports		Single Phase		Three Phase			Municipal (Rate Schedule SL)	Outdoor (Rate Schedule OL)	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(K)	(L)	
	Metered Operating Revenue	1st Quarter	0.013437	0.013437	0.012264	0.012264	0.012264	0.018014	0.018014	
	Apr-15	Trackers	7566	1205	345	59				
1	Energy Charge	$ 832,619	$ 292,450	$ 65,171	$ 142,976	$ 332,022	$ -	$ -	$ -	832,619
2	Energy Cost Adjust	$ 834,099	$ 279,043	$ 61,981	$ 142,488	$ 348,186	$ -	$ 1,508	$ 893	834,099
3	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
2	Demand Cost Adjust	$ 307,325	$ -	$ -	$ -	$ 307,325	$ -	$ -	$ -	307,325
4	Customer Charge	$ 455,516	$ 30,796	$ 7,218	$ 5,145	$ 397,897	$ -	$ 10,452	$ 4,008	455,516
	Peak or Xfmr Allowance Credit	$ (5,663)	$ (37)	$ (1)	$ (2)	$ (5,623)	$ -			
5	Total - April	$ 2,423,896	$ 602,251	$ 134,369	$ 290,607	$ 1,379,807	$ -	$ 11,960	$ 4,901	2,423,896
	May-15		7548	1199	342	59				
6	Energy Charge	$ 797,194	$ 254,367	$ 58,250	$ 139,812	$ 344,765	$ -	$ -	$ -	797,194
7	Energy Cost Adjust	$ 793,778	$ 235,668	$ 55,045	$ 139,366	$ 361,549	$ -	$ 1,351	$ 799	793,778
8	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
7	Demand Cost Adjust	$ 324,240	$ -	$ -	$ -	$ 324,240	$ -	$ -	$ -	324,240
9	Customer Charge	$ 477,251	$ 30,724	$ 7,200	$ 5,130	$ 419,733	$ -	$ 10,452	$ 4,012	477,251
	Peak or Xfmr Allowance Credit	$ (6,023)	$ (37)	$ (1)	$ (2)	$ (5,983)	$ -			
10	Total - May	$ 2,386,440	$ 520,722	$ 120,494	$ 284,306	$ 1,444,306	$ -	$ 11,802	$ 4,811	2,386,440
	Jun-15		7592	1208	344	59				
11	Energy Charge	$ 844,531	$ 284,924	$ 62,166	$ 144,091	$ 353,350	$ -	$ -	$ -	844,531
12	Energy Cost Adjust	$ 845,416	$ 268,421	$ 59,700	$ 144,890	$ 370,552	$ -	$ 1,153	$ 700	845,416
13	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
12	Demand Cost Adjust	$ 335,493	$ -	$ -	$ -	$ 335,493	$ -	$ -	$ -	335,493
14	Customer Charge	$ 492,156	$ 30,908	$ 7,236	$ 5,160	$ 434,298	$ -	$ 10,452	$ 4,103	492,156
	Peak or Xfmr Allowance Credit	$ (6,587)	$ (469)	$ (7)	$ (10)	$ (6,101)	$ -			
15	Total - June	$ 2,511,009	$ 583,784	$ 129,095	$ 294,131	$ 1,487,593	$ -	$ 11,605	$ 4,802	2,511,009
		2nd Quarter	0.016206	0.016206	0.013826	0.013826		0.021493	0.021493	
	Jul-15	Trackers	7582	1208	343	60				
16	Energy Charge	$ 971,872	$ 362,353	$ 73,504	$ 160,818	$ 375,197	$ -	$ -	$ -	971,872
17	Energy Cost Adjust	$ 955,761	$ 281,838	$ 65,545	$ 182,113	$ 423,799	$ -	$ 1,538	$ 928	955,761
18	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
17	Demand Cost Adjust	$ 379,771	$ -	$ -	$ -	$ 379,771	$ -	$ -	$ -	379,771
19	Customer Charge	$ 506,766	$ 30,888	$ 7,248	$ 5,145	$ 448,931	$ -	$ 10,452	$ 4,103	506,766
	Peak or Xfmr Allowance Credit	$ (6,799)	$ (471)	$ (7)	$ (10)	$ (6,311)	$ -			
20	Total - July	$ 2,807,372	$ 674,608	$ 146,290	$ 348,066	$ 1,621,388	$ -	$ 11,989	$ 5,031	2,807,372
	Aug-15		7577	1201	340	60				
21	Energy Charge	$ 998,515	$ 385,521	$ 71,348	$ 150,583	$ 391,064	$ -	$ -	$ -	998,515
22	Energy Cost Adjust	$ 979,748	$ 302,147	$ 63,108	$ 169,892	$ 441,721	$ -	$ 1,790	$ 1,089	979,748
23	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
22	Demand Cost Adjust	$ 386,120	$ -	$ -	$ -	$ 386,120	$ -	$ -	$ -	386,120
24	Customer Charge	$ 514,157	$ 30,864	$ 7,206	$ 5,100	$ 456,412	$ -	$ 10,452	$ 4,123	514,157
	Peak or Xfmr Allowance Credit	$ (6,749)	$ (469)	$ (7)	$ (10)	$ (6,263)	$ -			
25	Total - August	$ 2,871,791	$ 718,063	$ 141,655	$ 325,566	$ 1,669,053		$ 12,241	$ 5,213	2,871,791
	Sep-15		7599	1204	338	60				
26	Energy Charge	$ 956,706	$ 352,015	$ 69,315	$ 150,801	$ 384,575	$ -	$ -	$ -	956,706
27	Energy Cost Adjust	$ 941,535	$ 272,108	$ 61,344	$ 170,458	$ 434,392	$ -	$ 2,002	$ 1,230	941,535
28	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
27	Demand Cost Adjust	$ 377,881	$ -	$ -	$ -	$ 377,881	$ -	$ -	$ -	377,881
29	Customer Charge	$ 504,506	$ 30,956	$ 7,224	$ 5,070	$ 446,644	$ -	$ 10,452	$ 4,160	504,506
	Peak or Xfmr Allowance Credit	$ (6,613)	$ (473)	$ (7)	$ (10)	$ (6,123)	$ -			
30	Total - September	$ 2,774,014	$ 654,606	$ 137,876	$ 326,320	$ 1,637,369	$ -	$ 12,454	$ 5,390	2,774,014

Frankfort City Light and Power

Pro Forma Results of Operations - Revenue Allocation Factors

Twelve Months Ended Mach 31, 2016

Revised 08/30/2016

C H E C K

Line No.	Item	System Total	Rate A - Residential Service	Rate B - Commercial	Rate C - General Power Service	Rate PPL	Rate IP	Rate Schedule SL: Municipal Street Lighting Service	Rate Schedule OL: Outdoor Lighting Service	CHECK
	From Meter Consumption Data Reports		Single Phase		Three Phase					
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(K)	(L)	
	-	3rd Quarter	0.003433	0.003433	0.005044	0.005044		0.027494	0.027494	
	Oct-15	Trackers	7598	1199	341	60				
32	Energy Charge	$ 818,752	$ 264,609	$ 61,182	$ 153,303	$ 339,658	$ -	$ -	$ -	818,752
33	Energy Cost Adjust	$ 815,652	$ 254,492	$ 57,787	$ 149,017	$ 349,493	$ -	$ 3,010	$ 1,853	815,652
34	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
33	Demand Cost Adjust	$ 325,557	$ -	$ -	$ -	$ 325,557	$ -	$ -	$ -	325,557
35	Customer Charge	$ 485,166	$ 30,936	$ 7,200	$ 5,115	$ 427,294	$ -	$ 10,452	$ 4,169	485,166
	Peak or Xfmr Allowance Credit	$ (5,946)	$ (37)	$ (1)	$ (2)	$ (5,906)	$ -			
	Total - October	$ 2,439,181	$ 550,000	$ 126,168	$ 307,433	$ 1,436,097	$ -	$ 13,461	$ 6,022	2,439,181
	Nov-15		7575	1199	342	60				
37	Energy Charge	$ 812,439	$ 261,251	$ 55,432	$ 144,471	$ 351,285	$ -	$ -	$ -	812,439
38	Energy Cost Adjust	$ 809,191	$ 251,406	$ 51,396	$ 139,761	$ 361,457	$ -	$ 3,205	$ 1,967	809,191
39	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
38	Demand Cost Adjust	$ 319,290	$ -	$ -	$ -	$ 319,290	$ -	$ -	$ -	319,290
40	Customer Charge	$ 476,804	$ 30,864	$ 7,194	$ 5,100	$ 418,996	$ -	$ 10,486	$ 4,164	476,804
	Peak or Xfmr Allowance Credit	$ (5,696)	$ (37)	$ (1)	$ (2)	$ (5,656)	$ -			
	Total - November	$ 2,412,029	$ 543,484	$ 114,021	$ 289,330	$ 1,445,372	$ -	$ 13,690	$ 6,131	2,412,029
	Dec-15		7610	1198	342	60				
41	Energy Charge	$ 800,990	$ 291,643	$ 62,380	$ 121,369	$ 325,597	$ -	$ -	$ -	800,990
42	Energy Cost Adjust	$ 802,317	$ 287,352	$ 58,463	$ 115,842	$ 335,024	$ -	$ 3,478	$ 2,158	802,317
43	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
42	Demand Cost Adjust	$ 303,613	$ -	$ -	$ -	$ 303,613	$ -	$ -	$ -	303,613
44	Customer Charge	$ 456,364	$ 30,972	$ 7,188	$ 5,100	$ 398,411	$ -	$ 10,486	$ 4,208	456,364
	Peak or Xfmr Allowance Credit	$ (5,370)	$ (37)	$ (1)	$ (2)	$ (5,330)	$ -			
45	Total - December	$ 2,357,914	$ 609,930	$ 128,031	$ 242,309	$ 1,357,315	$ -	$ 13,964	$ 6,366	2,357,914
		4th Quarter	0.005911	0.005911	0.004643	0.004643		0.027322	0.027322	
	Jan-16	Trackers	7572	1198	337	60				
46	Energy Charge	$ 893,108	$ 385,056	$ 74,128	$ 140,736	$ 293,189	$ -	$ -	$ -	893,108
47	Energy Cost Adjust	$ 819,771	$ 335,598	$ 68,736	$ 142,941	$ 267,027	$ -	$ 3,373	$ 2,095	819,771
48	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
47	Demand Cost Adjust	$ 357,804	$ -	$ -	$ -	$ 357,804	$ -	$ -	$ -	357,804
49	Customer Charge	$ 451,326	$ 30,848	$ 7,176	$ 5,055	$ 393,511	$ -	$ 10,512	$ 4,225	451,326
	Peak or Xfmr Allowance Credit	$ (5,462)	$ (37)	$ (1)	$ (2)	$ (5,422)	$ -			
50	Total - January	$ 2,516,548	$ 751,465	$ 150,039	$ 288,730	$ 1,306,109	$ -	$ 13,885	$ 6,320	2,516,548
	Feb-16		7585	1200	340	59				
51	Energy Charge	$ 872,902	$ 345,497	$ 69,400	$ 131,573	$ 326,432	$ -	$ -	$ -	872,902
52	Energy Cost Adjust	$ 793,937	$ 295,420	$ 63,248	$ 133,367	$ 297,304	$ -	$ 2,827	$ 1,770	793,937
53	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
52	Demand Cost Adjust	$ 351,527	$ -	$ -	$ -	$ 351,527	$ -	$ -	$ -	351,527
54	Customer Charge	$ 444,432	$ 30,896	$ 7,176	$ 5,070	$ 386,518	$ -	$ 10,512	$ 4,261	444,432
	Peak or Xfmr Allowance Credit	$ (5,356)	$ (37)	$ (1)	$ (2)	$ (5,316)	$ -			
55	Total - February	$ 2,457,444	$ 671,775	$ 139,824	$ 270,008	$ 1,356,466	$ -	$ 13,339	$ 6,031	2,457,444
	Mar-16		7581	1196	337	59				
57	Energy Charge	$ 818,807	$ 319,179	$ 66,890	$ 131,655	$ 301,083	$ -	$ -	$ -	818,807
58	Energy Cost Adjust	$ 741,704	$ 268,211	$ 60,845	$ 133,830	$ 274,217	$ -	$ 2,827	$ 1,775	741,704
59	Demand Charge	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
58	Demand Cost Adjust	$ 356,505	$ -	$ -	$ -	$ 356,505	$ -	$ -	$ -	356,505
60	Customer Charge	$ 449,868	$ 30,848	$ 7,176	$ 5,055	$ 392,006	$ -	$ 10,512	$ 4,271	449,868
	Peak or Xfmr Allowance Credit	$ (5,391)	$ (38)	$ (1)	$ (2)	$ (5,350)	$ -			
	Total - March	$ 2,361,492	$ 618,200	$ 134,910	$ 270,538	$ 1,318,460	$ -	$ 13,338	$ 6,046	2,361,492
61	Metered Revenue	$ 30,319,130	$ 7,498,888	$ 1,602,771	$ 3,537,344	$ 17,459,335	$ -	$ 153,729	$ 67,063	30,319,130
62	Adjustments	$ -	$ 2,131	$ (710)	$ (1,421)	$ -	$ -	$ -	$ -	
63	Adjusted Revenues	$ 30,319,130	$ 7,501,019	$ 1,602,061	$ 3,535,923	$ 17,459,335	$ -	$ 153,729	$ 67,063	30,319,130
64	Miscellaneous Revenues	$ 491,466								
65	Total Operating Revenue *	$ 30,810,596								
66	Metered Revenue Allocation Factor	REV	0.247402	0.052840	0.116623	0.575852	0.000000	0.005070	0.002212	1.000000
67	Adjusted Energy Charges	$ 20,551,344	$ 7,130,568	$ 1,516,364	$ 3,476,155	$ 8,382,941	$ -	$ 28,060	$ 17,256	20,551,344
68	Adjusted Demand Charges	$ 4,125,126	$ -	$ -	$ -	$ 4,125,126	$ -	$ -	$ -	4,125,126
69	Customer Charges	$ 5,714,313	$ 370,500	$ 86,442	$ 61,245	$ 5,020,650	$ -	$ 125,669	$ 49,807	5,714,313
70	Billing Credits	$ (71,653)	$ (2,179)	$ (36)	$ (56)	$ (69,382)	$ -	$ -	$ -	
71	Total Revenues Collected	$ 30,319,129	$ 7,498,888	$ 1,602,770	$ 3,537,344	$ 17,459,335	$ -	$ 153,729	$ 67,063	30,319,129
72	Revenue Adjustments	1	2,131	(709)	(1,421)	-	-	-	-	1
73	Adjusted Revenues	30,319,130	7,501,019	1,602,061	3,535,923	17,459,335	-	153,729	67,063	30,319,130
74	Total Tracker Impact		$ 3,331,705	$ 727,199	$ 1,763,966	$ 4,264,723	$ -	$ 28,060	$ 17,256	
75	Percent Tracker	33.42%	44.42%	45.39%	49.89%	24.43%		18.25%	25.73%	

Frankfort City Light and Power

Pro Forma Results of Operations - Energy Allocation Factors

Twelve Months Ended March 31, 2016

WORKSHEET 3
SHEET 1 OF 1
Revised 08/30/2016

From Meter Consumption Data Reports and Lighting Load Energy Consumption Calculations										Rate Schedule SL	Rate Schedule OL	C H E C K
					Single Phase		Three Phase			Municipal	Outdoor	
Line No.	Item	Alloc Code	Wholesale kWh Purchased	Total Billed kWh	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Rate IP	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
1	Average Number of Accounts			9,184	7,582	1,201	341	60		-	-	
	Percent of Total Accounts	MCAF		100.00%	82.5590%	13.0801%	3.7121%	0.6488%	0.0000%			1.000000
2	Apr-15		29,031,269	30,012,154	5,575,783	1,171,103	3,110,960	20,154,308	-	83,728	50,004	133,732
3	May-15		31,853,026	29,720,178	4,709,494	1,040,044	3,042,796	20,927,844	-	74,971	44,730	119,701
4	Jun-15		34,185,595	31,083,007	5,364,592	1,127,999	3,141,452	21,448,964	-	64,002	39,175	103,177
5	Jul-15		35,908,075	34,724,641	7,060,332	1,359,528	3,529,666	22,775,115	-	71,537	43,544	115,081
6	Aug-15		35,839,677	35,909,790	7,569,760	1,308,981	3,292,807	23,738,242	-	83,265	51,121	134,386
7	Sep-15		33,133,028	34,737,731	6,817,194	1,272,387	3,303,775	23,344,375	-	93,152	57,716	150,868
8	Oct-15		31,066,551	29,981,400	4,925,014	1,103,479	3,335,057	20,617,850	-	109,471	67,967	177,438
9	Nov-15		29,371,995	30,298,841	4,865,872	981,449	3,127,897	21,323,623	-	116,553	72,139	188,692
10	Dec-15		30,484,110	29,034,831	5,561,569	1,116,395	2,592,585	19,764,282	-	126,491	79,358	205,849
11	Jan-16		32,896,362	29,873,708	7,678,469	1,353,958	3,044,210	17,797,071	-	123,462	77,733	201,195
12	Feb-16		30,445,460	30,714,120	6,813,346	1,250,161	2,835,610	19,815,003	-	103,471	65,686	169,157
13	Mar-16		29,762,069	28,483,179	6,185,838	1,202,649	2,818,450	18,276,242	-	103,455	65,843	169,298
14	Billed Rate Schedule - kWh			374,573,580	73,127,263	14,288,133	37,175,265	249,982,919	-	1,153,558	715,016	1,868,575
15	Total Lighting Loads - kWh			1,868,575								1,868,575
16	Total Billed kWh		383,977,217	376,442,155								
17	Assigned Loss Factors				0.194259	0.037956	0.098754	0.664067	-	0.003064	0.001899	1.000000
18	Apportioned Load Loss - kWh		7,535,062	7,535,062	1,463,753	285,999	744,119	5,003,788	-	23,090	14,312	7,535,062
19	Adjusted Load - kWh			383,977,217	74,591,016	14,574,132	37,919,384	254,986,707	-	1,176,648	729,328	383,977,217
20	Distribution Energy Allocation Factor	DEAF		1.000000	0.194259	0.037956	0.098754	0.664067	-	0.003064	0.001899	
21	Total System Load Loss =	1.9624%										

Consumption Data Posted From FCL&P Reports, adjusted for system losses, including lighting.

Frankfort City Light and Power

Pro Forma Results of Operations - Demand Allocation Factors

Twelve Months Ended March 31, 2016

WORKSHEET 4
SHEET 1 OF 1
Revised 08/30/2016

From Meter Consumption Data Reports								Calculation	Correction Factor	Total System	Rate Schedule SL Municipal	Rate Schedule OL Outdoor
Larger loads are responsible for most reactive energy. Lighting loads do not contribute toward system peaks.				Single Phase		Three Phase						
				Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	(K-H) / (E+F+G)	Applied to All non-Demand Metered Customers	Coincident Demand	Street Lighting Service	Lighting Service
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(L)	(M)	(N)		
1	Average Number of Accounts		9,184	7,582	1,201	341	60			System Billing		
		Hrs/mo	Demand							Demand		
	Apr-15											
2	kW or kWh/h	744	46,880	2,675	562	4,477	39,167	1.0	1.070695	46,880		
	May-15											
3	kW or kWh/h	672	56,568	4,826	1,066	9,354	41,322	1.0	2.065848	56,568		
	Jun-15											
4	kW or kWh/h	744	62,396	6,619	1,392	11,629	42,756	1.0	2.754034	62,396		
	Jul-15											
5	kW or kWh/h	720	63,083	7,015	1,351	10,522	44,195	1.0	2.146244	63,083		
	Aug-15											
6	kW or kWh/h	744	62,695	7,168	1,239	9,354	44,934	1.0	2.113462	62,695		
	Sep-15											
7	kW or kWh/h	720	65,017	7,969	1,487	11,586	43,975	1.0	2.524889	65,017		
	Oct-15											
8	kW or kWh/h	744	51,006	2,749	616	5,586	42,055	1.0	1.246043	51,006		
	Nov-15											
9	kW or kWh/h	744	48,576	2,342	472	4,516	41,246	1.0	1.074234	48,576		
	Dec-15											
10	kW or kWh/h	720	49,945	4,126	828	5,770	39,220	1.0	1.602504	49,945		
	Jan-16											
11	kW or kWh/h	744	54,686	6,743	1,189	8,020	38,734	1.0	1.960062	54,686		
	Feb-16											
12	kW or kWh/h	720	51,409	5,491	1,008	6,856	38,055	1.0	1.740792	51,409		
	Mar-16											
13	kW or kWh/h	744	48,542	3,884	755	5,309	38,593	1.0	1.401509	48,542		
14	Test Year Capacities	8760	660,803	61,608	11,965	92,978	494,252			660,803		
15	Average Monthly Capacity		55,067	5,134	997	7,748	41,188			55,067		
	Allocation Factors											
16	Average Distribution Demand		55,067	5,134	997	7,748	41,188			55,067		
17	Distr Demand Allocation Factor	DDAF	1.000000	0.093231	0.018107	0.140704	0.747957			1.000000	-	-

Frankfort City Light and Power

WORKSHEET 5

Municipal Street Lighting Consumption Estimator

SHEET 1 OF 8

Twelve Months Ended March 31, 2016

Revised 08/30/2016

STREETLIGHT AND OUTDOOR LIGHTING ENERGY CONSUMPTION TABLES

Table 1

TOTAL MONTHLY ENERGY CONSUMPTION IN KILOWATT-HOURS PER SINGLE LAMP

LAMP TYPE & APPROX. LUMENS	LAMP RATING	BALLAST WATTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
AVERAGE HOURS PER MONTH =			428	360	360	292	260	220	246	286	324	381	401	442	4,000
INCAND															
6,500	295W	358	153	129	129	105	93	79	88	102	116	136	144	158	1,433
LED		-			-	-									
12,500	142W	174	75	63	63	51	45	38	43	50	56	66	70	77	696
MERCURY VAPOR		-		-	-	-									
4,860	100W	133	57	48	48	39	35	29	33	38	43	51	53	59	666
8,500	175W	239	102	86	86	70	62	53	59	68	77	91	96	106	956
13,333	250W	342	146	123	123	100	89	75	84	98	111	130	137	151	1,366
23,000	400W	535	229	193	193	156	139	118	132	153	173	204	215	236	2,140
SODIUM VAPOR		-		-	-	-									
9,500	100W	119	51	43	43	35	31	26	29	34	38	45	48	52	474
16,000	150W	172	74	62	62	50	45	38	42	49	56	66	69	76	689
27,500	250W	301	129	108	108	88	78	66	74	86	97	115	121	133	1,203
50,000	400W	479	205	172	172	140	125	105	118	137	155	182	192	212	1,916

NOTE: Approximate consumptions are based on 1.0 Foot Candle setting on all photo control devices (On 30 minutes before sundown until 30 minutes after sunrise).

TRACKER FLAT RATE - $/KWH	JAN–MAR	APR–JUN	JUL–SEP	OCT–DEC
	0.027322	0.018014	0.021493	0.027494

Frankfort City Light and Power

WORKSHEET 5
SHEET 2 OF 8
Revised 08/30/2016

Metered City Street Lighting Consumption - Rate Schedule SL

Twelve Months Ended March 31, 2016

Table 2

FIXTURE WATTAGE & INSTALLATION	CONNECT	LAMP TYPE	FIXTURES IN USE	KWH/ LITE (current mo.)	TOTAL KWH / MO	BASE COST/ LITE / MO	RATE TOTAL	TRACKER TOTAL	ADJUSTED TOTAL	
295	OH	INCAND	0	153	-	$8.84	$0.00	$0.00	$0.00	
100 (METAL URD)	OH	MERC	29	57	1,653	$5.14	$149.06	$45.17	$194.23	
175	OH	MERC	164	102	16,773	$7.34	$1,203.76	$458.29	$1,662.05	
250	OH	MERC	13	146	1,900	$8.08	$105.04	$51.92	$156.96	
400	OH	MERC	3	229	687	$10.30	$30.90	$18.77	$49.67	
100 (WOOD)	OH	HPS	0	51	-	$6.17	$0.00	$0.00	$0.00	
100 (METAL)	OH	HPS	56	51	2,843	$9.31	$521.36	$77.67	$599.03	
150 (WOOD)	OH	HPS	887	74	65,411	$6.84	$6,067.08	$1,787.17	$7,854.25	
150 (METAL)	URD	HPS	34	74	2,507	$12.29	$417.86	$68.50	$486.36	
250 (WOOD)	OH	HPS	82	129	10,553	$8.02	$657.64	$288.32	$945.96	
250 (METAL)	OH	HPS	42	129	5,405	$11.19	$469.98	$147.68	$617.66	
400 (WOOD)	OH	HPS	19	205	3,895	$9.81	$186.39	$106.42	$292.81	
400 (METAL)	OH	HPS	15	205	3,075	$13.00	$195.00	$84.02	$279.02	
400 (METAL URD)	URD	HPS	13	205	2,665	$15.24	$198.12	$72.81	$270.93	
							$10,202.19	$3,206.72		
CITY STREET LIGHT TOTALS			1,357		117,368		JAN		$13,408.91	SELECT MONTH @ H44

Frankfort City Light and Power

Old Jail - Metered County Street Lighting Consumption - Rate Schedule SL

Twelve Months Ended March 31, 2016

FIXTURE WATTAGE & INSTALLATION	LAMP TYPE	FIXTURES IN USE	KWH/ LITE (current mo.)	TOTAL KWH / MO	BASE COST/ LITE / MO	RATE TOTAL	TRACKER TOTAL	ADJUSTED TOTAL	Table 3
1000 (WOOD or METAL)	MERC	0	56	-	$10.30	$0.00	$0.00	$0.00	
400 (WOOD)	HPS	4	205	820	$9.81	$39.24	$22.40	$61.64	
						$39.24	$22.40		
COUNTY STREET LIGHT - JAIL TOTALS		4		820		JAN		$61.64	

Frankfort City Light and Power

WORKSHEET 5
SHEET 4 OF 8
Revised 08/30/2016

Court House - Metered County Street Lighting Consumption - Rate Schedule SL

Twelve Months Ended March 31, 2016

Table 4

FIXTURE WATTAGE & INSTALLATION	LAMP TYPE	FIXTURES IN USE	KWH/ LITE (current mo.)	TOTAL KWH / MO	BASE COST/ LITE / MO	RATE TOTAL	TRACKER TOTAL	ADJUSTED TOTAL
250 (WOOD)	HPS	0	129	-	$8.02	$0.00	$0.00	$0.00
250 (METAL)	HPS	12	129	1,544	$11.19	$134.28	$42.19	$176.47
400 (WOOD)	HPS	0	205	-	$9.81	$0.00	$0.00	$0.00
400 (METAL)	HPS	4	205	820	$13.00	$52.00	$22.40	$74.40
						$186.28	$64.60	
COUNTY SL TOTALS - COURT HOUSE		16		2,364		JAN		$250.88

Frankfort City Light and Power

Hospital - Metered County Street Lighting Consumption - Rate Schedule SL

Twelve Months Ended March 31, 2016

FIXTURE WATTAGE & INSTALLATION	LAMP TYPE	FIXTURES IN USE	KWH/ LITE (current mo.)	TOTAL KWH / MO	BASE COST/ LITE / MO	RATE TOTAL	TRACKER TOTAL	ADJUSTED TOTAL
150 (WOOD)	HPS	2	74	147	$6.84	$13.68	$4.03	$17.71
250 (WOOD)	HPS	6	129	772	$8.02	$48.12	$21.10	$69.22
						$61.80	$25.13	
COUNTY SL TOTALS - HOSPITAL		8		920		JAN		$86.93
TOTAL STREET LIGHTING - SL		1,385	[illegible]	121,472		$10,489.51	$3,318.85	$13,808.36

Table 5

Frankfort City Light and Power

Metered City Outdoor Lighting Consumption - Rate Schedule OL

Twelve Months Ended March 31, 2016

Table 6

FIXTURE WATTAGE & INSTALLATION	LAMP TYPE	FIXTURES IN USE	KWH/ LITE (current mo.)	TOTAL KWH / MO	BASE COST/ LITE / MO	RATE TOTAL	TRACKER TOTAL	ADJUSTED TOTAL
SECURITY LIGHTS - OPEN FACE								
175	MERC	134	102	13,705	$6.24	$836.16	$374.45	$1,210.61
250	MERC	0	146	-	$7.83	$0.00	$0.00	$0.00
400	MERC	3	229	687	$8.97	$26.91	$18.77	$45.68
100	HPS	8	51	406	$3.67	$29.36	$11.10	$40.46
150	HPS	399	74	29,424	$4.31	$1,719.69	$803.92	$2,523.61
250	HPS	9	129	1,158	$5.64	$50.76	$31.64	$82.40
400	HPS	7	205	1,435	$7.26	$50.82	$39.21	$90.03
						$2,713.70	$1,279.09	
SECURITY LIGHT TOTALS - OPEN FACE		560		46,815		JAN		$3,992.79

Frankfort City Light and Power

WORKSHEET 5

Metered City Outdoor Lighting Consumption - Rate Schedule OL

SHEET 7 OF 8

Twelve Months Ended March 31, 2016

Revised 08/30/2016

FIXTURE WATTAGE & INSTALLATION	LAMP TYPE	FIXTURES IN USE	KWH/ LITE (current mo.)	TOTAL KWH / MO	BASE COST/ LITE / MO	RATE TOTAL	TRACKER TOTAL	ADJUSTED TOTAL	Table 7
SECURITY LIGHTS - FLOOD									
250 Flood	MERC	1	146	146	$7.61	$7.61	$3.99	$11.60	
400 Flood	MERC	12	229	2,748	$11.37	$136.44	$75.07	$211.51	
150 Flood	HPS	29	74	2,139	$4.65	$134.85	$58.43	$193.28	
250 Flood	HPS	31	129	3,989	$7.12	$220.72	$109.00	$329.72	
400 Flood	HPS	97	205	19,885	$10.43	$1,011.71	$543.30	$1,555.01	
						$1,511.33	$789.79		
SECURITY LIGHT TOTALS - FLOOD		170		28,907		JAN		$2,301.12	

Frankfort City Light and Power

Metered City Outdoor Lighting Consumption - Rate Schedule OL

Twelve Months Ended March 31, 2016

FIXTURE WATTAGE & INSTALLATION	LAMP TYPE	FIXTURES IN USE	KWH/ LITE (current mo.)	TOTAL KWH / MO	BASE COST/ LITE / MO	RATE TOTAL	TRACKER TOTAL	ADJUSTED TOTAL	Table 8
SECURITY LIGHTS - NON COLLECT									
175	MERC	1	102	102	$0.00	$0.00	$0.00	$0.00	
150	HPS	2	74	147	$0.00	$0.00	$0.00	$0.00	
250	HPS	3	129	386	$0.00	$0.00	$0.00	$0.00	
400	HPS	2	205	410	$0.00	$0.00	$0.00	$0.00	
						$0.00	$0.00		
SECURITY LTS - NON COLLECT TOTALS		8		1,046		JAN		$0.00	
OUTDOOR SECURITY LIGHTING TOTALS		738		76,768		$ 4,225.03	$ 2,068.88	$6,293.91	

Frankfort City Light and Power

Pro Forma Results of Twelve Months Operations Ended March 31, 2016

Service Class Allocation

FERC Form 1-F Based on Operating Reports - Adjusted to match Financial Reports

WORKSHEET 6

SHEET 1 OF 6

Revised 08/30/2016

From Department Financial Reports								Rate Schedule SL	Rate Schedule OL	
				Single Phase	Single or Three Phase		Three Phase	Municipal	Outdoor	
Line No.	Item	Alloc Code	System Totals	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
	Operating Revenues	%Mtr	$ 30,098,338	0.249217	0.053228	0.117479	0.580076	-	-	1.000000
1	Reported from Operating Calculations			$ 7,501,019	$ 1,602,061	$ 3,535,923	$ 17,459,335	$ 153,729	$ 67,063	$ 220,792
2	Residential Revenue		$ 7,501,019							
3	Commercial Revenue		$ 5,046,564							
4	Industrial Revenue		$ 17,459,333							
5	Security Light Revenue		$ 66,176							
6	Street Light Revenue		$ 153,548							
7	Company Use Revenue		$ 64,392							
8	Parks Revenue		$ 29,852							
9	Penalties		$ 107,460							
10	Labor		$ 195,795							
11	AC/WH Credits		$ (2,271)							
12	Rents Revenue		$ 27,880							
13	Material Revenue		$ 53,617							
14	Miscellaneous Revenues		$ 90,000							
15	Bad Debt Revenues		$ 13,768							
16	Scrap Revenues		$ 3,464							
17	Total Operating Revenues - Adjusted	REV	$ 30,810,597	$ 7,622,609	$ 1,628,030	$ 3,593,239	$ 17,742,347	$ 156,221	$ 68,150	$ 30,810,597
	Operating Expense									
18	Purchased Power	DIR	$ 27,357,098							
19	Other Expenses - Adjustment for Proposed IMPA Rates	IMPA	828,608							
20	Pro Forma Power Supply Expenses	REV	$ 28,185,706	$ 6,973,206	$ 1,489,331	$ 3,287,115	$ 16,230,798	$ 142,912	$ 62,344	$ 28,185,706

Frankfort City Light and Power

Pro Forma Results of Twelve Months Operations Ended March 31, 2016

Service Class Allocation

FERC Form 1-F Based on Operating Reports - Adjusted to match Financial Reports

WORKSHEET 6

SHEET 2 OF 6

Revised 08/30/2016

From Department Financial Reports								Rate Schedule SL	Rate Schedule OL	
				Single Phase	Single or Three Phase		Three Phase	Municipal	Outdoor	
Line No.	Item	Alloc Code	System Totals	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
	Distribution Expense									
21	Operation Supervision & Engineering Salaries	DDAF	$ 763,475	$ 71,180	$ 13,824	$ 107,424	$ 571,047	$ -	$ -	$ 763,475
22	Dental, Vision, Health & Miscellanous	DDAF	$ 504,583	$ 47,043	$ 9,137	$ 70,997	$ 377,407	$ -	$ -	$ 504,583
23	Line and Station Supplies Expense	DDAF	$ 77,780	$ 7,252	$ 1,408	$ 10,944	$ 58,176	$ -	$ -	$ 77,780
24	Overhead Line Expenses	DDAF	$ 46,000	$ 4,289	$ 833	$ 6,472	$ 34,406	$ -	$ -	$ 46,000
25	Underground Line Expense	DDAF	$ (126,366)	$ (11,781)	$ (2,288)	$ (17,780)	$ (94,516)	$ -	$ -	$ (126,366)
26	Street Lighting and Signal System Expense	LITES	$ 33,695	$ -	$ -	$ -	$ -	$ 23,461	$ 10,234	$ 33,695
27	Meter Expense	MCAF	$ 833	$ 688	$ 109	$ 31	$ 5	$ -	$ -	$ 833
28	Tree Trimming Expense	MCAF	$ 4,579	$ 3,780	$ 599	$ 170	$ 30	$ -	$ -	$ 4,579
29	Distribution Expense Miscellaneous	DDAF	$ 49,028	$ 4,571	$ 888	$ 6,898	$ 36,671	$ -	$ -	$ 49,028
30	Distribution Plan and Design	DDAF	$ (5,546)	$ (517)	$ (100)	$ (780)	$ (4,148)	$ -	$ -	$ (5,546)
31	Maintenance of Structures & Equipment	DDAF	$ 5,603	$ 522	$ 101	$ 788	$ 4,191	$ -	$ -	$ 5,603
32	Maintenance of Overhead Lines	DDAF	$ 121,573	$ 11,334	$ 2,201	$ 17,106	$ 90,932	$ -	$ -	$ 121,573
33	Maintenance of Underground Circuits	DDAF	$ 59,454	$ 5,543	$ 1,077	$ 8,365	$ 44,469	$ -	$ -	$ 59,454
34	Total Distribution Expense		$ 1,534,692	$ 143,903	$ 27,789	$ 210,636	$ 1,118,669	$ 23,461	$ 10,234	$ 1,534,692
	Customer Account and Collection									
35	Meter Reading Labor	MCAF	$ 78,375	$ 64,706	$ 10,251	$ 2,909	$ 508	$ -	$ -	$ 78,375
36	Dental, Vision, Health & Miscellanous	MCAF	$ 51,798	$ 42,764	$ 6,775	$ 1,923	$ 336	$ -	$ -	$ 51,798
37	Meter Reading Expense	MCAF	$ 450	$ 372	$ 59	$ 17	$ 3	$ -	$ -	$ 450
38	Collection Expense	MCAF	$ 172,602	$ 142,499	$ 22,576	$ 6,407	$ 1,120	$ -	$ -	$ 172,602
39	Uncollectible Accounts	MCAF	$ 39,497	$ 32,608	$ 5,166	$ 1,466	$ 256	$ -	$ -	$ 39,497
40	Total Customer Accounting & Collection Expense		$ 342,722	$ 282,948	$ 44,828	$ 12,722	$ 2,224	$ -	$ -	$ 342,722
	Administrative and General									
41	Salaries and Wages	DDAF	$ 408,546	$ 38,089	$ 7,398	$ 57,484	$ 305,575	$ -	$ -	$ 408,546
42	Office Supplies Expense	MCAF	$ 171,326	$ 141,445	$ 22,410	$ 6,360	$ 1,112	$ -	$ -	$ 171,326
43	Outside Service Employed	DDAF	$ 116,898	$ 10,899	$ 2,117	$ 16,448	$ 87,435	$ -	$ -	$ 116,898
44	Insurance	DDAF	$ 105,488	$ 9,835	$ 1,910	$ 14,843	$ 78,900	$ -	$ -	$ 105,488
45	Leased Truck Payment	DDAF	$ 28,206	$ 2,630	$ 511	$ 3,969	$ 21,097	$ -	$ -	$ 28,206
46	Employees Pensions and Benefits:									
47	Pension, Training, and Drug Testing	MCAF	$ 137,603	$ 113,604	$ 17,999	$ 5,108	$ 893	$ -	$ -	$ 137,603
48	Vacation, Personal, Sick & Bereavement Pay	MCAF	$ 322,211	$ 266,014	$ 42,145	$ 11,961	$ 2,090	$ -	$ -	$ 322,211

Frankfort City Light and Power
Pro Forma Results of Twelve Months Operations Ended March 31, 2016

WORKSHEET 6
SHEET 3 OF 6

Service Class Allocation

Revised 08/30/2016

FERC Form 1-F Based on Operating Reports - Adjusted to match Financial Reports

From Department Financial Reports								Rate Schedule SL	Rate Schedule OL	
				Single Phase	Single or Three Phase		Three Phase	Municipal	Outdoor	
Line No.	Item	Alloc Code	System Totals	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
49	Dental, Vision, Health & Miscellanous	MCAF	$ 270,009	$ 222,917	$ 35,317	$ 10,023	$ 1,752	$ -	$ -	270,009
50	Miscellaneous General Expense	MCAF	$ 15,256	$ 12,595	$ 1,995	$ 566	$ 99	$ -	$ -	15,256
51	Rent	MCAF	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-
52	Utilities Expense	MCAF	$ 32,555	$ 26,877	$ 4,258	$ 1,208	$ 211	$ -	$ -	32,555
53	Shop Expense	DDAF	$ 16,004	$ 1,492	$ 290	$ 2,252	$ 11,970	$ -	$ -	16,004
54	Power Company Use Expense	DDAF	$ 71,281	$ 6,646	$ 1,291	$ 10,030	$ 53,315	$ -	$ -	71,281
55	City Auditor Department Expense	MCAF	$ 20,625	$ 17,028	$ 2,698	$ 766	$ 134	$ -	$ -	20,625
56	Maintenance of General Plant	PLT	$ 34	$ 8	$ 2	$ 4	$ 20	$ 0	$ 0	34
57	Total Administrative and General Expense		$ 1,716,042	$ 870,078	$ 140,339	$ 141,021	$ 564,603	$ 0	$ 0	$ 1,716,042
58	**Total Operating Expense**		$ 31,779,162	$ 8,270,135	$ 1,702,288	$ 3,651,495	$ 17,916,293	$ 166,373	$ 72,578	$ 31,779,162
		%	100.000%	26.024%	5.357%	11.490%	56.377%	0.524%	0.228%	
	Other Income and Expense									
59	Interest Income	REV	$ 10,898	$ 2,696	$ 576	$ 1,271	$ 6,276	$ 55	$ 24	10,898
60	Depreciation Expense	PLT	$ (524,746)	$ (126,405)	$ (23,256)	$ (59,679)	$ (308,029)	$ (5,484)	$ (1,893)	(524,746)
61	Amortization - Rate Case Expense	REV	$ (33,786)	$ (8,359)	$ (1,785)	$ (3,940)	$ (19,456)	$ (171)	$ (75)	(33,786)
62	Taxes Other Than Income Taxes	PLT	$ (557,783)	$ (134,363)	$ (24,720)	$ (63,437)	$ (327,422)	$ (5,829)	$ (2,012)	(557,783)
63	PILOT Payment	REV	$ (209,873)	$ (51,923)	$ (11,090)	$ (24,476)	$ (120,856)	$ (1,064)	$ (464)	(209,873)
64	Short/Over	REV	$ (30)	$ (7)	$ (2)	$ (3)	$ (17)	$ (0)	$ (0)	(30)
65	Total Other Income and Expense		$ (1,315,321)	$ (318,361)	$ (60,277)	$ (150,265)	$ (769,504)	$ (12,493)	$ (4,420)	(1,315,321)
66	Total Revenues over Expenditures	(LOSS)	$ (2,283,886)							
	Annual Revenue Requirements									
67	Operation and Maintenance Expenses	REV	$ 31,779,162	$ 7,862,234	$ 1,679,209	$ 3,706,197	$ 18,300,097	$ 161,132	$ 70,292	$ 31,779,162
68	Total Taxes Other than Income Taxes	REV	$ 563,381	$ 139,382	$ 29,769	$ 65,703	$ 324,424	$ 2,857	$ 1,246	$ 563,381
69	Max Debt Service	CAP	$ 853,794	$ 190,983	$ 65,101	$ 141,951	$ 435,123	$ 14,471	$ 6,164	$ 853,794
70	Extensions & Replacements	CAP	$ 398,400	$ 89,117	$ 30,378	$ 66,238	$ 203,039	$ 6,752	$ 2,876	398,400
71	PILOT Payment	REV	$ 209,873	$ 51,923	$ 11,090	$ 24,476	$ 120,856	$ 1,064	$ 464	$ 209,873
72	Amortization - Rate Case Expense	REV	$ 33,786	$ 8,359	$ 1,785	$ 3,940	$ 19,456	$ 171	$ 75	$ 33,786
73	Annual Working Capital Funding	REV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
74	Total Revenue Requirements		$ 33,838,396	$ 8,333,640	$ 1,815,547	$ 4,004,564	$ 19,383,539	$ 186,276	$ 81,043	$ 33,804,610

Frankfort City Light and Power

Pro Forma Results of Twelve Months Operations Ended March 31, 2016

Service Class Allocation

FERC Form 1-F Based on Operating Reports - Adjusted to match Financial Reports

WORKSHEET 6

SHEET 4 OF 6

Revised 08/30/2016

From Department Financial Reports								Rate Schedule SL	Rate Schedule OL	
				Single Phase	Single or Three Phase		Three Phase	Municipal	Outdoor	
Line No.	Item	Alloc Code	System Totals	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
	Annual Operating Revenues									
75	Metered Sales	REV	$ 30,320,883	$ 7,501,453	$ 1,602,154	$ 3,536,127	$ 17,460,344	$ 153,738	$ 67,067	$ 30,320,883
76	Miscellaneous Revenue	REV	$ 489,712	$ 121,156	$ 25,876	$ 57,112	$ 282,002	$ 2,483	$ 1,083	$ 489,712
77	Interest Income	REV	$ 10,898	$ 2,696	$ 576	$ 1,271	$ 6,276	$ 55	$ 24	$ 10,898
78	Total Adjusted Annual Receipts	Adj.	$ 30,821,493	$ 7,625,305	$ 1,628,606	$ 3,594,510	$ 17,748,622	$ 156,276	$ 68,174	$ 30,821,493
79	Deficit		$ 3,016,903	$ 708,335	$ 186,941	$ 410,055	$ 1,634,918	$ 30,000	$ 12,869	$ 2,983,117
80	Allowance For Utility Receipts Tax @ 1.4%	REV	42,237	$ 10,449	$ 2,232	$ 4,926	$ 24,322	$ 214	$ 93	$ 42,237
81	Revenue Increase Required		$ 3,059,140	$ 718,784	$ 189,172	$ 414,980	$ 1,659,240	$ 30,214	$ 12,963	$ 3,025,353
82	Total Sales of Electricity (less Other Operating Revenue)	REV	$ 30,320,883	$ 7,501,453	$ 1,602,154	$ 3,536,127	$ 17,460,344	$ 153,738	$ 67,067	$ 30,320,883
83	**Percentage Rate Increase Required**		10.09%	9.58%	11.81%	11.74%	9.50%	19.65%	19.33%	

Frankfort City Light and Power
Pro Forma Results of Twelve Months Operations Ended March 31, 2016
Service Class Allocation
FERC Form 1-F Based on Operating Reports - Adjusted to match Financial Reports

WORKSHEET 6
SHEET 5 OF 6
Revised 08/30/2016

From Department Financial Reports								Rate Schedule SL	Rate Schedule OL	
				Single Phase	Single or Three Phase		Three Phase	Municipal	Outdoor	
Line No.	Item	Alloc Code	System Totals	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
	Utility Plant In Service									
	Summary of Fixed Assets									
84	ELA CLP Land	REV	$ 161,282	$ 39,902	$ 8,522	$ 18,809	$ 92,875	$ 818	$ 357	161,282
85	EBL CLP Building	REV	5,784,807	$ 1,431,174	$ 305,669	$ 674,644	$ 3,331,193	$ 29,331	$ 12,795	5,784,807
86	FEN CLP Fencing	REV	$ 9,100	$ 2,251	$ 481	$ 1,061	$ 5,240	$ 46	$ 20	$ 9,100
87	PE PRIM EXT / New Service	DDAF	$ 1,589,941	$ 148,232	$ 28,790	$ 223,712	$ 1,189,208	$ -	$ -	$ 1,589,941
88	DCE Data Center Equipment	MCAF	$ 258,316	$ 213,263	$ 33,788	$ 9,589	$ 1,676	$ -	$ -	$ 258,316
89	ECO CLP Genl Communications Equip	MCAF	$ 51,951	$ 42,890	$ 6,795	$ 1,928	$ 337	$ -	$ -	$ 51,951
90	EGL CLP GENL Lab Stores Misc EQ	MCAF	$ 165,599	$ 136,717	$ 21,660	$ 6,147	$ 1,074	$ -	$ -	$ 165,599
91	EMA CLP Machinery & Equipment	DDAF	$ 207,550	$ 19,350	$ 3,758	$ 29,203	$ 155,239	$ -	$ -	$ 207,550
92	EOE CLP Office Equipment	MCAF	$ 499,941	$ 412,746	$ 65,393	$ 18,559	$ 3,244	$ -	$ -	$ 499,941
93	ESC CLP Scada Equipment	DDAF	$ 281,373	$ 26,233	$ 5,095	$ 39,590	$ 210,455	$ -	$ -	$ 281,373
94	ETR CLP Trailer & Misc. Equipment	DEAF	$ 356,640	$ 69,280	$ 13,537	$ 35,220	$ 236,833	$ 1,093	$ 677	$ 356,640
95	EVE CLP Vehicles	MCAF	$ 1,452,683	$ 1,199,321	$ 190,012	$ 53,926	$ 9,425	$ -	$ -	$ 1,452,683
96	ECA CLP Capacitor Bank Equip	DDAF	$ 8,214	$ 766	$ 149	$ 1,156	$ 6,144	$ -	$ -	$ 8,214
97	EDC CLP Dist Capacitor Banks	DDAF	$ 61,919	$ 5,773	$ 1,121	$ 8,712	$ 46,313	$ -	$ -	$ 61,919
98	EFI CLP Fiber	DDAF	$ 871,734	$ 81,273	$ 15,785	$ 122,657	$ 652,019	$ -	$ -	$ 871,734
99	EME CLP Meters	MCAF	$ 411,578	$ 339,795	$ 53,835	$ 15,278	$ 2,670	$ -	$ -	$ 411,578
100	EPO CLP Poles	DDAF	$ 3,609,161	$ 336,487	$ 65,352	$ 507,824	$ 2,699,497	$ -	$ -	$ 3,609,161
101	ERE CLP Reclosers	DDAF	$ 105,055	$ 9,794	$ 1,902	$ 14,782	$ 78,577	$ -	$ -	$ 105,055
102	ESE CLP Security Lights		$ 61,184	$ -	$ -	$ -	$ -	$ -	$ 61,184	$ 61,184
103	ESI CLP Switches	DDAF	$ 183,107	$ 17,071	$ 3,316	$ 25,764	$ 136,956	$ -	$ -	$ 183,107
104	EST CLP Street Lights		$ 192,509	$ -	$ -	$ -	$ -	$ 192,509	$ -	$ 192,509
105	ESW CLP Switching Equipment	DDAF	$ 496,107	$ 46,253	$ 8,983	$ 69,804	$ 371,066	$ -	$ -	$ 496,107
106	ETR CLP Transformers	DDAF	$ 2,738,876	$ 255,349	$ 49,594	$ 385,372	$ 2,048,561	$ -	$ -	$ 2,738,876
107	EWR CLP Wire	DEAF	$ 2,626,767	$ 510,273	$ 99,701	$ 259,404	$ 1,744,350	$ 8,049	$ 4,989	$ 2,626,767
108	**Total Electric Plant - In Service**		$ 22,185,393	$ 5,344,194	$ 983,236	$ 2,523,142	$ 13,022,952	$ 231,846	$ 80,023	$ 22,185,392
109	Electric Plant In Service Allocation Factor	PLT	1.000000	0.240888	0.044319	0.113730	0.587006	0.010450	0.003607	1.000000

Frankfort City Light and Power

Pro Forma Results of Twelve Months Operations Ended March 31, 2016

Service Class Allocation

FERC Form 1-F Based on Operating Reports - Adjusted to match Financial Reports

WORKSHEET 6

SHEET 6 OF 6

Revised 08/30/2016

From Department Financial Reports								Rate Schedule SL	Rate Schedule OL	
				Single Phase	Single or Three Phase		Three Phase	Municipal	Outdoor	
Line No.	Item	Alloc Code	System Totals	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
	ALLOCATION FACTORS									
110	Electric Plant Adjusted for Capital Improvements	CAP	1.000000	0.223688	0.076249	0.166259	0.509635	0.016949	0.007220	1.000000
111	Distribution Energy Allocation Factor	DEAF	1.000000	0.194259	0.037956	0.098754	0.664067	0.003064	0.001899	1.000000
112	Distribution Demand Allocation Factor	DDAF	1.000000	0.093231	0.018107	0.140704	0.747957	-	-	1.000000
113	Percent Metered Customer Revenue	%Mtr	1.000000	0.249217	0.053228	0.117479	0.580076	-	-	1.000000
114	Metered Customer Allocation Factor	MCAF	1.000000	0.825590	0.130801	0.037121	0.006488	-	-	1.000000
115	Electric Plant In Service Allocation Factor	PLT	1.000000	0.240888	0.044319	0.113730	0.587006	0.010450	0.003607	1.000000
116	Total Metered Revenue Allocation Factor	REV	1.000000	0.247402	0.052840	0.116623	0.575852	0.005070	0.002212	1.000000
117	Outdoor and Street Lighting plus Signal System Expense	LITES	1.000000	-	-	-	-	0.696263	0.303737	1.000000

Frankfort City Light and Power

Rate Development

Twelve Months Ended March 31, 2016

WORKSHEET 7
SHEET 1 OF 2
Revised 08/30/2016

Please Refer To Exhibits 5, 8, 11 & 12 Development of SL and OL Lighting			For	Single Phase	Single or Three Phase		Three Phase	Schedule SL Municipal	Schedule OL Outdoor	New Rate Schedule IP	CHECK
Line No.	Item	Alloc Code	System Total	Rate A - Residential Service	Rate B - Commercial	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	>10,000 kW Industrial Power	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	
	Test Year Data										
1	kWh @ Wholesale Level	Total	383,977,217	74,591,016	14,574,132	37,919,384	254,986,707	1,176,648	729,328		383,977,217
2	Average kVA Demand	Monthly	55,067	5,134	997	7,748	41,188	-	-		55,067
3	No. of Customers		9,184	7,582	1,201	341	60				9,184
	Test Year Pro Forma Operating										
	Revenues Collected - Adjusted										
11	Energy Charge *	67.6%	$ 20,551,345	$ 7,132,699	$ 1,515,655	$ 3,474,734	$ 8,382,941	$ 28,060	$ 17,256		20,551,345
12	Demand Charge	13.6%	$ 4,125,126	$ -	$ -	$ -	$ 4,125,126	$ -	$ -		4,125,126
13	Customer Charge	18.8%	$ 5,714,313	$ 370,500	$ 86,442	$ 61,245	$ 5,020,650	$ 125,669	$ 49,807		5,714,313
14	Test Year Totals - Metered	100.0%	$ 30,390,784	$ 7,503,198	$ 1,602,097	$ 3,535,979	$ 17,528,717	$ 153,729	$ 67,063		30,390,784
	* Includes Cost Adjustment			24.69%	5.27%	11.64%	57.68%	0.51%	0.22%		100.0%
15	Adjusted Operating Revenues		$ 30,821,493	$ 7,625,305	$ 1,628,606	$ 3,594,510	$ 17,748,622	$ 156,276	$ 68,174		$ 30,821,493
16	Increase Required		$ 3,059,140	$ 718,784	$ 189,172	$ 414,980	$ 1,659,240	$ 30,214	$ 12,963		$ 3,025,353
17	Required Revenue		$ 33,880,633	$ 8,344,089	$ 1,817,779	$ 4,009,490	$ 19,407,861	$ 186,490	$ 81,137		$ 33,846,846
	Projected Rates			Rate Schedule A	Rate Schedule B	Rate Schedule C	Rate Schedule PPL	Rate Schedule SL	Rate Schedule OL		
17	Customer Monthly Rate			$ 15.00	$ 20.00	$ 45.00	$ 60.00	$ -	$ -		
18	Customer Charges		$ 1,880,070	$ 1,364,775	$ 288,300	$ 184,095	$ 42,900	$ -	$ -		$ 1,880,070
	Required Revenue Balance		$ 32,000,563	$ 6,979,314	$ 1,529,479	$ 3,825,395	$ 19,364,961	$ 186,490	$ 81,137		$ 31,966,776
19	Demand Rate - $/kVA			$ -	$ -	$ -	$ 18.85	$ 10.15	$ 10.15		
20	Demand Charge		$ 9,316,656	$ -	$ -	$ -	$ 9,316,656	$ -	$ -		$ 9,316,656
	Required Revenue Balance		$ 22,683,907	$ 6,979,314	$ 1,529,479	$ 3,825,395	$ 10,048,306	$ 186,490	$ 81,137		$ 22,650,120
21	Energy Rate - $/kWh			$ 0.093568	$ 0.104945	$ 0.100882	$ 0.039407	$ 0.158493	$ 0.111249		
22	Energy Charges		$ 22,650,120	$ 6,979,314	$ 1,529,479	$ 3,825,395	$ 10,048,306	$ 186,490	$ 81,137		$ 22,650,120
23	Projected Annual Revenues		$ 33,846,846	$ 8,344,089	$ 1,817,779	$ 4,009,490	$ 19,407,861	$ 186,490	$ 81,137		
24	Equivalent All-in Rate	$ per kWh	$ 0.088148	$ 0.111865	$ 0.124726	$ 0.105737	$ 0.076113	$ 0.158493	$ 0.111249		
25	Revenue - % of Total		$ 33,846,846	24.65%	5.37%	11.85%	57.34%	0.55%	0.24%		100.00%
26	Monthly Revenue - Est. Average		$ 2,820,571	$ 695,341	$ 151,482	$ 334,124	$ 1,617,322	$ 15,541	$ 6,761		$ 2,820,571
27	Average Monthly Consumption	kWh		820	1,011	9,269	356,625	98,054	60,777		
28	Average Monthly Demand	kVA		0.68	0.83	22.73	691.26				
29	Average Monthly Invoice			$ 91.71	$ 126.10	$ 980.08	$ 27,143.86				
30	Average Monthly Increase			$ 7.90	$ 13.12	$ 101.44	$ 2,320.62				
				8.6%	10.4%	10.3%	8.5%				

Frankfort City Light and Power

Rate Development

Twelve Months Ended March 31, 2016

WORKSHEET 7
SHEET 2 OF 2
Revised 08/30/2016

Please Refer To Exhibits 5, 8, 11 & 12 Development of SL and OL Lighting		For		Single Phase	Single or Three Phase		Three Phase	Schedule SL Municipal	Schedule OL Outdoor	New Rate Schedule IP	CHECK
Line No.	Item	Alloc Code	System Total	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL	Street Lighting Service	Lighting Service	>10,000 kW Industrial Power	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(N)
	Current Rates										
31	Customer Monthly Rate	per Customer		$ 4.00	$ 6.00	$ 15.00					
32	Customer Charge			$ 4.00	$ 6.00	$ 15.00	$ -				
33	Demand Rate	per kVA		$ -	$ -	$ -	$ 10.15				
34	Demand Charge			$ -	$ -	$ -	$ 7,016.31				
35	Energy Rate	per kWh		$ 0.051919	$ 0.055230	$ 0.046056	$ 0.032698				
36	Energy Charge			$ 42.56	$ 55.84	$ 426.89	$ 11,660.95				
37	Tracker Rate - Average	per kWh		$ 0.045560	$ 0.050895	$ 0.047450	$ 0.017060				
38	Tracker Revenue			$ 37.35	$ 51.46	$ 439.81	$ 6,084.04				
39	Total Revenue			$ 83.92	$ 113.30	$ 881.70	$ 24,761.29				
40	All-in Rate	per kWh		$ 0.102358	$ 0.112060	$ 0.095124	$ 0.069432				
41	Average Monthly Invoice			$ 83.92	$ 113.30	$ 881.70	$ 24,761.29				
42	500 kWhrs			$ 52.74	$ 59.06	$ 61.75					
43	1000 kWhrs			$ 101.48	$ 112.13	$ 108.51					
	Proposed Metered Rates and Charges										
44	Customer Monthly Rate	per Customer		$ 15.00	$ 20.00	$ 45.00	$ 60.00			$ 600.00	
45	Customer Charge			$ 15.00	$ 20.00	$ 45.00	$ 60.00				
46	Demand Rate	per kVA		$ -	$ -	$ -	$ 18.85			$ 20.72	
47	Demand Charge			$ -	$ -	$ -	$ 13,030.29				
48	Energy Rate	per kWh		$ 0.093568	$ 0.104945	$ 0.100882	$ 0.039407			$ 0.035560	
49	Energy Charge			$ 76.71	$ 106.10	$ 935.08	$ 14,053.57				
50	Total Revenue			$ 91.71	$ 126.10	$ 980.08	$ 27,143.86				
51	All-in Rate	per kWh		$ 0.111865	$ 0.124726	$ 0.105737	$ 0.076113				
52	Average Monthly Invoice			$ 91.71	$ 126.10	$ 980.08	$ 27,143.86				
53	500 kWhrs			$ 61.78							
54	1000 kWhrs			$ 108.57							
	Cost Based Customer Charge (Total Revenue Requirements less the Wholesale Power Purchase Costs)			$ 14.95	$ 22.63	$ 175.37	$ 4,409.43				
	Sample IP Customer @10MW 70%LF										
	Customer Charge						$ 60.00			$ 600.00	
	Demand Charge						$ 188,500.00			$ 207,200.00	
	Energy Charge						$ 201,370.66			$ 181,711.60	
	Average Monthly Invoice						$ 389,930.66			$ 389,511.60	
	Estimated Annual Billing						$ 4,679,167.91			$ 4,674,139.20	
	All-in Rate	per kWh					$ 0.076113			$ 0.076031	
	Annual Savings									$ 5,028.71	
	All-in Purchased System Rate									0.073405	
	All-in Billed System Rate									0.074874	

Frankfort City Light and Power Rate Study Results

Equivalent Current Rates	Single Phase		Three Phase	
RATE CODE	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL
Customer Charge - $/Month	$ 4.00	$ 6.00	$ 15.00	$ -
Demand Rate - $/kVA	$ -	$ -	$ -	$ 10.15
Energy Rate - $/kWh	$ 0.051919	$ 0.055230	$ 0.046056	$ 0.032698
Tracker Rate - $/kWh	$ 0.045560	$ 0.050895	$ 0.047450	$ 0.017060
Equivalent All-in Rate $/kWh	$ 0.102358	$ 0.112060	$ 0.095124	$ 0.069432

Proposed Rates	Single Phase		Three Phase	
RATE CODE	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power Service	Rate PPL
Customer Charge - $/Month	$ 15.00	$ 20.00	$ 45.00	$ 60.00
Demand Charge - $/kVA	$ -	$ -	$ -	$ 18.85
Energy Charge - $/kWh	$ 0.093568	$ 0.104945	$ 0.100882	$ 0.039407
Tracker Charge - $/kWh	$ -	$ -	$ -	$ -
Equivalent All-in Rate $/kWh	$ 0.111865	$ 0.124726	$ 0.105737	$ 0.076113

>10,000kW
New Rate Schedule IP
Industrial Power
$ 600.00
$ 20.72
$ 0.035560
$ -
$ 0.074395

	Rate A	Rate B	Rate C	PPL Rate
Avg. Invoice 2016	$ 83.92	$ 113.30	$ 881.70	$ 24,761.29
Avg. Invoice 2017	$ 91.71	$ 126.10	$ 980.08	$ 27,143.86
Monthly Increase	$ 7.79	$ 12.81	$ 98.37	$ 2,382.57

Frankfort City Light and Power Rate Study Results

Revised 08/30/2016

Street Lighting Schedule SL	LAMP WATTS & INSTALLATION	295	100 (Metal URD)	175	250	400	100 (WOOD)	100 (METAL)	150 (WOOD)	150 (METAL)	250 (WOOD)	250 (METAL)	400 (WOOD)	400 (METAL)	400 (METAL)	TOTALS
TEST YEAR Ending March 31, 2015	CONNECTION	OH	OH	OH	OH	OH	OH	OH	OH	URD	OH	OH	OH	OH	URD	Street Lights
	LAMP TYPE	INCAND	MERC	MERC	MERC	MERC	HPS	HPS	HPS	HPS	HPS	HPS	HPS	HPS	HPS	
	RATE / Mo.	$8.84	$5.14	$7.34	$8.08	$10.30	$5.82	$9.31	$6.84	$12.29	$8.02	$11.89	$9.81	$13.00	$15.24	
	Avg. IN USE	0	29	164	13	3	0	56	886	34	88	56	23	18	13	1,383
	KWH	-	1,305	13,220	1,517	544	-	2,259	51,982	1,994	8,948	5,694	3,721	2,842	2,103	96,130
	CUSTOMER $	-	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,061	$ 418	$ 706	$ 627	$ 226	$ 228	$ 198	$ 10,472
PROPOSED RATES	INCREASE	$ 1.74	$ 1.01	$ 1.44	$ 1.59	$ 2.02	$ 1.14	$ 1.83	$ 1.34	$ 2.42	$ 1.58	$ 2.34	$ 1.93	$ 2.55	$ 3.00	Increase
	RATE / Mo.	$ 10.58	$ 6.15	$ 8.78	$ 9.67	$ 12.32	$ 6.96	$ 11.14	$ 8.18	$ 14.71	$ 9.60	$ 14.23	$ 11.74	$ 15.55	$ 18.24	20.10%
	CUSTOMER $	$ -	$ 178.35	$ 1,440.33	$ 125.68	$ 36.97	$ -	$ 623.82	$ 7,251.93	$ 499.98	$ 844.46	$ 796.70	$ 269.97	$ 272.21	$ 237.06	$ 12,577

Security Lighting Schedule OL	LAMP WATTS & INSTALLATION			175	250	400	100		150		250		400			TOTALS
	CONNECTION			OPEN FACE - SECURITY LIGHTS					OF - SL		OF - SL		OF - SL			Security Lights
	LAMP TYPE			MERC	MERC	MERC	HPS		HPS		HPS		HPS			
	RATE / Mo.			$6.24	$7.83	$8.97	$3.67		$4.31		$5.64		$7.26			
	Avg. IN USE			135	0	3	8		395		8		7			720
	KWH			10,859	-	544	323		23,197		837		1,132			58,972
	CUSTOMER $			$ 842.40	$ -	$ 26.91	$ 29.36		$ 1,702.81		$ 46.53		$ 50.82			$ 4,151
PROPOSED RATES	INCREASE			$ 1.21	$ 1.51	$ 1.73	$ 0.71		$ 0.83		$ 1.09		$ 1.40			Increase
	RATE / Mo.			$7.45	$9.34	$10.70	$4.38		$5.14		$6.73		$8.66			19.33%
	CUSTOMER $			$ 1,005.22	$ -	$ 32.11	$ 35.03		$ 2,031.93		$ 55.52		$ 60.64			$ 4,953
Security Lighting Schedule OL	LAMP WATTS & INSTALLATION				250	400			150		250		400			
	CONNECTION				FLOOD LIGHTS				FLOOD - SECURITY LIGHTS							
	LAMP TYPE				MERC	MERC			HPS		HPS		HPS			
	RATE / Mo.				$7.61	$11.37			$4.65		$7.12		$10.43			
	Avg. IN USE				1	12			29		30		92			
	KWH				117	2,174			1,701		3,047		15,042			
	CUSTOMER $				$ 7.61	$ 136.44			$ 134.85		$ 212.41		$ 960.43			
PROPOSED RATES	INCREASE				$ 1.47	$ 2.20			$ 0.90		$ 1.38		$ 2.02			
	RATE / Mo.				$9.08	$13.57			$5.55		$8.50		$12.45			
	CUSTOMER $				$ 9.08	$ 162.81			$ 160.91		$ 253.47		$ 1,146.06			

Frankfort City Light and Power

Evaluation and Development of Capital Improvement Plan Allocators

Line No.	From Capital Improvement Plan Project Estimates: Project Name	Plant Cost Category	Amount	Single Phase: Rate A - Residential Service	Single Phase: Rate B - Commercial Service	Three Phase: Rate C - General Power	Three Phase: Rate PPL	Rate Schedule SL: Municipal Street Lighting Service	Rate Schedule OL: Outdoor Lighting Service	CHECK
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
1	1) Install cutouts and coordinate fuses on radial taps	Trans	-	-	-	-	-	-	-	-
2		Distr	137,750	29,216	10,269	23,576	70,735	2,773	1,181	137,750
3		Meter	-	-	-	-	-	-	-	-
4	Project Total		137,750	29,216	10,269	23,576	70,735	2,773	1,181	137,750
13	2) Update the existing distribution protective device settings on relays	Trans	-	-	-	-	-	-	-	-
14		Distr	16,850	3,574	1,256	2,884	8,652	339	144	16,850
15		Genl	-	-	-	-	-	-	-	-
16	Project Total		16,850	3,574	1,256	2,884	8,652	339	144	16,850
17	3) Update/install Arc Flash labels based on protective device coordination results/recommendation	Trans	-	-	-	-	-	-	-	-
18		Distr	-	-	-	-	-	-	-	-
19		Genl	4,250	1,344	348	341	2,218	-	-	4,250
20	Project Total		4,250	1,344	348	341	2,218	-	-	4,250
25	4) Vehicle Fleet Additions (2 service Pick-ups replace #2-45 & #2-4A with one and #2-7 with the other)	Trans		-	-	-	-	-	-	-
26		Distr	-	-	-	-	-	-	-	-
27		Genl	50,259	15,890	4,111	4,028	26,230	-	-	50,259
28	Project Total		50,259	15,890	4,111	4,028	26,230	-	-	50,259
29	5) Voltage Regulators installed to remedy voltage issues on select circuits, Burlington Sub Feeder 5,	Trans	-	-	-	-	-	-	-	-
30	Fairground Substation Feeder No. 3, Westside Sub Feeder No. 3, Westside Sub Feeder No. 4	Distr	481,424	102,108	35,890	82,396	247,212	9,691	4,128	481,424
31		Genl	-	-	-	-	-	-	-	-
32	Project Total		481,424	102,108	35,890	82,396	247,212	9,691	4,128	481,424
33	6) Vehicle Fleet Additions (2 service trucks service trucks #2-9 and #2-14)	Trans	-	-	-	-	-	-	-	-
34		Distr	-	-	-	-	-	-	-	-
35		Genl	335,150	105,963	27,416	26,859	174,911	-	-	335,150
36	Project Total		335,150	105,963	27,416	26,859	174,911	-	-	335,150
37	7) Re-conductor distribution circuits to increase ampacity (reduce bottleneck), WSS6 OH SW16 & 11516 -	Trans	-	-	-	-	-	-	-	-
38	from 336 to 477ACSR (Approx. 100 feet), WSS4 FROM Sub to IN 28 POLE 11715 - 336 to 477ACSR (Approx.	Distr	360,719	76,507	26,891	61,737	185,230	7,261	3,093	360,719
39	2400 feet), FGR4 OH FAIRGND & PRAIRIE - from 336 to 477ACSR (Approx. 600 feet), BUR8 OH WASH AVE &	Genl	-	-	-	-	-	-	-	-
40	Project Total		360,719	76,507	26,891	61,737	185,230	7,261	3,093	360,719

Frankfort City Light and Power

Evaluation and Development of Capital Improvement Plan Allocators

Revised 08/30/2016

From Capital Improvement Plan Project Estimates								Rate Schedule SL	Rate Schedule OL	
				Single Phase		Three Phase		Municipal	Outdoor	CHECK
Line No.	Project Name	Plant Cost Category	Amount	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
41	8) New Substation Northwest 69/13.2 kV with 8 feeders	Trans	345,000	74,549	27,950	59,646	182,855	-	-	345,000
42		Distr	2,300,000	487,821	171,463	393,645	1,181,052	46,297	19,722	2,299,999
43		Genl	-	-	-	-	-	-	-	-
44	Project Total		2,645,000	562,370	199,413	453,291	1,363,907	46,297	19,722	2,644,999
45	9) West Side Substation Upgrades (Replace two (2) circuit switchers with SF6 breakers, Two New 69/13.2kV,	Trans	265,000	57,263	21,469	45,815	140,454	-	-	265,000
46	20/26.7/33.3 MVA Transformers, Main-Tie-Main Switchgear with 8 Feeders, new relays, metering	Distr	2,000,412	424,279	149,129	342,371	1,027,214	40,266	17,153	2,000,411
47		Genl	-	-	-	-	-	-	-	-
48	Project Total		2,265,412	481,542	170,597	388,186	1,167,667	40,266	17,153	2,265,411
49	10) West Side Substation Preventative Maintenance	Trans	-	-	-	-	-	-	-	-
50		Distr	38,650	8,198	2,881	6,615	19,847	778	331	38,650
51		Genl	-	-	-	-	-	-	-	-
52	Project Total		38,650	8,198	2,881	6,615	19,847	778	331	38,650
53	11) Burlington Substation Upgrades (NEW 69/13.2kV, 30/40/50 MVA Transformer, Upgrade distribution	Trans	345,000	74,549	27,950	59,646	182,855	-	-	345,000
54	switchgear (breakers and relays), maintain existing building for 69kV Relaying & Storage)	Distr	1,246,744	264,429	92,944	213,380	640,204	25,096	10,690	1,246,744
55		Genl	-	-	-	-	-	-	-	-
56	Project Total		1,591,744	338,979	120,893	273,026	823,059	25,096	10,690	1,591,744
57	12) Burlington Substation Maintenance	Trans	-	-	-	-	-	-	-	-
58		Distr	38,650	8,198	2,881	6,615	19,847	778	331	38,650
59		Genl	-	-	-	-	-	-	-	-
60	Project Total		38,650	8,198	2,881	6,615	19,847	778	331	38,650
61	13) Fairgrounds Substation Upgrades (Replace existing high side circuit breaker with SF6 breaker, Upgrade	Trans	-	-	-	-	-	-	-	-
62	existing SEL protective relays to 351S Relays, SEL Communication Processor to monitor and collect data	Distr	242,172	51,364	18,054	41,448	124,356	4,875	2,077	242,172
63	from existing protective relays for future SCADA)	Genl	-	-	-	-	-	-	-	-
64	Project Total		242,172	51,364	18,054	41,448	124,356	4,875	2,077	242,172
65	14) GIS/Mapping System Upgrades	Trans	-	-	-	-	-	-	-	-
66		Distr	152,565	32,358	11,374	26,111	78,342	3,071	1,308	152,565
67		Genl	56,850	17,974	4,651	4,556	29,669	-	-	56,850
68	Project Total		209,415	50,333	16,024	30,667	108,012	3,071	1,308	209,415

Line No.	From Capital Improvement Plan Project Estimates Project Name	Plant Cost Category	Amount	Single Phase Rate A - Residential Service	Single Phase Rate B - Commercial Service	Three Phase Rate C - General Power	Three Phase Rate PPL	Rate Schedule SL Municipal Street Lighting Service	Rate Schedule OL Outdoor Lighting Service	CHECK
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
69	15) Fairgrounds Substation Maintenance	Trans	-	-	-	-	-	-	-	-
70		Distr	39,460	8,369	2,942	6,754	20,263	794	338	39,460
71		Genl	-	-	-	-	-	-	-	-
72	Project Total		39,460	8,369	2,942	6,754	20,263	794	338	39,460
73	16) S.R. 28 3-phase Re-Build	Trans	-	-	-	-	-	-	-	-
74		Distr	549,170	116,477	40,940	93,990	281,999	11,054	4,709	549,170
75		Genl	-	-	-	-	-	-	-	-
76	Project Total		549,170	116,477	40,940	93,990	281,999	11,054	4,709	549,170
77	17) AMI Pilot for Industrial Customers	Trans	-	-	-	-	-	-	-	-
78		Distr	-	-	-	-	-	-	-	-
79		Meter	168,785	106,538	21,238	23,353	17,656	-	-	168,785
80	Project Total		168,785	106,538	21,238	23,353	17,656	-	-	168,785
81	18) Utility IT, Communication network upgrades to support AMI, SCADA and increasing bandwidth needs for	Trans	150,000	32,413	12,152	25,933	79,502	-	-	150,000
82	the Utility Operations	Distr	150,000	31,814	11,182	25,673	77,025	3,019	1,286	150,000
83		Genl	150,000	47,425	12,271	12,021	78,283	-	-	150,000
84	Project Total		450,000	111,652	35,605	63,627	234,811	3,019	1,286	450,000
85	19) Pole Replacements - 20,000 poles in 50 years ~ avg 400 per yr. @ $290.50 ea. = $116,200/year.	Trans	-	-	-	-	-	-	-	-
86	According to Annixter Feb 2016, a 50 foot - Class 3 SYP CCA treated wood pole costs $290.50.	Distr	813,400	172,519	60,638	139,213	417,682	16,373	6,975	813,400
87		Genl	-	-	-	-	-	-	-	-
88	Project Total		813,400	172,519	60,638	139,213	417,682	16,373	6,975	813,400
89	20) SR28 Road Widening Project 2018 - INDOT has announced plans to widen SR28 through Frankfort. As a	Trans	-	-	-	-	-	-	-	-
90	result, all poles along the proposed route must be moved and associated electrical infrastructure must be	Distr	1,400,000	296,934	104,369	239,610	718,901	28,181	12,004	1,399,999
91	modified. INDOT's road widening project is scheduled to begin in 2018.	Genl	-	-	-	-	-	-	-	-
92	Project Total		1,400,000	296,934	104,369	239,610	718,901	28,181	12,004	1,399,999
93		Trans	-	-	-	-	-	-	-	-
94		Distr	-	-	-	-	-	-	-	-
95		Genl	-	-	-	-	-	-	-	-
96	Project Total		-	-	-	-	-	-	-	-

Frankfort City Light and Power

Evaluation and Development of Capital Improvement Plan Allocators

From Capital Improvement Plan Project Estimates								Rate Schedule SL	Rate Schedule OL	CHECK
				Single Phase		Three Phase		Municipal	Outdoor	
Line No.	Project Name	Plant Cost Category	Amount	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
97		Trans	-	-	-	-	-	-	-	-
98		Distr	-	-	-	-	-	-	-	-
99		Genl	-	-	-	-	-	-	-	-
100	Project Total		-	-	-	-	-	-	-	-
101		Trans	-	-	-	-	-	-	-	-
102		Distr	-	-	-	-	-	-	-	-
103		Genl	-	-	-	-	-	-	-	-
104	Project Total		-	-	-	-	-	-	-	-
105		Trans	-	-	-	-	-	-	-	-
106		Distr	-	-	-	-	-	-	-	-
107		Genl	-	-	-	-	-	-	-	-
108	Project Total		-	-	-	-	-	-	-	-
109		Trans	-	-	-	-	-	-	-	-
110		Distr	-	-	-	-	-	-	-	-
111		Genl	-	-	-	-	-	-	-	-
112	Project Total		-	-	-	-	-	-	-	-
113		Trans	-	-	-	-	-	-	-	-
114		Distr	-	-	-	-	-	-	-	-
115		Genl	-	-	-	-	-	-	-	-
116	Project Total		-	-	-	-	-	-	-	-
117		Trans	-	-	-	-	-	-	-	-
118		Distr	-	-	-	-	-	-	-	-
119		Genl	-	-	-	-	-	-	-	-
120	Project Total		-	-	-	-	-	-	-	-
121		Trans	-	-	-	-	-	-	-	-
122		Distr	-	-	-	-	-	-	-	-
123		Genl	-	-	-	-	-	-	-	-
124	Project Total		-	-	-	-	-	-	-	-

Frankfort City Light and Power

Evaluation and Development of Capital Improvement Plan Allocators

WORKSHEET 9
SHEET 5 OF 5
Revised 08/30/2016

From Capital Improvement Plan Project Estimates								Rate Schedule SL	Rate Schedule OL	
				Single Phase		Three Phase		Municipal	Outdoor	CHECK
Line No.	Project Name	Plant Cost Category	Amount	Rate A - Residential Service	Rate B - Commercial Service	Rate C - General Power	Rate PPL	Street Lighting Service	Lighting Service	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
125	CAPITAL IMPROVEMENT TOTALS		11,838,260	2,648,074	902,657	1,968,215	6,033,194	200,645	85,472	11,838,256
126	Capital Improvement Projects	CAP	1.000000	0.223688	0.076249	0.166259	0.509635	0.016949	0.007220	1.000000
	Allocation Factors									
127	Transmission	Trans	1.000000	0.216085	0.081014	0.172887	0.530014	0.000000	0.000000	1.000000
128	Distribution	Distr	1.000000	0.212096	0.074549	0.171150	0.513501	0.020129	0.008575	1.000000
129	General	Genl	1.000000	0.316167	0.081804	0.080140	0.521889	0.000000	0.000000	1.000000
130	Metering	Meter	1.000000	0.631203	0.125830	0.138361	0.104607	0.000000	0.000000	1.000000

Billing System Totals and Projections

	2014 System Billing Totals					Calculated	
Date	Energy KWh	Energy $	Demand kW	Demand $		$/kWh	$/kW
Jan-14	36,877,824	$ 1,173,267.97	61,560	$ 1,205,098.56		$ 0.031815	$ 19.576000
Feb-14	33,102,348	$ 1,053,151.21	59,184	$ 1,158,585.99		$ 0.031815	$ 19.576000
Mar-14	33,767,448	$ 1,074,311.36	56,880	$ 1,113,482.88		$ 0.031815	$ 19.576000
Apr-14	29,981,050	$ 953,847.11	51,060	$ 999,550.56		$ 0.031815	$ 19.576000
May-14	32,657,010	$ 1,038,982.77	60,464	$ 1,183,643.27		$ 0.031815	$ 19.576000
Jun-14	35,671,852	$ 1,134,899.97	68,904	$ 1,348,864.71		$ 0.031815	$ 19.576000
Jul-14	35,654,876	$ 1,153,898.75	66,716	$ 1,355,202.10		$ 0.032363	$ 20.313000
Aug-14	37,384,664	$ 1,209,879.89	71,496	$ 1,452,298.24		$ 0.032363	$ 20.313000
Sep-14	32,810,976	$ 1,061,861.61	70,488	$ 1,431,822.74		$ 0.032363	$ 20.313000
Oct-14	32,053,968	$ 1,037,362.57	53,280	$ 1,082,276.64		$ 0.032363	$ 20.313000
Nov-14	32,090,112	$ 1,038,532.29	56,232	$ 1,142,240.62		$ 0.032363	$ 20.313000
Dec-14	34,163,676	$ 1,105,639.05	55,812	$ 1,133,709.16		$ 0.032363	$ 20.313000
Totals	**406,215,804**	**$ 13,035,634.55**	**732,076**	**$ 14,606,775.47**	**$ 27,642,410.02**		

	2015 System Billing Projections					Projected	
Date	Energy KWh	Energy $	Demand kW	Demand $		$/kWh	$/kW
Jan-15	35,809,903	$ 1,190,356.99	58,843	$ 1,234,761.51		$ 0.033241	$ 20.984000
Feb-15	32,562,297	$ 1,082,403.31	58,863	$ 1,235,181.19		$ 0.033241	$ 20.984000
Mar-15	33,039,245	$ 1,098,257.54	55,020	$ 1,154,539.68		$ 0.033241	$ 20.984000
Apr-15	30,463,660	$ 1,012,642.52	52,523	$ 1,102,142.63		$ 0.033241	$ 20.984000
May-15	32,378,556	$ 1,076,295.58	59,635	$ 1,251,380.84		$ 0.033241	$ 20.984000
Jun-15	36,352,422	$ 1,208,390.86	70,928	$ 1,488,353.15		$ 0.033241	$ 20.984000
Jul-15	39,740,151	$ 1,321,002.36	72,260	$ 1,516,303.84		$ 0.033241	$ 20.984000
Aug-15	37,889,402	$ 1,259,481.61	70,886	$ 1,487,471.82		$ 0.033241	$ 20.984000
Sep-15	34,001,783	$ 1,130,253.27	70,210	$ 1,473,286.64		$ 0.033241	$ 20.984000
Oct-15	32,390,493	$ 1,076,692.38	54,417	$ 1,141,886.33		$ 0.033241	$ 20.984000
Nov-15	31,037,220	$ 1,031,708.23	53,175	$ 1,115,824.20		$ 0.033241	$ 20.984000
Dec-15	33,832,320	$ 1,124,620.15	56,796	$ 1,191,807.26		$ 0.033241	$ 20.984000
Totals	**409,497,452**	**$ 13,612,104.80**	**733,556**	**$ 15,392,939.10**	**$ 29,005,043.91**		

Frankfort City Light and Power

WORKSHEET 11
SHEET 1 OF 2
Revised 08/30/2016

Metered City Street Lighting Consumption - Rate Schedule SL

Twelve Months Ended March 31, 2016

MONTH	LAMP WATTS & INSTALLATION	295	100 (M-URD)	175	250	400	100 (WOOD)	100 (METAL)	150 (WOOD)	150 (METAL)	250 (WOOD)	250 (METAL)	400 (WOOD)	400 (METAL)	400 (METAL)	TOTALS	
	CONNECTION	OH	OH	OH	OH	OH	OH	OH	OH	URD	OH	OH	OH	OH	URD		
	LAMP TYPE	INCAND	MERC	MERC	MERC	MERC	HPS	HPS	HPS	HPS	HPS	HPS	HPS	HPS	HPS		
	RATE / Mo.	$8.84	$5.14	$7.34	$8.08	$10.30	$6.17	$9.31	$6.84	$12.29	$8.02	$11.19	$9.81	$13.00	$15.24		
April-15	No. IN USE	0	29	164	13	3	0	56	884	34	88	56	23	17	13	1,380	
	KWH	-	1,144	11,611	1,316	476	-	1,968	45,128	1,736	7,840	4,989	3,264	2,413	1,845	83,728	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,046.56	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,451.69	
	Tracker $	$ -	$ 20.62	$ 209.17	$ 23.70	$ 8.57	$ -	$ 35.45	$ 812.93	$ 31.27	$ 141.22	$ 89.87	$ 58.80	$ 43.46	$ 33.23	$ 1,508.28	
	Adjusted Total	$ -	$ 169.68	$ 1,412.93	$ 128.74	$ 39.47	$ -	$ 556.81	$ 6,859.49	$ 449.13	$ 846.98	$ 716.51	$ 284.43	$ 264.46	$ 231.35	$ 11,959.97	$ 11,959.96
May-15	No. IN USE	0	29	164	13	3	0	56	884	34	88	56	23	17	13	1,380	
	KWH	-	1,015	10,332	1,183	423	-	1,736	40,664	1,564	6,952	4,424	2,898	2,142	1,638	74,971	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,046.56	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,451.69	
	Tracker $	-	$ 18.28	$ 186.12	$ 21.31	$ 7.62	$ -	$ 31.27	$ 732.52	$ 28.17	$ 125.23	$ 79.69	$ 52.20	$ 38.59	$ 29.51	$ 1,350.53	
	Adjusted Total	$ -	$ 167.34	$ 1,389.88	$ 126.35	$ 38.52	$ -	$ 552.63	$ 6,779.08	$ 446.03	$ 830.99	$ 706.33	$ 277.83	$ 259.59	$ 227.63	$ 11,802.22	$ 11,802.22
June-15	No. IN USE	0	29	164	13	3	0	56	884	34	88	56	23	17	13	1,380	
	KWH	-	870	8,856	1,027	366	-	1,512	34,476	1,326	5,984	3,808	2,507	1,853	1,417	64,002	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,046.56	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,451.69	
	Tracker $	$ -	$ 15.67	$ 159.53	$ 18.50	$ 6.59	$ -	$ 27.24	$ 621.05	$ 23.89	$ 107.80	$ 68.60	$ 45.16	$ 33.38	$ 25.53	$ 1,152.93	
	Adjusted Total	$ -	$ 164.73	$ 1,363.29	$ 123.54	$ 37.49	$ -	$ 548.60	$ 6,667.61	$ 441.75	$ 813.56	$ 695.24	$ 270.79	$ 254.38	$ 223.65	$ 11,604.62	$ 11,604.64
July-15	No. IN USE	0	29	164	13	3	0	56	884	34	88	56	23	17	13	1,380	
	KWH	-	978	9,921	1,124	406	-	1,681	38,557	1,483	6,698	4,262	2,789	2,061	1,576	71,537	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,046.56	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,451.69	
	Tracker $	$ -	$ 21.02	$ 213.23	$ 24.16	$ 8.73	$ -	$ 36.14	$ 828.71	$ 31.87	$ 143.96	$ 91.61	$ 59.94	$ 44.30	$ 33.88	$ 1,537.55	
	Adjusted Total	$ -	$ 170.08	$ 1,416.99	$ 129.20	$ 39.63	$ -	$ 557.50	$ 6,875.27	$ 449.73	$ 849.72	$ 718.25	$ 285.57	$ 265.30	$ 232.00	$ 11,989.24	$ 11,989.00
August-15	No. IN USE	0	29	164	13	3	0	56	884	34	88	56	23	17	13	1,380	
	KWH	-	1,131	11,480	1,313	471	-	1,960	45,084	1,734	7,744	4,928	3,220	2,380	1,820	83,265	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,046.56	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,451.69	
	Tracker $	$ -	$ 24.31	$ 246.74	$ 28.22	$ 10.12	$ -	$ 42.13	$ 968.99	$ 37.27	$ 166.44	$ 105.92	$ 69.21	$ 51.15	$ 39.12	$ 1,789.61	
	Adjusted Total	$ -	$ 173.37	$ 1,450.50	$ 133.26	$ 41.02	$ -	$ 563.49	$ 7,015.55	$ 455.13	$ 872.20	$ 732.56	$ 294.84	$ 272.15	$ 237.24	$ 12,241.30	$ 12,241.32
Sep-15	No. IN USE	0	29	164	13	3	0	56	884	34	88	56	23	17	13	1,380	
	KWH	-	1,276	12,792	1,469	528	-	2,184	50,388	1,938	8,712	5,544	3,611	2,669	2,041	93,152	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,046.56	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,451.69	
	Tracker $	$ -	$ 27.43	$ 274.94	$ 31.57	$ 11.35	$ -	$ 46.94	$ 1,082.99	$ 41.65	$ 187.25	$ 119.16	$ 77.61	$ 57.36	$ 43.87	$ 2,002.12	
	Adjusted Total	$ -	$ 176.49	$ 1,478.70	$ 136.61	$ 42.25	$ -	$ 568.30	$ 7,129.55	$ 459.51	$ 893.01	$ 745.80	$ 303.24	$ 278.36	$ 241.99	$ 12,453.81	$ 12,453.81
October-15	No. IN USE	0	29	164	13	3	0	56	884	34	88	56	23	17	13	1,380	
	KWH	-	1,479	15,088	1,742	624	-	2,576	59,228	2,278	10,208	6,496	4,232	3,128	2,392	109,471	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,046.56	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,451.69	
	Tracker $	$ -	$ 40.66	$ 414.83	$ 47.89	$ 17.16	$ -	$ 70.82	$ 1,628.41	$ 62.63	$ 280.66	$ 178.60	$ 116.35	$ 86.00	$ 65.77	$ 3,009.80	
	Adjusted Total	$ -	$ 189.72	$ 1,618.59	$ 152.93	$ 48.06	$ -	$ 592.18	$ 7,674.97	$ 480.49	$ 986.42	$ 805.24	$ 341.98	$ 307.00	$ 263.89	$ 13,461.49	$ 13,478.85

Frankfort City Light and Power

Metered City Street Lighting Consumption - Rate Schedule SL

Twelve Months Ended March 31, 2016

Revised 08/30/2016

MONTH	LAMP WATTS & INSTALLATION	295	100 (M-URD)	175	250	400	100 (WOOD)	100 (METAL)	150 (WOOD)	150 (METAL)	250 (WOOD)	250 (METAL)	400 (WOOD)	400 (METAL)	400 (METAL)	TOTALS	
	CONNECTION	OH	OH	OH	OH	OH	OH	OH	OH	URD	OH	OH	OH	OH	URD		
	LAMP TYPE	INCAND	MERC	MERC	MERC	MERC	HPS	HPS	HPS	HPS	HPS	HPS	HPS	HPS	HPS		
	RATE / Mo.	$8.84	$5.14	$7.34	$8.08	$10.30	$6.17	$9.31	$6.84	$12.29	$8.02	$11.19	$9.81	$13.00	$15.24		
Nov-15	No. IN USE	0	29	164	13	3	0	56	889	34	88	56	23	17	13	1,385	
	KWH	-	1,595	16,072	1,846	663	-	2,744	63,119	2,414	10,824	6,888	4,508	3,332	2,548	116,553	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,080.76	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,485.89	
	Tracker $	$ -	$ 43.85	$ 441.88	$ 50.75	$ 18.23	$ -	$ 75.44	$ 1,735.39	$ 66.37	$ 297.60	$ 189.38	$ 123.94	$ 91.61	$ 70.05	$ 3,204.51	
	Adjusted Total	$ -	$ 192.91	$ 1,645.64	$ 155.79	$ 49.13	$ -	$ 596.80	$ 7,816.15	$ 484.23	$ 1,003.36	$ 816.02	$ 349.57	$ 312.61	$ 268.17	$ 13,690.40	$ 13,690.38
Dec-15	No. IN USE	0	29	164	13	3	0	56	889	34	88	56	23	17	13	1,385	
	KWH	-	1,711	17,384	2,002	714	-	3,024	68,453	2,618	11,792	7,504	4,899	3,621	2,769	126,491	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,080.76	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 221.00	$ 198.12	$ 10,485.89	
	Tracker $	$ -	$ 47.04	$ 477.96	$ 55.04	$ 19.63	$ -	$ 83.14	$ 1,882.05	$ 71.98	$ 324.21	$ 206.31	$ 134.69	$ 99.56	$ 76.13	$ 3,477.74	
	Adjusted Total	$ -	$ 196.10	$ 1,681.72	$ 160.08	$ 50.53	$ -	$ 604.50	$ 7,962.81	$ 489.84	$ 1,029.97	$ 832.95	$ 360.32	$ 320.56	$ 274.25	$ 13,963.63	$ 13,963.61
January-16	No. IN USE	0	29	164	13	3	0	56	889	34	88	56	23	19	13	1,387	
	KWH	-	1,682	16,892	1,950	696	-	2,912	66,675	2,550	11,440	7,280	4,761	3,933	2,691	123,462	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,080.76	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 247.00	$ 198.12	$ 10,511.89	
	Tracker $	$ -	$ 45.96	$ 461.52	$ 53.28	$ 19.02	$ -	$ 79.56	$ 1,821.69	$ 69.67	$ 312.56	$ 198.90	$ 130.08	$ 107.46	$ 73.52	$ 3,373.23	
	Adjusted Total	$ -	$ 195.02	$ 1,665.28	$ 158.32	$ 49.92	$ -	$ 600.92	$ 7,902.45	$ 487.53	$ 1,018.32	$ 825.54	$ 355.71	$ 354.46	$ 271.64	$ 13,885.12	$ 13,855.63
February-16	No. IN USE	0	29	164	13	3	0	56	889	34	88	56	23	19	13	1,387	
	KWH	-	1,392	14,104	1,625	582	-	2,408	56,007	2,142	9,592	6,104	3,979	3,287	2,249	103,471	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,080.76	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 247.00	$ 198.12	$ 10,511.89	
	Tracker $	$ -	$ 38.03	$ 385.35	$ 44.40	$ 15.90	$ -	$ 65.79	$ 1,530.22	$ 58.52	$ 262.07	$ 166.77	$ 108.71	$ 89.81	$ 61.45	$ 2,827.03	
	Adjusted Total	$ -	$ 187.09	$ 1,589.11	$ 149.44	$ 46.80	$ -	$ 587.15	$ 7,610.98	$ 476.38	$ 967.83	$ 793.41	$ 334.34	$ 336.81	$ 259.57	$ 13,338.92	$ 13,310.59
March-16	No. IN USE	0	29	164	13	3	0	56	889	34	88	56	23	19	13	1,387	
	KWH	-	1,392	14,104	1,612	579	-	2,408	56,007	2,142	9,592	6,104	3,979	3,287	2,249	103,455	
	CUSTOMER $	$ -	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,080.76	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 247.00	$ 198.12	$ 10,511.89	
	Tracker $	$ -	$ 38.03	$ 385.35	$ 44.04	$ 15.82	$ -	$ 65.79	$ 1,530.22	$ 58.52	$ 262.07	$ 166.77	$ 108.71	$ 89.81	$ 61.45	$ 2,826.60	
	Adjusted Total	$ -	$ 187.09	$ 1,589.11	$ 149.08	$ 46.72	$ -	$ 587.15	$ 7,610.98	$ 476.38	$ 967.83	$ 793.41	$ 334.34	$ 336.81	$ 259.57	$ 13,338.49	$ 13,310.15
TEST YEAR	Avg. IN USE	0	29	164	13	3	0	56	886	34	88	56	23	18	13	1,383	
	KWH	-	1,305	13,220	1,517	544	-	2,259	51,982	1,994	8,948	5,694	3,721	2,842	2,103	96,130	
	CUSTOMER $	-	$ 149.06	$ 1,203.76	$ 105.04	$ 30.90	$ -	$ 521.36	$ 6,060.81	$ 417.86	$ 705.76	$ 626.64	$ 225.63	$ 227.50	$ 198.12	$ 10,472.44	
	Tracker $	$ -	$ 31.74	$ 321.38	$ 36.91	$ 13.23	$ -	$ 54.98	$ 1,264.60	$ 48.49	$ 217.59	$ 138.47	$ 90.45	$ 69.37	$ 51.12	$ 2,338.33	
	Adjusted Total	$ -	$ 180.80	$ 1,525.14	$ 141.95	$ 44.13	$ -	$ 576.34	$ 7,325.41	$ 466.35	$ 923.35	$ 765.11	$ 316.08	$ 296.87	$ 249.24	$ 12,810.77	

Metered Security Lighting Consumption - Rate Schedule OL

Twelve Months Ended March 31, 2016

	LAMP WATTS & INSTALLATION	175	250	400	100	150	250	400	250	400	150	250	400	175	150	250	400	TOTALS
MONTH	CONNECTION	OPEN FACE - SECURITY LIGHTS							FLOOD - SECURITY LIGHTS					NON - COLLECT LIGHTS				
	LAMP TYPE	MERC	MERC	MERC	HPS	HPS	HPS	HPS	MERC	MERC	HPS	HPS	HPS	MERC	HPS	HPS	HPS	
	RATE / Mo.	$6.24	$7.83	$8.97	$3.67	$4.31	$5.64	$7.26	$7.61	$11.37	$4.65	$7.12	$10.43	$0.00	$0.00	$0.00	$0.00	
April-15	No. IN USE	136	0	3	8	390	11	7	1	12	29	29	79	1	2	3	0	711
	KWH	9,656	-	477	280	19,890	979	994	102	1,908	1,479	2,581	11,218	71	102	267	-	50,004
	CUSTOMER $	$ 848.64	$ -	$ 26.91	$ 29.36	$ 1,680.90	$ 62.04	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 206.48	$ 823.97	$ -	$ -	$ -	$ -	$ 4,008.02
	Tracker $	$ 173.94	$ -	$ 8.59	$ 5.04	$ 358.30	$ 17.64	$ 17.91	$ 1.84	$ 34.37	$ 26.64	$ 46.49	$ 202.08	$ -	$ -	$ -	$ -	$ 892.85
	Adjusted Total	$ 1,022.58	$ -	$ 35.50	$ 34.40	$ 2,039.20	$ 79.68	$ 68.73	$ 9.45	$ 170.81	$ 161.49	$ 252.97	$ 1,026.05	$ -	$ -	$ -	$ -	$ 4,900.87
May-15	No. IN USE	136	0	3	8	391	11	7	1	12	29	29	79	1	2	3	0	712
	KWH	8,568	-	423	248	17,986	869	882	91	1,692	1,334	2,291	9,954	63	92	237	-	44,730
	CUSTOMER $	$ 848.64	$ -	$ 26.91	$ 29.36	$ 1,685.21	$ 62.04	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 206.48	$ 823.97	$ -	$ -	$ -	$ -	$ 4,012.33
	Tracker $	$ 154.34	$ -	$ 7.62	$ 4.47	$ 324.00	$ 15.65	$ 15.89	$ 1.64	$ 30.48	$ 24.03	$ 41.27	$ 179.31	$ -	$ -	$ -	$ -	$ 798.70
	Adjusted Total	$ 1,002.98	$ -	$ 34.53	$ 33.83	$ 2,009.21	$ 77.69	$ 66.71	$ 9.25	$ 166.92	$ 158.88	$ 247.75	$ 1,003.28	$ -	$ -	$ -	$ -	$ 4,811.03
June-15	No. IN USE	136	0	3	8	393	7	7	1	12	29	29	89	1	2	3	0	720
	KWH	7,344	-	366	216	15,327	476	763	79	1,464	1,131	1,972	9,701	54	78	204	-	39,175
	CUSTOMER $	$ 848.64	$ -	$ 26.91	$ 29.36	$ 1,693.83	$ 39.48	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 206.48	$ 928.27	$ -	$ -	$ -	$ -	$ 4,102.69
	Tracker $	$ 132.29	$ -	$ 6.59	$ 3.89	$ 276.10	$ 8.57	$ 13.74	$ 1.42	$ 26.37	$ 20.37	$ 35.52	$ 174.75	$ -	$ -	$ -	$ -	$ 699.65
	Adjusted Total	$ 980.93	$ -	$ 33.50	$ 33.25	$ 1,969.93	$ 48.05	$ 64.56	$ 9.03	$ 162.81	$ 155.22	$ 242.00	$ 1,103.02	$ -	$ -	$ -	$ -	$ 4,802.34
July-15	No. IN USE	136	0	3	8	393	7	7	1	12	29	29	89	1	2	3	0	720
	KWH	8,024	-	399	240	17,292	532	840	86	1,596	1,276	2,204	10,680	59	88	228	-	43,544
	CUSTOMER $	$ 848.64	$ -	$ 26.91	$ 29.36	$ 1,693.83	$ 39.48	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 206.48	$ 928.27	$ -	$ -	$ -	$ -	$ 4,102.69
	Tracker $	$ 172.46	$ -	$ 8.58	$ 5.16	$ 371.66	$ 11.43	$ 18.05	$ 1.85	$ 34.30	$ 27.43	$ 47.37	$ 229.55	$ -	$ -	$ -	$ -	$ 927.83
	Adjusted Total	$ 1,021.10	$ -	$ 35.49	$ 34.52	$ 2,065.49	$ 50.91	$ 68.87	$ 9.46	$ 170.74	$ 162.28	$ 253.85	$ 1,157.82	$ -	$ -	$ -	$ -	$ 5,030.52
August-15	No. IN USE	135	0	3	8	392	7	7	1	12	29	29	92	1	2	3	0	721
	KWH	9,487	-	472	279	19,862	619	986	100	1,888	1,469	2,564	12,958	70	101	265	-	51,121
	CUSTOMER $	$ 842.40	$ -	$ 26.91	$ 29.36	$ 1,689.52	$ 39.48	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 206.48	$ 959.56	$ -	$ -	$ -	$ -	$ 4,123.43
	Tracker $	$ 203.90	$ -	$ 10.14	$ 6.00	$ 426.89	$ 13.30	$ 21.19	$ 2.16	$ 40.57	$ 31.58	$ 55.11	$ 278.51	$ -	$ -	$ -	$ -	$ 1,089.36
	Adjusted Total	$ 1,046.30	$ -	$ 37.05	$ 35.36	$ 2,116.41	$ 52.78	$ 72.01	$ 9.77	$ 177.01	$ 166.43	$ 261.59	$ 1,238.07	$ -	$ -	$ -	$ -	$ 5,212.79
Sep-15	No. IN USE	135	0	3	8	394	7	7	1	12	29	30	94	1	2	3	0	726
	KWH	10,530	-	528	312	22,458	693	1,099	113	2,112	1,653	2,970	14,758	79	114	297	-	57,716
	CUSTOMER $	$ 842.40	$ -	$ 26.91	$ 29.36	$ 1,698.14	$ 39.48	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 213.60	$ 980.42	$ -	$ -	$ -	$ -	$ 4,160.03
	Tracker $	$ 226.32	$ -	$ 11.35	$ 6.71	$ 482.69	$ 14.89	$ 23.62	$ 2.43	$ 45.39	$ 35.53	$ 63.83	$ 317.19	$ -	$ -	$ -	$ -	$ 1,229.96
	Adjusted Total	$ 1,068.72	$ -	$ 38.26	$ 36.07	$ 2,180.83	$ 54.37	$ 74.44	$ 10.04	$ 181.83	$ 170.38	$ 277.43	$ 1,297.61	$ -	$ -	$ -	$ -	$ 5,389.99

Metered Security Lighting Consumption - Rate Schedule OL

Twelve Months Ended March 31, 2016

MONTH	LAMP WATTS & INSTALLATION	175	250	400	100	150	250	400	250	400	150	250	400	175	150	250	400	TOTALS
	CONNECTION	OPEN FACE - SECURITY LIGHTS							FLOOD - SECURITY LIGHTS					NON - COLLECT LIGHTS				
	LAMP TYPE	MERC	MERC	MERC	HPS	HPS	HPS	HPS	MERC	MERC	HPS	HPS	HPS	MERC	HPS	HPS	HPS	
	RATE / Mo.	$6.24	$7.83	$8.97	$3.67	$4.31	$5.64	$7.26	$7.61	$11.37	$4.65	$7.12	$10.43	$0.00	$0.00	$0.00	$0.00	
October-15	No. IN USE	135	0	3	8	396	7	7	1	12	29	30	94	1	2	3	0	728
	KWH	12,420	-	624	368	26,532	812	1,288	134	2,496	1,943	3,480	17,296	92	134	348	-	67,967
	CUSTOMER $	$ 842.40	$ -	$ 26.91	$ 29.36	$ 1,706.76	$ 39.48	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 213.60	$ 980.42	$ -	$ -	$ -	$ -	$ 4,168.65
	Tracker $	$ 341.48	$ -	$ 17.16	$ 10.12	$ 729.47	$ 22.33	$ 35.41	$ 3.68	$ 68.63	$ 53.42	$ 95.68	$ 475.54	$ -	$ -	$ -	$ -	$ 1,852.90
	Adjusted Total	$ 1,183.88	$ -	$ 44.07	$ 39.48	$ 2,436.23	$ 61.81	$ 86.23	$ 11.29	$ 205.07	$ 188.27	$ 309.28	$ 1,455.96	$ -	$ -	$ -	$ -	$ 6,021.55
Nov-15	No. IN USE	135	0	3	8	395	7	7	1	12	29	30	94	1	2	3	0	727
	KWH	13,230	-	663	392	28,045	861	1,372	142	2,652	2,059	3,690	18,424	98	142	369	-	72,139
	CUSTOMER $	$ 842.40	$ -	$ 26.91	$ 29.36	$ 1,702.45	$ 39.48	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 213.60	$ 980.42	$ -	$ -	$ -	$ -	$ 4,164.34
	Tracker $	$ 363.75	$ -	$ 18.23	$ 10.78	$ 771.07	$ 23.67	$ 37.72	$ 3.90	$ 72.91	$ 56.61	$ 101.45	$ 506.55	$ -	$ -	$ -	$ -	$ 1,966.65
	Adjusted Total	$ 1,206.15	$ -	$ 45.14	$ 40.14	$ 2,473.52	$ 63.15	$ 88.54	$ 11.51	$ 209.35	$ 191.46	$ 315.05	$ 1,486.97	$ -	$ -	$ -	$ -	$ 6,130.99
Dec-15	No. IN USE	134	0	3	8	398	8	7	1	12	29	30	97	1	2	3	1	734
	KWH	14,204	-	714	432	30,646	1,072	1,491	154	2,856	2,233	4,020	20,661	106	154	402	213	79,358
	CUSTOMER $	$ 836.16	$ -	$ 26.91	$ 29.36	$ 1,715.38	$ 45.12	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 213.60	$ 1,011.71	$ -	$ -	$ -	$ -	$ 4,207.96
	Tracker $	$ 390.52	$ -	$ 19.63	$ 11.88	$ 842.58	$ 29.47	$ 40.99	$ 4.23	$ 78.52	$ 61.39	$ 110.53	$ 568.05	$ -	$ -	$ -	$ -	$ 2,157.81
	Adjusted Total	$ 1,226.68	$ -	$ 46.54	$ 41.24	$ 2,557.96	$ 74.59	$ 91.81	$ 11.84	$ 214.96	$ 196.24	$ 324.13	$ 1,579.76	$ -	$ -	$ -	$ -	$ 6,365.77
January-16	No. IN USE	134	0	3	8	399	9	7	1	12	29	31	97	1	2	3	2	738
	KWH	13,802	-	696	416	29,925	1,170	1,449	150	2,784	2,175	4,030	20,079	103	150	390	414	77,733
	CUSTOMER $	$ 836.16	$ -	$ 26.91	$ 29.36	$ 1,719.69	$ 50.76	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 220.72	$ 1,011.71	$ -	$ -	$ -	$ -	$ 4,225.03
	Tracker $	$ 377.10	$ -	$ 19.02	$ 11.37	$ 817.61	$ 31.97	$ 39.59	$ 4.10	$ 76.06	$ 59.43	$ 110.11	$ 548.60	$ -	$ -	$ -	$ -	$ 2,094.94
	Adjusted Total	$ 1,213.26	$ -	$ 45.93	$ 40.73	$ 2,537.30	$ 82.73	$ 90.41	$ 11.71	$ 212.50	$ 194.28	$ 330.83	$ 1,560.31	$ -	$ -	$ -	$ -	$ 6,319.97
February-16	No. IN USE	134	0	3	8	400	9	7	1	12	29	31	100	1	2	3	2	742
	KWH	11,524	-	582	344	25,200	981	1,211	125	2,328	1,827	3,379	17,300	86	126	327	346	65,686
	CUSTOMER $	$ 836.16	$ -	$ 26.91	$ 29.36	$ 1,724.00	$ 50.76	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 220.72	$ 1,043.00	$ -	$ -	$ -	$ -	$ 4,260.63
	Tracker $	$ 314.86	$ -	$ 15.90	$ 9.40	$ 688.51	$ 26.80	$ 33.09	$ 3.42	$ 63.61	$ 49.92	$ 92.32	$ 472.67	$ -	$ -	$ -	$ -	$ 1,770.49
	Adjusted Total	$ 1,151.02	$ -	$ 42.81	$ 38.76	$ 2,412.51	$ 77.56	$ 83.91	$ 11.03	$ 200.05	$ 184.77	$ 313.04	$ 1,515.67	$ -	$ -	$ -	$ -	$ 6,031.12
March-16	No. IN USE	134	0	3	8	400	9	7	1	12	29	31	101	1	2	3	2	743
	KWH	11,524	-	579	344	25,200	981	1,211	124	2,316	1,827	3,379	17,473	86	126	327	346	65,843
	CUSTOMER $	$ 836.16	$ -	$ 26.91	$ 29.36	$ 1,724.00	$ 50.76	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 220.72	$ 1,053.43	$ -	$ -	$ -	$ -	$ 4,271.06
	Tracker $	$ 314.86	$ -	$ 15.82	$ 9.40	$ 688.51	$ 26.80	$ 33.09	$ 3.39	$ 63.28	$ 49.92	$ 92.32	$ 477.40	$ -	$ -	$ -	$ -	$ 1,774.78
	Adjusted Total	$ 1,151.02	$ -	$ 42.73	$ 38.76	$ 2,412.51	$ 77.56	$ 83.91	$ 11.00	$ 199.72	$ 184.77	$ 313.04	$ 1,530.83	$ -	$ -	$ -	$ -	$ 6,045.84
TEST YEAR	Avg. IN USE	135	0	3	8	395	8	7	1	12	29	30	92	1	2	3	1	727
	KWH	10,859	-	544	323	23,197	837	1,132	117	2,174	1,701	3,047	15,042	81	117	305	110	59,585
	CUSTOMER $	$ 842.40	$ -	$ 26.91	$ 29.36	$ 1,702.81	$ 46.53	$ 50.82	$ 7.61	$ 136.44	$ 134.85	$ 212.41	$ 960.43	$ -	$ -	$ -	$ -	$ 4,150.57
	Tracker $	$ 263.82	$ -	$ 13.22	$ 7.85	$ 564.78	$ 20.21	$ 27.52	$ 2.84	$ 52.88	$ 41.36	$ 74.33	$ 369.18	$ -	$ -	$ -	$ -	$ 1,437.99
	Adjusted Total	$ 1,106.22	$ -	$ 40.13	$ 37.21	$ 2,267.59	$ 66.74	$ 78.34	$ 10.45	$ 189.32	$ 176.21	$ 286.75	$ 1,329.61	$ -	$ -	$ -	$ -	$ 5,588.57

ATTACHMENT SDB-2
DESCRIPTION OF ALLOCATION FACTORS

On
Behalf of
Petitioner,
Frankfort City Light & Power

Petitioner's Exhibit 3

Allocation Factors

The model uses a number of allocation factors to fairly and accurately distribute the appropriate costs to each rate class. The following describes each allocation factor and its use in the attached model.

Allocation Codes:

PLT: Electric Plant in Service Allocation Factor is defined as the ratio of each customer class plant cost allocation to the total Electric Plant in Service cost.

CAP: Electric Plant Adjusted for Capital Improvements is derived by dividing the total capital improvement projects cost for each class of service by the Total of all Capital Improvements. The CAP is used to properly allocate the electric plant; adjusted for capital improvements.

DEAF: Distribution Energy Allocation Factor is derived by dividing the Adjusted Load in kWh (Total Energy consumption) per customer service class by the Total Adjusted FCL&P System Load. The DEAF is used extensively throughout the model.

DDAF: Distribution Demand Allocation Factor is derived by dividing the Average Distribution Demand per customer service class by the Total Average Distribution Demand. The DDAF is used extensively throughout the model. The DDAF is used to properly allocate operating expenses related to load dispatching, stations, overhead lines, underground lines, miscellaneous, rents as well as maintenance expenses related to Structures, Station Equipment, Overhead Lines, Underground Lines, Line Transformers, and Miscellaneous maintenance.

GPAF: General Plant Allocation Factor is derived by dividing the Total General Plant per customer service class by the Total General Plant. The GPAF is used extensively throughout the model. The GPAF is used to properly allocate the Power Production, Transmission and Distribution Expenses related to Operation Supervision and Labor, and well as Maintenance. The GPAF is also used to properly allocate all present Customer Service and Informational Expenses related to Operations. Further GPAF allocates Administrative and General Salaries, Outside Services Employed, Property Insurance, Injuries and Damages, Employee Pensions and Benefits, Miscellaneous General Expenses, Rents, Maintenance of General Plant, Depreciation Expense, Amortization Expense, FICA Taxes, and Unemployment Tax. GPAF is also used to define Genl, which is used to properly allocate the General Plant portions of the Capital Projects across customer service classes.

Trans: Transmission Plant Cost Allocation Factor. Because the Utility does not presently break out transmission costs as it does not have any Transmission fed customers or rate to service said customers, a factor was developed based on Transmission, the present and the estimated capital related to transmission to be expended in each service class. While this factor may not be necessary today, the Utility desires to establish a Large Power Tariff to supply any new Transmission fed customer. This exercise affords the Utility an opportunity to establish a tariff that more closely matches true cost of service for said new customer type.

Distr: Distribution Plant Cost Allocation Factor = DPLT. The Distr is used to properly allocate the Distribution Plant portion of the capital projects across customer service classes.

Genl: General Plant Cost Allocation Factor = GPAF. The Genl is used to properly allocate the General Plant portion of the capital projects across customer service classes.

Meter: Metering Plant Cost Allocation Factor is the product of meter count per class times the relative cost to purchase install and test the associated meter type per class divided by the sum of all said products of meter count and relative cost to purchase. The Meter is used to properly allocate the Metering Plant portion of the capital projects across customer service classes.

MCAF: Metered Customer Allocation Factor is defined as the total number of meters per customer class divided by the total number of meters in the system. The MCAF is used to properly allocate the Operating Expenses related to Meter and Customer Installations, Maintenance Expenses related to Meters, as well as all Operations Expense related to Customer Accounts, Office Supplies and General Expense. Further, the MCAF is used to properly allocate the Electric Plant in Service related to Services, and Meters.

RAF: Revenue Allocation Factor is derived by dividing the adjusted revenue per service class by the total adjusted revenue. The RAF is used properly allocate by customer class the Total proforma power supply expense, fuel expense for power production, as well as operation supplies and expenses. The RAF is also used to allocate by customer class the Payment (or Contribution) in Lieu of Tax also abbreviated as the PILOT.

URT: Utility Receipts Tax Allocation Factor is defined as Total Sales of Electricity per customer class divided by the Total Sales of Electricity; Where Total Sales of Electricity is the arithmetic sum of Operating Revenues and Public Street and Security Lighting. The URT is used to properly allocate by customer class the Utility Receipts Tax.

LITES: LITES is the Revenue collected for each lighting class of service divided by the total Revenue collected for Public Street and Security Lighting. LITES is used to properly apportion the expenses associated with maintenance of street light and signal systems across each lighting class of service.

DIR: DIR is derived as the directly reported Operating Revenues less Public Street and Security Lighting Revenues collected for each service class divided by the Total Operating Revenues less Public Street and Security Lighting. DIR is used to properly apportion the expenses associated with Purchased Power across each class of service.

%Mtr: Percentage Meter is calculated by dividing the Operating Revenues for each customer class by the Total Operating Revenues. The %Mtr is used to properly allocate Forfeited Discounts and Other Operating Revenues.

ATTACHMENT SDB-3
REDLINED VERSION OF
PROPOSED ELECTRIC RATES

On
Behalf of
Petitioner,
Frankfort City Light and Power

Petitioner's Exhibit 3

I.U.R.C. NO. __
FRANKFORT CITY LIGHT AND POWER
FRANKFORT, INDIANA

ORIGINAL SHEET NO. A.1

Rate A - Residential Service

Availability

Available through one meter to individual customers for single phase residential service, including lighting, household appliances, refrigeration, cooking, water heating and small motors not exceeding three (3) horsepower individual capacity.

Character of Service

Alternating current, sixty Hertz, single phase, at a voltage of approximately 120 volts two-wire, 120/240 volts three-wire.

~~Customer Charge per month~~	~~$4.00~~
~~First 500 KWH per month~~	~~5.8636¢ per KWH~~
~~Next 1000 KWH per month~~	~~4.6085¢ per KWH~~
~~Over 1500 KWH per month~~	~~3.7496¢ per KWH~~

Rate*

Customer Charge	$15.00 per meter per month
Energy Charge	$0.093568 per kWh for all kWh

Minimum Charge

The Minimum monthly charge shall be the customer charge.

* Subject to the provisions of Appendix A.

ISSUED BY
STEPHEN MILLER
SUPERINTENDENT

EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON OR AFTER ___________, 2017
ISSUED UNDER THE AUTHORITY OF THE
INDIANA UTILITY REGULATORY COMMISSION
DATED ___________, 2017
IN CAUSE NO. _________

I.U.R.C. NO. __
FRANKFORT CITY LIGHT AND POWER
FRANKFORT, INDIANA

ORIGINAL SHEET NO. B.1

Rate B - Commercial Service

Availability

Available through one meter for single phase commercial service including lighting, miscellaneous small appliances, refrigeration, cooking, water heating and incidental small motors not exceeding five (5) horsepower individual capacity.

Character of Service

Alternating current, sixty Hertz, single phase at a voltage of approximately 120 volts two-wire, or 120/240 volts three-wire.

~~Customer Charge per month~~	~~$6.00~~
~~First 1000 KWH per month~~	~~6.5808¢ per KWH~~
~~Next 1500 KWH per month~~	~~5.7378¢ per KWH~~
~~Over 2500 KWH per month~~	~~3.8678¢ per KWH~~

Rate*

Customer Charge	$20.00 per meter per month
Energy Charge	$0.104945 per kWh for all kWh

Minimum Charge

The Minimum monthly charge shall be the customer charge

* Subject to the provisions of Appendix A.

ISSUED BY
STEPHEN MILLER
SUPERINTENDENT

EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON OR AFTER ____________, 2017
ISSUED UNDER THE AUTHORITY OF THE
INDIANA UTILITY REGULATORY COMMISSION
DATED ____________, 2017
IN CAUSE NO. _________

I.U.R.C. NO. __
FRANKFORT CITY LIGHT AND POWER
FRANKFORT, INDIANA

ORIGINAL SHEET NO. C.1

Rate C - General Power Service

Availability

Available to any customer for light and/or power purposes who are located on or adjacent to a distribution line of the Utility which is adequate and suitable for supplying the services required.

Character of Service

Alternating current, sixty Hertz, at a voltage which is standard with the Utility in the area served.

~~Customer Charge per month~~	~~$15.00~~
~~First 500 KWH per month~~	~~8.2303¢ per KWH~~
~~Next 2000 KWH per month~~	~~6.7553¢ per KWH~~
~~Next 2500 KWH per month~~	~~4.8242¢ per KWH~~
~~Over 5000 KWH per month~~	~~4.0353¢ per KWH~~

Rate*

Customer Charge	$45.00 per meter per month
Energy Charge	$0.100882 per kWh for all kWh

Minimum Charge

The minimum monthly charge shall be the customer charge.

* Subject to the provisions of Appendix A.

ISSUED BY
STEPHEN MILLER
SUPERINTENDENT

EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON OR AFTER ____________, 2017
ISSUED UNDER THE AUTHORITY OF THE
INDIANA UTILITY REGULATORY COMMISSION
DATED ____________, 2017
IN CAUSE NO. _________

Rate PPL - Primary Power and Light Service

Availability

Available through one meter for any customer contracting for a specified capacity of not less than 25 kilovolt-amperes. Applicant must agree to a one-year term of service and must be located adjacent to an electric transmission or distribution line of the Utility that is adequate and suitable for supplying the service required.

Character of Service

Alternating current having a frequency of sixty Hertz and at a voltage which is standard with the Utility in the area served.

Rate*

Customer Charge $60.00 per meter per month

Maximum Load Charge ------------$~~10.15~~ 18.85 per kVA of Billing Maximum Load

Energy Charge ----------------------$ ~~0.016474~~ 0.039407 per kWHh for all kWHh

Minimum Charge

The minimum monthly charge shall be the maximum load charge.

Measurement of Maximum Load and Energy

Maximum load shall be measured by suitable instruments provided by the Utility, and in any month the maximum load expressed in kilovolt-amperes shall be the average number of kilowatts in the 30-minute interval in such month during which the energy metered is greater than in any other such 30-minute interval in such month, divided by the average lagging power factor (expressed as a decimal) calculated for the month. Energy shall be measured by suitable integrating instruments provided by the Utility.

Billing Maximum Load

The Billing Maximum Load for any month shall be the maximum load for the month, but in no month shall the Billing Maximum Load be less than 25 kilovolt-amperes.

* Subject to the provisions of Appendix A.

Rate PPL - Primary Power and Light Service (continued)

Metering Adjustment

If service is metered at a voltage of approximately 480 volts or lower, the maximum load and energy measurements shall be increased by two ~~one~~ percent (2~~1~~%) to convert such measurements to the equivalent of metering at the Utility's primary voltage.

Equipment Supplied By Customer

When Customer furnishes and maintains the complete substation equipment, including any and all transformers, and/or switches and/or the equipment necessary to take his entire service at the primary voltage of the transmission or distribution line from which it is to be received, a credit of $0.34 per KVA of Billing Maximum Load will be applied to each month's net bill.

Off-Peak Service

When Customer elects to take electric service during the following designated Off-Peak periods, the following provisions will apply:

Measurement of Maximum Load and Energy. Maximum load shall be measured by suitable recording instruments and, in any month the maximum load for the on-peak hours shall be the highest thirty-minute Kilovolt-ampere load calculated during such on-peak hours and the maximum load for the off-peak hours shall be the highest thirty-minute kilovolt-ampere load calculated during such off-peak hours. Such thirty-minute kilovolt-ampere loads shall be calculated in accordance with the Measurement of Maximum Load and Energy provision of Rate PPL based on the use of the average lagging power factor for both periods.

Billing Maximum Load. The Billing Maximum Load for any month shall be the greatest of (1) the maximum load established during on-peak hours for the month, of fifty percent (50%) of the maximum load established during off-peak hours for the month, but in no month shall the Billing Maximum Load be less than 500 kilovolt-amperes.

Off-Peak Periods. Off-Peak periods shall be all hours between 9:00 P.M. and 7:00 A.M., local time, Monday through Friday, and all hours of the day on Saturdays, Sundays and legal holidays. Legal holidays shall include New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

Special Terms and Conditions The availability of off-peak service shall be limited to an aggregate load of not more than 5,000 kilowatts on a first-come, first-serve basis.

Rate IP - Industrial Power Service

Availability

Available through one meter to any customer having a minimum load requirement of 10 megawatts or more and directly fed from the Utility's 69kV Transmission system. Applicant must be located adjacent to the Utility's transmission line that is adequate and suitable for supplying the service requested.

Character of Service

Alternating current having a frequency of sixty Hertz and furnished at a voltage which is standard with the Utility in the area served.

Rate*

- Customer Charge — $600.00 per meter per month
- Demand Charge — $20.72 per KVA of billing demand
- Energy Charge — $0.035560 per KWh for all KWh

Minimum Charge

The minimum monthly charge shall be the demand charge.

Determination of Peak Demand and Measurement of Energy

Peak demand shall be measured by suitable recording instruments provided by Utility ad shall be the average number of kilovolt-amperes in the fifteen minute period during which the kilovolt-ampere demand is greater than any other fifteen-minute interval in such month. For those customers who are not being metered by the use of a recording instrument, the peak demand, expressed in kilovolt-amperes, shall be the average number of kilowatts in the recorded fifteen-minute interval in such month during which the energy metered is greater than in any other such fifteen-minute interval in such month, divided by the lagging power factor (expressed as a decimal) calculated for the month. For billing purposes, the billing demand shall be the greater of the peak demand occurring during the month or ten (10) MVA. Energy shall be measured by suitable integrating instruments.

*Subject to the provisions of Appendix A.

Metering Adjustment

If service is metered at a voltage of approximately 13,800 volts or lower, the peak demand and energy measurements shall be increased by two percent (2%) to convert such measurements to the equivalent of metering at the Utility's primary voltage.

Equipment Ownership

Customer must own all equipment necessary to transform the power from 138kV to its suitable working voltage. This equipment must include but is not limited to structures, foundations, large power transformer, switches, breakers, station batteries, relay protection and control, CT's, PT's, security, etc..

Customer is responsible for proper routine maintenance on its customer owned equipment in accordance with industry best practices.

I.U.R.C. NO. __
FRANKFORT CITY LIGHT AND POWER
FRANKFORT, INDIANA

ORIGINAL SHEET NO. SL.1

Rate SL - Public Street Lighting Service

Availability

Available for street lighting within the corporate limits of the City of Frankfort and highway lighting within the area served by the Utility's distribution system.

Character of service

Standard Street Lighting Service using lamps available under this schedule.

Rate*

Type of Lamp	Rate per lamp per month	
Overhead Service:		
295 Watt Incandescent	$ 10.58	~~8.84~~
100 Watt Mercury Vapor	$ 6.15	~~5.14~~
175 Watt Mercury Vapor	$ 8.78	~~7.34~~
250 Watt Mercury Vapor	$ 9.67	~~8.08~~
400 Watt and Over Mercury Vapor	$ 12.32	~~10.30~~
100 Watt Sodium Vapor - Wood Pole	$ 6.96	~~5.82~~
100 Watt Sodium Vapor - Metal Pole	$ 11.14	~~9.31~~
150 Watt Sodium Vapor - Wood Pole	$ 8.18	~~6.84~~
250 Watt Sodium Vapor - Wood Pole	$ 9.60	~~8.02~~
250 Watt Sodium Vapor - Metal Pole	$ 14.23	~~11.89~~
400 Watt Sodium Vapor - Wood Pole	$ 11.74	~~9.81~~
400 Watt Sodium Vapor - Metal Pole	$ 15.55	~~13.00~~

ISSUED BY
STEPHEN MILLER
SUPERINTENDENT

EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON OR AFTER ____________, 2017
ISSUED UNDER THE AUTHORITY OF THE
INDIANA UTILITY REGULATORY COMMISSION
DATED ____________, 2017
IN CAUSE NO. _________

Type of Lamp	Rate per lamp per month
Underground Service:	
100 Watt Sodium Vapor - Metal Pole	$ 6.15 ~~6.82~~
150 Watt Sodium Vapor - Metal Pole	$ 14.71 ~~12.29~~
400 Watt Sodium Vapor - Metal Pole	$ 18.24 ~~15.24~~

Hours of Lighting

All lamps shall burn approximately one-half hour after sunset until approximately one-half hour before sunrise each day in the year, approximately 4000 hours per annum.

Facilities

All facilities necessary for the service hereunder, including all poles, fixtures, street lighting circuits, transformers, lamps, and other necessary facilities will be furnished and maintained by the Utility.

* Subject to the provisions of Appendix A.

Rate OL – Outdoor Lighting Service

Availability

Available only for continuous year-round service for outdoor lighting to any residential farm, commercial or industrial customer located adjacent to an electric distribution line of Utility.

Character of service

Outdoor Lighting Service using lamps available under this schedule and controlled by a photoelectric relay.

Rate*

Type of Lamp	**Rate per lamp per month**
175 Watt Mercury Vapor	$ 7.45 ~~6.24~~
250 Watt Mercury Vapor	$ 9.34 ~~7.83~~
400 Watt Mercury Vapor	$ 10.70 ~~8.97~~
100 Watt Sodium Vapor	$ 4.38 ~~3.67~~
150 Watt Sodium Vapor	$ 5.14 ~~4.31~~
250 Watt Sodium Vapor	$ 6.73 ~~5.64~~
400 Watt Sodium Vapor	$ 8.66 ~~7.26~~
Type of Lamp - Flood	**Rate per lamp per month**
250 Watt Mercury Vapor	$ 9.08 ~~7.61~~
400 Watt Mercury Vapor	$ 13.57 ~~11.37~~
150 Watt Sodium Vapor	$ 5.55 ~~4.65~~
250 Watt Sodium Vapor	$ 8.50 ~~7.12~~
400 Watt Sodium Vapor	$ 12.45 ~~10.43~~

Ownership of System

All facilities installed by Utility for service hereunder, including fixtures, controls, poles, transformers, secondary lines, lamps and other appurtenances shall be owned and maintained by Utility. All service and necessary maintenance shall be performed only during regularly scheduled working hours of the Utility. Non-operative lamps will normally be restored to service within 48 hours after notification by customer.

Hours of Lighting

All lamps shall burn approximately one-half hour after sunset until approximately one-half hour before sunrise each day in the year, approximately 4000 hours per annum.

* Subject to the provisions of Appendix A.

I.U.R.C. NO. __
FRANKFORT CITY LIGHT AND POWER
FRANKFORT, INDIANA

ORIGINAL SHEET NO. A.1

Appendix A

Rate Adjustments
The Rate Adjustments shall be ~~on the basis of~~ based on a Purchase Power Cost Adjustment Tracking Factor occasioned solely by changes in the cost of purchased power and energy~~,~~. ~~in accordance with the Order of the Indiana Utility Regulatory Commission, approved on December 13, 1989 in Cause No. 36835-S3 as follows:~~

Rate Adjustments applicable to the below listed Rate Schedules are as follows:

Residential Rate A	~~$ 0.044414~~ $0.000000 per ~~K~~kWh~~H~~
Commercial Rate B	~~$ 0.052402~~ $0.000000 per ~~K~~kWh~~H~~
General Power Rate C	~~$ 0.053943~~ $0.000000 per ~~K~~kWh~~H~~
Industrial Rate PPL	~~$ 8.954626~~ $0.000000 per ~~K~~kVAD
Industrial Rate PPL	~~$ 0.016882~~ $0.000000 per ~~K~~kWh~~H~~
Industrial Rate IP	$0.000000 per kVAD
Industrial Rate IP	$0.000000 per kWh
Flat Rates	$ 0.019024 $0.000000 per ~~K~~kWh~~H~~

July, August and September, 2016.

ISSUED BY
STEPHEN MILLER
SUPERINTENDENT

EFFECTIVE FOR ELECTRIC SERVICE RENDERED
ON OR AFTER ____________, 2017
ISSUED UNDER THE AUTHORITY OF THE
INDIANA UTILITY REGULATORY COMMISSION
DATED ____________, 2017
IN CAUSE NO. ________

~~Effective July 1, 1996 - USB Approved~~

~~The Following Service Charges And Returned Check Fees~~

~~For Frankfort Municipal Utilities~~

~~A $25.00 Charge will be applied to all returned checks~~

~~DISCONTINUANCE OF SERVICE FOR NON-PAYMENT~~

	~~Payment During Office Hours~~		~~Payment After Hours~~	
	~~Within~~	~~Outside~~		
	~~City Limits~~	~~City Limits~~		~~System Wide~~
~~"A"~~	~~$20.00~~	~~$20.00~~	~~"A"~~	~~$82.00~~
~~"B"~~	~~$20.00~~	~~$20.00~~	~~"B"~~	~~$82.00~~
~~"C"~~	~~$20.00~~	~~$20.00~~	~~"C"~~	~~$96.00~~
~~"PPL"~~	~~$60.00~~	~~$60.00~~	~~"PPL"~~	~~$96.00~~

~~DISCONTINUANCE OF SERVICE FOR NON-PAYMENT~~
~~REQUIRING REMOVING OF SERVICE~~

~~Payment During Office Hours~~	~~Payment After Hours~~
~~$45.00~~	~~$96.00~~

~~CUSTOMER REQUESTED DISCONNECTION FOR~~
~~SEASONAL USE SERVICES~~

~~Labor Involves Meter Only~~	~~Labor Involves Transformer~~
~~$32.00~~	~~$60.00~~

~~We will accept CASH or MONEY ORDER ONLY. For Disconnect Payment.~~
~~(NO Checks will be accepted)~~

Appendix B

Description of Charges

Reconnect/Disconnect Fee: $43.00 for Rates A, B, and C service reconnection work performed during the Utility's normal published business hours. For Rates PPL and IP service reconnection work performed during the Utility's normal published business hours shall be $60.00.

After Hours Reconnect/Disconnect Fee: $125.00 for all service connection/reconnection work performed outside of the Utility's normal published business hours.

Return Check Fee: The greater of $25.00 or 5% of the amount of the check.

Meter Test Fee: $33.00

Residential Security Deposit: Minimum of $50.00 to a maximum of 2 months anticipated usage for service under Rate A. The actual amount shall be based on the results of the credit check.

Business Security Deposit: Minimum of $100.00 to a maximum of 2 months anticipated usage for service under Rates B, C, PPL and IP. The actual amount shall be based on the results of the credit check.

Service Call: $60.00 for a service call made during normal business hours. $150.00 for a service call made after normal business hours.

Temporary Service Charge: $200.00

Late Payment: 4% of the total current unpaid balance.

Customers disconnected for nonpayment will have until 8 p.m. local time during weekdays to call and make payment for reconnection. All other times shall be considered after hours. *Weekend reconnections must be made between 10 a.m. and 5 p.m. local time on Saturday only and are considered after hours. Reconnects are not available on Sunday.

*Saturday reconnections will be made only upon availability of Utility Billing Office personnel. No other Frankfort Municipal utilities employee will be eligible to make reconnections.

The Utility will accept CASH, MONEY ORDER, CREDIT and DEBIT CARDS only for disconnect payment. NO CHECKS WILL BE ACCEPTED.

ATTACHMENT SDB-4
CLEAN VERSION OF PROPOSED ELECTRIC RATES

On
Behalf of
Petitioner,
Frankfort City Light and Power

Petitioner's Exhibit 3

Rate A - Residential Service

Availability

Available through one meter to individual customers for single phase residential service, including lighting, household appliances, refrigeration, cooking, water heating and small motors not exceeding three (3) horsepower individual capacity.

Character of Service

Alternating current, sixty Hertz, single phase, at a voltage of approximately 120 volts two-wire, 120/240 volts three-wire.

Rate*

Customer Charge	$15.00 per meter per month
Energy Charge	$0.093568 per kWh for all kWh

Minimum Charge

The Minimum monthly charge shall be the customer charge.

* Subject to the provisions of Appendix A.

Rate B - Commercial Service

Availability

Available through one meter for single phase commercial service including lighting, miscellaneous small appliances, refrigeration, cooking, water heating and incidental small motors not exceeding five (5) horsepower individual capacity.

Character of Service

Alternating current, sixty Hertz, single phase at a voltage of approximately 120 volts two-wire, or 120/240 volts three-wire.

Rate*

Customer Charge	$20.00 per meter per month
Energy Charge	$0.104945 per kWh for all kWh

Minimum Charge

The Minimum monthly charge shall be the customer charge

* Subject to the provisions of Appendix A.

Rate C - General Power Service

Availability

Available to any customer for light and/or power purposes who are located on or adjacent to a distribution line of the Utility which is adequate and suitable for supplying the services required.

Character of Service

Alternating current, sixty Hertz, at a voltage which is standard with the Utility in the area served.

Rate*

Customer Charge	$45.00 per meter per month
Energy Charge	$0.100882 per kWh for all kWh

Minimum Charge

The minimum monthly charge shall be the customer charge.

* Subject to the provisions of Appendix A.

Rate PPL - Primary Power and Light Service

Availability

Available through one meter for any customer contracting for a specified capacity of not less than 25 kilovolt-amperes. Applicant must agree to a one-year term of service and must be located adjacent to an electric transmission or distribution line of the Utility that is adequate and suitable for supplying the service required.

Character of Service

Alternating current having a frequency of sixty Hertz and at a voltage which is standard with the Utility in the area served.

Rate*

Customer Charge	$60.00 per meter per month
Maximum Load Charge	$18.85 per kVA of Billing Maximum Load
Energy Charge	$0.039407 per kWh for all kWh

Minimum Charge

The minimum monthly charge shall be the maximum load charge.

Measurement of Maximum Load and Energy

Maximum load shall be measured by suitable instruments provided by the Utility, and in any month the maximum load expressed in kilovolt-amperes shall be the average number of kilowatts in the 30-minute interval in such month during which the energy metered is greater than in any other such 30-minute interval in such month, divided by the average lagging power factor (expressed as a decimal) calculated for the month. Energy shall be measured by suitable integrating instruments provided by the Utility.

Billing Maximum Load

The Billing Maximum Load for any month shall be the maximum load for the month, but in no month shall the Billing Maximum Load be less than 25 kilovolt-amperes.

* Subject to the provisions of Appendix A.

Rate PPL - Primary Power and Light Service (continued)

Metering Adjustment

If service is metered at a voltage of approximately 480 volts or lower, the maximum load and energy measurements shall be increased by two percent (2%) to convert such measurements to the equivalent of metering at the Utility's primary voltage.

Equipment Supplied By Customer

When Customer furnishes and maintains the complete substation equipment, including any and all transformers, and/or switches and/or the equipment necessary to take his entire service at the primary voltage of the transmission or distribution line from which it is to be received, a credit of $0.34 per KVA of Billing Maximum Load will be applied to each month's net bill.

Off-Peak Service

When Customer elects to take electric service during the following designated Off-Peak periods, the following provisions will apply:

Measurement of Maximum Load and Energy. Maximum load shall be measured by suitable recording instruments and, in any month the maximum load for the on-peak hours shall be the highest thirty-minute Kilovolt-ampere load calculated during such on-peak hours and the maximum load for the off-peak hours shall be the highest thirty-minute kilovolt-ampere load calculated during such off-peak hours. Such thirty-minute kilovolt-ampere loads shall be calculated in accordance with the Measurement of Maximum Load and Energy provision of Rate PPL based on the use of the average lagging power factor for both periods.

Billing Maximum Load. The Billing Maximum Load for any month shall be the greatest of (1) the maximum load established during on-peak hours for the month, of fifty percent (50%) of the maximum load established during off-peak hours for the month, but in no month shall the Billing Maximum Load be less than 500 kilovolt-amperes.

Off-Peak Periods. Off-Peak periods shall be all hours between 9:00 P.M. and 7:00 A.M., local time, Monday through Friday, and all hours of the day on Saturdays, Sundays and legal holidays. Legal holidays shall include New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

Special Terms and Conditions The availability of off-peak service shall be limited to an aggregate load of not more than 5,000 kilowatts on a first-come, first-serve basis.

Rate IP - Industrial Power Service

Availability

Available through one meter to any customer having a minimum load requirement of 10 megawatts or more and directly fed from the Utility's 69kV Transmission system. Applicant must be located adjacent to the Utility's transmission line that is adequate and suitable for supplying the service requested.

Character of Service

Alternating current having a frequency of sixty Hertz and furnished at a voltage which is standard with the Utility in the area served.

Rate*

Customer Charge	$600.00 per meter per month
Demand Charge	$20.72 per KVA of billing demand
Energy Charge	$0.035560 per KWh for all KWh

Minimum Charge

The minimum monthly charge shall be the demand charge.

Determination of Peak Demand and Measurement of Energy

Peak demand shall be measured by suitable recording instruments provided by Utility ad shall be the average number of kilovolt-amperes in the fifteen minute period during which the kilovolt-ampere demand is greater than any other fifteen-minute interval in such month. For those customers who are not being metered by the use of a recording instrument, the peak demand, expressed in kilovolt-amperes, shall be the average number of kilowatts in the recorded fifteen-minute interval in such month during which the energy metered is greater than in any other such fifteen-minute interval in such month, divided by the lagging power factor (expressed as a decimal) calculated for the month. For billing purposes, the billing demand shall be the greater of the peak demand occurring during the month or ten (10) MVA. Energy shall be measured by suitable integrating instruments.

*Subject to the provisions of Appendix A.

Metering Adjustment

If service is metered at a voltage of approximately 13,800 volts or lower, the peak demand and energy measurements shall be increased by two percent (2%) to convert such measurements to the equivalent of metering at the Utility's primary voltage.

Equipment Ownership

Customer must own all equipment necessary to transform the power from 138kV to its suitable working voltage. This equipment must include but is not limited to structures, foundations, large power transformer, switches, breakers, station batteries, relay protection and control, CT's, PT's, security, etc..

Customer is responsible for proper routine maintenance on its customer owned equipment in accordance with industry best practices.

Rate SL - Public Street Lighting Service

Availability

Available for street lighting within the corporate limits of the City of Frankfort and highway lighting within the area served by the Utility's distribution system.

Character of service

Standard Street Lighting Service using lamps available under this schedule.

Rate*

Type of Lamp	Rate per lamp per month
Overhead Service:	
295 Watt Incandescent	$ 10.58
100 Watt Mercury Vapor	$ 6.15
175 Watt Mercury Vapor	$ 8.78
250 Watt Mercury Vapor	$ 9.67
400 Watt and Over Mercury Vapor	$ 12.32
100 Watt Sodium Vapor - Wood Pole	$ 6.96
100 Watt Sodium Vapor - Metal Pole	$ 11.14
150 Watt Sodium Vapor - Wood Pole	$ 8.18
250 Watt Sodium Vapor - Wood Pole	$ 9.60
250 Watt Sodium Vapor - Metal Pole	$ 14.23
400 Watt Sodium Vapor - Wood Pole	$ 11.74
400 Watt Sodium Vapor - Metal Pole	$ 15.55

Type of Lamp	Rate per lamp per month
Underground Service:	
100 Watt Sodium Vapor - Metal Pole	$ 6.15
150 Watt Sodium Vapor - Metal Pole	$ 14.71
400 Watt Sodium Vapor - Metal Pole	$ 18.24

Hours of Lighting

All lamps shall burn approximately one-half hour after sunset until approximately one-half hour before sunrise each day in the year, approximately 4000 hours per annum.

Facilities

All facilities necessary for the service hereunder, including all poles, fixtures, street lighting circuits, transformers, lamps, and other necessary facilities will be furnished and maintained by the Utility.

* Subject to the provisions of Appendix A.

Rate OL – Outdoor Lighting Service

Availability

Available only for continuous year-round service for outdoor lighting to any residential farm, commercial or industrial customer located adjacent to an electric distribution line of Utility.

Character of service

Outdoor Lighting Service using lamps available under this schedule and controlled by a photoelectric relay.

Rate*

Type of Lamp	Rate per lamp per month
175 Watt Mercury Vapor	$ 7.45
250 Watt Mercury Vapor	$ 9.34
400 Watt Mercury Vapor	$ 10.70
100 Watt Sodium Vapor	$ 4.38
150 Watt Sodium Vapor	$ 5.14
250 Watt Sodium Vapor	$ 6.73
400 Watt Sodium Vapor	$ 8.66
Type of Lamp - Flood	**Rate per lamp per month**
250 Watt Mercury Vapor	$ 9.08
400 Watt Mercury Vapor	$ 13.57
150 Watt Sodium Vapor	$ 5.55
250 Watt Sodium Vapor	$ 8.50
400 Watt Sodium Vapor	$ 12.45

Ownership of System

All facilities installed by Utility for service hereunder, including fixtures, controls, poles, transformers, secondary lines, lamps and other appurtenances shall be owned and maintained by Utility. All service and necessary maintenance shall be performed only during regularly scheduled working hours of the Utility. Non-operative lamps will normally be restored to service within 48 hours after notification by customer.

Hours of Lighting

All lamps shall burn approximately one-half hour after sunset until approximately one-half hour before sunrise each day in the year, approximately 4000 hours per annum.

* Subject to the provisions of Appendix A.

Appendix A

Rate Adjustment Appendix A

*Appendix A (Tracker) The Rate Adjustment shall be based on a Purchase Power Cost Adjustment Tracking Factor, occasioned solely by changes in the cost of purchased power and energy.

Rate Adjustments applicable to the below listed Rate Schedules are as follows:

Residential Rate A	$0.000000 per kWh
Commercial Rate B	$0.000000 per kWh
General Power Rate C	$0.000000 per kWh
Industrial Rate PPL	$0.000000 per kVAD
Industrial Rate PPL	$0.000000 per kWh
Industrial Rate IP	$0.000000 per kVAD
Industrial Rate IP	$0.000000 per kWh
Flat Rates	$0.000000 per kWh

Appendix B

Description of Charges

Reconnect/Disconnect Fee: $43.00 for Rates A, B, and C service reconnection work performed during the Utility's normal published business hours. For Rates PPL and IP service reconnection work performed during the Utility's normal published business hours shall be $60.00.

After Hours Reconnect/Disconnect Fee: $125.00 for all service connection/reconnection work performed outside of the Utility's normal published business hours.

Return Check Fee: The greater of $25.00 or 5% of the amount of the check.

Meter Test Fee: $33.00

Residential Security Deposit: Minimum of $50.00 to a maximum of 2 months anticipated usage for service under Rate A. The actual amount shall be based on the results of the credit check.

Business Security Deposit: Minimum of $100.00 to a maximum of 2 months anticipated usage for service under Rates B, C, PPL and IP. The actual amount shall be based on the results of the credit check.

Service Call: $60.00 for a service call made during normal business hours. $150.00 for a service call made after normal business hours.

Temporary Service Charge: $200.00

Late Payment: 4% of the total current unpaid balance.

Customers disconnected for nonpayment will have until 8 p.m. local time during weekdays to call and make payment for reconnection. All other times shall be considered after hours. *Weekend reconnections must be made between 10 a.m. and 5 p.m. local time on Saturday only and are considered after hours. Reconnects are not available on Sunday.

*Saturday reconnections will be made only upon availability of Utility Billing Office personnel. No other Frankfort Municipal utilities employee will be eligible to make reconnections.

The Utility will accept CASH, MONEY ORDER, CREDIT and DEBIT CARDS only for disconnect payment. <u>NO CHECKS WILL BE ACCEPTED.</u>

ATTACHMENT SDB-5
IMPACT STUDY OF PROPOSED RATES
ON
SMALLEST CUSTOMERS OF EACH RATE CLASS

On
Behalf of
Petitioner,
Frankfort City Light and Power

Petitioner's Exhibit 3

Sensitivity Analysis for Rate Class A - Frankfort City Light and Power

2916035-13 802 FRANKFORT PLACE

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/27/2016	30	490	16.333	$ 54.49	$ 60.86	
6/27/2016	32	410	12.813	$ 50.52	$ 53.37	
5/26/2016	30	290	9.667	$ 36.90	$ 42.14	
4/26/2016	29	300	10.345	$ 38.04	$ 43.08	
3/28/2016	32	250	7.813	$ 29.50	$ 38.40	
2/25/2016	29	240	8.276	$ 28.48	$ 37.46	
1/27/2016	29	330	11.379	$ 37.66	$ 45.89	
12/29/2015	36	400	11.111	$ 48.12	$ 52.44	
11/23/2015	27	250	9.259	$ 31.58	$ 38.40	
10/27/2015	32	240	7.500	$ 30.47	$ 37.46	
9/25/2015	30	270	9.000	$ 30.61	$ 40.27	
8/26/2015	29	270	9.310	$ 30.61	$ 40.27	Average Increase
		312	10.234	$ 37.25	$ 44.17	$ 6.92

1318280-59 441 HOT DOG ST

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/13/2016	30	500	16.667	$ 55.53	$ 61.80	
6/13/2016	32	460	14.375	$ 56.19	$ 58.05	
5/12/2016	29	430	14.828	$ 52.79	$ 55.25	
4/13/2016	33	430	13.030	$ 52.79	$ 55.25	
3/11/2016	30	520	17.333	$ 56.79	$ 63.67	
2/10/2016	28	560	20.000	$ 60.37	$ 67.41	
1/13/2016	35	590	16.857	$ 63.05	$ 70.22	
12/9/2015	26	370	14.231	$ 44.82	$ 49.63	
11/13/2015	30	320	10.667	$ 39.29	$ 44.95	
10/14/2015	30	340	11.333	$ 41.51	$ 46.82	
9/14/2015	33	530	16.061	$ 55.85	$ 64.60	
8/12/2015	29	570	19.655	$ 59.30	$ 68.35	Average Increase
		468	15.420	$ 53.19	$ 58.83	$ 5.64

Sensitivity Analysis for Rate Class A - Frankfort City Light and Power

1316400-06 **546 LOHSL LN**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/13/2016	30	350	11.667	$ 40.06	$ 47.76	
6/13/2016	32	330	10.313	$ 41.45	$ 45.89	
5/12/2016	30	220	7.333	$ 28.96	$ 35.59	
4/12/2016	32	540	16.875	$ 64.77	$ 65.54	
3/11/2016	30	680	22.667	$ 71.10	$ 78.64	
2/10/2016	28	820	29.286	$ 83.62	$ 91.75	
1/13/2016	35	870	24.857	$ 88.09	$ 96.43	
12/9/2015	26	480	18.462	$ 56.95	$ 59.93	
11/13/2015	30	300	10.000	$ 37.09	$ 43.08	
10/14/2015	30	180	6.000	$ 23.85	$ 31.85	
9/14/2015	33	340	10.303	$ 37.51	$ 46.82	
8/12/2015	29	410	14.138	$ 44.41	$ 53.37	Average Increase
		460	15.158	$ 51.49	$ 58.05	$ 6.56

2916175-13 **815 FRANKFORT PLACE CT**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/27/2016	30	300	10.000	$ 34.91	$ 43.08	
6/27/2016	32	370	11.563	$ 45.99	$ 49.63	
5/26/2016	30	190	6.333	$ 25.56	$ 32.78	
4/26/2016	29	170	5.862	$ 23.29	$ 30.91	
3/28/2016	32	190	5.938	$ 23.38	$ 32.78	
2/25/2016	29	230	7.931	$ 27.46	$ 36.53	
1/27/2016	29	150	5.172	$ 19.30	$ 29.04	
12/29/2015	36	320	8.889	$ 39.29	$ 44.95	
11/23/2015	27	170	6.296	$ 22.75	$ 30.91	
10/27/2015	32	190	5.938	$ 24.96	$ 32.78	
9/25/2015	30	260	8.667	$ 29.63	$ 39.33	
8/26/2015	29	270	9.310	$ 30.61	$ 40.27	Average Increase
		234	7.658	$ 28.93	$ 36.92	$ 7.99

Sensitivity Analysis for Rate Class A - Frankfort City Light and Power

2916120-05 **836 FRANKFORT PLACE CT**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/27/2016	30	530	17.667	$ 58.24	$ 64.60	
6/27/2016	32	500	15.625	$ 60.74	$ 61.80	
5/26/2016	30	220	7.333	$ 28.96	$ 35.59	
4/26/2016	29	220	7.586	$ 28.96	$ 35.59	
3/28/2016	32	290	9.063	$ 33.57	$ 42.14	
2/25/2016	29	280	9.655	$ 32.56	$ 41.21	
1/27/2016	29	320	11.034	$ 36.63	$ 44.95	
12/29/2015	36	430	11.944	$ 51.43	$ 55.25	
11/23/2015	27	220	8.148	$ 28.27	$ 35.59	
10/27/2015	32	280	8.750	$ 34.89	$ 41.21	
9/25/2015	30	380	12.667	$ 41.45	$ 50.57	
8/26/2015	29	440	15.172	$ 47.36	$ 56.18	Average Increase
		343	11.220	$ 40.26	$ 47.06	$ 6.80

Sensitivity Analysis for Rate Class B - Frankfort City Light and Power

1427015-00 **174 N COUNTY RD 330 E**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/13/2016	30	160	5.333	$ 24.91	$ 36.79	
6/13/2016	32	170	5.313	$ 26.84	$ 37.84	
5/12/2016	29	300	10.345	$ 42.77	$ 51.49	
4/13/2016	33	430	13.030	$ 58.70	$ 65.13	
3/11/2016	30	190	6.333	$ 28.11	$ 39.94	
2/10/2016	27	450	16.667	$ 58.38	$ 67.23	
1/14/2016	35	700	20.000	$ 87.48	$ 93.47	
12/10/2015	27	420	15.556	$ 55.63	$ 64.08	
11/13/2015	31	350	11.290	$ 47.36	$ 56.74	
10/13/2015	29	250	8.621	$ 35.54	$ 46.24	
9/14/2015	33	240	7.273	$ 33.36	$ 45.19	
8/12/2015	29	200	6.897	$ 28.80	$ 40.99	Average Increase
		322	10.555	$ 43.99	$ 53.76	$ 9.77

1426235-00 **1001 S MAISH RD**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/13/2016	30	590	19.667	$ 75.75	$ 81.93	
6/13/2016	32	610	19.063	$ 80.76	$ 84.03	
5/12/2016	30	510	17.000	$ 68.50	$ 73.53	
4/12/2016	32	530	16.563	$ 70.96	$ 75.63	
3/11/2016	30	550	18.333	$ 70.02	$ 77.73	
2/10/2016	28	530	18.929	$ 67.69	$ 75.63	
1/13/2016	34	610	17.941	$ 77.00	$ 84.03	
12/10/2015	27	450	16.667	$ 59.18	$ 67.23	
11/13/2015	31	520	16.774	$ 67.45	$ 74.58	
10/13/2015	32	580	18.125	$ 74.54	$ 80.88	
9/11/2015	30	590	19.667	$ 73.28	$ 81.93	
8/12/2015	29	560	19.310	$ 69.85	$ 78.78	Average Increase
		553	18.170	$ 71.25	$ 77.99	$ 6.74

Sensitivity Analysis for Rate Class B - Frankfort City Light and Power

4200835-00 **551 ALHAMBRA AVE**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/28/2016	30	470	15.667	$ 61.56	$ 69.33	
6/28/2016	32	490	15.313	$ 66.06	$ 71.43	
5/27/2016	30	460	15.333	$ 62.38	$ 68.28	
4/27/2016	29	440	15.172	$ 59.93	$ 66.18	
3/29/2016	32	480	15.000	$ 61.87	$ 70.38	
2/26/2016	29	430	14.828	$ 56.05	$ 65.13	
1/28/2016	30	440	14.667	$ 57.22	$ 66.18	
12/29/2015	34	510	15.000	$ 66.27	$ 73.53	
11/25/2015	27	410	15.185	$ 54.45	$ 63.04	
10/29/2015	31	460	14.839	$ 60.36	$ 68.28	
9/28/2015	32	490	15.313	$ 61.87	$ 71.43	
8/27/2015	29	450	15.517	$ 57.31	$ 67.23	Average Increase
		461	15.153	$ 60.44	$ 68.37	$ 7.93

712940-00 **CARLYLE DR**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/7/2016	31	370	11.935	$ 49.74	$ 58.84	
6/6/2016	31	490	15.806	$ 66.06	$ 71.43	
5/6/2016	30	570	19.000	$ 75.86	$ 79.83	
4/6/2016	33	710	21.515	$ 93.02	$ 94.52	
3/4/2016	29	620	21.379	$ 78.17	$ 85.08	
2/4/2016	28	650	23.214	$ 81.66	$ 88.23	
1/7/2016	34	810	23.824	$ 100.28	$ 105.02	
12/4/2015	28	630	22.500	$ 80.45	$ 86.13	
11/6/2015	31	650	20.968	$ 82.82	$ 88.23	
10/6/2015	32	650	20.313	$ 82.82	$ 88.23	
9/4/2015	29	540	18.621	$ 67.57	$ 76.68	
8/6/2015	29	490	16.897	$ 61.87	$ 71.43	Average Increase
		598	19.664	$ 76.69	$ 82.80	$ 6.11

Sensitivity Analysis for Rate Class B - Frankfort City Light and Power

1911740-13 **853 S JACKSON ST**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/20/2016	30	620	20.667	$ 79.29	$ 85.08	
6/20/2016	32	540	16.875	$ 72.19	$ 76.68	
5/19/2016	30	320	10.667	$ 45.22	$ 53.59	
4/19/2016	32	340	10.625	$ 47.67	$ 55.69	
3/18/2016	29	330	11.379	$ 44.42	$ 54.64	
2/18/2016	28	350	12.500	$ 46.74	$ 56.74	
1/21/2016	35	400	11.429	$ 52.56	$ 61.99	
12/17/2015	29	310	10.690	$ 42.63	$ 52.54	
11/18/2015	29	280	9.655	$ 39.09	$ 49.39	
10/20/2015	32	360	11.250	$ 48.54	$ 57.79	
9/18/2015	30	520	17.333	$ 65.29	$ 74.58	
8/19/2015	29	560	19.310	$ 69.85	$ 78.78	Average Increase
		411	13.532	$ 54.46	$ 63.12	$ 8.67

Sensitivity Analysis for Rate Class C - Frankfort City Light and Power

2421050-01 **2835 S 1100 W**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/25/2016	32	200	6.250	$ 42.25	$ 65.17	
6/23/2016	30	190	6.333	$ 39.94	$ 64.16	
5/24/2016	32	200	6.250	$ 41.25	$ 65.17	
4/22/2016	30	250	8.333	$ 47.82	$ 70.22	
3/23/2016	29	250	8.621	$ 47.34	$ 70.22	
2/23/2016	28	240	8.571	$ 46.04	$ 69.21	
1/26/2016	36	380	10.556	$ 64.15	$ 83.33	
12/21/2015	28	280	10.000	$ 50.55	$ 73.24	
11/23/2015	31	270	8.710	$ 49.28	$ 72.23	
10/23/2015	30	990	33.000	$ 133.49	$ 144.85	
9/23/2015	30	180	6.000	$ 39.10	$ 63.15	
8/24/2015	31	160	5.161	$ 36.43	$ 61.14	Average Increase
		299	9.815	$ 53.14	$ 75.17	$ 22.04

1415236-02 **352 S HOKE AVE #2**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/13/2016	30	1310	43.667	$ 181.54	$ 177.13	
6/13/2016	33	1120	33.939	$ 152.87	$ 157.96	
5/11/2016	29	780	26.897	$ 113.25	$ 123.67	
4/12/2016	33	890	26.970	$ 126.08	$ 134.77	
3/10/2016	30	840	28.000	$ 118.63	$ 129.72	
2/9/2016	27	800	29.630	$ 114.05	$ 125.69	
1/13/2016	35	990	28.286	$ 135.81	$ 144.85	
12/9/2015	26	730	28.077	$ 104.31	$ 118.63	
11/13/2015	30	850	28.333	$ 117.77	$ 130.73	
10/14/2015	34	1190	35.000	$ 155.93	$ 165.02	
9/10/2015	29	1460	50.345	$ 196.33	$ 192.26	
8/12/2015	29	1690	58.276	$ 223.74	$ 215.46	Average Increase
		1054	34.785	$ 145.03	$ 151.32	$ 6.30

Sensitivity Analysis for Rate Class C - Frankfort City Light and Power

411060-03 **510 W MORRISON ST**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/5/2016	33	1320	40.000	$ 182.74	$ 178.14	
6/2/2016	29	1140	39.310	$ 155.20	$ 159.98	
5/4/2016	30	1860	62.000	$ 239.09	$ 232.60	
4/4/2016	33	2820	85.455	$ 344.77	$ 329.43	
3/2/2016	29	3000	103.448	$ 356.48	$ 347.58	
2/2/2016	28	3120	111.429	$ 367.91	$ 359.69	
1/5/2016	34	3000	88.235	$ 356.48	$ 347.58	
12/2/2015	28	1860	66.429	$ 231.13	$ 232.60	
11/4/2015	33	2280	69.091	$ 278.26	$ 274.96	
10/2/2015	30	1740	58.000	$ 217.67	$ 220.50	
9/2/2015	29	1560	53.793	$ 208.25	$ 202.34	
8/4/2015	34	1860	54.706	$ 243.99	$ 232.60	Average Increase
		2130	69.325	$ 265.16	$ 259.83	$ (5.33)

1415442-04 **1905 E WABASH ST**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
7/13/2016	30	1020	34.000	$ 146.30	$ 147.88	
6/13/2016	33	1140	34.545	$ 155.20	$ 159.98	
5/11/2016	29	1010	34.828	$ 140.05	$ 146.87	
4/12/2016	33	1310	39.697	$ 175.01	$ 177.13	
3/10/2016	30	1300	43.333	$ 171.33	$ 176.12	
2/9/2016	27	1180	43.704	$ 157.59	$ 164.02	
1/13/2016	35	1470	42.000	$ 190.82	$ 193.27	
12/9/2015	26	1080	41.538	$ 143.59	$ 153.93	
11/13/2015	30	830	27.667	$ 115.53	$ 128.71	
10/14/2015	34	1060	31.176	$ 141.34	$ 151.91	
9/10/2015	29	1050	36.207	$ 147.47	$ 150.90	
8/12/2015	29	690	23.793	$ 104.59	$ 114.59	Average Increase
		1095	36.041	$ 149.07	$ 155.44	$ 6.37

Sensitivity Analysis for Rate Class C - Frankfort City Light and Power

111050-01 **300 N MAIN ST**

Read Date	Elapsed Days	kWh Usage billed	Avg use per Day	Amount billed	Proposed Estimate	
6/30/2016	30	740	24.667	$ 112.28	$ 119.64	
5/31/2016	32	850	26.563	$ 121.41	$ 130.73	
4/29/2016	29	730	25.172	$ 107.43	$ 118.63	
3/31/2016	31	880	28.387	$ 124.91	$ 133.76	
2/29/2016	31	790	25.484	$ 112.90	$ 124.68	
1/29/2016	31	960	30.968	$ 132.37	$ 141.83	
12/29/2015	29	1290	44.483	$ 167.16	$ 175.11	
11/30/2015	31	1310	42.258	$ 169.40	$ 177.13	
10/30/2015	30	920	30.667	$ 125.63	$ 137.79	
9/30/2015	30	1020	34.000	$ 136.86	$ 147.88	
8/31/2015	31	990	31.935	$ 140.33	$ 144.85	
7/31/2015	31	870	28.065	$ 126.03	$ 132.75	Average Increase
		946	31.054	$ 131.39	$ 140.40	$ 9.01

Competitive Analysis for Rate PPL (Big Five) - Frankfort City Light and Power

Frito Lay, Inc	Provider		Cost	
	Boone County REMC	$	353,851	*
Beloit, WI 53511	Alliant Energy	$	299,537	
Fayetteville, TN 37334	Fayetteville Public Utilities	$	299,019	
Pulaski, TN 38478	Pulaski Electric System	$	290,210	
Lynchburg, VA 24501	Appalachian Power	$	270,986	
Kathleen, GA 31047	Flint Energies	$	258,107	
	Duke Energy	$	245,661	
Frankfort, IN 46041	***Frankfort Municipal Utilities***	***$***	***231,303***	
	Lebanon Municipal Utility	$	222,442	
	Indianapolis Power & Light	$	213,588	#
Charlotte, NC 28273	Duke Energy	$	199,092	#
Topeka, KS 66609	Westar Energy	$	193,206	#
Jonesboro, AR 72401	Jonesboro City, Water, & Light	$	178,498	#

ADM (Processor)	Provider		Cost	
	Boone County REMC	$	350,187	*
Goodland, KS	City of Goodland - Electrical Dept.	$	333,178	
Fremont, NE	The City of Fremont, Nebraska	$	291,968	
	Duke Energy	$	243,779	
Columbus, NE	Loup Power District	$	240,398	
Frankfort, IN 46041	***Frankfort Municipal Utilities***	***$***	***221,189***	
Fostoria, OH	AEP - Ohio Power Company	$	214,109	
	Lebanon Municipal Utility	$	210,627	
	Indianapolis Power & Light	$	204,252	#
Des Moines, IA	MidAmerican Energy	$	190,049	#
Deerfield, MO	Kansas City Power & Light	$	179,761	#

* Company provided data seems too high
# Some trackers may be missing

Competitive Analysis for Rate PPL (Big Five) - Frankfort City Light and Power

Federal Mogul	**Provider**		**Cost**	
	Boone County REMC	$	289,411	*
Avilla, IN	Avilla Utilities	$	267,851	
Lake City, MN 55041	Lake City Utilities	$	235,357	
Greenville, MI 48838	Consumers Energy	$	227,801	
Logansport, IN	LMU (Logansport Municipal Utility)	$	217,291	
Columbus, IN	Bartholomew Co REMC	$	214,336	
	Duke Energy	$	200,878	
Frankfort, IN 46041	***Frankfort Municipal Utilities***	***$***	***188,372***	
Van Wert, OH	AEP - Ohio Power Co.	$	186,685	
	Lebanon Municipal Utility	$	181,262	
	Indianapolis Power & Light	$	175,522	#

Zachary Confections	**Provider**		**Cost**	
	Boone County REMC	$	146,201	*
	Duke Energy	$	101,166	
Frankfort, IN 46041	***Frankfort Municipal Utilities***	***$***	***99,399***	
	Lebanon Municipal Utility	$	95,735	
	Indianapolis Power & Light	$	93,092	#
Medfield, MA 02052	National Grid	$	89,450	#

Fontana Fasteners (Tri Mas)	**Provider**		**Cost**	
	Boone County REMC	$	101,781	*
Lavonia, MI 48150	Consumers Energy	$	88,927	
Wood Dale, IL 60191	ComEd (Commonwealth Edison Com	$	87,939	
Lakewood, OH 44107	CEI (Cleveland Electric Illuminating C(	$	81,355	
Frankfort, IN 46041	***Frankfort Municipal Utilities***	***$***	***74,921***	
	Lebanon Municipal Utility	$	73,583	
	Indianapolis Power & Light	$	70,309	#
	Duke Energy	$	70,012	#

* Company provided data seems too high

\# Some trackers may be missing

Competitive Analysis for Rate PPL (Big Five) - Frankfort City Light and Power

NHK Seating of America Inc	Provider		Cost		
	Boone County REMC	$	68,300	*	
Murfreesboro, TN 37127	Murfreesboro Electric Department	$	54,290		
Frankfort, IN 46041	***Frankfort Municipal Utilities***	***$***	***48,953***		
	Lebanon Municipal Utility	$	48,132		* Company provided data seems too high
	Duke Energy	$	47,151	#	# Some trackers may be missing
	Indianapolis Power & Light	$	43,325	#	

ATTACHMENT SDB-6
PROPOSED ECONOMIC DEVELOPMENT RIDER
WITH STATEMENT OF BENEFITS SB1 APPLICATION ATTACHMENT

On
Behalf of
Petitioner,
Frankfort City Light and Power

Petitioner's Exhibit 3

ECONOMIC DEVELOPMENT RIDER

Availability of Service

In order to encourage economic development in the Utility's service area, limited-term reductions in billing demands described herein are offered to qualifying new and existing customers who make application for service under this Rider prior to January 1, 2025.

Service under this Rider is intended for specific types of commercial and industrial customers whose operations, by their nature, will promote sustained economic development based on plant and facilities investment and job creation. This Rider is available to commercial and industrial customers served under Tariff PPL or Tariff IP who meet the following requirements:

(1) **Size:** A new customer must have a billing demand of 1,000 kW or more. An existing customer must increase billing demand by 1,000 kW or more over the maximum billing demand during the 12 months prior to the date of the application by the customer for service under this Rider (Base Maximum Billing Demand).
(2) **THD:** Total Harmonic Distortion. Both new and existing customers must comply with Standard IEEE 519-2014 or its most contemporary version, should the standard be revised.
(3) **Load Factor:** Both new and existing customers must maintain a monthly load factor of at least 70%. Load factor shall be calculated as follows: "Total monthly kWH"/["peak kWD" x "Days in Billing Period" x "24 hours"].
(4) **Power Factor:** Both new and existing customers must maintain a monthly power factor of at least 98%.
(5) **Applicable Standards:** Both new and existing customers shall comply with the most contemporary versions of National Electric Code, National Fire Protection Association Code, and relevant IEEE standards.
(6) **Business Type:** In no event shall service under this Rider be available to a customer whose principal business at the service location is classified in one of the following SIC Major Groups:

Standard Industrial Classification (SIC per US Dept. of Labor)
A: Agriculture, Forestry, and Fishing
- 01: Agricultural Production Crops
- 02: Agriculture production livestock and animal specialties
- 07: Agricultural Services
- 08: Forestry
- 09: Fishing, hunting, and trapping

C: Construction
- 15: Building Construction General Contractors and Operative Builders
- 16: Heavy Construction Other Than Building Construction Contractors
- 17: Construction Special Trade Contractors

F: Wholesale Trade
- 50: Wholesale Trade-durable Goods
- 51: Wholesale Trade-non-durable Goods

G: Retail Trade
- 52: Building Materials, Hardware, Garden Supply, and Mobile Home Dealers
- 53: General Merchandise Stores
- 54: Food Stores
- 55: Automotive Dealers and Gasoline Service Stations
- 56: Apparel and Accessory Stores
- 57: Home Furniture, Furnishings, and Equipment Stores
- 58: Eating and Drinking Places
- 59: Miscellaneous Retail

H: Finance, Insurance, and Real Estate
- 64: Insurance Agents, Brokers, and Service
- 65: Real Estate
- 67: Holding and Other Investment Offices

I: Services
- 70: Hotels, Rooming Houses, Camps, and Other Lodging Places
- 78: Motion Pictures
- 79: Amusement and Recreation Services

North American Industry Classification System (NAICS per OMB post 1997)
- 11: Agriculture, Forestry, Fishing and Hunting
- 22: Utilities
- 23: Construction
- 42: Wholesale Trade
- 44: Retail Trade
- 45: Retail Stores
- 48: Transportation
- 53: Real Estate Rental and Leasing
- 71: Arts, Entertainment, and Recreation
- 72: Accommodation and Food Services
- 81: Other Services (except Public Administration)

(3) A new customer, or the expansion by an existing customer, must result in the creation of at least 10 full-time equivalent jobs (FTE) maintained over the contract term at the service location. Utility reserves the right to verify FTE job counts. Failure to maintain the minimum required FTE jobs will result in the termination of this Rider.

(4) The customer must demonstrate through form SB-1, to the Utility's satisfaction that, absent the availability of this Rider, the qualifying new or increased demand would be located outside of the Utility's service territory or would not be placed in service due to poor operating economics.

Availability is limited to customers on a first-come, first-served basis for loads aggregating to 25 MVA.

<u>Terms and Conditions</u>

(1) To receive service under this Rider, the customer shall make written application to the Utility, using form SB-1, with sufficient information contained therein to determine the customer's eligibility for service.

(2) For new customers, billing demands for which deductions will be applicable under this Rider shall be for service at a new service location and not merely the result of a change of ownership. Relocation of the delivery point of the Utility's service does not qualify as a new service location.

(3) For existing customers, billing demands for which deductions will be applicable under this Rider shall be the result of an increase in business activity and not merely the result of resumption of normal operations following a force majeure, strike, equipment failure, renovation or refurbishment, or other such abnormal operating condition. In the event that such an occurrence has taken place during the 12-month period prior to the date of the application by the customer for service under this Rider, the monthly billing demands during the 12-month period shall be adjusted as appropriate to eliminate the effects of such occurrence.

(4) All demand adjustments offered under this Rider shall terminate no later than December 31, 2029.

(5) The existing local facilities of the Utility must be deemed adequate, in the judgment of the Utility, to supply the new or expanded electrical capacity requirements of the customer. If construction of new or expanded local facilities by the Utility is required, the customer may be required to make a contribution-in-aid of construction for the installed cost of such facilities pursuant to the provisions of the Utility's Terms and Conditions of Service.

<u>Determination of Monthly Adjusted Billing Demand.</u>

The qualifying incremental billing demand shall be determined as the amount by which the billing demand, as determined according to Tariff PPL or IP for the current billing period without this Rider, exceeds the Base Maximum Billing Demand. Such incremental billing demand shall be considered to be zero, however, unless it is at least 1,000 kW for new customers or existing customers.

The monthly adjusted billing demand under this Rider shall be the billing demand as determined according to Tariff PPL or IP for the current billing period without this Rider less the product of the qualifying incremental billing demand and the applicable Adjustment Factor. No Adjustment Factors shall be applied to any portion of minimum billing demands as calculated under Tariff PPL or IP.

Determination of Adjustment Factor

Standard New Development Customers -- customers meeting all availability and terms and conditions above shall contract for service for a period of five (5) years with a scheduled Adjustment Factor as follows:

Year 1:	10%
Year 2 through 5:	5%

Urban Redevelopment Customers – customers meeting all availability and terms and conditions above, and that (1) are locating a new business in an existing building that has been unoccupied and/or has remained dormant for at least one or more years and has no current or prior relationship with the previous occupant, as determined by the Utility, and (2) taking delivery at one point that does not require significant distribution or transmission system investment, other than the connection of service, shall qualify the same as a Standard New Development Customer.

The appropriate adjustment factor shall be applicable over a period of 60 consecutive billing months beginning with the first such month following the end of the start-up period. The start-up period shall commence with the effective date of the contract addendum for service under this Rider and shall terminate by mutual agreement between the Utility and the customer. In no event shall the start-up period exceed 12 months.

Written Annual Statement of Substantial Compliance

Customers must apply for the Economic Development Rider using Form SB-1 "Statement of Benefits" which can be found as Attachment A.

Subsequent to qualifying for the Economic Development Rider, the Customer MUST file an updated SB-1 at least 30 days prior to the anniversary of the start date identified in the Utility's confirmation that Customer is eligible for the Economic Development Rider. Failure to comply with the reporting requirements will result in termination of eligibility for the Economic Development Rider.

Terms of Contract

A contract or agreement addendum for service under this Rider, in addition to service under Tariff PPL or IP, shall be executed by the customer and the Utility for the time period which includes the start-up period and the five-year period immediately following the end of the start-up period. The contract addendum shall specify the Base Maximum Billing Demand, the anticipated total demand, the Adjustment Factor and related provisions to be applicable under this Rider, and the effective date for the contract addendum.

The customer may discontinue service under this Rider before the end of the contract or agreement addendum only by reimbursing the Utility for any demand adjustments received under this Rider billed at the applicable rate.

Special Terms and Conditions

Except as otherwise provided in this Rider, written agreements shall remain subject to all of the provisions of Tariff PPL or IP. This Rider is subject to the Utility's Terms and Conditions of Service.

STATEMENT OF BENEFITS
ECONOMIC DEVELOPMENT RIDER
Frankfort City Light and Power

DATE ____________________
FORM SB-1 / EDR

This statement is being completed for a customer that qualifies for an "Economic Development Rider."

INSTRUCTIONS:

1. This statement must be submitted to Frankfort City Light and Power at the time application is made for the Economic Development Rider. Please carefully fill out all fields.

2. In order to remain eligible for the Economic Development Rider, this statement must be submitted annually, at least 30 days in advance of each anniversary of the Project Start Date. Failure to submit the updated SB-1 will result in termination of the Economic development Rider.

SECTION 1	CUSTOMER INFORMATION	
Name of Customer		
Address of Customer *(number and street, city, state, and ZIP code)*		
Name of Contact Person	Telephone number ( )	E-mail address

SECTION 2	LOCATION AND DESCRIPTION OF INCREASED LOAD	
Location of Property	Estimated Start Date *(month, day, year)*	Est. Date Placed-in-Use *(mo, day, year)*
Description of Increased load. Please describe specific economic reasons why this EDR is required for the new load. Please also include Milestones, Timeline, and Expected Outcome. (You may attach additional pages as necessary.)		

SECTION 3	ESTIMATE OF EMPLOYEES AND SALARIES AS A RESULT OF PROPOSED PROJECT				
Current Number FTE		Number Retained FTE		Number Additional FTE	

SECTION 4	ESTIMATE OF ADDITIONAL ELECTRIC LOAD				
Current Peak Demand	Current Energy	New Energy	Increase in Peak Demand	New Peak Demand	New Load Factor

SECTION 5	STATEMENT OF COMPLIANCE	
Total Harmonic Distortion, (<V%, < I%):	THD V% shall be less than % at Utility demark	THD I% shall be less than % at Utility demark
Load Factor (LF > 70%):	Load Factor shall be greater than %	
Power Factor (PF > 98%):	Power Factor shall be greater than %	
Complies with all applicable standards (Yes, No)	Full or partial (circle one)	Describe:
Business Type (SIC or NAICS code):	SIC or NAICS code:	Describe:

SECTION 6	CUSTOMER CERTIFICATION	
I hereby certify that the representations in this statement are true.		
Signature of authorized representative	Title	Date signed *(month, day, year)*

FOR OFFICE USE ONLY		
The applicant meets the general standards in accordance with the Economic Development Rider. EDR Discount Limited to 10 years as outlined below: Year 1: 10% Year 2 through 5: 5%		
Approved *(Authorized signature and title)*	Telephone number ( )	Date signed *(month, day, year)*
Printed name	Frankfort City Light and Power 16 N. Main St., Frankfort, IN 46041	

ATTACHMENT SDB-7
IMPACT OF PROPOSED ECONOMIC DEVELOPMENT RIDER

On
Behalf of
Petitioner,
Frankfort City Light and Power

Petitioner's Exhibit 3

Impact Study of Proposed Economic Development Rider
Attachment SDB-7

The calculus below is used to determine the impact of the EDR on each qualifying Rate Class and to understand if and to what extent any subsidy exists. The all-in purchase power cost per kWh was used as a basis on which to determine if subsidy exists. For the given test year, the Utility paid on average $0.073405/kWh. Any all-in cost greater than the average composite system cost results in no subsidy. The worst case scenario for PPL qualifying rate was established to be 1,000 kVAD at 70% load factor, while the worst case for the new IP rate was established at 10,000kVAD. This results in a minimum consumption of 511,000 kWh and 5,110,000 kWh respectively. Both the qualifying Primary power and newly proposed Industrial Power rates were studied.

Billing Demand (kWD)	1,000	10,000
Minimum Energy	511,000	5,110,000
Load Factor	70%	70%
Hours/Month	730	730
	PPL	IP
Customer Charge $	$ 60.00	$ 600.00
Demand Charge $/kWD	$ 18.85	$ 20.72
Energy Charge $/kWh	$ 0.039407	$ 0.035560

Primary Power (PPL)

Demand Disc %		Cust $	kWD $	kWh $		All in Price per kWh	All in Purchase Power Cost	Subsidy (-)=No (+)=Yes	Cummulative Subsidy %	Comment
10%	YEAR 1	$ 60.00	$ 16,965.00	$ 20,136.98	$ 37,161.98	0.072724	0.0734046	0.000681	0.93%	Subsidy for Year 1 only
5%	YEAR 2	$ 60.00	$ 17,907.50	$ 20,136.98	$ 38,104.48	0.074568	0.0734046	-0.00116	-0.66%	Year 1 subsidy recovered.
5%	YEAR 3	$ 60.00	$ 17,907.50	$ 20,136.98	$ 38,104.48	0.074568	0.0734046	-0.00116	-2.24%	
5%	YEAR 4	$ 60.00	$ 17,907.50	$ 20,136.98	$ 38,104.48	0.074568	0.0734046	-0.00116	-3.83%	
5%	YEAR 5	$ 60.00	$ 17,907.50	$ 20,136.98	$ 38,104.48	0.074568	0.0734046	-0.00116	-5.41%	No subsidy over term
0%	YEAR 6	$ 60.00	$ 18,850.00	$ 20,136.98	$ 39,046.98	0.076413	0.0734046	-0.00301	-9.51%	

Industrial Power (IP)

Demand Disc %		Cust $	kWD $	kWh $		All in Price per kWh	All in Purchase Power Cost	Subsidy (-)=No (+)=Yes	Subsidy %	Comment
10%	YEAR 1	$ 600.00	$ 186,480.00	$ 181,711.60	$ 368,791.60	0.072171	0.0734046	0.001234	1.68%	Subsidy for Year 1
5%	YEAR 2	$ 600.00	$ 196,840.00	$ 181,711.60	$ 379,151.60	0.074198	0.0734046	-0.00079	0.60%	
5%	YEAR 3	$ 600.00	$ 196,840.00	$ 181,711.60	$ 379,151.60	0.074198	0.0734046	-0.00079	-0.48%	Year 1 subsidy recovered.
5%	YEAR 4	$ 600.00	$ 196,840.00	$ 181,711.60	$ 379,151.60	0.074198	0.0734046	-0.00079	-1.56%	
5%	YEAR 5	$ 600.00	$ 196,840.00	$ 181,711.60	$ 379,151.60	0.074198	0.0734046	-0.00079	-2.64%	No subsidy over term
0%	YEAR 6	$ 600.00	$ 207,200.00	$ 181,711.60	$ 389,511.60	0.076225	0.0734046	-0.00282	-6.48%	

ATTACHMENT SDB-8
DETERMINATION OF NON-RECURRING CHARGES

On
Behalf of
Petitioner,
Frankfort City Light & Power

Petitioner's Exhibit 3

Determination of NonRecurring Charges
Attachment SDB-8

Description	Quantity	Unit of Measure (UoM)	Unit Cost	Equipment Cost	Material Cost	Labor Cost	Combined Equipment, Material and Labor Cost
Disconnect & Reconnect during normal business hours							
Meter Reader	0.60	manhours	$ 28.00			$ 16.80	$ 16.80
Office Administration	0.50	manhours	$ 28.09			$ 14.05	$ 14.05
Truck & Tools	0.60	hourly	$ 20.00	$ 12.00			$ 12.00
TOTAL							$ 42.85
Disconnect & Reconnect Rate during normal business hours							**$ 43.00**
Disconnect during normal hours & Reconnect after normal business hours							
Meter Reader	2.00	manhours	$ 28.00			$ 56.00	$ 56.00
Office Administration	2.00	manhours	$ 28.09			$ 56.18	$ 56.18
Truck & Tools	0.60	hourly	$ 20.00	$ 12.00			$ 12.00
TOTAL							$ 124.18
Disconnect during normal hours & Reconnect Rate after normal business hours							**$ 125.00**

Description	Quantity	Unit of Measure (UoM)	Unit Cost	Equipment Cost	Material Cost	Labor Cost	Combined Equipment, Material and Labor Cost
Return Check Fee							
Cost from bank to FCL&P $15 or 5% of returned whichever is greater.					$ 15.00		$ 15.00
Office Administration	0.33	manhours	$ 28.09			$ 9.27	$ 9.27
TOTAL							$ 24.27
Return Check Fee			**$25 or 5% of the amount of the check, whichever is greater.**				
Late Fee							
Office Administration	0.20	manhours	$ 28.09			$ 5.62	$ 5.62
Postage and paper	1.00	lot	$ 0.32		$ 0.32		$ 0.32
TOTAL							$ 5.94
Average proposed residential bill =			$ 91.71				$ 91.71
Percentage of residential bill							6.5%
Late Fee					**4% of the total current unpaid balance**		

Determination of NonRecurring Charges
Attachment SDB-8

Description	Quantity	Unit of Measure (UoM)	Unit Cost	Equipment Cost	Material Cost	Labor Cost	Combined Equipment, Material and Labor Cost
Temporary Service Charge							
Aerial Lift truck	3.00	hours	$ 28.75	$ 86.25			$ 86.25
Lineman (install & remove)	3.00	manhours	$ 33.43			$ 100.29	$ 100.29
#2str triplex wire	100.00	ft.	$ 0.67		$ 67.00		$ 67.00
Wedge Clamps	2.00	ea.	$ 1.32		$ 2.64		$ 2.64
WR159 Connectors	3.00	ea.	$ 0.34		$ 1.02		$ 1.02
							$ 257.20
Temporary Service Charge							**$ 200.00**
Service Call (normal hours)							
Aerial Lift truck	0.60	hours	$ 28.75	$ 17.25			$ 17.25
Lineman (install & remove)	0.60	manhours	$ 33.43			$ 20.06	$ 20.06
Office Administration	0.25	manhours	$ 28.09			$ 7.02	$ 7.02
Incidental materials	1.00	lot	$ 15.00		$ 15.00		$ 15.00
TOTAL							$ 59.33
Service Call (normal hours)							**$ 60.00**
Service Call (after hours)							
Aerial Lift truck	2.00	hours	$ 28.75	$ 57.50			$ 57.50
Lineman (install & remove)	2.00	manhours	$ 33.43			$ 66.86	$ 66.86
Office Administration	0.50	manhours	$ 28.09			$ 14.05	$ 14.05
Incidental materials	1.00	lot	$ 15.00		$ 15.00		$ 15.00
TOTAL							$ 153.41
Service Call (after hours)							**$ 150.00**

Description	Quantity	Unit of Measure (UoM)	Unit Cost	Equipment Cost	Material Cost	Labor Cost	Combined Equipment, Material and Labor Cost
Meter Test Fee							
Meter Reader	0.30	manhours	$ 28.00			$ 8.40	$ 8.40
Meter Test Tech	0.50	manhours	$ 28.52			$ 14.26	$ 14.26
Test Equipment	1.00	test	$ 4.00	$ 4.00			$ 4.00
Truck & Tools	0.30	hourly	$ 20.00	$ 6.00			$ 6.00
TOTAL							$ 32.66
Meter Test Fee (For all tests beyond free one every 12 months)							**$ 33.00**

Attachment 9: Proposed Capital Improvement Plan Estimates
Petitioner's Exhibit 3
Frankfort City Light & Power
30 Pages including Cover

ATTACHMENT SDB-9
CAPITAL IMPROVEMENT PLAN ESTIMATES

On
Behalf of
Petitioner,
Frankfort City Light & Power

Petitioner's Exhibit 3

FCL1 Capital Project Planning Table

Item #	Project Description	Design Phase		Purchase Equipment		Construction Phase		Final Commissioning		Total
		Time (weeks)	Cost ($)	Time (weeks)	Cost ($)	Time (weeks)	Cost ($)	Time (weeks)	Cost ($)	
1	**Install cutouts and coordinate fuses on radial taps to isolate disturbances (30 locations) See Feeder List for details**	2	$12,478	6-8	$78,351	15	$46,921	0	$0	$137,750.00
2	**Update the existing distribution protective device settings on relays**							1	$16,850	$16,850.00
3	**Update/install Arc Flash labels based on protective device coordination results/recommendation**							1	$4,250	$4,250.00
4	**Vehicle Fleet Additions (2 service Pick-ups replace #2-4 and #2-4A with one and #2-7 with the other)**			4	$50,259					$50,259.00
5	**Voltage Regulators installed to remedy voltage issues on select circuits Applies only to System Configurations below (excludes Burlington Out or Westside Out cases): Normal System, Fairgrounds OUT, Westside T1 OUT, Westside T2 OUT**									$481,424.00
a	Priority 1 (Normal system) - Burlington Sub Feeder 5	2	$10,466	12	$69,460	4	$35,197	1	$5,233	$120,356.00
b	Priority 2 (FGR Out) - Fairground Substation Feeder No. 3	2	$10,466	12	$69,460	4	$35,197	1	$5,233	$120,356.00
c	Priority 2 (FGR Out) - Westside Sub Feeder No. 3	2	$10,466	12	$69,460	4	$35,197	1	$5,233	$120,356.00
d	Priority 2 (FGR Out) - Westside Sub Feeder No. 4	2	$10,466	12	$69,460	4	$35,197	1	$5,233	$120,356.00
6	**Vehicle Fleet Additions (2 service trucks to replace service trucks #2-9 and #2-14)**			10	$335,150					$335,150.00
7	**Re-conductor distribution circuits to increase ampacity (reduce bottleneck)**		$27,081		$77,812		$244,581		$11,245	$360,719.00
a	Priority 1 (Normal system) - WSS6 OH SW16 & 11516 - from 336 to 477ACSR (Approx. 100 feet)	0	$2,487	12	$2,248	4	$11,886	1	$2,811	$19,432.00
b	Priority 2 (FGR Sub Out) - WSS4 FROM Sub to IN 28 POLE 11715 - 336 to 477ACSR (Approx. 2400 feet)	2	$10,130	12	$35,925	4	$105,531	1	$2,810	$154,396.00
c	Priority 2 (BUR Sub Out) -FGR4 OH FAIRGND & PRAIRIE - from 336 to 477ACSR (Approx. 600 feet)	1	$3,482	12	$4,056	4	$22,482	1	$2,812	$32,832.00
d	Priority 2 (BUR Sub Out) - BUR8 OH WASH AVE & SIMS - from 4/0 to 477ACSR (Approx. 2360 feet)	2	$10,982	12	$35,583	4	$104,682	1	$2,812	$154,059.00
8	**New Substation** Two 69/13.2kV, 20/26.7/33.3 MVA Transformers; Outdoor Main-Tie-Main with (8) Feeders To be located in the Northwest side of the service territory (land available near RR and existing transmission circuits)	28	$161,939	40	$2,083,614	30	$370,004	6	$29,443	$2,645,000.00
9	**West Side Substation Upgrades**									$2,265,412.00
a	Replace two (2) circuit switchers with SF6 breakers	2	$8,964	20	$124,224	12	$24,787	1	$14,650	$172,625.00
b	Two NEW 69/13.2kV, 20/26.7/33.3 MVA Transformers	8	$85,178	26	$1,201,066	12	$41,664	2	$20,514	$1,348,422.00
c	NEW Main-Tie-Main Switchgear with 8 Feeders, new relays, metering etc.	10	$49,627	26	$507,148	12	$154,976	2	$18,934	$730,685.00
d	New SPCC Plan							1	$13,680	$13,680.00
10	**West Side Substation Maintenance**							1	$38,650	$38,650.00
11	**Burlington Substation Upgrades**									$1,591,745.00
a	New 69/13.2 kV, 30/40/50 MVA Transformer and upgrade distribution switchgear (breakers and relays), maintain existing building for 69kV Relaying & Storage	24	$120,652	38	$1,307,780	16	$120,046	2	$29,587	$1,578,065.00
b	New SPCC Plan							4	$13,680	$13,680.00
12	**Burlington Substation Maintenance**							1	$38,650	$38,650.00
13	**Fairgrounds Substation Upgrades**									$242,172.00
a	Replace existing high side circuit breaker with SF6 breaker	2	$11,677	20	$49,307	12	$61,726	1	$5,094	$127,802.61
b	Upgrade existing SEL protective relays to 351S Relays	1	$9,148	12	$41,751	10	$11,740	1	$5,177	$67,815.59
c	Install SEL Communication Processor to monitor and collect data from existing protective relays for future SCADA	0	$2,138	12	$13,176	10	$16,292	1	$1,268	$32,873.80
d	New SPCC Plan (Revisit existing oil containment solution)							4	$13,680	$13,680.00
14	**GIS/Mapping System Upgrades**	18	$89,823	26	$68,177	12	$45,630	2	$4,785	$208,415.00
15	**Fairgrounds Substation Maintenance**							1	$39,460	$39,460.00
16	**S.R. 28 3-phase re-build**	8	$41,229	26	$104,381	12	$386,440	2	$17,120	$549,170.00
17	**AMI Pilot for Industrial Customers**	2	$10,599	16	$86,863	12	$54,375	2	$16,948	$168,785.00
18	**Utility IT, Communication network upgrades to support AMI, SCADA and increasing bandwidth needs for the Utility Operations.**	8	$41,392	18	$164,528	20	$229,311	2	$14,769	$450,000.00
19	**Pole Replacements – 20,000 poles in 50 years~avg 400 per year @ $290.50 ea. = $116,200/year**			4	$813,400					$813,400.00
20	**S.R. 28 Road Widening Project 2018**	37	$184,414	26	$346,189	12	$828,426	2	$40,971	$1,400,000.00
	Total									**$11,837,261.00**

Frankfort, IN

All budget figures are given in 2016 US Dollars

1	**1) Install cutouts and coordinate fuses on radial taps to isolate disturbances (30 locations)**						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Fuse Cut-out Body	96	$ 382.77	$ 36,745.92	$ 2,323.20	$ 39,069.12	$ 46,882.94
4	150A Fuse	96	$ 228.34	$ 21,920.64	$ 2,323.20	$ 24,243.84	$ 29,092.61
5	Mounting Assembly (fittings, terminals, clamps and hardware)	96	$ 69.01	$ 6,624.96	$ 34,453.44	$ 41,078.40	$ 49,294.08
6							
7	**Project Sub-totals**			$ 65,291.52	$ 39,099.84	$ 104,391.36	**$ 125,269.63**
8			20% Contingency	$ 78,349.82	$ 46,919.81	$ 125,269.63	
9							
10			5.5%	Design	$ 6,839.72		
11			4.5%	Const. Mgmt.	$ 5,637.13		
12			0.0%	T&C	$ -		
13			0.0%	For Record	$ -		
14	**Project Engineering Design Services**						**$ 12,477**
15	Note: Dollars are estimated from 2016.						
16	**1) Install cutouts and coordinate fuses on radial taps to isolate disturbances (30 locations)**						**$ 137,750.00**

1	2)Update the existing distribution protective device settings on relays						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 0% contingency)
3	Create Relay settings per system study	3	$ 2,301.67		$ 6,905.00	$ 6,905.00	$ 6,905.00
4	Install relays and Doble test	3	$ 3,315.00		$ 9,945.00	$ 9,945.00	$ 9,945.00
5							
6	**Project Sub-totals**			$ -	$ 16,850.00	$ 16,850.00	**$ 16,850.00**
7			0% Contingency	$ -	$ 16,850.00	$ 16,850.00	
8							
9			0.0%	Design	$ -		
10			0.0%	Const. Mgmt.	$ -		
11			0.0%	T&C	$ -		
12			0.0%	For Record	$ -		
13						**Project Engineering Design Services**	**$ -**
14	Note: Dollars are estimated from 2016.						
15						**2)Update the existing distribution protective device settings on relays**	**$ 16,850.00**

1	**3)Update/install Arc Flash labels based on protective device coordination results/recommendation**						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 0% contingency)
3	Labels	82	$ 4.95	$ 405.90		$ 405.90	$ 405.90
4	Remove old labels and Install ne labels	82	$ 46.88		$ 3,844.16	$ 3,844.16	$ 3,844.16
5							
6	**Project Sub-totals**			$ 405.90	$ 3,844.16	$ 4,250.06	**$ 4,250.06**
7			0% Contingency	$ 487.08	$ 3,844.16	$ 4,250.06	
8							
9			0.0%	Design	$ -		
10			0.0%	Const. Mgmt.	$ -		
11			0.0%	T&C	$ -		
12			0.0%	For Record	$ -		
13	**Project Engineering Design Services**						$ -
14	Note: Dollars are estimated from 2016.						
15	**3)Update/install Arc Flash labels based on protective device coordination results/recommendation**						**$ 4,250.00**

```
CNGP530               VEHICLE ORDER CONFIRMATION          05/24/16 13:03:08
==>                                                          Dealer: F47134
                       2016 F-150                               Page: 1 of 1
Order No: 5555  Priority: F4  Ord FIN: QA794  Order Type: 5B Price Level: 655
Ord PEP:  100A Cust/Flt Name: FRANKFORT              PO Number:
                      RETAIL                                    RETAIL
 F1E  F150 4X4 R/C   $31185            794  PRICE CONCESSN
      122" WHEELBASE                        REMARKS TRAILER
 YZ   OXFORD WHITE                     85A  POWER EQUIP GRP     970
 A    VINYL 40/20/40         NC             FLEX FUEL
 G    GRAY INTERIOR                         SP DLR ACCT ADJ
100A  EQUIP GRP                             SP FLT ACCT CR
      .XL SERIES                            FUEL CHARGE
      .17"SILVER STEEL                 B4A  NET INV FLT OPT      NC
 99B  3.5LV6 TIVCTFEV                       DEST AND DELIV     1195
 446  ELEC 6-SPD AUTO                 TOTAL BASE AND OPTIONS  33845
      .265/70R-17 A/T                 XL BASE DESCT PEG & TT  (500)
 X26  3.73 REG AXLE          NC       TOTAL                   33345
      6050# GVWR                      *THIS IS NOT AN INVOICE*
 53A  TRAILER TOW PKG       495       *TOTAL PRICE EXCLUDES COMP PR
      23 GAL TANK
 F1=Help             F2=Return to Order            F3/F12=Veh Ord Menu
 F4=Submit           F5=Add to Library             F9=View Trailers
 S099 - PRESS F4 TO SUBMIT                                     QC04717
fmcdealr@SALES1
May 24, 2016 1:06:29 PM
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City of Frankfort Price
$23154

Preview Order 2525 - X2B 4x4 Super Cab SRW: Order Summary Time of Preview: 03/11/2016 14:17:12

Dealership Name : Gene Lewis Ford Inc   Sales Code : F47134W

Dealer Rep.	d breedl	Type	Retail	Vehicle Line	Superduty	Order Code	2525
Customer Name	F Frankfort	Priority Code	19	Model Year	2016	Price Level	640

DESCRIPTION	MSRP	DESCRIPTION	MSRP
F250 4X4 SUPERCAB PICKUP/158	$37585	6 SPEED AUTOMATIC TRANS	$0
158 INCH WHEELBASE	$0	LT245/75R17E BSW ALL SEASON	$0
OXFORD WHITE	$0	3.73 RATIO REGULAR AXLE	$0
VINYL 40/20/40 SEATS	$0	JOB #1 ORDER	$0
STEEL	$0	10000# GVWR PACKAGE	$0
PREFERRED EQUIPMENT PKG.600A	$0	SPARE TIRE AND WHEEL	$0
XL TRIM	$0	JACK	$0
TRAILER TOWING PACKAGE	$0	FUEL CHARGE	$0
AIR CONDITIONING -- CFC FREE	$0	PRICED DORA	$0
AM/FM STEREO W/ CLOCK	$0	ADVERTISING ASSESSMENT	$0
6.2L EFI V-8 ENGINE	$0	DESTINATION & DELIVERY	$1195

	MSRP
TOTAL BASE AND OPTIONS	$38780
DISCOUNTS	NA
TOTAL	$38780

Your Price $27105

Price good for 45 days or if Ford cuts off 2016

Customer Name: Customer Email:

Customer Address:

Customer Phone:

I am not sure when cut off day for 2016's

Customer Signature   Date

This order has not been submitted to the order bank.

This is not an invoice.

FRANFORT CITY LIGHT AND POWER VEHICLE LIST 2015

VEHICLE #	YEAR	MAKE	MODEL	VIN #	PLATE #	PRICE PAID	MILEAGE	COMMENTS ON CONDITION
IT-1	2005	FORD	500	1FAP23105G161653	69076	$20,325.00	80,125	FAIR, NEEDS NEW TIRES, NEEDS A/C REPAIRED
RADIO	2011	MOTOROLA	ID# 1237001	475TMC0579		$1,135.00		
IT-2	2011	FORD	ESCAPE	1FMCUOD77BKC61623	5385		18,334	GOOD
RADIO	2011	MOTOROLA	ID# 1237003	475TMC0582		$1,062.00		
2-0	2016	FORD	ESCAPE SE	1FMCU0GXXGU29790		$23,070.00	0	NEW
RADIO	2016	MOTOROLA		203TRZ1347		$1,135.00		
2-1	2016	FORD	ESCAPE SE	1FMCU0GX3GUC29789		$23,070.00	0	NEW
RADIO	2011	MOTOROLA	ID# 1237005	475TMC0585		$1,135.00		
2-2	2002	IH	4400	1HTMKADR42H514079	4207		32,357	GOOD
TOWER	2002	MTI	T5LOAH	89670203				GOOD
LINE BODY	2002	MBC	LB190 M 5818H	02-18721				GOOD
RADIO	2011	MOTOROLA	ID# 1237004	475TMC0584		$1,135.00		GOOD
2-3	2011	FORD	ESCAPE	1FMCUODG1BKA21113	5387		24,055	GOOD
RADIO	2011	MOTOROLA	ID# 1237002	475TMC0580		$1,135.00		
2-4	1990	FORD	F350 4X4	2FDKF38M7MCA16299	4201		106,707	TWENTY THREE YEARS OLD. CLUTCH SLIPS
RADIO	2011	MOTOROLA	ID# 1237006	475TMC0586		$1,135.00		WHEN HOT, NEEDS TO BE REPLACED
UTILITY BODY	1991	MO-LO	FIBERGLASS BODY	725				POOR, BED FLOOR IS RUSTED OUT
2-4A	1990	FORD	F250	1FTHF25H8LLA24948	4230		111,664	POOR NEEDS TO BE REPLACED, ENGINE RUNS ROUGH,
RADIO	2011	MOTOROLA	ID# 1237007	475TMC0587		$1,135.00		TRANSMISSION SLIPS, BODY IS RUSTED OUT
2-5	2011	FORD	RANGER XLT 4X4	1FTLR4FE9BPA59099	5390		30,238	GOOD
RADIO	2011	MOTOROLA	ID# 1237008	475TMC0588		$1,135.00		
2-6	2012	DODGE	5500	3C7WDNBL1CG300104	17418	$131,575.00	15,643	GOOD
RADIO	2011	MOTOROLA	ID# 1237009	475TMC0589		$1,135.00		
TOWER	2012	VERSALIFT	VST-40	KW120160				GOOD
UTILITY BODY	2012	BRANDFX		SER. 12-37648				GOOD
2-7	1997	GMC	SONOMA S14	1GTCS14X7VK517957	4470		128000	POOR, HIGH MILEAGE,FIFTEEN YEARS OLD, NEEDS TO BE
RADIO	2011	MOTOROLA	ID# 1237010	475TME1103		$1,135.00		REPLACED
2-8	2002	IH	4400	1HTMKADR62H514081	4206		17,720	GOOD
DIGGER DERRICK	2002	ALTEC	947	0102BA3311				GOOD
UTILITY BODY	2002	ALTEC	FLAT BED	04\02 47-25794				GOOD
TRANSVERSE BOX	2002	KNAPHEIDE	KP-9442 46	16008				GOOD
RADIO	2011	MOTOROLA	ID# 1237011	475TME1104		$1,135.00		GOOD
2-9	1994	FORD	F350 4X4	1FDKF38MXRNB00280	4254		94	POOR, TWENTY YEARS OLD. NEEDS TO
								BE REPLACED
UTILITY BODY	1994	NORTHWEST	131	976 9 38				GOOD
RADIO	2011	MOTOROLA	ID# 1237012	475TME1116		$1,135.00		GOOD
2-10	2000	IH	4900	1HTSDADR5YH215241	4496		23,705	

FRANFORT CITY LIGHT AND POWER VEHICLE LIST 2015

								SCHEDULE.
DIGGER DERRICK	2000	ALTEC	D2050-TR	0300AY0577				GOOD
UTILITY BODY	2000	ALTEC	ALUM. FLATBED	06/00 47-23646				GOOD
TRANSVERSE BOX	2000	STEEL&ALUM.PROD.	T-PLAT	20463				GOOD
RADIO	2011	MOTOROLA	ID# 1237013	475TME1117		$1,135.00		GOOD
2-11	1995	IH	4900	1HTSDAAN3SH645374	4181		46,436	FAIR
AERIAL TOWER	1995	TECO	S5-5013P-4TFS1	56649408				WAS SENT IN AND HAD A MAJOR OVERHAUAL PREFORMED IN DECEMBER 2009. THIS VEHICLE STILL NEEDS TO BE REPLACED
TRANSVERSE BOX	1995	MONROE						GOOD
RADIO	2011	MOTOROLA	ID# 1237014	475TME1118		$1,135.00		GOOD
2-12	2004	FORD	RANGER	1FTYR15E94PB51399	4365	$16,545.00	130,232	GOOD
RADIO	2011	MOTOROLA	ID# 1237015	475TME1119				GOOD
2-14	2000	FORD	F450 4X4	1FDXF47F0YED66338	4510		70,100	GOOD.
UTILITY BODY	1990	CASS	84 FIBERGLASS	10890				GOOD
RADIO	2011	MOTOROLA	1237016	475TME1120		$1,135.00		GOOD
2-15	2013	DODGE	5500	3C7WRNBL9DG588151	21681		1,100	NEW
RADIO	2011	MOTOROLA	ID# 1237033	475TMG0104		$1,135.00		
2-16	2004	FORD	RANGER	1FTYR15E74PB51398	4198	$16,545.00	110,424	FAIR
RADIO	2011	MOTOROLA	1237017	475TME1158		$1,135.00		GOOD
2-17	2000	IH	4900	1HTSDADR7YH215242	4495		37,892	GOOD
TOWER	2000	MTI	V6A 65IP	76829911				GOOD
UTILITY BODY	2000	STAHL		499-001357				GOOD
RADIO	2011	MOTOROLA	ID# 1237018	475TME1159		$1,135.00		GOOD
2-18	1999	IH	4900	1HTSDADN9XH654986	4185		53,898	FAIR SHOULD BE REPLACED DUE TO AGE
TOWER	1999	TECO VANGUARD	V5A-551P	4TFE2 74249808				GOOD
UTILITY BODY	1999	STAHL	SPL418A2	48-1530				GOOD
RADIO	2011	MOTOROLA	ID# 1237019	475TME1160		$1,135.00		GOOD
2-19	2002	IH	4400	1HTMKADR82H514080	4204		51,168	GOOD. THIS UNIT STARTS TO BOUNCE WHEN DRIVING BETWEEN 45-60 MPH
TOWER	2002	MTI	V5A-55IP-4TFE2	89680203				GOOD
UTILITY BODY	2002	MONROE	LB190M5818H	02-18719				GOOD
RADIO	2011	MOTOROLA	ID# 1237020	475TME1161		$1,135.00		GOOD
S-1	2011	FORD	RANGER XLT 4X4	1FTLR4FE4BPA86517	6958	$19,261.00	22,938	GOOD

1	5) Installation of Voltage Regulators - 5a Burlington Sub Feeder 5						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Site Preparation	1			$ 8,500.00	$ 8,500.00	$ 10,200.00
4	Foundations & Anchor Bolts	1	$ 850.00	$ 850.00	$ 1,200.00	$ 2,050.00	$ 2,460.00
5	4" - # 53 Limestone - CuYds	3	$ 8.95	$ 26.85	$ 10.50	$ 37.35	$ 44.82
6	2" - # 73 Limestone - CuYds	3	$ 10.25	$ 30.75	$ 10.50	$ 41.25	$ 49.50
7	667/747 kVA 3-phase Voltage Regulator	1	$ 55,746.00	$ 55,746.00	$ 18,840.00	$ 74,586.00	$ 89,503.20
8	636kcm AAConductor, Fittings, Terminals, Clamps & Hardware (LF)	220	$ 5.59	$ 1,229.80	$ 770.00	$ 1,999.80	$ 2,399.76
9							
10	**Substation Construction Sub-totals**			$ 57,883.40	$ 29,331.00	$ 87,214.40	**$ 104,657.28**
11							
12							
13			6.0%	Design	$ 6,279		
14			4.0%	Const. Mgmt.	$ 4,186		
15			5.0%	T&C	$ 5,233		
16							
17	**Substation Engineering Design Services**						**$ 15,699**
18	Note: Dollars are estimated from 2016.						
19	**5) Installation of Voltage Regulators - 5a Burlington Sub Feeder 5**						**$ 120,356.00**

	5) Installation of Voltage Regulators - 5b Fairground Sub Feeder 3						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Site Preparation	1			$ 8,500.00	$ 8,500.00	$ 10,200.00
4	Foundations & Anchor Bolts	1	$ 850.00	$ 850.00	$ 1,200.00	$ 2,050.00	$ 2,460.00
5	4" - # 53 Limestone - CuYds	3	$ 8.95	$ 26.85	$ 10.50	$ 37.35	$ 44.82
6	2" - # 73 Limestone - CuYds	3	$ 10.25	$ 30.75	$ 10.50	$ 41.25	$ 49.50
7	667/747 kVA 3-phase Voltage Regulator	1	$ 55,746.00	$ 55,746.00	$ 18,840.00	$ 74,586.00	$ 89,503.20
8	636kcm AAConductor, Fittings, Terminals, Clamps & Hardware (LF)	220	$ 5.59	$ 1,229.80	$ 770.00	$ 1,999.80	$ 2,399.76
9							
10	**Substation Construction Sub-totals**			$ 57,883.40	$ 29,331.00	$ 87,214.40	**$ 104,657.28**
11							
12							
13			6.0%	Design	$ 6,279		
14			4.0%	Const. Mgmt.	$ 4,186		
15			5.0%	T&C	$ 5,233		
16							
17	**Substation Engineering Design Services**						**$ 15,699**
18	Note: Dollars are estimated from 2016.						
19	**5) Installation of Voltage Regulators - 5b Fairground Sub Feeder 3**						**$ 120,356.00**

1	5) Installation of Voltage Regulators - 5c West Side Sub Feeder 3						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Site Preparation	1			$ 8,500.00	$ 8,500.00	$ 10,200.00
4	Foundations & Anchor Bolts	1	$ 850.00	$ 850.00	$ 1,200.00	$ 2,050.00	$ 2,460.00
5	4" - # 53 Limestone - CuYds	3	$ 8.95	$ 26.85	$ 10.50	$ 37.35	$ 44.82
6	2" - # 73 Limestone - CuYds	3	$ 10.25	$ 30.75	$ 10.50	$ 41.25	$ 49.50
7	667/747 kVA 3-phase Voltage Regulator	1	$ 55,746.00	$ 55,746.00	$ 18,840.00	$ 74,586.00	$ 89,503.20
8	636kcm AAConductor, Fittings, Terminals, Clamps & Hardware (LF)	220	$ 5.59	$ 1,229.80	$ 770.00	$ 1,999.80	$ 2,399.76
9							
10	**Substation Construction Sub-totals**			$ 57,883.40	$ 29,331.00	$ 87,214.40	**$ 104,657.28**
11							
12							
13			6.0%	Design	$ 6,279		
14			4.0%	Const. Mgmt.	$ 4,186		
15			5.0%	T&C	$ 5,233		
16							
17						**Substation Engineering Design Services**	**$ 15,699**
18	Note: Dollars are estimated from 2016.						
19						**5) Installation of Voltage Regulators - 5c West Side Sub Feeder 3**	**$ 120,356.00**

1	**5) Installation of Voltage Regulators - 5d West Side Sub Feeder 4**						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Site Preparation	1			$ 8,500.00	$ 8,500.00	$ 10,200.00
4	Foundations & Anchor Bolts	1	$ 850.00	$ 850.00	$ 1,200.00	$ 2,050.00	$ 2,460.00
5	4" - # 53 Limestone - CuYds	3	$ 8.95	$ 26.85	$ 10.50	$ 37.35	$ 44.82
6	2" - # 73 Limestone - CuYds	3	$ 10.25	$ 30.75	$ 10.50	$ 41.25	$ 49.50
7	667/747 kVA 3-phase Voltage Regulator	1	$ 55,746.00	$ 55,746.00	$ 18,840.00	$ 74,586.00	$ 89,503.20
8	636kcm AAConductor, Fittings, Terminals, Clamps & Hardware (LF)	220	$ 5.59	$ 1,229.80	$ 770.00	$ 1,999.80	$ 2,399.76
9							
10	**Substation Construction Sub-totals**			$ 57,883.40	$ 29,331.00	$ 87,214.40	**$ 104,657.28**
11							
12							
13			6.0%	Design	$ 6,279		
14			4.0%	Const. Mgmt.	$ 4,186		
15			5.0%	T&C	$ 5,233		
16							
17						**Substation Engineering Design Services**	**$ 15,699**
18	Note: Dollars are estimated from 2016.						
19						**5) Installation of Voltage Regulators - 5d West Side Sub Feeder 4**	**$ 120,356.00**

UTILITY TRUCK EQUIPMENT, INC.
P.O. BOX 130
23893 U.S. 23 SOUTH
CIRCLEVILLE OH 43113

SALES / SERVICE / RENTALS

Telephone 740-474-5151

Fax 740-474-4402

May 23, 2016

Steve Miller
Superintendent
Frankfort City Light and Power
1000 Washington Ave, PO Box 458
Frankfort, IN 46041

Dear Mr. Miller:

At the request of Mick Wilson, I wish to submit budgetary pricing for a new Versalift VST47 bucket truck similar to the one you took delivery of in October of 2013.

The truck delivered in 2013 (Job #2752) was invoiced at $152,325.00. Average price increases on our state government contracts have been averaging around 2 to 4% per year. For budgetary purposes, I project a new sale price of $167,575.00 to replicate that order later this year as a conservative estimate.

Please let me know if you have any questions. Thank you for the opportunity.

Sincerely,

John Mattix

John Mattix
Vice President
Utility Truck Equipment, Inc.

FRANFORT CITY LIGHT AND POWER VEHICLE LIST 2015

VEHICLE #	YEAR	MAKE	MODEL	VIN #	PLATE #	PRICE PAID	MILEAGE	COMMENTS ON CONDITION
IT-1	2005	FORD	500	1FAP23105G161653	69076	$20,325.00	80,125	FAIR, NEEDS NEW TIRES, NEEDS A/C REPAIRED
RADIO	2011	MOTOROLA	ID# 1237001	475TMC0579		$1,135.00		
IT-2	2011	FORD	ESCAPE	1FMCUOD77BKC61623	5385		18,334	GOOD
RADIO	2011	MOTOROLA	ID# 1237003	475TMC0582		$1,062.00		
2-0	2016	FORD	ESCAPE SE	1FMCU0GXXGU29790		$23,070.00	0	NEW
RADIO	2016	MOTOROLA		203TRZ1347		$1,135.00		
2-1	2016	FORD	ESCAPE SE	1FMCU0GX3GUC29789		$23,070.00	0	NEW
RADIO	2011	MOTOROLA	ID# 1237005	475TMC0585		$1,135.00		
2-2	2002	IH	4400	1HTMKADR42H514079	4207		32,357	GOOD
TOWER	2002	MTI	T5LOAH	89670203				GOOD
LINE BODY	2002	MBC	LB190 M 5818H	02-18721				GOOD
RADIO	2011	MOTOROLA	ID# 1237004	475TMC0584		$1,135.00		GOOD
2-3	2011	FORD	ESCAPE	1FMCUODG1BKA21113	5387		24,055	GOOD
RADIO	2011	MOTOROLA	ID# 1237002	475TMC0580		$1,135.00		
2-4	1990	FORD	F350 4X4	2FDKF38M7MCA16299	4201		106,707	TWENTY THREE YEARS OLD, CLUTCH SLIPS
RADIO	2011	MOTOROLA	ID# 1237006	475TMC0586		$1,135.00		WHEN HOT, NEEDS TO BE REPLACED
UTILITY BODY	1991	MO-LO	FIBERGLASS BODY	725				POOR, BED FLOOR IS RUSTED OUT
2-4A	1990	FORD	F250	1FTHF25H8LLA24948	4230		111,664	POOR NEEDS TO BE REPLACED, ENGINE RUNS ROUGH,
RADIO	2011	MOTOROLA	ID# 1237007	475TMC0587		$1,135.00		TRANSMISSION SLIPS, BODY IS RUSTED OUT
2-5	2011	FORD	RANGER XLT 4X4	1FTLR4FE9BPA59099	5390		30,238	GOOD
RADIO	2011	MOTOROLA	ID# 1237008	475TMC0588		$1,135.00		
2-6	2012	DODGE	5500	3C7WDNBL1CG300104	17418	$131,575.00	15,643	GOOD
RADIO	2011	MOTOROLA	ID# 1237009	475TMC0589		$1,135.00		
TOWER	2012	VERSALIFT	VST-40	KW120160				GOOD
UTILITY BODY	2012	BRANDFX		SER. 12-37648				GOOD
2-7	1997	GMC	SONOMA S14	1GTCS14X7VK517957	4470		128000	POOR, HIGH MILEAGE,FIFTEEN YEARS OLD, NEEDS TO BE
RADIO	2011	MOTOROLA	ID# 1237010	475TME1103		$1,135.00		REPLACED
2-8	2002	IH	4400	1HTMKADR62H514081	4206		17,720	GOOD
DIGGER DERRICK	2002	ALTEC	947	0102BA3311				GOOD
UTILITY BODY	2002	ALTEC	FLAT BED	04\02 47-25794				GOOD
TRANSVERSE BOX	2002	KNAPHEIDE	KP-9442 46	16008				GOOD
RADIO	2011	MOTOROLA	ID# 1237011	475TME1104		$1,135.00		GOOD
2-9	1994	FORD	F350 4X4	1FDKF38MXRNB00280	4254		94	POOR, TWENTY YEARS OLD. NEEDS TO BE REPLACED
UTILITY BODY	1994	NORTHWEST	131	976 9 38				GOOD
RADIO	2011	MOTOROLA	ID# 1237012	475TME1116		$1,135.00		GOOD
2-10	2000	IH	4900	1HTSDADR5YH215241	4496		33,705	

FRANFORT CITY LIGHT AND POWER VEHICLE LIST 2015

								SCHEDULE.
DIGGER DERRICK	2000	ALTEC	D2050-TR	0300AY0577				GOOD
UTILITY BODY	2000	ALTEC	ALUM. FLATBED	06/00 47-23646				GOOD
TRANSVERSE BOX	2000	STEEL&ALUM.PROD.	T-PLAT	20463				GOOD
RADIO	2011	MOTOROLA	ID# 1237013	475TME1117		$1,135.00		GOOD
2-11	1995	IH	4900	1HTSDAAN3SH645374	4181		46,436	FAIR
AERIAL TOWER	1995	TECO	S5-5013P-4TFS1	56649408				WAS SENT IN AND HAD A MAJOR OVERHAUL PREFORMED
								IN DECEMBER 2009. THIS VEHICLE STILL NEEDS TO BE
								REPLACED
TRANSVERSE BOX	1995	MONROE						GOOD
RADIO	2011	MOTOROLA	ID# 1237014	475TME1118		$1,135.00		GOOD
2-12	2004	FORD	RANGER	1FTYR15E94PB51399	4365	$16,545.00	130,232	GOOD
RADIO	2011	MOTOROLA	ID# 1237015	475TME1119				GOOD
2-14	2000	FORD	F450 4X4	1FDXF47F0YED66338	4510		70,100	GOOD,
UTILITY BODY	1990	CASS	84 FIBERGLASS	10890				GOOD
RADIO	2011	MOTOROLA	1237016	475TME1120		$1,135.00		GOOD
2-15	2013	DODGE	5500	3C7WRNBL9DG588151	21681		1,100	NEW
RADIO	2011	MOTOROLA	ID# 1237033	475TMG0104		$1,135.00		
2-16	2004	FORD	RANGER	1FTYR15E74PB51398	4198	$16,545.00	110,424	FAIR
RADIO	2011	MOTOROLA	1237017	475TME1158		$1,135.00		GOOD
2-17	2000	IH	4900	1HTSDADR7YH215242	4495		37,892	GOOD
TOWER	2000	MTI	V6A 65IP	76829911				GOOD
UTILITY BODY	2000	STAHL		499-001357				GOOD
RADIO	2011	MOTOROLA	ID# 1237018	475TME1159		$1,135.00		GOOD
2-18	1999	IH	4900	1HTSDADN9XH654986	4185		53,898	FAIR
								SHOULD BE REPLACED DUE TO AGE
TOWER	1999	TECO VANGUARD	V5A-551P	4TFE2 74249808				GOOD
UTILITY BODY	1999	STAHL	SPL418A2	48-1530				GOOD
RADIO	2011	MOTOROLA	ID# 1237019	475TME1160		$1,135.00		GOOD
2-19	2002	IH	4400	1HTMKADR82H514080	4204		51,168	GOOD, THIS UNIT STARTS TO BOUNCE WHEN DRIVING
								BETWEEN 45-60 MPH
TOWER	2002	MTI	V5A-55IP-4TFE2	89680203				GOOD
UTILITY BODY	2002	MONROE	LB190M5818H	02-18719				GOOD
RADIO	2011	MOTOROLA	ID# 1237020	475TME1161		$1,135.00		GOOD
S-1	2011	FORD	RANGER XLT 4X4	1FTLR4FE4BPA86517	6958	$19,261.00	22,938	GOOD

1	7) Re-conductor Distribution Circuits						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Pole, Wood SYP 50-3	18	$ 290.50	$ 5,229.00	$ 7,479.00	$ 12,708.00	$ 15,249.60
4	Crossarm, Fiberglass PUPI D.E. Arm	18	$ 221.90	$ 3,994.20	$ 8,325.00	$ 12,319.20	$ 14,783.04
5	Insulator, Polymer Suspension	54	$ 9.50	$ 513.00	$ 13,527.00	$ 14,040.00	$ 16,848.00
6	Wire, Bare ACSR 477	19154	$ 0.63	$ 12,067.02	$ 149,286.28	$ 161,353.30	$ 193,623.96
7	Misc. Hardware and accessories	36	$ 1,121.00	$ 40,356.00	$ 11,502.00	$ 51,858.00	$ 62,229.60
8	Removal and disposal	36	$ 74.58	$ 2,684.88	$ 13,697.64	$ 16,382.52	$ 19,659.02
9							
10	**Substation Construction Sub-totals**			$ 64,844.10	$ 203,816.92	$ 268,661.02	**$ 322,393.22**
11							
12							
13			8.4%	Design	$ 27,081		
14			3.5%	Const. Mgmt.	$ 11,245		
15							
16							
17						**Substation Engineering Design Services**	**$ 38,326**
18	Note: Dollars are estimated from 2016.						
19						**7) Re-conductor Distribution Circuits**	**$ 360,719.00**

8) New Substation							
	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost w/ 20% contingency
Foundations, Excavation and Fencing	200'x200' Substation Site - Survey and Soil Borings	1			$ 8,000.00	$ 8,000.00	$ 9,600.00
	Site Preparation & Drainage	1			$ 30,000.00	$ 30,000.00	$ 36,000.00
	Hauling - Tri-Axle CuYds off site	200	$ 6.00	$ 1,200.00	$ 800.00	$ 2,000.00	$ 2,400.00
	6,000 Gal. Oil Containment Tank and accessories	1	$ 22,000.00	$ 22,000.00	$ 6,500.00	$ 28,500.00	$ 34,200.00
	#4/0 Cu. Ground Grid @ 20'square	5000	$ 10.00	$ 50,000.00	$ 10,000.00	$ 60,000.00	$ 72,000.00
	INDOT "B" Borrow - Compacted	150	$ 10.00	$ 1,500.00	$ 900.00	$ 2,400.00	$ 2,880.00
	Below Grade Conduits, 2" DB - PVC per foot	1000	$ 10.00	$ 10,000.00	$ 5,000.00	$ 15,000.00	$ 18,000.00
	Foundations & Anchor Bolts	19	$ 3,000.00	$ 57,000.00	$ 57,000.00	$ 114,000.00	$ 136,800.00
	Geotextile Fabric	4500	$ 2.00	$ 9,000.00	$ 2,250.00	$ 11,250.00	$ 13,500.00
	12" - # 2 Limestone in Transformer Foundation - CuYds	60	$ 19.00	$ 1,140.00	$ 360.00	$ 1,500.00	$ 1,800.00
	3" - # 53 Limestone - CuYds	315	$ 19.00	$ 5,985.00	$ 1,890.00	$ 7,875.00	$ 9,450.00
	3" - # 73 Limestone - CuYds	315	$ 19.00	$ 5,985.00	$ 1,890.00	$ 7,875.00	$ 9,450.00
	7' Chain Link Perimeter Fencing	900	$ 23.00	$ 20,700.00	$ 6,750.00	$ 27,450.00	$ 32,940.00
	Foundations, Excavation, and Fencing Sub-total			$ 184,510.00	$ 131,340.00	$ 315,850.00	$ 379,020.00
Incoming to XFMR	Intermediate Surge Arrester	3	$ 2,000.00	$ 6,000.00	$ 1,650.00	$ 7,650.00	$ 9,180.00
	69kV Potential Transformers	3	$ 4,500.00	$ 13,500.00	$ 1,500.00	$ 15,000 00	$ 18,000.00
	69kV, 1200A., 60Hz, Power Circuit Breaker	2	$ 39,000.00	$ 78,000.00	$ 5,000.00	$ 83,000.00	$ 99,600.00
	2-1/2" Sch.40 6063-T6 Al.Tube Bus and Fittings	200	$ 14.00	$ 2,800.00	$ 800.00	$ 3,600.00	$ 4,320.00
	Outdoor Lighting	3	$ 400.00	$ 1,200.00	$ 150.00	$ 1,350.00	$ 1,620.00
	336kcm ACSR Conductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	300	$ 6.00	$ 1,800.00	$ 1,050.00	$ 2,850.00	$ 3,420.00
	70' Class 1 Douglas Fir Pole (Static)	1	$ 3,500.00	$ 3,500.00	$ 1,712.00	$ 5,212.00	$ 6,254.40
	3- # 7 AW Static Wire & Hardware	200	$ 5.00	$ 1,000.00	$ 200.00	$ 1,200.00	$ 1,440.00
	Incoming to XFMR Sub-total			$ 107,800.00	$ 12,062 00	$ 119,862.00	$ 143,834.40
HV XFMR and Conn.	20/26.7/33.3 MVA Xfmr 69-13.28kV	2	$ 498,650.00	$ 997,300.00	$ 22,500.00	$ 1,019,800.00	$ 1,223,760.00
	Low Profile Galv. Steel Structures	2	$ 12,350.00	$ 24,700.00	$ 5,500.00	$ 30,200.00	$ 36,240.00
	69kV Station Post Insulators	6	$ 300.00	$ 1,800.00	$ 900.00	$ 2,700.00	$ 3,240.00
	2-1/2" Sch.40 6063-T6 Al.Tube Bus and Fittings	0	$ 14.00	$ -	$ -	$ -	$ -
	336kcm ACSR Conductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	350	$ 6.00	$ 2,100.00	$ 1,400.00	$ 3,500.00	$ 4,200.00
	XFMR and Connections Sub-total			$ 1,025,900.00	$ 30,300.00	$ 1,056,200.00	$ 1,267,440.00
15 kV Bus and Equipment Sub-total	15kV Circuit Breakers	9	$ 21,500.00	$ 193,500.00	$ -	$ 193,500.00	$ 232,200.00
	15kV, 1200A GOAB Switch w/ Loadbreak interruptor (Main Bkr Bypass)	1	$ 9,000.00	$ 9,000.00	$ 1,000.00	$ 10,000 00	$ 12,000.00
	Aluminum Box Structure for 12.47kV Main and Feeders	1	$ 53 445.00	$ 53,445.00	$ 8,000.00	$ 61,445.00	$ 73,734.00
	Aluminum Feeder Riser Stands	3	$ 1,000.00	$ 3,000.00	$ 1,500.00	$ 4,500.00	$ 5,400.00
	110kV BIL Station Post Insulators	27	$ 120.00	$ 3,240.00	$ 4,050.00	$ 7,290.00	$ 8,748.00
	2-1/2" Sch.40 6063-T6 Al.Tube Bus and Fittings	60	$ 28 50	$ 1,710.00	$ 240.00	$ 1,950.00	$ 2,340.00
	4"x 4"x1/4" U A.B.C. Alum. Angle Bus	900	$ 28.50	$ 25,650 00	$ 3 600.00	$ 29,250.00	$ 35,100.00
	500kcm AAConductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	500	$ 6.00	$ 3,000.00	$ 2,000.00	$ 5,000.00	$ 6,000.00
	10kV Riser Class Arresters	12	$ 220 00	$ 2,640.00	$ 1,800.00	$ 4,440.00	$ 5,328.00
	Equipment Installation (Bkrs, Regulators, Misc)	1			$ 30,000.00	$ 30,000.00	$ 36,000 00
	Control Wiring	1	$ 12,860.00	$ 12,860.00	$ 20,000.00	$ 32,860.00	$ 39,432 00
	12.47kV XFMRS, 50kVA	2	$ 1,250.00	$ 2,500.00	$ 1,000.00	$ 3,500 00	$ 4,200.00
	Underground Duct Banks - 6" PVC, per conduit, per foot	750	$ 17.00	$ 12,750 00	$ 15,000.00	$ 27,750 00	$ 33,300.00
	750kcmil 15kV Terminations	24	$ 160.00	$ 3,840.00	$ 14,400.00	$ 18,240.00	$ 21,888.00
	4/0 Cu Neutral Conductor in 15kV ckts.	725	$ 4.00	$ 2,900.00	$ 725.00	$ 3,625.00	$ 4,350.00
	750 kcmil, 15 kV cu conductor	2112	$ 15.00	$ 31,680.00	$ 21,120.00	$ 52,800.00	$ 63,360.00
	NEMA 3-R Junction Boxes w/htrs	10	$ 500.00	$ 5,000.00	$ 600.00	$ 5,600.00	$ 6,720.00
	15 kV Bus and Equipment Sub-total			$ 366,715.00	$ 125,035.00	$ 491,750.00	$ 590,100.00
Control Building and Equipment	Control Building	1	$ 21,250.00	$ 21,250.00	$ 5,000.00	$ 26,250.00	$ 31,500.00
	Station Service - 225A, 120/240V.	1	$ 2,150.00	$ 2,150.00	$ 1,100.00	$ 3,250.00	$ 3,900.00
	30A., 130VDC Battery Charger	1	$ 5,670.00	$ 5,670.00	$ 1,000.00	$ 6,670.00	$ 8,004.00
	125AH, 130V Station Battery	1	$ 21,450.00	$ 21,450.00	$ 2,500.00	$ 23,950.00	$ 28,740.00
	130VDC Distribution Cabinet	0	$ 800.00	$ -	$ -	$ -	$ -
	Wire, Cables, Terminals & Labels	0	$ 4.00	$ -	$ -	$ -	$ -
	Locks & Signage	1	$ 900.00	$ 900.00	$ -	$ 900.00	$ 1,080.00
	Control building and Equipment Sub-total			$ 51,420.00	$ 9,600.00	$ 61,020.00	$ 73,224.00
	Substation Construction Sub-total			$ 1,736,345.00	$ 308,337.00		$ 2,453,618.40
	Substation Engineering Design Services		$ 191,382				
	Substation Engineering Design	5.3%	$ 130,042				
	Construction Management	1.3%	$ 31,897				
	Testing and Commissioning	1.2%	$ 29,443				
	Project 8 New Substation Project Budget						$ 2,645,000.64

9) West Side Substation Upgrades

	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost w/ 20% contingency
	Site Preparation & Drainage	1			$ 12,850.00	$ 12,850.00	$ 15,420.00
	Hauling - Tri-Axle CuYds off site	80	$ 6.00	$ 480.00	$ 320.00	$ 800.00	$ 960.00
	#4/0 Cu. Ground Grid @ 20'square	340	$ 10.00	$ 3,400.00	$ 680.00	$ 4,080.00	$ 4,896.00
	INDOT "B" Borrow - Compacted	10	$ 10.00	$ 100.00	$ 60.00	$ 160.00	$ 192.00
	Below Grade Conduits, 2" DB - PVC per foot	210	$ 10.00	$ 2,100.00	$ 1,050.00	$ 3,150.00	$ 3,780.00
	Foundations & Anchor Bolts	4	$ 3,000.00	$ 12,000.00	$ 12,000.00	$ 24,000.00	$ 28,800.00
	Geotextile Fabric	430	$ 2.00	$ 860.00	$ 215.00	$ 1,075.00	$ 1,290.00
	12" - # 2 Limestone in Transformer Foundation - CuYds	8	$ 19.00	$ 152.00	$ 48.00	$ 200.00	$ 240.00
	3" - # 53 Limestone - CuYds	20	$ 19.00	$ 380.00	$ 120.00	$ 500.00	$ 600.00
	3" - # 73 Limestone - CuYds	20	$ 19.00	$ 380.00	$ 120.00	$ 500.00	$ 600.00
	Foundations, Excavation, and Fencing Sub-total			$ 19,852.00	$ 27,463.00	$ 47,315.00	$ 56,778.00
Incoming to XFMR	Intermediate Surge Arrester	3	$ 2,000.00	$ 6,000.00	$ 1,650.00	$ 7,650.00	$ 9,180.00
	69kV Potential Transformers	3	$ 4,500.00	$ 13,500.00	$ 1,500.00	$ 15,000.00	$ 18,000.00
	69kV, 1200A , 60Hz, Power Circuit Breaker	2	$ 39,000.00	$ 78,000.00	$ 5,000.00	$ 83,000.00	$ 99,600.00
	2-1/2" Sch 40 6063-T6 Al Tube Bus and Fittings	180	$ 14.00	$ 2,520.00	$ 720.00	$ 3,240.00	$ 3,888.00
	Outdoor Lighting	2	$ 400.00	$ 800.00	$ 100.00	$ 900.00	$ 1,080.00
	336kcm ACSR Conductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	425	$ 6.00	$ 2,550.00	$ 1,487.50	$ 4,037.50	$ 4,845.00
	3- # 7 AW Static Wire & Hardware	30	$ 5.00	$ 150.00	$ 30.00	$ 180.00	$ 216.00
	Incoming to XFMR Sub-total			$ 103,520.00	$ 10,487.50	$ 114,007.50	$ 136,809.00
HV XFMR and Conn.	20/26 7/33 3 MVA Xfmr 69-13.28kV	2	$ 498,650.00	$ 997,300.00	$ 22,500.00	$ 1,019,800.00	$ 1,223,760.00
	69kV Station Post Insulators	6	$ 300.00	$ 1,800.00	$ 900.00	$ 2,700.00	$ 3,240.00
	2-1/2" Sch 40 6063-T6 Al.Tube Bus and Fittings	8	$ 13.52	$ 108.16	$ 32.00	$ 140.16	$ 168.19
	336kcm ACSR Conductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	280	$ 6.00	$ 1,680.00	$ 1,120.00	$ 2,800.00	$ 3,360.00
	XFMR and Connections Sub-total			$ 1,000,888.16	$ 24,552.00	$ 1,025,440.16	$ 1,230,528.19
15 kV Bus and Equipment Sub-total	15kV Circuit Breakers	9	$ 21,500.00	$ 193,500.00	$ -	$ 193,500.00	$ 232,200.00
	15kV, 1200A GOAB Switch w/ Loadbreak interruptor (Main Bkr Bypass)	1	$ 9,000.00	$ 9,000.00	$ 1,000.00	$ 10,000.00	$ 12,000.00
	Aluminum Box Structure for 12.47kV Main and Feeders	1	$ 53,445.00	$ 53,445.00	$ 8,000.00	$ 61,445.00	$ 73,734.00
	Aluminum Feeder Riser Stands	3	$ 1,000.00	$ 3,000.00	$ 1,500.00	$ 4,500.00	$ 5,400.00
	110kV BIL Station Post Insulators	30	$ 120.00	$ 3,600.00	$ 4,500.00	$ 8,100.00	$ 9,720.00
	2-1/2" Sch 40 6063-T6 Al.Tube Bus and Fittings	85	$ 28.50	$ 2,422.50	$ 340.00	$ 2,762.50	$ 3,315.00
	4"x 4"x1/4" U.A.B.C. Alum. Angle Bus	880	$ 28.50	$ 25,080.00	$ 3,520.00	$ 28,600.00	$ 34,320.00
	500kcm AAConductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	515	$ 6.00	$ 3,090.00	$ 2,060.00	$ 5,150.00	$ 6,180.00
	10kV Riser Class Arresters	12	$ 220.00	$ 2,640.00	$ 1,800.00	$ 4,440.00	$ 5,328.00
	Equipment Installation (Bkrs, Regulators, Misc)	1			$ 30,000.00	$ 30,000.00	$ 36,000.00
	Control Wiring	1	$ 12,860.00	$ 12,860.00	$ 20,000.00	$ 32,860.00	$ 39,432.00
	12.47kV XFMRS, 50kVA	2	$ 1,250.00	$ 2,500.00	$ 1,000.00	$ 3,500.00	$ 4,200.00
	Underground Duct Banks - 6" PVC, per conduit, per foot	380	$ 17.00	$ 6,460.00	$ 7,600.00	$ 14,060.00	$ 16,872.00
	750kcmil 15kV Terminations	23	$ 160.00	$ 3,680.00	$ 13,800.00	$ 17,480.00	$ 20,976.00
	4/0 Cu Neutral Conductor in 15kV ckts.	540	$ 4.58	$ 2,473.20	$ 540.00	$ 3,013.20	$ 3,615.84
	750 kcmil, 15 kV cu conductor	1640	$ 15.00	$ 24,600.00	$ 16,400.00	$ 41,000.00	$ 49,200.00
	NEMA 3-R Junction Boxes w/htrs	6	$ 500.00	$ 3,000.00	$ 360.00	$ 3,360.00	$ 4,032.00
	15 kV Bus and Equipment Sub-total			$ 351,350.70	$ 112,420.00	$ 463,770.70	$ 556,524.84
Control Building and Equipment	Control Building	1	$ 21,250.00	$ 21,250.00	$ 5,000.00	$ 26,250.00	$ 31,500.00
	Station Service - 225A, 120/240V.	1	$ 2,150.00	$ 2,150.00	$ 1,100.00	$ 3,250.00	$ 3,900.00
	30A., 130VDC Battery Charger	1	$ 5,670.00	$ 5,670.00	$ 1,000.00	$ 6,670.00	$ 8,004.00
	125AH 130V Station Battery	1	$ 21,450.00	$ 21,450.00	$ 2,500.00	$ 23,950.00	$ 28,740.00
	Locks & Signage	1	$ 900.00	$ 900.00	$ -	$ 900.00	$ 1,080.00
	Control building and Equipment Sub-total			$ 51,420.00	$ 9,600.00	$ 61,020.00	$ 73,224.00
	Substation Construction Sub-total			$ 1,527,030.86	$ 184,522.50		$ 2,053,864.03
	Substation Engineering Design Services		$ 211,548				
	Substation Engineering Design	7.0%	$ 143,770				
	Construction Management	1.5%	$ 30,808				
	Testing and Commissioning	1.8%	$ 36,970				
				9) West Side Substation Upgrades Project Budget			$ 2,265,412.03

1	10) West Side Substation Maintenance						
2						Estimated	
3	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material	Project Cost
4						Labor Cost	(includes 20% contingency)
5	Clean/Inspect all insulators and terminations	1	$ 3,580.00		$ 3,580.00	$ 3,580.00	$ 4,296.00
6	Functionally test transformer to OEM specifications	1	$ 2,870.00		$ 2,870.00	$ 2,870.00	$ 3,444.00
7	Functionally test breakers to OEM specifications	1	$ 1,530.00		$ 1,530.00	$ 1,530.00	$ 1,836.00
8	Functionally test CT, PT, CCVT to OEM specifications	1	$ 2,148.00		$ 2,148.00	$ 2,148.00	$ 2,577.60
9	Functionally test arrestors to OEM specifications	1	$ 1,750.00		$ 1,750.00	$ 1,750.00	$ 2,100.00
10	Functionally test switches to OEM specifications	1	$ 2,890.00		$ 2,890.00	$ 2,890.00	$ 3,468.00
11	Functionally test relays to settings and coordination	1	$ 13,450.00		$ 13,450.00	$ 13,450.00	$ 16,140.00
12	Functionally teststation batteries to OEM specifications	1	$ 2,150.00		$ 2,150.00	$ 2,150.00	$ 2,580.00
13	Compile and distribute report	1	$ 1,840.00		$ 1,840.00	$ 1,840.00	$ 2,208.00
14			$ -		$ -	$ -	$ -
15	Master Display Equipment Sub-total			$ -	$ 32,208.00	$ 32,208.00	$ 38,649.60
16							
17							
18							
19							
20							
21					10) West Side Substation M	Project Budget	$ 38,650

11) Burlington Substation Upgrades							
	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost w/ 20% contingency
	Site Preparation & Drainage	1			$ 10,350.00	$ 10,350.00	$ 12,420.00
	Hauling - Tri-Axle CuYds off site	12	$ 6.00	$ 72.00	$ 48.00	$ 120.00	$ 144.00
	#4/0 Cu. Ground Grid @ 20'square	19	$ 10.00	$ 190.00	$ 38.00	$ 228.00	$ 273.60
	INDOT "B" Borrow - Compacted	10	$ 10.00	$ 100.00	$ 60.00	$ 160.00	$ 192.00
	Below Grade Conduits, 2" DB - PVC per foot	94	$ 10.00	$ 940.00	$ 470.00	$ 1,410.00	$ 1,692.00
	Foundations & Anchor Bolts	1	$ 3,000.00	$ 3,000.00	$ 3,000.00	$ 6,000.00	$ 7,200.00
	Geotextile Fabric	125	$ 2.00	$ 250.00	$ 62.50	$ 312.50	$ 375.00
	12" - # 2 Limestone in Transformer Foundation - CuYds	2	$ 19.00	$ 38.00	$ 12.00	$ 50.00	$ 60.00
	3" - # 53 Limestone - CuYds	12	$ 19.00	$ 228.00	$ 72.00	$ 300.00	$ 360.00
	3" - # 73 Limestone - CuYds	12	$ 19.00	$ 228.00	$ 72.00	$ 300.00	$ 360.00
	Foundations, Excavation, and Fencing Sub-total			$ 5,046.00	$ 14,184.50	$ 19,230.50	$ 23,076.60
HV XFMR and Conn.	30/40/50 MVA Xfmr 69-13.28kV	1	$ 898,845.00	$ 898,845.00	$ 18,250.00	$ 917,095.00	$ 1,100,514.00
	69kV Station Post Insulators	6	$ 300.00	$ 1,800.00	$ 900.00	$ 2,700.00	$ 3,240.00
	2-1/2" Sch.40 6063-T6 Al.Tube Bus and Fittings	8	$ 13.52	$ 108.16	$ 32.00	$ 140.16	$ 168.19
	336kcm ACSR Conductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	480	$ 6.00	$ 2,880.00	$ 1,920.00	$ 4,800.00	$ 5,760.00
	XFMR and Connections Sub-total			$ 903,633.16	$ 21,102.00	$ 924,735.16	$ 1,109,682.19
15 kV Bus and Equipment Sub-total	15kV Circuit Breakers	5	$ 20,355.00	$ 101,775.00	$ -	$ 101,775.00	$ 122,130.00
	15kV, 1200A GOAB Switch w/ Loadbreak interruptor (Main Bkr Bypass)	1	$ 9,000.00	$ 9,000.00	$ 1,000.00	$ 10,000.00	$ 12,000.00
	500kcm AAConductor, Fittings, Terminals, Clamps & Hardware (Linear ft)	448	$ 6.00	$ 2,688.00	$ 1,792.00	$ 4,480.00	$ 5,376.00
	10kV Riser Class Arresters	9	$ 220.00	$ 1,980.00	$ 1,350.00	$ 3,330.00	$ 3,996.00
	Equipment Installation (Bkrs, Regulators, Misc)	1			$ 18,680.00	$ 18,680.00	$ 22,416.00
	Control Wiring	1	$ 9,860.00	$ 9,860.00	$ 12,890.00	$ 22,750.00	$ 27,300.00
	12.47kV XFMRS, 50kVA	1	$ 1,250.00	$ 1,250.00	$ 500.00	$ 1,750.00	$ 2,100.00
	Underground Duct Banks - 6" PVC, per conduit, per foot	48	$ 17.00	$ 816.00	$ 960.00	$ 1,776.00	$ 2,131.20
	750kcmil 15kV Terminations	24	$ 160.00	$ 3,840.00	$ 7,200.00	$ 11,040.00	$ 13,248.00
	4/0 Cu Neutral Conductor in 15kV ckts.	340	$ 4.58	$ 1,557.20	$ 340.00	$ 1,897.20	$ 2,276.64
	750 kcmil, 15 kV cu conductor	1020	$ 14.05	$ 14,331.00	$ 10,200.00	$ 24,531.00	$ 29,437.20
	NEMA 3-R Junction Boxes w/htrs	4	$ 500.00	$ 2,000.00	$ 240.00	$ 2,240.00	$ 2,688.00
	15 kV Bus and Equipment Sub-total			$ 149,097.20	$ 55,152.00	$ 204,249.20	$ 245,099.04
Control Building and Equipment	Control Building	1	$ 4,580.00	$ 4,580.00	$ 5,000.00	$ 9,580.00	$ 11,496.00
	Station Service - 225A, 120/240V.	1	$ 2,150.00	$ 2,150.00	$ 1,100.00	$ 3,250.00	$ 3,900.00
	30A , 130VDC Battery Charger	1	$ 5,670.00	$ 5,670.00	$ 1,000.00	$ 6,670.00	$ 8,004.00
	125AH, 130V Station Battery	1	$ 18,740.00	$ 18,740.00	$ 2,500.00	$ 21,240.00	$ 25,488.00
	Locks & Signage	1	$ 900.00	$ 900.00	$ -	$ 900.00	$ 1,080.00
	Control building and Equipment Sub-total			$ 32,040.00	$ 9,600.00	$ 41,640.00	$ 49,968.00
	Substation Construction Sub-total			$ 1,089,816.36	$ 100,038.50		$ 1,427,825.83
	Substation Engineering Design Services		$ 163,919				
	Substation Engineering Design	6.0%	$ 85,670				
	Construction Management	2.5%	$ 34,982				
	Testing and Commissioning	3.0%	$ 43,267				
				11) Burlington Substation Upgrades Project Budget			$ 1,591,744.52

1	12) Burlington Substation Maintenance						
2						Estimated	
3	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material	Project Cost
4						Labor Cost	(includes 20% contingency)
5	Clean/Inspect all insulators and terminations	1	$ 3,580.00		$ 3,580.00	$ 3,580.00	$ 4,296.00
6	Functionally test transformer to OEM specifications	1	$ 2,870.00		$ 2,870.00	$ 2,870.00	$ 3,444.00
7	Functionally test breakers to OEM specifications	1	$ 1,530.00		$ 1,530.00	$ 1,530.00	$ 1,836.00
8	Functionally test CT, PT, CCVT to OEM specifications	1	$ 2,148.00		$ 2,148.00	$ 2,148.00	$ 2,577.60
9	Functionally test arrestors to OEM specifications	1	$ 1,750.00		$ 1,750.00	$ 1,750.00	$ 2,100.00
10	Functionally test switches to OEM specifications	1	$ 2,890.00		$ 2,890.00	$ 2,890.00	$ 3,468.00
11	Functionally test relays to settings and coordination	1	$ 13,450.00		$ 13,450.00	$ 13,450.00	$ 16,140.00
12	Functionally teststation batteries to OEM specifications	1	$ 2,150.00		$ 2,150.00	$ 2,150.00	$ 2,580.00
13	Compile and distribute report	1	$ 1,840.00		$ 1,840.00	$ 1,840.00	$ 2,208.00
14			$ -		$ -	$ -	$ -
15	Master Display Equipment Sub-total			$ -	$ 32,208.00	$ 32,208.00	$ 38,649.60
16							
17							
18							
19							
20							
21					12) Burlington Substation M	Project Budget	$ 38,650

1	**13) Fairgrounds Substation Upgrades**						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Site Preparation Removal of existing equipment	1			$ 12,500.00	$ 12,500.00	$ 15,000.00
4	Foundations & Anchor Bolts	2	$ 850.00	$ 1,700.00	$ 1,200.00	$ 2,900.00	$ 3,480.00
5	4" - # 53 Limestone - CuYds	3	$ 8.67	$ 26.01	$ 9,001.50	$ 9,027.51	$ 10,833.01
6	2" - # 73 Limestone - CuYds	3	$ 9.75	$ 29.25	$ 9,001.50	$ 9,030.75	$ 10,836.90
7	69kV, 1200A., 60Hz, Power Circuit Breaker	1	$ 39,000.00	$ 39,000.00	$ 27,850.00	$ 66,850.00	$ 80,220.00
8	636kcm AAConductor, Fittings, Terminals, Clamps & Hardware (LF)	150	$ 4.89	$ 733.50	$ 4,575.00	$ 5,308.50	$ 6,370.20
9	Wire, Cables, Terminals & Labels	760	$ 14.78	$ 11,232.80	$ 7,980.00	$ 19,212.80	$ 23,055.36
10	Relay distribution rack	3	$ 3,660.00	$ 10,980.00	$ 9,001.50	$ 19,981.50	$ 23,977.80
11	SEL relays and comm processors	6	$ 4,560.00	$ 27,360.00	$ 1,803.00	$ 29,163.00	$ 34,995.60
12							
13	**Substation Construction Sub-totals**			$ 91,061.56	$ 82,912.50	$ 173,974.06	**$ 208,768.87**
14							
15							
16			7.0%	Design	$ 14,614		
17			4.0%	Const. Mgmt.	$ 8,351		
18			5.0%	T&C	$ 10,438		
19							
20						**Substation Engineering Design Services**	**$ 33,403**
21	Note: Dollars are estimated from 2016.						
22						**13) Fairgrounds Substation Upgrades**	**$ 242,172.00**

	14) GIS/Mapping System Upgrades						
1	14) GIS/Mapping System Upgrades						
2						Estimated	
3	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material	Project Cost
4						Labor Cost	(includes 20% contingency)
5	Dell Precision Tower 7000 Workstation	2	$ 2,049.00	$ 4,098.00	$ 625.00	$ 4,723.00	$ 5,667.60
6	Graphics Card (for hi resolution quad monitor)	2	$ 5,000.00	$ 10,000.00	$ 625.00	$ 10,625.00	$ 12,750.00
7	65" Samsung LED UHDTV FLAT Panel Display port capable	2	$ 3,000.00	$ 6,000.00	$ 625.00	$ 6,625.00	$ 7,950.00
8	Wire, Cables, Terminals & Labels	2	$ 81.00	$ 162.00	$ 625.00	$ 787.00	$ 944.40
9	HP servers/Lenox operating system/Oracle database	1	$ 15,380.00	$ 15,380.00	$ 8,345.00	$ 23,725.00	$ 28,470.00
10	Esri 10.2.2 reease level or above Advanced license certification w/set-up & training	2	$ 7,142.00	$ 14,284.00	$ 18,780.00	$ 33,064.00	$ 39,676.80
11	Ike 4 GPS mapping device w/ training	1	$ 6,890.00	$ 6,890.00	$ 8,400.00	$ 15,290.00	$ 18,348.00
12	System data collection	1	$ 78,840.00		$ 78,840.00	$ 78,840.00	$ 94,608.00
13			$ -	$ -	$ -	$ -	$ -
14			$ -	$ -	$ -	$ -	$ -
15	Master Display Equipment Sub-total			$ 56,814.00	$ 116,865.00	$ 173,679.00	$ 208,414.80
16							
17							
18							
19							
20							
21					14) GIS/Mapping System I	Project Budget	$ 208,415

	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Estimated Combined Material Labor Cost	Project Cost (includes 20% contingency)
1	15) Fairgrounds Substation Maintenance						
5	Clean/Inspect all insulators and terminations	1	$ 3,580.00		$ 3,580.00	$ 3,580.00	$ 4,296.00
6	Functionally test transformer to OEM specifications	1	$ 2,870.00		$ 2,870.00	$ 2,870.00	$ 3,444.00
7	Functionally test breakers to OEM specifications	1	$ 1,530.00		$ 1,530.00	$ 1,530.00	$ 1,836.00
8	Functionally test CT, PT, CCVT to OEM specifications	1	$ 2,148.00		$ 2,148.00	$ 2,148.00	$ 2,577.60
9	Functionally test arrestors to OEM specifications	1	$ 1,750.00		$ 1,750.00	$ 1,750.00	$ 2,100.00
10	Functionally test switches to OEM specifications	1	$ 2,890.00		$ 2,890.00	$ 2,890.00	$ 3,468.00
11	Functionally test relays to settings and coordination	1	$ 13,450.00		$ 13,450.00	$ 13,450.00	$ 16,140.00
12	Functionally teststation batteries to OEM specifications	1	$ 2,150.00		$ 2,150.00	$ 2,150.00	$ 2,580.00
13	Clean and Paint structures	1	$ 638.00		$ 638.00	$ 638.00	$ 765.60
14	Compile and distribute report	1	$ 1,840.00		$ 1,840.00	$ 1,840.00	$ 2,208.00
15			$ -		$ -	$ -	$ -
16	Master Display Equipment Sub-total			$ -	$ 32,846.00	$ 32,846.00	$ 39,415.20
17							
18							
19							
20							
21							
22				15) Fairgrounds Substation I		Project Budget	$ 39,415

1	16) S.R. 28 3-phase rebuild						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Pole, Wood SYP 50-3	46	$ 290.50	$ 13,363.00	$ 19,113.00	$ 32,476.00	$ 38,971.20
4	Crossarm, Fiberglass PUPI D.E. Arm	46	$ 221.90	$ 10,207.40	$ 21,275.00	$ 31,482.40	$ 37,778.88
5	Insulator, Polymer Suspension	138	$ 9.50	$ 1,311.00	$ 34,569.00	$ 35,880.00	$ 43,056.00
6	Wire, Bare ACSR 336 Merlin	30258	$ 0.63	$ 19,062.54	$ 221,912.17	$ 240,974.71	$ 289,169.65
7	Misc. Hardware and accessories	36	$ 1,121.00	$ 40,356.00	$ 11,466.00	$ 51,822.00	$ 62,186.40
8	Removal and disposal	36	$ 74.58	$ 2,684.88	$ 13,698.00	$ 16,382.88	$ 19,659.46
9							
10	**Substation Construction Sub-totals**			$ 86,984.82	$ 322,033.17	$ 409,017.99	**$ 490,821.59**
11							
12							
13			8.4%	Design	$ 41,229		
14			3.5%	Const. Mgmt.	$ 17,120		
15							
16							
17						**Substation Engineering Design Services**	**$ 58,349**
18	Note: Dollars are estimated from 2016.						
19						**16) S.R. 28 3-phase rebuild**	**$ 549,170.00**

1	17) AMI Pilot for Industrial Customers							
2		Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	NS-2001	Network Server Platform	1	$ 9,000.00	$ 9,000.00	$ 1,200.00	$ 10,200.00	$ 12,240.00
4	NSL-201	Software License for NS-2001	1	$ 15,000.00	$ 15,000.00	$ 1,200.00	$ 16,200.00	$ 19,440.00
5	RT-4101	IP Collector	2	$ 325.00	$ 650.00	$ 6,001.00	$ 6,651.00	$ 7,981.20
6	TR-1901	900Mhz LAN Repeater	2	$ 265.00	$ 530.00	$ 6,001.00	$ 6,531.00	$ 7,837.20
7	TC-1220	TPM Controller - GE meter	60	$ 335.00	$ 20,100.00	$ 27,850.00	$ 47,950.00	$ 57,540.00
8	SL-1000	Annual Tech Support Service Package	1	$ 4,006.00	$ 4,006.00	$ 30.50	$ 4,036.50	$ 4,843.80
9	SV-1000	Initial Project set-up and Training	1	$ 1,200.00		$ 1,200.00	$ 1,200.00	$ 1,440.00
10	GE	KV-2C 3 phase	60	$ 385.00	$ 23,100.00	$ 1,830.00	$ 24,930.00	$ 29,916.00
11								
12		**Construction Sub-totals**			$ 72,386.00	$ 45,312.50	$ 117,698.50	**$ 141,238.20**
13								
14								
15				7.5%	Design	$ 10,599		
16				12.0%	Const. Mgmt.	$ 16,949		
17								
18								
19							**Substation Engineering Design Services**	**$ 27,547**
20		Note: Dollars are estimated from 2016.						
21							**17) AMI Pilot for Industrial Customers**	**$ 168,785.00**

1	**18) Utility IT, Communications Upgrades to support AMI, SCADA and Operations**						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	RTU Installation	3	$ 6,500.00	$ 19,500.00	$ 1,200.00	$ 20,700.00	$ 24,840.00
4	Control Wiring	7	$ 3,285.00	$ 22,995.00	$ 1,100.00	$ 24,095.00	$ 28,914.00
5	Input blocks	12	$ 1,290.00	$ 15,480.00	$ 975.00	$ 16,455.00	$ 19,746.00
6	HMI Monitors	3	$ 2,850.00	$ 8,550.00	$ 1,255.00	$ 9,805.00	$ 11,766.00
7	48 count ADSS fiber ring connecting substations and utility office	95673	$ 0.74	$ 70,581.80	$ 186,562.35	$ 257,144.15	$ 308,572.98
8							
9	**Substation Construction Sub-totals**			$ 137,106.80	$ 191,092.35	$ 328,199.15	**$ 393,838.98**
10							
11							
12			7.0%	Design	$ 27,608		
13			3.5%	Const. Mgmt.	$ 13,784		
14			3.8%	T&C	$ 14,769		
15							
16	**Substation Engineering Design Services**						**$ 56,161**
17	Note: Dollars are estimated from 2016.						
18	**18) Utility IT, Communications Upgrades to support AMI, SCADA and Operations**						**$ 450,000**

1	19)Pole Replacements							
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 00% contingency)
3	Pole, Wood SYP 50-3	1	$ 290.50	$ 290.50		$ 290.50	$ 290.50
4							
5	**Substation Construction Sub-totals**			$ 290.50	$ -	$ 290.50	**$ 290.50**
6							
7	Poles per year	400	$ 290.50	$ 116,200.00			
8							
9	7 years of pole replacements	7	$ 116,200.00	$ 813,400.00			
10							
11							
12						**Substation Engineering Design Services**	**$ -**
13	Note: Dollars are estimated from 2016.						
14						**19)Pole Replacements**	**$ 813,400.00**

1	**20) S.R. 28 Road Widening Project 2018**						
2	Description	Quantity	Unit Cost	Material Cost	Labor Cost	Combined Material and Labor Cost	Project Cost (includes 20% contingency)
3	Pole, Wood SYP 50-3	73	$ 290.50	$ 21,206.50	$ 29,236.50	$ 50,443.00	$ 60,531.60
4	Pole, Wood SYP 40-3	77	$ 240.50	$ 18,518.50	$ 30,838.50	$ 49,357.00	$ 59,228.40
5	Crossarm, Fiberglass PUPI D.E. Arm	150	$ 221.90	$ 33,285.00	$ 67,575.00	$ 100,860.00	$ 121,032.00
6	Insulator, Polymer Suspension	304	$ 9.50	$ 2,888.00	$ 76,152.00	$ 79,040.00	$ 94,848.00
7	Wire, Bare ACSR 336 Merlin	52313	$ 0.63	$ 32,957.19	$ 392,347.50	$ 425,304.69	$ 510,365.63
8	Misc. Hardware and accessories	150	$ 1,121.00	$ 168,150.00	$ 47,775.00	$ 215,925.00	$ 259,110.00
9	Removal and disposal	154	$ 74.58	$ 11,485.32	$ 46,431.00	$ 57,916.32	$ 69,499.58
10							
11	**Substation Construction Sub-totals**			$ 288,490.51	$ 690,355.50	$ 978,846.01	**$ 1,174,615.21**
12							
13							
14			7.2%	Design	$ 84,572		
15			3.5%	Const. Mgmt.	$ 40,971		
16			8.5%	Easement/ROW	$ 99,842	$ 99,842.29	
17							
18						**Substation Engineering Design Services**	**$ 225,385**
19	Note: Dollars are estimated from 2016.						
20						**20) S.R. 28 Road Widening Project 2018**	**$ 1,400,000.00**