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Service Commission

# Exhibit No. 503

MECG – Exhibit 503 Kavita Maini Rebuttal File No. ER-2024-0189 Exhibit No.:

Issue: Class Cost of Study, Revenue

Allocation, Rate Design

Witness: Kavita Maini
Type of Exhibit: Rebuttal Testimony

Sponsoring Parties: MECG

Case No.: ER-2024-0189
Date Testimony Prepared: August 6, 2024

#### BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Evergy Missouri West, Inc. d/b/a Every Missouri West's Request for Authority to Implement A General Rate Case Increase for Electric Service

File No. ER-2024-0189

Rebuttal Testimony and Schedules of

Kavita Maini

On behalf of

#### MIDWEST ENERGY CONSUMERS GROUP

August 6, 2024



KM Energy Consulting, LLC

### BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Evergy Missouri Every Missouri West's Request f Authority to Implement A General Case Increase for Electric Service	or al Rate	c. d/b/a ) ) )	Case No. ER-2024-0189
STATE OF WISCONSIN COUNTY OF WAUKESHA	)	SS	

#### **AFFIDAVIT OF KAVITA MAINI**

Kavita Maini, being first duly sworn, on her oath states:

- My name is Kavita Maini. I am a consultant with KM Energy Consulting, LLC. having its
  principal place of business at 961 North Lost Woods Road, Oconomowoc, WI 53066. I
  have been retained by the Midwest Energy Consumers Group ("MECG") in this
  proceeding on its behalf.
- Attached hereto and made a part hereof for all purposes are my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2024-0189.
- 3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

Kavita Maini

Marc Barbeau Notary Public State of Wisconsin

Page | 0

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Evergy Missouri West,	)	
Inc. d/b/a Every Missouri West's Request	)	
for Authority to Implement A General	)	
Rate Case Increase for Electric Service	)	File No. ER-2024-0189
	)	

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SCHEDULE KM-1: WISCONSIN POWER AND LIGHT TIME OF USE ANALYSIS

#### BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Evergy Missouri West, Inc. d/b/a Every Missouri West's Request for Authority to Implement A General Rate Case Increase for Electric Service	) ) <u>File No. ER-2024-0189</u> )
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#### **Rebuttal Testimony of Kavita Maini**

#### 1 I. INTRODUCTION

- 2 Q. Please state your name and occupation.
- 3 A. My name is Kavita Maini. I am the principal and sole owner of KM Energy Consulting,
- 4 LLC.
- 5 Q. Please state your business address.
- 6 A. My office is located at 961 North Lost Woods Road, Oconomowoc, WI 53066.
- 7 Q. Are you the same Kavita Maini that filed previously Direct Testimony in this case?
- 8 A. Yes, I filed direct testimony on behalf of the Midwest Energy Consumers Group
- 9 ("MECG"). My direct testimony provided recommendations regarding Evergy
- Missouri West Inc.'s ("EMW" or "Company") class cost of service study ("COSS"),
- revenue allocation to classes and rate design for the Large General Service ("LGS") and
- Large Power Service ("LPS") rate schedules.
- 13 Q. What is the purpose of your rebuttal testimony?
- 14 A. The purpose of my rebuttal testimony is to address (a) Staff's revenue allocation, and
- 15 (b) Staff's rate design recommendations applicable to the LGS and LPS rate schedules.
- The fact that I do not address any particular issue should not be interpreted as my

1 implicit approval of any position taken by Staff on that issue.

#### 2 II. SUMMARY

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- 3 Q. Please summarize your testimony and recommendations.
- 4 A. The following is a summary of my testimony and recommendations:

#### 5 Section III: Revenue Requirement Allocation

Staff's suggested approach to retain the existing class revenue responsibility implies an equal percent increase which focuses entirely on moderating impacts to classes while ignoring the consideration of fairness between classes. The Commission should adopt MECG's recommendations which includes fairness and moderation considerations.

#### **Section IV: LPS/LGS Rate Design**

- a) I am not supportive of Staff's time variant overlay concept due to the following reasons:
- 1. It is not effective to mix two different rate design concepts and make the existing rate design more complex.
- 2. The current rate design implicitly has time variant elements.
- 3. Even it could be argued that an overlay concept is reasonable, the load shape and pricing analysis needs to consider more years than just the test year to determine a more robust time period differentiation.

b) I recommend (a) a more systematic approach to reform the LGS and LPS rate designs so that they could be phased into a time variant rate over time and (b) a time variant rate as an optional rate. I recommend that these items be thoroughly vetted in advance of the next rate case. In this regard, MECG is interested in working collaboratively with the Company and other parties. I note that the Company is currently implementing such a collaborative approach in Kansas. The collaborative effort in advance of the case will be instrumental in introducing the reforms and the new rate in the next case.

#### III.REVENUE REQUIREMENT ALLOCATION

- 24 Q. What is Staff's revenue allocation proposal?
- A. Ms. Sarah Lange recommends no changes in class revenue responsibility on page 2 of
- 26 her direct testimony.

#### Q. How do you interpret this recommendation to be applied?

2 A. I interpret her recommendation to be applied as an equal percentage increase to all classes which would result in maintaining the status quo in class revenue responsibility.

#### 4 Q. Do you support this recommendation?

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No. An equal percent increase assumes that the class cost responsibility is the same as the class revenue responsibility at present rates. However, as demonstrated in my direct testimony, the class cost of service study results using equal rate of return at present rates shows that the class revenue responsibility should be lowered for some classes and increased for other classes.

The utilization of an equal percent approach focuses entirely on moderating impacts to classes while ignoring the consideration of fairness between classes. This approach fails to recognize the inequity in asking one or more classes to subsidize other classes. In contrast, MECG's revenue allocation recommendation includes fairness and moderation considerations.<sup>1</sup>

#### IV. RATE DESIGN

#### Q. What are Staff's proposed structural changes to the LPS and LGS rate design?

- 17 A My understanding of Staff witness Ms. Sarah Lange's proposed recommendations 18 regarding the LPS and LGS rates are as follows:
  - Retain the existing rate design for customer charges, facility charges and demand charges. Regarding the energy charges, remove the winter seasonal energy block and fold the related billing determinants for all three winter seasonal energy blocks into the winter base energy tail block with over 360 hours of use.

<sup>&</sup>lt;sup>1</sup> See Section IV, Revenue Requirement Allocation, in my Direct Testimony.

- Reduce the differences between the first, second and tail energy blocks while
   ensuring revenue neutrality by voltage service level.
  - Impose a mandatory time-based overlay on the existing rate design. She proposes an off peak and an on peak overlay as shown on page 22 of her direct testimony and provided below.

		Super Off-Peak	Off-Peak	On-Peak
Time Periods	Summer	Midnight - 6:00 am	6:00 am - 2:00 pm; 6:00 pm - Midnight	2:00 pm - 6:00 pm
Time Periods	Non-Summer	Midnight - 5:00 am	11:00 am - 5:00 pm	5:00 am - 11:am pm; 5:00 pm - 8:00 pm
Approximate	Summer	\$ (0.030)	\$ -	\$ 0.030
Overlay Values	Non-Summer	\$ (0.020)	\$ -	\$ 0.003

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In general, I understand that Staff proposes the above to lessen the reliance on the hours-use rate structure while incorporating the time-based overlay.

#### 9 Q. Please comment on Staff's proposed structural changes.

- 10 A. While I am supportive of introducing a well-designed time variant rate option applicable
  11 to large commercial and industrial customers and appreciate Staff's effort involved in
  12 conducting the analysis leading to Staff's recommendations, I am not supportive of a
  13 time variant overlay concept due to the following reasons:
  - 4. It is not effective to mix two different rate design concepts and make the existing rate design more complex.
  - 5. The current rate design implicitly has time variant elements.
    - 6. Even it could be argued that an overlay concept is reasonable, the load shape and pricing analysis needs to consider more years than just the test year to conclusively determine the time period differentiation.
    - I discuss each of these reasons below.

Q. Please explain your reason regarding the ineffectiveness of adding an overlay.

A. The existing rate design is complex with interlinkages between demand and energy billing determinants. Adding an overlay on top of this rate design will only compound the complexity. Further, it would not be effective to make piecemeal changes to the existing rate design due to the interlinkages in the rate design.

The Company's current rate design is centered around the Annual Base Demand (or ABD) which then drives the calculations for seasonal demand as well as billing determinants for base and seasonal energy consumption respectively. The focus of this rate design is on the summer maximum demands with higher demand charges for this period versus the non-summer months (see for example, the LPS rate). A customer's non-summer demand that is above the ABD threshold, is provided at no cost. Consistent with the pricing signal from demand charges and from a relative standpoint, there are higher summer base and seasonal charges and lower base energy charges for the non-summer with the non-summer seasonal period at the lowest price. Since the calculation of demand and energy components (and related pricing signals) are interlinked, it would not make sense to eliminate certain elements such as the seasonal energy blocks and charges all together. Staff also did not provide an explanation or rationale for why these blocks should be eliminated. Staff also did not provide customer related impacts of these proposed changes.

In order to make changes in the existing rate design, we need to evaluate and consider the impacts of removing the ABD element first. In this regard, as indicated in my direct testimony and discussed further below, I recommended a collaborative effort

1		with EMW to develop and refine proposed changes prior to introducing modifications
2		in the next rate case.
3	Q.	Please explain your view that the time variant element is implicitly included in the
4		existing rate design.
5	A.	As more energy is consumed, the rates are lower, which is implicitly accounting for
6		higher use of energy in the off-peak hours Ms. Lange's description sums the description
7		well in the following testimony on page 4 of her direct testimony:
8 9 10 11		Alternatively, it could be thought of as charging a relatively high rate for energy consumed on a daytime first shift, a moderate rate for energy consumed on second shift, and a relatively lower rate for energy consumed on the overnight third shift.
12 13		The time based elements are implicitly present in the daytime, nighttime and
14		overnight shifts. Therefore, forcing an overlay on top of the existing rate design is
15		confusing and is not technically justified.
16		I also do not support reducing the energy charge differentials between blocks.
17		Rather, depending on the revenue allocation and related rate increase, it would be more
18		reasonable to leave the tail block charges unchanged, so these charges do not deviate
19		further from reflecting the energy costs associated with the "overnight" shift.
20	Q.	Does a single year worth of data provide enough robustness to have confidence in
21		the identified time differentiated periods?
22	A.	No. Even if the overlay concept was found to be reasonable, which as discussed above
23		I do not support, we need more data to define the time differentiated periods. A one

year time frame is not enough to be confident of the time differentiated periods. I am

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skeptical, for instance, as suggested by Staff, that weekends and holidays should be priced the same way as weekdays.

A.

It is important to analyze multiple years to enable a robust understanding of the hourly pricing trends used to determine on peak, off peak and super off peak hours by season. The time periods need to be sustainable for more than one year so avoid sending mixed pricing signals or confusing customers by changing the definitions of the different periods in every rate case. Further, a multi-year analysis would result in muting the impacts of anomalies or issues that may be specific to a single year.

As an example, I am attaching a Schedule KM-1 that includes an exhibit from a past Wisconsin Power & Light (WPL) case where the utility witness introduced new time differentiated periods. The main objective of this Schedule is to show that WPL's analysis consisted of utilizing multiple years to determine the specific time of use periods it ended up proposing.

- Q. Ms. Lange indicates on page 23 that the goal of cost-based time-based energy rates is to better align cost causation with revenue responsibility. Do you agree?
  - Yes. I agree. However, at present, the rates are not aligned with the cost of service for each class. Further, the fuel cost related allocation to classes based on a flat kWh allocator instead of recognizing the time variant nature of these costs. Finally, the energy rates are not reflective of the embedded costs but rather also used to recover fixed costs. On average, the functional energy cost guidance from the Company's cost of service is \$0.0305/kWh and \$0.0305/kWh for LPS and LGS respectively. However, the cost recovery from energy charges in LPS and LGS rates is disproportionately high

<sup>&</sup>lt;sup>2</sup> See Schedule MEM-2 in Ms. Miller's direct testimony.

1	since all of the current energy rates including the tail block are higher than the average
2	embedded energy cost. Therefore, efforts are needed to get closer alignment with costs
3	to serve at the interclass level and for rate design guidance (intra class level)

# 4 Q. What is your recommended approach regarding rate design for the LGS and LPS class?

A.

- I am supportive of Staff's intent of desiring time variant rates applicable to the LGS and LPS classes. However, I do not support the notion of a mandatory option or forcing an overlay concept in this case. In order to mitigate confusion, achieve more acceptance of such rates and manage rate impacts, a thoughtfully designed time variant rate needs to be introduced as an option. In parallel, it is also important to systematically reform the LGS and LPS rate design so that it could be phased into a time variant rate over time. I therefore recommend the following be conducted in advance of the next rate case:
- 1. Work to reform the current rates: This entails evaluating and identifying the best way to phase out the ABD element (which will impact other elements of the rate design) while considering customer impacts for the current rate design.
- 2. Introduce a time variant rate as an option applicable to the LGS and LPS classes. The Company's time variant rate introduced in Kansas could be used as a starting point to evaluate whether the same rate or an alternative one would be more effective in Missouri.

It is important and will be efficient to work on the above mentioned items in advance of the next rate case to thoroughly vet (a) reforms and related impacts associated with the current rates and (b) a new time variant option. MECG is interested

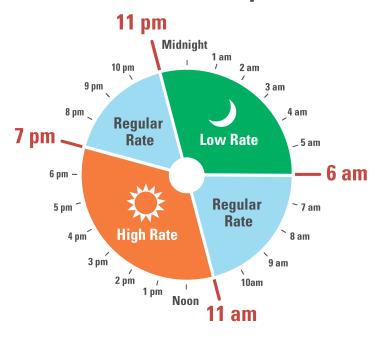
- 1 in working collaboratively with the Company and other parties on this effort. I note that
- 2 the Company is currently implementing such a collaborative approach in Kansas. The
- 3 collaborative effort in advance of the case will be instrumental in introducing the
- 4 reforms and the new rate in the next case.
- 5 Q. Does this conclude your rebuttal testimony?
- 6 A Yes.

# SCHEDULE KM -1: WISCONSIN POWER & LIGHT'S TIME OF USE ANALYSIS

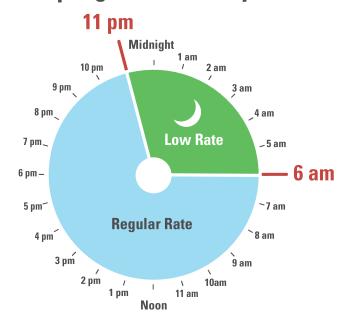
# Nights and weekends



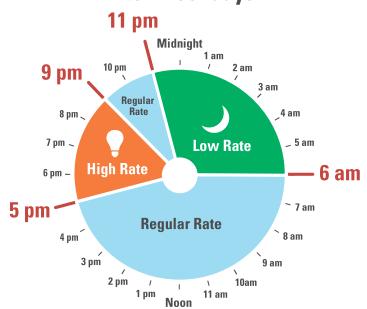
# **Summer weekdays**



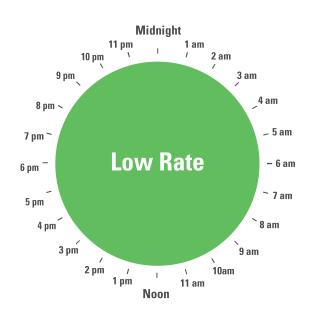
# Spring / Fall weekdays



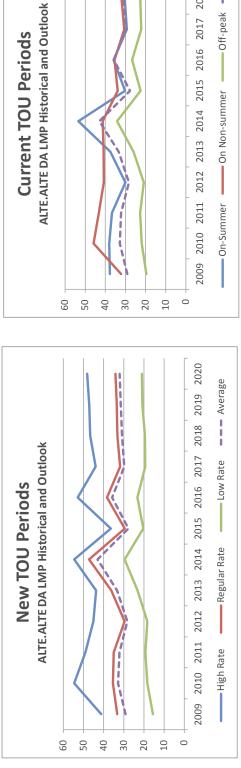
# Winter weekdays



### **Year-round weekends**



Wisconsin Power and Light Company ALTE.ALTE Locational Marginal Price (\$/mWh)





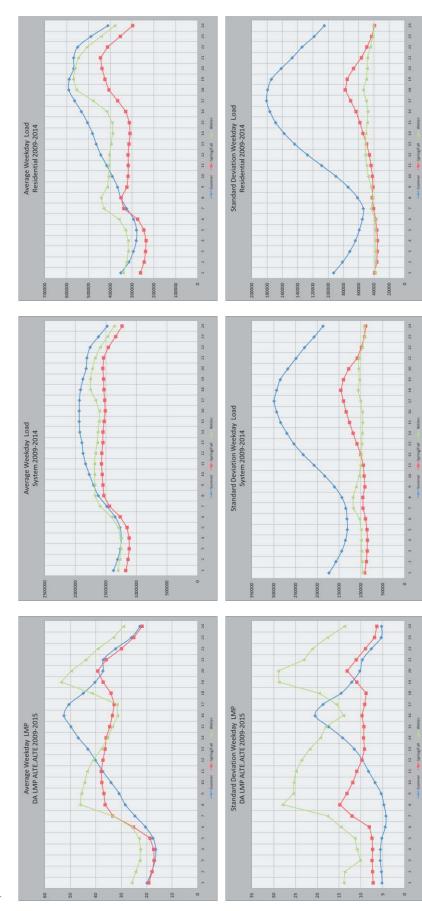
Wisconsin Power and Light Company ALTE.ALTE Day Ahead LMP Summary

	Avg	25	38	35	34	32	28	Ave	84%	115%	112%	123%	101%	81%	102%		Avg	27	28	31	26	41	26	Avg	94%	00%	92%	102%	95%	95%	Avg	37	31	26	32	30		Avg	128%	97%	93%	%96	130%			33	32	28	33	28
	24	14	23	24	25	26	22	24	47%	71%	76%	86%	75%	61%	80%		24	16	19	22	20	30	21	24	55%	%69	%69	75%	70%	74%	24	30	26	23	27	25		24	102%	80%	81%	80%	103%		24 Avg	22	24	22	25	22
	23	18	87	27	28	29	24	23	%29	85%	% %	%96	83%	%29	81%		23	21	22	26	22	34	23	23	72%	%62	262	84%	78%	82%	23	34	29	25	30	27	J	23	115%	91%	%06	%06	121%	07.00	23	26	27	24	87	24
	22	56	38	37		9 8	27	22	%88	115%	116%	114%	%86	78%	%26		22	28	27	30	26	40	25	22	83%	94%	95%	100%	93%	91%	22	42	35	28	34	31		22	145%	108%	%66	103%	140%	0/111	22	34	33	28	33	43
	21	30	46	37	37	37	30	21	102%	139%	132%	131%	112%	87%	107%		21	34	34	37	30	40	29	21	116%	115%	107%	119%	111%	104%	21	48	39	31	38	34		21	166%	122%	109%	115%	158%	14470	21	41	39	32	39	30
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	19	30	49	40	40	41	33	19	103%	148%	142%	154%	121%	94%	119%		19	36	35	38	32	40	31	19	122%	117%	114%	121%	112%	110%	19	62	49	38	46	38		19	213%	154%	133%	137%	192%	Lock	19	41	43	36	42	33
	18	34	22	50	44	44	36	18	117%	167%	159%	176%	133%	103%	130%		18	31	33	34	31	43	29	18	105%	106%	109%	112%	101%	105%	18	46	39	32	37	32		18	157%	121%	114%	112%	136%	a/OTT	18	42	40	36	39	32
	17	37	19	90	49	49	40	17	126%	187%	179%	211%	147%	114%	145%		17	29	32	32	28	42	30	17	%66	101%	%66	108%	%86	108%	17	31	29	25	29	47	<u> </u>	17	108%	%06 00%	%06	88%	110%	TOO	17	39	38	35	38	32
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Summer		2009	2010	2012	2013	2014	2015		2009	2010	2011	2012	2013	2014	2015	Spring/Fall		2009	2010	2011	2012	2013	2015		2009	2010	2012	2013	2014	2015	Winter	2009	2011	2012	2013	2014	1		2009	2011	2012	2013	2014	CTOZ	Annual	2010	2011	2012	2013	2015

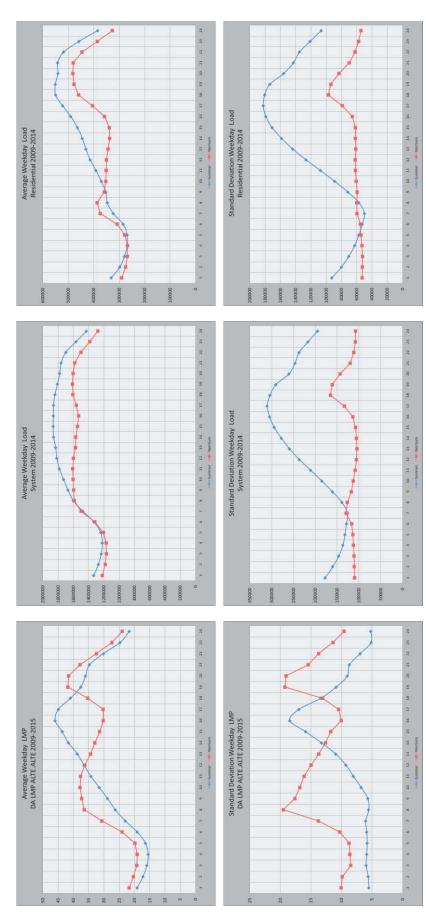
t Company	Summary
Ligh	LΜP
Power and	Day Ahead
Wisconsin	ALTE.ALTE

							ſ																Low	Anr	Annual
LMP \$ Day Ahead	-	-	Low Rat	Low Rate Pricing Period	Periods	-		-	-	-	-			Ĭ	e Su	er Pri	g Periods			ŀ	ŀ		Rate	_	nos
Hour Ending==>	Ņ.	1	2	3	4	2	9	7	∞	6	10 1	11 1	12 13	13 14	4 15	, 16	5 17	18	19	20	21	22	23 2	24 Hr. Avg	٩٨g
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Summer 20	2011	19	17	15	15		20	26	31	33									46	42	43	37	28	24 3	9
Summer 20	2012	21	19	18	18		22	25	28	30									44	39	37	32	27		2
	2013	22	21	20	20		23	27	30	31									40	38	37	33	28		34
Summer 20	2014	24	22	21	21	22	25	29	32	34	36	39	42 4	25 27	7 49	9 51	1 49	26	41	38	37	33	29	26 3	n o
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	2013	23	22	22	21		28	36	40	40										45	40	33	28	_	4
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Spring/Fall 20	2015	19	18	17	17		23	28	29	30										32	29	25	23		56
Winter 20	5009	24	23	21	20		24	33	20	20		47	45 4					46	62	55	48	42	34	30 3	7
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Winter 20	2012	20	19	18	18		20	25	31	31									38	34	31	28	25	23 2	9
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Hour Ending==>	^ 	П	7	n	4		9	7									17	18		20	21			4	
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			Low Rate	te Pricing F	Periods													Ĩ	gh Rate W.	inter Pricin	D.C				

Wisconsin Power and Light Company Locational Marginal Price and Use by Proposed Time of Use Schedule



Wisconsin Power and Light Company Locational Marginal Price and Use by Current Time of Use Schedule



	Dec	18	18	18	18	18	18	18	18	19	18	18	18	18	19	18	290	18.0	18.0	0.1	6-7pm
	Nov	18	18	18	18	18	18	18	18	18	19	18	18	18	18	18	ò	18.0	18.0	0.1	6-7pm
	Oct	19	14	19	20	19	14	19	20	13	20	14	19	18	20	18	ţ		19.0	9.9	1-8pm
	Sep	17	18	17	17	17	16	41	16	16	14	16	17	15	16	12	S		17.0	2.4	12-5pm
	Aug	16	17	17	17	41	16	16	18	17	12	15	15	17	15	15	Alia	16.0	17.0	2.3	12-6pm
	Jul	18	18	16	17	17	17	13	41	18	14	17	17	17	17	17	Ę		17.0	2.4	1-6pm
k Hours	Jun	16	15	17	14	17	17	17	13	16	17	16	17	14	14	17	all	16.0	17.0	2.0	1-5pm
WPL System Peak Hours	Мау	15	14	13	18	14	17	14	12	14	14	14	14	12	14	14	>e M		14.0	2.5	12-6pm
WPL	Apr	11	6	1	11	12	11	11	12	11	11	14	11	11	21	1	Anr		11.0	7.4	9am-9pm
	Mar	19	19	80	19	19	19	19	19	19	19	19	19	19	19	19	Z Z	19.	19.0		8am-7pm
	Feb	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	de de	19.0	19.0		md2-9
	Jan	18	18	18	19	18	19	19	19	19	18	18	18	19	19	19	u <u>el</u>	19.0	19.0	0.3	md2-9
		2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001		뽀			CST
																		Median	Mode	Variance	Range