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# MISSOURI PUBLIC SERVICE COMMISSION UTILITY OPERATIONS DIVISION

STAFF CLASS COST-OF-SERVICE

**AND** 

RATE DESIGN REPORT

THE EMPIRE DISTRICT ELECTRIC COMPANY

**CASE NO. ER-2008-0093** 

Jefferson City, Missouri March 2008

Case No(s). FR - 2008-0093
Date 5-12-08 Rptr KF

**EXHIBIT** 

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STAFF CLASS COST OF SERVICE & RATE DESIGN REPORT

I. Staff Recommendation for Class Revenues

Neither Staff nor The Empire District Electric Company (EDE) performed a class

cost-of-service (CCOS) study in this case. The last CCOS study done was in Case No. ER-

2004-0570, using data from 2003. EDE's Regulatory Plan (Case No. EO-2005-0263,

Stipulation and Agreement, Section D.7.(c) and Appendix E) provides that EDE will develop

more current data and perform a Missouri jurisdictional customer class cost-of-service study

to be filed in its 2009 Rate Case filing. Staff intends to perform a CCOS study in that case

using more current data.

The Staff Accounting Schedules filed in conjunction with the Staff Cost of Service

(COS) Report determined that a \$30.4 million increase in total revenue requirement

(\$10,341,456, calculated at 8.51% midpoint return and \$20,073,215 in regulatory plan

amortizations) was appropriate. To recover this additional \$30.4 million, revenues will need

to increase by 9.26% (Schedule 1).

Since Staff believes the 2003 CCOS study is too old to use as a basis for

recommending shifts in class revenue responsibility in this case, we are recommending that

class revenues be adjusted on the basis of an equal percent of current rate revenues. Any

imputed revenues should be used in the determination of each class' share of current rate

revenues.

Staff Expert: Manisha Lakhanpal

II. Staff Rate Design Recommendations for Permanent Rates

A. Overview

Staff recommends that the following rates be excluded from any increase in this case:

(1) the 1.25% fixed charge rate applied to special and/or excess facilities (Rider XC); (2) the

level of interruptible credits (Rider IR, Schedule SC-P); and (3) other operating revenue such

as, reconnect fees, return check fees, etc.

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Staff proposes that all rate values for the Residential (RG), Commercial Buildings (CB), Small Heating (SH), Feed Mills & Grain Elevators (PFM), Traffic Signals (MS) and Lighting (PL, LS, SPL) rate schedules be increased by an equal percentage. A comparison current rate values with those that result from implementing Staff's 9.26% revenue increase to these rate schedules is presented on Schedule 2.

Later in this report, Staff is proposing that a number of rate design changes be made to the General Power (GP), Total Electric Buildings (TEB), Large Power (LP), Special Transmission Service (ST), and Special Contract-Praxair (SC-P) rate schedules prior to any class revenue increase resulting from this case being applied. These "re-designed" rates are presented on Schedule 3. That schedule also shows the rates that are consistent with both Staff's \$30.4 million overall proposed increase in revenue requirement and the Staff recommended class revenues shown on Schedule 1. These "proposed" rates have been computed by applying a uniform percentage increase of 9.26% to each of the re-designed rate values.

Staff Expert: Manisha Lakhanpal

# B. Rate Schedule Adjustments to Reflect Updated Losses

Management Applications Consulting Inc. performed a system loss study and presented the results in the "Empire District Electric Company 2005 Analysis of System Losses" dated March 2007. This loss study provides updated estimates of system losses for Empire's Missouri jurisdiction. It includes losses for the discrete voltage levels developed for use with metered sales data for Transmission, Primary Substation, Primary and Secondary voltages. In general, the reported losses represent a slight reduction from previously documented losses. A review of that loss study was made by Staff Engineer Alan J. Bax (see COS Report, pages 39 and 40).

When a customer is metered at a voltage level other than the standard tariff voltage level, an adjustment for losses is made to the customer's metered demand (kilowatts) and energy (kilowatt-hours) prior to billing. EDE provides service to demand-metered Missouri commercial and industrial customers under three general application rate schedules:

General Power-Schedule GP Large Power-Schedule LP Special Transmission Service-Schedule STS

Each of these rate schedules is designed for customers within a certain range of sizes (maximum demand) and load factors (constancy of load over time), and assumes certain voltage level (secondary, primary, transmission) characteristics. However, none of these characteristics are mandatory requirements; each commercial or industrial customer can choose to take service under the provisions of any general application rate schedule. Voltage level, in particular, does not determine a customer's eligibility for service under any specific rate schedule, even those with restricted availability, since each rate schedule contains provisions to treat customers with non-standard voltage configurations.

In addition to the three general application rate schedules, EDE offers service to customers on two rate schedules with restricted availability:

Total Electric Buildings-Schedule TEB Special Contract-Praxair-Schedule SC-P

TEB is the companion rate schedule to GP that is only available to all-electric customers. SC-Praxair is a companion rate schedule to STS that is only available to Praxair.

The table below summarizes the voltage options for current tariffs:

Rate Schedule	Type of Rate	Standard Delivery & Metering	Non-Standard Delivery Voltages	Non-Standard Metering Voltages
	Schedule	Voltage	Voltagos	Voltages
General Power (GP)	General Application	Secondary	Primary	Primary
Total Electric Buildings (TEB)	Restricted Availability	Secondary	Primary	Primary
Large Power (LP)	General Application	Primary	Secondary, Transmission	Secondary, Transmission
Special Contract - Praxair (SC-P)	Restricted Availability	Transmission	Transmission	Primary Substation
Special Transmission Service (ST)	General Application	Transmission	Transmission	Primary Substation

Staff recommends language changes to the Meter Adjustment sections of the tariff sheets for these rate schedules and replacing the existing factors with the updated adjustment factors. The proposed change in language will provide a clear and consistent method for adjusting metered demand and energy for each rate schedule that contains a Meter Adjustment. In each case, the new language states that the metered kilowatts and kilowatt-hours are increased (or decreased) by multiplying metered kilowatts and kilowatt-hours to reflect the results of Empire's most recent loss study. This results in correct losses being embedded in permanent rates and consistency with the losses embedded in the proposed fuel adjustment charges. The recommended metering adjustment factors are summarized below:

Rate Schedule	Voltage	Voltage	Recommended
	Level From:	Level To:	Factor
General Power	Primary	Secondary	0.9806
Large Power	Secondary	Primary	1.0198
Large Power	Transmission	Primary	0.9742
Special	Primary		
Transmission	Substation	Transmission	1.0086

The adjustment factor is significant to the fourth decimal place.

Staff Expert: David C. Roos

### C. Facilities Charge Recommendation

Staff is recommending implementation of a distribution facilities charge for the GP, TEB, and LP rate schedules in this case. (The existing STS and SC-P rate schedules already have such a charge.) A distribution facilities charge for these rate schedules will more equitably recover distribution facilities costs among customers within each class than the current (demand charge only) pricing scheme.

The characteristics of Staff's recommended distribution facilities charge are that it would:

- (1) Recover the costs of distribution facilities (substations; lines, poles & conductors; line transformers).
- (2) Reflect differences in equipment ownership among customers served on the same rate schedule; i.e., ownership (EDE vs. customer) of transformation facilities.
- (3) Not be seasonally differentiated; i.e., the summer rate would be the same as the winter rate.
- (4) Be billed on each customer's "facilities demand"; i.e., the highest of the billed demands in the current and eleven prior months (100% ratchet).

Further details can be found in Schedule 4.

The facilities charge would be billed on each customer's annual maximum demand to reflect the fact that EDE's investment in (cost of) distribution facilities for each customer is more related to the customer's size (maximum demand) than to when that maximum demand occurs (summer or winter) or how frequently it occurs. The recommended facilities charge also accounts for any rate discounts or adders necessary to reflect differences in what equipment is owned by the customer (delivery voltage).

Staff recommends that the facilities charge be in addition to, rather than a replacement for, the existing demand charge. The existing seasonally-differentiated demand charge structure will continue to recover those demand-related costs that vary by time of use.

The Staff initially proposed to implement a similar distribution facilities charge to EDE's GP, TEB, and LP rate schedules in Case No. ER-2004-0570. In a stipulation in that case, EDE agreed to the following:

"5. Empire agrees to pursue implementation of a Facilities Charge, as proposed by Staff, in conjunction with its next rate case. Empire will remedy any programming constraints and will provide the Staff with its evaluation of the impact of adopting a Facilities Charge on its customers at that time". [Nonunanimous Stipulation and Agreement Regarding Rate Design (December 16, 2004)]

Empire did not propose a facilities charge in its next rate case (Case No. ER-2006-0315) and did not propose a facilities charge in this case.

In that Staff does not have the detailed cost information necessary to design facilities charges that satisfy all of our requirements, we have taken a conservative approach to initiating this charge by understating what we anticipate the final cost-based rates will be. We have reduced demand charges to accommodate the revenues associated with the facilities charge and have continued the current level of rate discounts and rate adders. Customer and energy charges are maintained at current levels.

In summary, Staff's objective in this case is to, as a first step, implement a distribution facilities charge that is priced consistently with existing equipment ownership discounts and adders and with the revenues collected by the current demand charge, and to "fine-tune" these rates during EDE's 2009 Rate Case filing when better cost information is available.

Staff Expert: Curt Wells

# D. Proposed Rate Discounts and Rate Adders to Reflect Equipment Ownership

In many instances the customer provides the necessary equipment for delivery at a specific voltage even though existing EDE rate schedules assume that the Company provide service to each customer at a specific delivery voltage level. A series of discounts and adders to the demand charge account for situations where a customer's equipment results in a delivery voltage that differs from the rate schedule standard. Since the detailed cost information regarding equipment ownership necessary to determine the precise level of the delivery voltage adjustments is unavailable in this case, Staff is proposing that the current rate discounts and rate adders continue to be used: 25.8 cents per kW difference between secondary and primary delivery voltage; 36 cents per kW difference between transmission and primary substation voltages; and \$1.221 per kW discount between transmission and primary. These discounts and adders can be found under the headings Transformer Ownership, Substation Facilities Credit, and Substation Facilities in the current rate schedules, and are summarized in the following table.

	Standard	Non-Standard	Existing Rate	Proposed Rate	
Rate Schedule	Delivery	Delivery	Discount or	Discount or	
	Voltage	Voltage	Adder	_Adder	
General Power,	Secondary	Primary	25.8 cents per	25.8 cents per	
Total Electric			kW discount	kW discount	
Bldgs			}		
Large Power	Primary	Secondary	25.2 cents per	25.2 cents per	
			kW adder	kW adder	
Large Power	Primary	Transmission	\$1.221 per kW	\$1.221 per kW	
			discount	discount	
Special	Transmission	Primary	36 cents per	36 cents per	
Transmission		Substation	kW adder	kW adder	
Service, SC-					
Praxair					

Staff Expert: David C. Roos

#### E. Effect of Rate Design Changes on Tariff Language

Schedules 5-9 each illustrate what the first page of the proposed GP, TEB, LP, STS, and SC-P rate schedules would look like if all of Staff's recommended rate design changes for voltage levels (i.e., losses), equipment ownership and facilities charges were adopted.

The rates shown on these sheets represent the re-designed rate values prior to any increase that results from this case.

Staff Expert: David Roos

### F. Effect of Rate Design Changes on Billing Units

Staff's proposed rate design changes to losses have been incorporated into the billing units used to calculate Staff's proposed re-designed rates. Staff's billing units also include estimates of class facilities demand at various voltage levels. These units have been calculated from a mixture of individual customer billing data and aggregate billing unit data. Staff Experts: Curt Wells, David Roos, Manisha Lakhanpal

# III. Staff Rate Design Recommendations for a Fuel Adjustment Charge

Empire has proposed a Fuel Adjustment Clause (FAC), the rate design for which is very similar to the rate design which was approved by the Commission for Aquila, Inc. (Aquila) in Case No. ER-2007-0004. The notable exception is Empire proposes that the Recovery Periods should be periods of six months instead of twelve months as requested by and approved for Aquila by the Commission. The Staff has no objection to this proposal of Empire; except, the two Accumulation Periods should be: (1) the calendar months of September through February with a Recovery Period of the billing months of June through November and (2) the calendar months of March through August with a Recovery Period of the billing months of December through May. In each event, tariffs to implement the cost recovery would be filed two months in advance of the beginning of the Recovery Period. This will provide the Staff with at least 30 days to process the tariff schedules and submit its recommendation to the Commission and at least another 30 days for the Commission to act on the tariff filing. This timeline is consistent with the Commission's rule regarding Electric Utility Fuel and Purchased Power Cost Recovery Mechanisms (4 CSR 240-20.090 (5) (C)). These periods assume an August 28, 2008 effective date for the tariff sheets implementing the FAC. These periods would need to be adjusted accordingly if the tariff sheets are approved effective prior to August 1, 2008 or after August 31, 2008. Schedule 10 presents a graphical display of how these periods fit together.

The Staff's FAC rate design for Empire is different than that proposed by Empire, just as the FAC proposed by the Staff in Staff's February 22, 2008 COS Report is different than the FAC otherwise proposed by Empire in its direct case. First, the "base cost" of fue and purchased power energy should be determined on a seasonal basis. Second, differences in losses should be accounted for by adjusting the cost "at the generator" to the assumed metering voltage of each customer's rate schedule. Third, the true-up rate adjustments or refunds should include interest at Empire's short-term borrowing rate.

Determination of base cost of fuel and purchase power on a seasonal basis: Empire's rate schedules are designed to recover seasonal costs on a billing month basis. Under Staff' proposal, fuel and purchased power energy costs will also be recovered by billing month, as part of the standard billing process. The "summer" season is June through September and the "winter" season is October through May. The average cost of fuel and purchased power energy is significantly higher in the summer than in the winter. This difference should be reflected in the determination of whether Empire has over-collected or under-collected its fuel and purchased power energy costs during each six-month Accumulation Period. Otherwise, the over-collection or under-collection may be exaggerated and customers would be faced with bills that fluctuate more than need be. In some instances, without seasonal base costs, it would even be possible to calculate an under-collection amount to recover from customers when in fact Empire over-recovered its actual costs. These situations could be and should be avoided by seasonally differentiating the base costs. Thus, the total over-recovery or under-recovery in each Accumulation Period should be calculated by summing the differences between base and actual fuel costs on a (calendar) monthly basis.

Staff Expert: James C. Watkins

# THE EMPIRE DISTRICT ELECTRIC COMPANY - CASE NO. ER-2008-0093 STAFF RECOMMENDED CLASS REVENUES

Rate Schedule	Total Normalized	% share of	Share of Increased Revenue	Revenue After	% Increase in
· · ·	Revenue	Total Revenue	Requirement	Increase	Revenue
RG-Residential	\$148,696,085	45.29%	\$13,773,996	\$162,470,081	9.26%
CB-Commercial	\$32,166,253	9.80%	\$2,979,620	\$35,145,873	9.26%
SH-Small Heating	\$8,451,776	2.57%	\$782,904	\$9,234,680	9.26%
PFM-Feed Mill/Grain Elev	\$68,891	0.02%	\$6,381	\$75,272	9.26%
MS-Traffic Signals	\$65,640	0.02%	\$6,080	\$71,720	9.26%
GP-General Power	\$62,420,278	19.01%	\$5,782,107	\$68,202,385	9.26%
TEB-Total Electric Bldg	\$26,793,646	8.16%	\$2,481,945	\$29,275,592	9.26%
LP-Large Power	\$41,446,295	12.62%	\$3,839,248	\$45,285,543	9.26%
SC-P PRAXAIR Transmission	\$2,902,049	0.88%	\$268,822	\$3,170,871	9.26%
SPL-Municipal St Lighting	\$1,438,229	0.44%	\$133,226	\$1,571,455	9.26%
PL-Private Lighting	\$3,736,884	1.14%	\$346,155	\$4,083,038	9.26%
LS-Special Lighting	\$153,853	0.05%	\$14,252	\$168,105	9.26%
CP-Cogeneration Purchase	(\$698)	0.00%	(\$65)	(\$762)	9.26%
Total	\$328,339,181	100.00%	\$30,414,671	\$358,753,852	•

Manisha Lakhanpal Schedule 1

# THE EMPIRE DISTRICT ELECTRIC COMPANY - CASE NO. ER-2008-0093 CURRENT AND STAFF PROPOSED RATES- BY RATE SCHEDULE

VERING ALIME S	PERVICE (RG)
CURRENT	PROPOSED

# COMMERCIAL SERVICE (CB)

CUSTOMER CHARGE	CURRENT RATES \$10.35	PROPOSED RATES \$11.31	DIFFERE <u>(\$)</u> \$0.96	NCE (%) 9.26%	CUSTOMER CHARGE	CURRENT RATES \$14.60	PROPOSED RATES \$15.95	DIFFERE ( <u>\$)</u> \$1.35	NCE <u>(%)</u> 9.26%
ENERGY CHARGES SUMMER	•••••				ENERGY CHARGES SUMMER				
First 600 kWh	\$0.0888	\$0.0970	\$0.0082	9.26%	First 700 kWh	\$0.0987	\$0.1078	\$0.0091	9.26%
Over 600 kWh WINTER	\$0.0888	\$0.0970	\$0.0082	9.26%	Over 700 kWh WINTER	\$0.0987	\$0.1078	\$0.0091	9.26%
First 600 kWh Over 600 kWh	\$0.0888 \$0.0604	\$0.0970 \$0.0660	\$0.0082 \$0.0056	9.26% 9.26%	First 700 kWh Over 700 kWh	\$0.0987 \$0.0749	\$0.1078 \$0.0818	\$0.0091 \$0.0069	9.26% 9.26%

# SMALL HEATING SERVICE (SH)

### FEED MILL & GRAIN ELEVATOR (PFM)

CUSTOMER CHARGE	CURRENT RATES \$14.60	PROPOSED RATES \$15.95	DIFFE <u>(\$)</u> \$1.35	RENCE (%) 9.26%	CUSTOMER CHARGE	CURRENT <u>RATES</u> \$20.49	PROPOSED RATES \$22.39	DIFFE <u>(\$)</u> \$1.90	RENCE (%) 9.26%
ENERGY CHARGES SUMMER First 700 kWh Over 700 kWh WINTER	\$0.0983 \$0.0983	\$0.1074 \$0.1074	\$0.0091 \$0.0091	9.26% 9.26%	ENERGY CHARGES SUMMER First 700 kWh Over 700 kWh WINTER	\$0.1334 \$0.1334	\$0.1458 \$0.1458	\$0.0124 \$0.0124	9.26% 9.26%
First 700 kWh Over 700 kWh	\$0.0983 \$0.0582	\$0.1074 \$0.0636	\$0.0091 \$0.0054	9.26% 9.26%	First 700 kWh Over 700 kWh	\$0.1334 \$0.1213	\$0.1458 \$0.1325	\$0.0124 \$0.0112	9.26% 9.26%

Manisha Lakhanpal

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# H

# THE EMPIRE DISTRICT ELECTRIC COMPANY - CASE NO. ER-2008-0093 CURRENT AND STAFF PROPOSED RATES- BY RATE SCHEDULE

# MISCELLANEOUS SERVICE (MS)

# PRIVATE LIGHTING (PL)

	CURRENT	PROPOSED	DIFFERE			CURRENT	PROPOSED	DIFFERE	NCE
	RATES	<u>RATES</u>	<u>(\$)</u>	<u>(%)</u>		RATES	<u>RATES</u>	<u>(\$)</u>	(%)
CUSTOMER CHARGE	<b>\$14</b> .60	\$15.95	\$1.35	9.26%	STREET LIGHTING LAMP	S:			
					MERCURY VAPOR				
ENERGY CHARGES					6800 lumens	\$11.69	\$12.77	\$1.08	9.26%
Summer	\$0.0753	\$0.0823	\$0.0070	9.26%	20000 lumens	\$19.46	\$21.26	\$1.80	9.26%
Winter	\$0.0753	\$0.0823	\$0.0070	9.26%	54000 lumens	\$37.30	\$40.76	\$3.46	9.26%
					SODIUM VAPOR				
					6000 lumens	\$10.80	\$11.80	\$1.00	9.26%
					16000 lumens	\$15.71	\$17.17	\$1.46	9.26%
					27500 lumens	\$22.71	\$24.81	\$2.10	9.26%
					50000 lumens	\$26.34	\$28.78	\$2.44	9.26%
					METAL HALIDE	· ·	<b>7</b>	<b>4</b>	0.20.0
SPE	CIAL LIGHTING	3 (LS)			12000 lumens	\$18.21	\$19.90	\$1.69	9.26%
		•			20500 lumens	\$24.30	\$26.55	\$2.25	9.26%
	CURRENT	PROPOSED	DIFFEREN	NCE	36000 lumens	\$27.27	\$29.80	\$2.53	9.26%
	RATES	RATES	<u>(\$)</u>	<u>(%)</u>			<b>*</b>	<b>VV</b>	0.20.0
MINIMUM CHARGE	\$34.55	\$37.75	\$3.20	9.26%	FLOOD LIGHTING LAMPS	:			
					MERCURY VAPOR				
ENERGY CHARGES					20000 lumens	\$27.27	\$29.80	\$2.53	9.26%
SUMMER					54000 lumens	\$45.02	\$49.19	\$4.17	9.26%
First 1000 kWh	\$0.1292	\$0.14	\$0.0120	9.26%	Sodium vapor	•	•	•	
Over 1000 kWh	\$0.1013	\$0.11	\$0.0094	9.26%	27500 lumens	\$26.42	\$28.87	\$2.45	9.26%
WINTER					50000 lumens	\$36.23	\$39.59	\$3.36	9.26%
First 1000 kWh	\$0.1292	\$0.14	\$0.0120	9.26%	140000 lumens	\$52.94	\$57.84	\$4.90	9.26%
Over 1000 kWh	\$0.1013	\$0.11	\$0.0094	9.26%	METAL HALIDE		<b>V</b>	•	3.23,5
					12000 lumens	\$18.70	\$20.43	\$1.73	9.26%
					20500 lumens	\$25.01	\$27.33	\$2.32	9.26%
					36000 lumens	\$36.89	\$40.31	\$3.42	9.26%
					110000 lumens	\$53.90	\$58.89	\$4.99	9.26%
						400.00	Ψ00.00	Ψ4.55	0.2070
					OTHER CHARGES:				
					Additional Poles	\$1.50	\$1.64	\$0.14	9.26%
					Additional Anchor	\$1.50	\$1.64	\$0.14	9.26%
					Additional conductor	\$0.140	\$0.15	\$0.013	9.26%

Manisha Lakhanpal

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# THE EMPIRE DISTRICT ELECTRIC COMPANY - CASE NO. ER-2008-0093 CURRENT AND STAFF PROPOSED RATES- BY RATE SCHEDULE

# MUNICIPAL STREET LIGHTING (SPL)

	CURRENT RATES	PROPOSED RATES	DIFFERENCE (\$)	(%)
STREET LIGHTING LAMPS:	<u> </u>		737	1747
INCANDESCENT				
4000 lumens	\$48.53	\$53.03	\$4.50	9.26%
10000 lumens	\$99.87	\$109.12	\$9.25	9.26%
MERCURY VAPOR			,	
7000 lumens	\$65.91	\$72.02	\$6.11	9.26%
11000 lumens	\$79.11	\$86.44	\$7.33	9.26%
20000 lumens	\$113.26	\$123.75	\$10.49	9.26%
53000 lumens	\$191.09	\$208.79	\$17.70	9.26%
SODIUM VAPOR				
6000 lumens	\$61.77	\$67.49	\$5.72	9.26%
16000 lumens	\$77.32	\$84.48	\$7.16	9.26%
27500 lumens	\$100.63	\$109.95	\$9.32	9.26%
50000 lumens	\$143.41	\$156.69	\$13.28	9.26%
130000 lumens	\$231.42	\$252.86	\$21.44	9.26%
METAL HALIDE				
12000 lumens	\$96.66	\$105.61	\$8.95	9.26%
20500 lumens	\$118.46	\$129.43	\$10.97	9.26%
36000 lumens	\$158.47	\$173.15	\$14.68	9.26%
110000 lumens	\$350.19	\$382.63	\$32.44	9.26%

# THE EMPIRE DISTRICT ELECTRIC COMPANY - CASE NO. ER-2008-0093 CURRENT, RE-DESIGNED, AND PROPOSED RATES - BY RATE SCHEDULE (RE-DESIGNED RATES ARE REVENUE NEUTRAL FOR EACH RATE SCHEDULE)

#### GENERAL POWER SERVICE (GP)

#### **TOTAL ELECTRIC BUILDINGS (TEB)**

	CURRENT RATES	RE-DESIGNED RATES	PROPOSED RATES	DIFFE	RENCE (%)		CURRENT RATES	RE-DESIGNED	PROPOSED RATES	DIFFE	RENCE
CUSTOMER CHARGE: Regular Metered Bills	<b>\$</b> 49.61	\$49.61	\$54.21	\$4.60	9.26%	CUSTOMER CHARGE: Regular Metered Bills	\$49.61	\$49.61	\$54.21		
IDR Metered Bills	\$182.49	\$182.49	\$199.39	\$16.90	9.26%	IDR Metered Bills	\$182.49	\$182.49	\$199.39	\$4.60 \$16.90	9.26% 9.26%
DEMAND CHARGE:						DEMAND CHARGE:					
Summer	<b>\$</b> 7.45	\$5.24	\$5.72	(\$1.73)	-23.20%	Summer	\$4.65	\$2.45	\$2.67	(\$1.98)	-42.50%
Winter	\$5.82	\$4.09	\$4.47	(\$1.35)	-23.20%	Winter	\$3.82	\$2.01	\$2.20	(\$1.62)	-42.50%
Transformer Adjustment	(\$0.258)	\$0.000	\$0.000	\$0.258	-100.00%	Transformer Adjustment	(\$0.258)	\$0.00	\$0.00	\$0.258	-100.00%
FACILITIES CHARGE:						FACILITIES CHARGE:					
Standard Charge*	\$0.000	\$1.479	\$1.616	\$1.616		Standard Charge*	\$0.000	\$1.479	\$1.616	\$1.616	
Transformer Adjustment	\$0.000	(\$0.258)	(\$0.282)	(\$0.282)		Transformer Adjustment	\$0.000	(\$0.258)	(\$0.282)	(\$0.282)	
ENERGY CHARGE:						ENERGY CHARGE:					
SUMMER						SUMMER					
First 150 HU	\$0.0789	\$0.0789	\$0.0862	\$0.0073	9.26%	First 150 HU	\$0.0920	\$0.0920	\$0.1005	\$0.0085	9.26%
Next 200 HU	\$0.0506	\$0.0506	\$0.0553	\$0.0047	9.26%	Next 200 HU	\$0.0590	\$0.0590	\$0.0645	\$0.0055	9.26%
Over 350 HU	\$0.0457	\$0.0457	\$0.0499	\$0.0042	9.26%	Over 350 HU	\$0.0534	\$0.0534	\$0.0583	\$0.0049	9.26%
WINTER						WINTER	•••••		40.0000	45.00 10	0.2070
First 150 HU	\$0.0473	\$0.0473	\$0.0517	\$0.0044	9.26%	First 150 HU	\$0.0493	\$0.0493	\$0.0539	\$0.0046	9.26%
Next 200 HU	\$0.0457	\$0.0457	\$0.0499	\$0.0042	9.26%	Next 200 HU	\$0.0465	\$0.0465	\$0.0508	\$0.0043	9.26%
Over 350 HU	\$0.0446	\$0.0446	\$0.0487	\$0.0041	9.26%	Over 350 HU	\$0.0451	\$0.0451	\$0.0493	\$0.0042	9.26%

<sup>\*</sup> Applies to all customers on rate schedule

Manisha Lakhanpal

Schedule 3 Page 1/2

# 5

# THE EMPIRE DISTRICT ELECTRIC COMPANY - CASE NO. ER-2008-0093 CURRENT, RE-DESIGNED, AND PROPOSED RATES - BY RATE SCHEDULE (RE-DESIGNED RATES ARE REVENUE NEUTRAL FOR EACH RATE SCHEDULE)

# LARGE POWER SERVICE (LP)

# PRAXAIR & SPECIAL TRANSMISSION SERVICE (SC-P, ST)

	CURRENT RATES	RE-DESIGNED RATES	PROPOSED RATES	DIFFE (\$)	RENCE (%)		CURRENT <u>RATES</u>	RE-DESIGNED RATES	PROPOSED RATES	DIFFER	RENCE (%)
CUSTOMER CHARGE	\$183.44	\$183.44	\$200.43	\$16.99	9.26%	CUSTOMER CHARGE	\$182.49	\$182.49	\$199.39	\$16.90	9.26%
DEMAND CHARGE: Summer Winter Transformer Adjustment Substation Adjustment	\$11.93 \$6.58 \$0.252 (\$1.221)	\$10.15 \$5.60 \$0.000 \$0.000	\$11.09 \$6.11 \$0.000 \$0.000	(\$0.84) (\$0.47) (\$0.252) \$1.221	-7.07% -7.07% -100.00% -100.00%	DEMAND CHARGE: Summer Winter	\$17.94 \$12.18	\$17.73 \$12.04	\$19.375 \$13.154	\$1.43 \$0.97	8.00% 8.00%
FACILITIES CHARGE: Standard Charge* Transformer Adjustment Substation Adjustment	\$0.000 \$0.000 \$0.000	\$1.221 \$0.253 (\$1.221)	\$1.334 \$0.276 (\$1.334)	\$1.334 \$0.276 (\$1.334)		FACILITIES CHARGE: Standard Charge* Substation Adjustment	\$0.00 \$0.36	\$0.00 \$0.36	\$0.00 \$0.39	\$0.00 \$0.03	9.26%
ENERGY CHARGE: SUMMER First 350 HU Over 350 HU WINTER First 350 HU Over 350 HU	\$0.0497 \$0.0269 \$0.0441 \$0.0260	\$0.0497 \$0.0269 \$0.0441 \$0.0260	\$0.0543 \$0.0294 \$0.0482 \$0.0284	\$0.0046 \$0.0025 \$0.0041 \$0.0024	9.26% 9.26% 9.26% 9.26%	ENERGY CHARGE: SUMMER On-Peak kWh Shoulder month kWh Off- Peak kWh WINTER On-Peak kWh Off- Peak kWh	\$0.0381 \$0.0307 \$0.0238 \$0.0271 \$0.0224	\$0.0381 \$0.0307 \$0.0238 \$0.0271 \$0.0224	\$0.0416 \$0.0335 \$0.0260 \$0.0296 \$0.0245	\$0.0035 \$0.0028 \$0.0022 \$0.0025 \$0.0021	9.26% 9.26% 9.26% 9.26%

<sup>\*</sup> Applies to all customers on rate schedule

Manisha Lakhanpal

Schedule 3 Page 2/2

#### MOPSC STAFF PROPOSED DISTRIBUTION FACILITIES CHARGE FOR EDE

### I. Purpose of a Facilities Charge

The purpose of Staff's proposed distribution facilities charge is to more equitably recover distribution facilities costs among customers within a class than the current (demand charge) pricing scheme. Recovering these costs in a separate charge will also leave the seasonally-differentiated demand and energy charges to recover only those costs that vary by time of use.

### II. Characteristics of Staff's Proposed Facilities Charge

- (1) Would recover all or part of the costs of distribution facilities (substations; lines, poles & conductors; line transformers).
- (2) Would reflect the ownership (EDE vs. customer) of transformation facilities.
- (3) Would apply to GP, TEB, and LP customers.

[Rationale: These customers have the demand-metering required to bill this charge.]

(4) Would not be seasonally differentiated.

[Rationale: EDE's investment in distribution facilities for each customer is related the customer's size (maximum demand); when the customer's maximum demand occurs and how frequently it occurs is unimportant in the determination of the sizing (cost) of such equipment.]

(5) Would be billed on each customer's 100% ratcheted demand (i.e., the highest of the demand in this month and the eleven prior months).

[Rationale: Facilities demand (100% ratcheted billing demand) is a better measure of customer size than monthly billing demand.

(6) Would be in addition to existing demand charge.

[Rationale: The existing demand charge structure is better suited for recovering costs that vary by time of use than facilities costs.]

#### III. Staff's Proposed Implementation Plan

- (1) In this case (ER-2008-0093), the revenue collected by the proposed facilities charge plus the modified demand charge will equal the revenue collected by the existing demand charge; i.e., will be revenue-neutral within each class.
- (2) In this case, Empire will remedy any programming constraints to establishing a facilities charge based on individual customer facilities demand.
- (3) In the 2009 Rate Case filing (when detailed cost information is available), the level of the facilities charge will be raised to a cost-based level (including an examination of the value of voltage-related rate discounts and adders).
- (4) In the 2009 Rate Case filing, Empire will provide Staff with test year facilities demand.

# IV. Impact of Implementing a Facilities Charge

- (1) Adopting Staff's proposal would not move revenues between classes.
- (2) Adopting Staff's proposal would move revenues between customers within each class. The impact to individual customers will depend on each customer's load factor; namely, the higher load factor customers will pay somewhat less and the lower load factor customers will pay somewhat more.

# Staff Proposed Changes to EDE Tariff Sheet

# GENERAL POWER SERVICE SCHEDULE GP

#### AVAILABILITY:

This schedule is available for electric service to any general service Customer except those who are conveying electric service received to others whose utilization of same is purely for residential purposes other than transient or seasonal. Motels, hotels, inns, resorts, etc., and others who provide transient rooms and board service or room service and/or provide service to dwellings on a transient or seasonal basis are not excluded from the use of this rate. The Company reserves the right to determine the applicability or the availability of this rate to any specific applicant for electric service.

MONTHLY RATE:	Summer Season	Winter Season
CUSTOMER CHARGE	\$49.61	\$49.61
DEMAND CHARGE:		
Per kW of Billing Demand	\$5.24	\$4.09
FACILITIES CHARGE:		
Per kW of Facilities Demand	\$1.479	\$1.479
ENERGY CHARGE:		
First 150 hours use of Metered Demand, per kWh	\$0.0789	\$0.0473
Next 200 hours use of Metered Demand, per kWh	\$0.0506	\$0.0457
All additional kWh, per kWh	\$0.0457	\$0.0446

The Summer Season will be the first four monthly billing periods billed on and after June 16, and the Winter Season will be the remaining eight monthly billing periods of the calendar year. If an interval data recorder is required for billing purposes, the Customer Charge will be \$182.49.

#### **FUEL ADJUSTMENT CLAUSE:**

The above charges will be adjusted in an amount provided by the terms and provisions of the Fuel Adjustment Clause, Rider FAC.

#### DETERMINATION OF BILLING DEMAND:

The monthly Metered Demand will be determined from the highest fifteen minute integrated kilowatt demand registered during the month by a suitable demand meter. The monthly Billing Demand will be the monthly Metered Demand or 40 kW, whichever is greater.

#### DETERMINATION OF MONTHLY FACILITIES DEMAND:

The monthly Facilities Demand will be determined by a comparison of the current month's metered demand and the metered demand recorded in each of the previous 11 months. If there are less than 11 previous months of data, all available data from previous months will be used. The monthly Facilities Demand will be the maximum demand as determined by this comparison or 40 kW, whichever is greater.

D.C. Roos

<sup>\*</sup> The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

# Staff Proposed Changes to EDE Tariff Sheet\*

# GENERAL POWER SERVICE SCHEDULE GP

#### TRANSFORMER OWNERSHIP:

Where the Customer supplies all facilities (other than metering equipment) for utilization of service at the voltage of the Company's primary line feeding to such location, a reduction of \$0.258 per kW will apply to the facilities charge.

#### METERING ADJUSTMENT:

The above rate applies for service metered at secondary voltage. Where service is metered at the voltage of the primary line feeding to such location, metered kilowatts and kilowatt-hours will be reduced prior to billing by multiplying metered kilowatts and kilowatt-hours by 0.9806.

#### MINIMUM MONTHLY BILL:

During any month in which service is rendered, the minimum monthly bill will be the Customer Charge plus the Demand Charge plus the Facilities Charge.

<sup>\*</sup> The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

### Staff Proposed Changes to EDE Tariff Sheet\*

# TOTAL ELECTRIC BUILDING SERVICE SCHEDULE TEB

#### AVAILABILITY:

This schedule is available to any general services customers on the lines of the Company for total electric service except those customers who are conveying electric service to others whose utilization of the same is for residential purposes other than transient or seasonal. Motels, hotels, inns, etc., and others who provide transient room and/or room and board service and/or provide to dwellings on a transient or seasonal basis are not excluded from the use of this rate. The Company reserves the right to determine the applicability or the availability of this rate to any specific applicant for electric service.

MONTHLY RATE:	Summer Season	Winter Season
CUSTOMER CHARGE	\$49.61	\$49.61
DEMAND CHARGE:		
Per kW of Billing Demand	\$2.45	\$2.01
FACILITIES CHARGE:		
Per kW of Facilities Demand	\$1.479	\$1.479
ENERGY CHARGE:		
First 150 hours use of Metered Demand, per kWh	\$0.0920	\$0.0493
Next 200 hours use of Metered Demand, per kWh	\$0.0590	\$0.0465
All additional kWh, per kWh	\$0.0534	\$0.0451

The Summer Season will be the first four monthly billing periods billed on and after June 16, and the Winter Season will be the remaining eight monthly billing periods of the calendar year. If an interval data recorder is required for billing purposes, the Customer Charge will be \$182.49.

#### **FUEL ADJUSTMENT CLAUSE:**

The above charges will be adjusted in an amount provided by the terms and provisions of the Fuel Adjustment Clause, Rider FAC.

#### DETERMINATION OF BILLING DEMAND:

The monthly Metered Demand will be determined from the highest fifteen minute integrated kilowatt demand registered during the month by a suitable demand meter. The monthly Billing Demand will be the monthly Metered Demand or 40 kW, whichever is greater.

#### DETERMINATION OF MONTHLY FACILITIES DEMAND:

The monthly Facilities Demand will be determined by a comparison of the current month's metered demand and the metered demand recorded in each of the previous 11 months. If there are less than 11 previous months of data, all available data from previous months will be used. The monthly Facilities Demand will be the maximum demand as determined by this comparison or 40 kW, whichever is greater.

<sup>\*</sup> The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

# Staff Proposed Changes to EDE Tariff Sheet\*

# TOTAL ELECTRIC BUILDING SERVICE SCHEDULE TEB

#### TRANSFORMER OWNERSHIP:

Where the Customer supplies all facilities (other than metering equipment) for utilization of service at the voltage of the Company's primary line feeding to such location, a reduction of \$0.258 per kW will apply to the facilities charge.

#### METERING ADJUSTMENT:

The above rate applies for service metered at secondary voltage. Where service is metered at the voltage of the primary line feeding to such location, metered kilowatts and kilowatt-hours will be reduced prior to billing by multiplying metered kilowatts and kilowatt-hours by multiplying metered kilowatts and kilowatt-hours by 0.9806.

#### MINIMUM MONTHLY BILL:

During any month in which service is rendered, the minimum monthly bill will be the Customer Charge plus the Demand Charge plus the Facilities Charge.

<sup>\*</sup> The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

# Staff Proposed Changes to EDE Tariff Sheet\*

# LARGE POWER SERVICE SCHEDULE LP

#### **AVAILABILITY:**

This schedule is available for electric service to any general service Customer except those who are conveying electric service received to others whose utilization of same is for residential purposes other than transient or seasonal. Motels, hotels, inns, resorts, etc., and others who provide transient rooms and board service or room service and/or provide service to dwellings on a transient or seasonal basis are not excluded from the use of this rate. The Company reserves the right to determine the applicability or the availability of this rate to any specific applicant for electric service.

MONTHLY RATE:	Summer Season	Winter Season
CUSTOMER CHARGE	\$183.44	\$183.44
DEMAND CHARGE:		
Per kW of Billing Demand	\$10.15	\$5.60
FACILITIES CHARGE:		
Per kW of Facilities Demand	\$1.221	\$1.221
ENERGY CHARGE:		
First 350 hours use of Metered Demand, per kWh	\$0.0497	\$0.0441
All additional kWh, per kWh	\$0.0269	\$0.0260

The Summer Season will be the first four monthly billing periods billed on and after June 16, and the Winter Season will be the remaining eight monthly billing periods of the calendar year.

To be eligible for this schedule, the customer agrees to provide, at the Customer's expense, an analog telephone line to the metering location(s), for use by the Company to retrieve interval metering data for billing and load research purposes. This telephone line must be available to the Company between the hours of midnight and 6:00am each day.

#### FUEL ADJUSTMENT CLAUSE:

The above charges will be adjusted in an amount provided by the terms and provisions of the Fuel Adjustment Clause, Rider FAC.

#### **DETERMINATION OF BILLING DEMAND:**

The monthly Metered Demand will be determined from the highest fifteen minute integrated kilowatt demand registered during the month by a suitable demand meter. The monthly Billing Demand will be the monthly Metered Demand or 1000 kW, whichever is greater.

#### **DETERMINATION OF MONTHLY FACILITIES DEMAND:**

The monthly Facilities Demand will be determined by a comparison of the current month's metered demand and the metered demand recorded in each of the previous 11 months. If there are less than 11 previous months of data, all available data from previous months will be used. The monthly Facilities Demand will be the maximum demand as determined by this comparison or 1000 kW, whichever is greater.

D.C. Roos

<sup>\*</sup> The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

### Staff Proposed Changes to EDE Tariff Sheet\*

### LARGE POWER SERVICE SCHEDULE LP

#### TRANSFORMER OWNERSHIP:

If a customer supplies a standard transformer and secondary facilities, a secondary facility charge of \$0.252 per kW of billing demand will apply, otherwise, Rider XC will apply, unless Customer supplies their own secondary facilities.

#### SUBSTATION FACILITIES:

The above facilities charge does not apply if the stepdown-substation and transformer are owned by the Customer.

#### METERING ADJUSTMENT:

The above rate applies for service metered at primary voltage. Where service is metered at secondary voltage, metered kilowatts and kilowatt-hours will be increased prior to billing by multiplying metered kilowatts and kilowatt-hours by 1.0198.

Any customer that provides its own substation facilities and is also metered at transmission voltage will receive a credit of \$0.30 per kW of billing demand applied to its bill for a three (3) year period beginning with the effective date of Case No. ER-2004-0570 (March 27, 2005). Upon the expiration of this credit on March 26, 2008, the language will become:

Where service is metered at transmission voltage, metered kilowatts and kilowatt-hours will be reduced prior to billing by multiplying kilowatts and kilowatt-hours by 0.9742.

#### MINIMUM MONTHLY BILL:

During any month in which service is rendered, the minimum monthly bill will be the Customer Charge plus the Demand Charge plus the Facilities Charge.

<sup>\*</sup> The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

### Staff Proposed Changes to EDE Tariff Sheet\*

# SPECIAL TRANSMISSION SERVICE SCHEDULE ST

#### **AVAILABILITY:**

This schedule is available for electric service to any general service Customer who has signed a service contract with THE EMPIRE DISTRICT ELECTRIC COMPANY. The Company shall supply, sell and deliver electric power at transmission or substation voltage, and the Customer shall take and pay for said power under the provisions of contract.

#### **NET MONTHLY RATE:**

	Summer Season	Winter Season
CUSTOMER CHARGE	\$182.49	\$182.49
ON-PEAK DEMAND CHARGE	•	
Per kW of Billing Demand	\$17.73	\$12.04
SUBSTATION FACILITIES CHARGE		
Per kW of Facilities Demand	\$0.36	\$0.36
ENERGY CHARGE, per kWh:		
Peak Period	\$0.0381	\$0.0271
Shoulder Period	\$0.0307	
Off-Peak Period	\$0.0238	\$0.0224

The Summer Season will be the first four monthly billing periods billed on and after June 16, and the Winter Season will be the remaining eight monthly billing periods of the calendar year. The Peak hours will be weekdays, excluding holidays, from 12:00 p.m. through 7:00 p.m. during the Summer Season and 6:00 a.m. through 10:00 p.m. during the Winter Season. The Shoulder hours will be weekends from 12:00 p.m. through 9:00 p.m. and weekdays from 9:00 a.m. through 12:00 p.m. and 7:00 p.m. through 10:00 p.m. during the Summer Season. All other hours are Off-Peak.

#### FUEL ADJUSTMENT CLAUSE:

The above charges will be adjusted in an amount provided by the terms and provisions of the Fuel Adjustment Clause, Rider FAC.

#### DETERMINATION OF BILLING DEMAND:

The monthly "On-Peak Demand" shall be determined as being the highest fifteen (15) minute integrated kilowatt demand registered by a suitable demand meter during the peak hours as stated above; In no event shall Peak Demand be less than the lesser of 6000 kW or Customer's MFD for Customers that have contracted interruptible capacity as specified in the contract or any future amendments thereto.

#### **DETERMINATION OF FACILITIES DEMAND:**

The monthly "Substation Facilities Demand", if applicable, shall be determined as being the highest fifteen (15) minute integrated demand registered by a suitable demand meter during all hours. In no event shall Substation Facility Demand, if applicable, be less than the greater of 6000 kW and Customer's CPD for Customers that have contracted interruptible capacity as specified in the contract or any future amendments thereto.

<sup>\*</sup>The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

### Staff Proposed Changes to EDE Tariff Sheet\*

# SPECIAL TRANSMISSION SERVICE SCHEDULE ST

#### SUBSTATION FACILITIES:

The above Facilities Charge does not apply if the stepdown-substation and transformer are owned by the Customer.

#### **METERING ADJUSTMENT:**

The above rates apply for service metered at transmission voltage. Where service is metered at substation voltage, metered kilowatts and kilowatt-hours will be increased prior to billing by multiplying kilowatts and kilowatt-hours by 1.0086.

#### MINIMUM MONTHLY BILL:

Except as provided in the above-mentioned contract, the Minimum Monthly Bill shall be the Customer Charge plus the On-Peak Demand Charge plus any applicable Facilities Charge.

<sup>\*</sup>The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

#### Staff Proposed Changes to EDE Tariff Sheet\*

# SPECIAL TRANSMISSION SERVICE CONTRACT: PRAXAIR SCHEDULE SC-P

#### AVAILABILITY:

This schedule is available for electric service to PRAXAIR, INC. (Customer) as stated in the contract for power service between THE EMPIRE DISTRICT ELECTRIC COMPANY (Company) and PRAXAIR, INC. ("the contract").

#### NET MONTHLY RATE:

•	Summer Season	Winter Season
CUSTOMER CHARGE	\$182.49	\$182.49
ON-PEAK DEMAND CHARGE		
Per kW of Billing Demand	\$17.73	\$12.04
SUBSTATION FACILITIES CHARGE		
Per kW of Facilities Demand	\$0.36	\$0.36
ENERGY CHARGE, per kWh:		
Peak Period	\$0.0381	\$0.0271
Shoulder Period	\$0.0307	
Off-Peak Period	\$0.0238	\$0.0224

The Summer Season will be the first four monthly billing periods billed on and after June 16, and the Winter Season will be the remaining eight monthly billing periods of the calendar year. The On-Peak hours will be weekdays, excluding holidays, from 12:00 p.m. through 7:00 p.m. during the Summer Season and 6:00 a.m. through 10:00 p.m. during the Winter Season. The Shoulder hours will be weekends from 12:00 p.m. through 9:00 p.m. and weekdays from 9:00 a.m. through 12:00 p.m. and 7:00 p.m. through 10:00 p.m. during the Summer Season. All other hours are Off-Peak. Holidays include New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, as specified by the North American Electric Reliability Council (NERC).

#### **FUEL ADJUSTMENT CLAUSE:**

The above charges will be adjusted in an amount provided by the terms and provisions of the Fuel Adjustment Clause, Rider FAC.

#### DETERMINATION OF DEMANDS (CPD, MFD, ID):

An appropriate level of demand at the time of the Company's system peak shall be determined for PRAXAIR under this Schedule. This Customer Peak Demand ("CPD") shall be either PRAXAIR's actual maximum measured kW demand during a peak period, or a calculated amount based upon conditions involving PRAXAIR's actual or expected operations, and agreed upon between Company and PRAXAIR.

#### DETERMINATION OF BILLING DEMAND:

The monthly "On-Peak Demand" shall be determined as being the highest fifteen (15) minute integrated kilowatt demand registered by a suitable demand meter during the peak hours as stated above. In no event shall Peak Demand

<sup>\*</sup>The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

#### Staff Proposed Changes to EDE Tariff Sheet\*

# SPECIAL TRANSMISSION SERVICE CONTRACT: PRAXAIR SCHEDULE SC-P

be less than the lesser of 6000 kW or Customer's MFD for Customers that have contracted interruptible capacity as specified in the contract or any future amendments thereto.

# **DETERMINATION OF FACILITIES DEMAND:**

The monthly "Substation Facilities Demand" shall be determined as being the highest fifteen (15) minute integrated demand registered by a suitable demand meter during all hours. In no event shall Substation Facility Demand, if applicable, be less than the greater of 6000 kW and Customer's CPD for Customers that have contracted integrated capacity as specified in the contract or any future amendments thereto.

#### SUBSTATION FACILITIES:

The above Facilities Charge does not apply if the stepdown-substation and transformer are owned by the Customer.

#### **METERING ADJUSTMENT:**

The above rates apply for service metered at transmission voltage. Where service is metered at substation voltage, metered kilowatts and kilowatt-hours will be increased prior to billing by multiplying metred kilowatts and kilowatt-hours by 0.9806.

#### MINIMUM MONTHLY BILL:

The net minimum bill after any interruptible credits shall be the Customer Charge plus any Substation Facilities Charge times the CPD plus any Demand Charges applicable to the current MFD. In no event shall the interruptible credit be greater than the Demand Charge.

D.C. Roos

<sup>\*</sup>The rates shown reflect Staff's proposed rate design prior to any revenue increase that may result from this case (ER-2008-0093).

# OF THE STATE OF MISSOURI

In the matter of The Empire District	)	
Electric Company of Joplin, Missouri's	)	
application for authority to file tariffs	)	Case No. ER-2008-0093
increasing rates for electric service	)	Case No. ER-2008-0093
provided to customers in the Missouri	)	
service area of the Company	)	•

### AFFIDAVIT OF JAMES C. WATKINS

STATE OF MISSOURI	)
	) s
COUNTY OF COLE	)

James C. Watkins of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report. That he has knowledge of the matters set forth in such answers; and that such Report; and that such matters are true to the best of his knowledge and belief.

James C. Watkins

Subscribed and sworn to before me this \_\_\_\_\_ day of March, 2008.

NOTARY SEAL SEAL

SUSAN L. SUNDERMEYER My Commission Expires September 21, 2010 Callaway County Commission #06942086

# OF THE STATE OF MISSOURI

### **AFFIDAVIT OF CURT WELLS**

STATE OF MISSOURI	)
	) ss
COUNTY OF COLE	)

Curt Wells of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report. That he has knowledge of the matters set forth in such answers; and that such Report; and that such matters are true to the best of his knowledge and belief.

Curt Wells

NOTARY S SEAL B

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

# OF THE STATE OF MISSOURI

In the matter of The Empire District	)	
Electric Company of Joplin, Missouri's	)	
application for authority to file tariffs	)	Case No. ER-2008-0093
increasing rates for electric service	)	Case No. ER-2008-0093
provided to customers in the Missouri	)	
service area of the Company	)	

#### AFFIDAVIT OF DAVID C. ROOS

STATE OF MISSOURI	)
	) s
COUNTY OF COLE	)

David C. Roos of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report. That he has knowledge of the matters set forth in such answers; and that such Report; and that such matters are true to the best of his knowledge and belief.

David C. Roos

Subscribed and sworn to before me this day of March, 2008.

NOTARY SEAL ST SUSAN L. SUNDERMEYER My Commission Expires September 21, 2010 Callaway County Commission #06942086

# OF THE STATE OF MISSOURI

In the matter of The Empire District Electric Company of Joplin, Missouri's application for authority to file tariffs increasing rates for electric service provided to customers in the Missouri service area of the Company	) ) )	Case No. ER-2008-0093
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#### AFFIDAVIT OF MANISHA LAKHANPAL

STATE OF MISSOURI	)
	) ss
COUNTY OF COLE	)

Manisha Lakhanpal, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Report. That she has knowledge of the matters set forth in such answers; and that such Report; and that such matters are true to the best of her knowledge and belief.

Maisha Lakhanpal

Manisha Lakhanpal

Subscribed and sworn to before me this  $2^{\frac{1}{12}}$  day of March, 2008.

NOTARY C

SUSAN L. SUNDERMEYER My Commission Expires September 21, 2010 Callaway County Commission #06942086