



Invoice

Market Participant: Minnesota Power
30 West Superior Street
Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Invoice Summary:

Total:

Current S7 Net (Revenue)/Charge of Real Time and Day Ahead Markets:	\$795,114.07
S14 Prior Period Adjustments:	3,601.06
S55 Prior Period Adjustments:	66,240.13
S105 Prior Period Adjustments:	33,093.59
Other Adjustments:	0.00

Total Net Charge (Revenue):	\$898,048.85
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The Net Charge for this invoice is greater than the Net Revenue. Please make payment in immediately available funds on the payment due date.

Electronic Banking Instructions:

ACH Payments

JP Morgan Chase Bank, NA
Indianapolis, IN
ABA: 074000010
ACCT: 693193260

Wire Instructions

JP Morgan Chase Bank, NA
Indianapolis, IN
ABA: 021000021
ACCT: 693193260

International Wire Instructions

JP Morgan, Chase Bank, NA
Indianapolis, IN
Swift Code: CHASUS33
ABA: 021000021
ACCT: 693193260

For all inquiries, please contact:

MISO Client Relations
ClientRelations@misoenergy.org



Midcontinent Independent System Operator, Inc.
 P.O. Box 4202
 Carmel, IN 46082-4202

Attachment 7

Invoice

Market Participant: Minnesota Power
 30 West Superior Street
 Duluth, MN 55802

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For Statements Issued: 12/22/2018 - 12/28/2018

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Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S7						
Asset Energy Amount	12/22/2018	12/15/2018	\$10,197.33	\$223,660.36	\$0.00	\$233,857.69
Asset Energy Amount	12/23/2018	12/16/2018	(17,956.10)	244,912.04	0.00	226,955.94
Asset Energy Amount	12/24/2018	12/17/2018	35,286.51	110,077.38	0.00	145,363.89
Asset Energy Amount	12/25/2018	12/18/2018	9,453.25	185,396.20	0.00	194,849.45
Asset Energy Amount	12/26/2018	12/19/2018	14,939.06	41,009.68	0.00	55,948.74
Asset Energy Amount	12/27/2018	12/20/2018	36,195.65	178,899.48	0.00	215,095.13
Asset Energy Amount	12/28/2018	12/21/2018	7,788.07	81,123.14	0.00	88,911.21
Distribution of Losses Amount	12/22/2018	12/15/2018	(12,596.23)	0.00	0.00	(12,596.23)
Distribution of Losses Amount	12/23/2018	12/16/2018	(11,948.02)	0.00	0.00	(11,948.02)
Distribution of Losses Amount	12/24/2018	12/17/2018	(9,613.57)	0.00	0.00	(9,613.57)
Distribution of Losses Amount	12/25/2018	12/18/2018	(8,710.65)	0.00	0.00	(8,710.65)
Distribution of Losses Amount	12/26/2018	12/19/2018	(9,421.64)	0.00	0.00	(9,421.64)
Distribution of Losses Amount	12/27/2018	12/20/2018	(9,359.33)	0.00	0.00	(9,359.33)
Distribution of Losses Amount	12/28/2018	12/21/2018	(14,785.82)	0.00	0.00	(14,785.82)
Excessive Deficient Energy Deployment Charge Amount	12/22/2018	12/15/2018	1,423.12	0.00	0.00	1,423.12
Excessive Deficient Energy Deployment Charge Amount	12/23/2018	12/16/2018	2,248.26	0.00	0.00	2,248.26
Excessive Deficient Energy Deployment Charge Amount	12/24/2018	12/17/2018	3,520.43	0.00	0.00	3,520.43
Excessive Deficient Energy Deployment Charge Amount	12/25/2018	12/18/2018	1,395.11	0.00	0.00	1,395.11
Excessive Deficient Energy Deployment Charge Amount	12/26/2018	12/19/2018	1,277.31	0.00	0.00	1,277.31
Excessive Deficient Energy Deployment Charge Amount	12/27/2018	12/20/2018	2,421.87	0.00	0.00	2,421.87
Excessive Deficient Energy Deployment Charge Amount	12/28/2018	12/21/2018	1,700.60	0.00	0.00	1,700.60
Excessive Energy Amount	12/22/2018	12/15/2018	92.05	0.00	0.00	92.05
Excessive Energy Amount	12/23/2018	12/16/2018	8.67	0.00	0.00	8.67
Excessive Energy Amount	12/24/2018	12/17/2018	(4.07)	0.00	0.00	(4.07)
Excessive Energy Amount	12/25/2018	12/18/2018	152.95	0.00	0.00	152.95
Excessive Energy Amount	12/26/2018	12/19/2018	273.81	0.00	0.00	273.81
Excessive Energy Amount	12/27/2018	12/20/2018	80.47	0.00	0.00	80.47
Excessive Energy Amount	12/28/2018	12/21/2018	293.52	0.00	0.00	293.52
Financial Bilateral Transaction Congestion Amount	12/22/2018	12/15/2018	0.00	23,505.06	0.00	23,505.06
Financial Bilateral Transaction Congestion Amount	12/23/2018	12/16/2018	0.00	10,944.32	0.00	10,944.32

Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:

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Billing Period: S7						
Financial Bilateral Transaction Congestion Amount	12/24/2018	12/17/2018	\$0.00	\$10,141.75	\$0.00	\$10,141.75
Financial Bilateral Transaction Congestion Amount	12/25/2018	12/18/2018	0.00	29,222.68	0.00	29,222.68
Financial Bilateral Transaction Congestion Amount	12/26/2018	12/19/2018	0.00	14,231.67	0.00	14,231.67
Financial Bilateral Transaction Congestion Amount	12/27/2018	12/20/2018	0.00	20,285.97	0.00	20,285.97
Financial Bilateral Transaction Congestion Amount	12/28/2018	12/21/2018	0.00	1,805.58	0.00	1,805.58
Financial Bilateral Transaction Loss Amount	12/22/2018	12/15/2018	0.00	12,751.90	0.00	12,751.90
Financial Bilateral Transaction Loss Amount	12/23/2018	12/16/2018	0.00	12,923.51	0.00	12,923.51
Financial Bilateral Transaction Loss Amount	12/24/2018	12/17/2018	0.00	17,298.65	0.00	17,298.65
Financial Bilateral Transaction Loss Amount	12/25/2018	12/18/2018	0.00	17,841.11	0.00	17,841.11
Financial Bilateral Transaction Loss Amount	12/26/2018	12/19/2018	0.00	15,841.00	0.00	15,841.00
Financial Bilateral Transaction Loss Amount	12/27/2018	12/20/2018	0.00	16,587.36	0.00	16,587.36
Financial Bilateral Transaction Loss Amount	12/28/2018	12/21/2018	0.00	15,252.15	0.00	15,252.15
Net Inadvertent Distribution Amount	12/22/2018	12/15/2018	(588.00)	0.00	0.00	(588.00)
Net Inadvertent Distribution Amount	12/23/2018	12/16/2018	(1,027.77)	0.00	0.00	(1,027.77)
Net Inadvertent Distribution Amount	12/24/2018	12/17/2018	2,825.56	0.00	0.00	2,825.56
Net Inadvertent Distribution Amount	12/25/2018	12/18/2018	2,822.58	0.00	0.00	2,822.58
Net Inadvertent Distribution Amount	12/26/2018	12/19/2018	8,560.65	0.00	0.00	8,560.65
Net Inadvertent Distribution Amount	12/27/2018	12/20/2018	2,497.43	0.00	0.00	2,497.43
Net Inadvertent Distribution Amount	12/28/2018	12/21/2018	1,701.19	0.00	0.00	1,701.19
Net Regulation Adjustment Amount	12/22/2018	12/15/2018	(4.76)	0.00	0.00	(4.76)
Net Regulation Adjustment Amount	12/23/2018	12/16/2018	38.84	0.00	0.00	38.84
Net Regulation Adjustment Amount	12/24/2018	12/17/2018	108.20	0.00	0.00	108.20
Net Regulation Adjustment Amount	12/25/2018	12/18/2018	(90.07)	0.00	0.00	(90.07)
Net Regulation Adjustment Amount	12/26/2018	12/19/2018	3.75	0.00	0.00	3.75
Net Regulation Adjustment Amount	12/27/2018	12/20/2018	(27.72)	0.00	0.00	(27.72)
Net Regulation Adjustment Amount	12/28/2018	12/21/2018	307.64	0.00	0.00	307.64
Non-Asset Energy Amount	12/22/2018	12/15/2018	1,644.99	(103,471.74)	0.00	(101,826.75)
Non-Asset Energy Amount	12/23/2018	12/16/2018	3,540.92	(60,395.26)	0.00	(56,854.34)
Non-Asset Energy Amount	12/24/2018	12/17/2018	2,819.10	(63,770.76)	0.00	(60,951.66)
Non-Asset Energy Amount	12/25/2018	12/18/2018	878.63	(76,428.00)	0.00	(75,549.37)

Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:

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Billing Period: S7						
Non-Asset Energy Amount	12/26/2018	12/19/2018	\$266.52	(\$61,655.86)	\$0.00	(\$61,389.34)
Non-Asset Energy Amount	12/27/2018	12/20/2018	241.46	(89,709.32)	0.00	(89,467.86)
Non-Asset Energy Amount	12/28/2018	12/21/2018	7,201.97	(39,490.00)	0.00	(32,288.03)
Non-Excessive Energy Amount	12/22/2018	12/15/2018	(6,465.85)	0.00	0.00	(6,465.85)
Non-Excessive Energy Amount	12/23/2018	12/16/2018	2,210.91	0.00	0.00	2,210.91
Non-Excessive Energy Amount	12/24/2018	12/17/2018	(21,128.39)	0.00	0.00	(21,128.39)
Non-Excessive Energy Amount	12/25/2018	12/18/2018	58,307.58	0.00	0.00	58,307.58
Non-Excessive Energy Amount	12/26/2018	12/19/2018	41,232.59	0.00	0.00	41,232.59
Non-Excessive Energy Amount	12/27/2018	12/20/2018	25,430.81	0.00	0.00	25,430.81
Non-Excessive Energy Amount	12/28/2018	12/21/2018	(60,084.41)	0.00	0.00	(60,084.41)
Regulation Amount	12/22/2018	12/15/2018	2,005.34	(5,452.14)	0.00	(3,446.80)
Regulation Amount	12/23/2018	12/16/2018	337.44	(5,734.68)	0.00	(5,397.24)
Regulation Amount	12/24/2018	12/17/2018	(1,583.76)	(4,330.08)	0.00	(5,913.84)
Regulation Amount	12/25/2018	12/18/2018	2,478.64	(5,161.69)	0.00	(2,683.05)
Regulation Amount	12/26/2018	12/19/2018	2,157.49	(5,205.80)	0.00	(3,048.31)
Regulation Amount	12/27/2018	12/20/2018	1,547.90	(4,936.84)	0.00	(3,388.94)
Regulation Amount	12/28/2018	12/21/2018	1,331.69	(5,296.32)	0.00	(3,964.63)
Regulation Cost Distribution Amount	12/22/2018	12/15/2018	1,267.16	0.00	0.00	1,267.16
Regulation Cost Distribution Amount	12/23/2018	12/16/2018	1,346.14	0.00	0.00	1,346.14
Regulation Cost Distribution Amount	12/24/2018	12/17/2018	1,463.99	0.00	0.00	1,463.99
Regulation Cost Distribution Amount	12/25/2018	12/18/2018	1,183.45	0.00	0.00	1,183.45
Regulation Cost Distribution Amount	12/26/2018	12/19/2018	1,090.25	0.00	0.00	1,090.25
Regulation Cost Distribution Amount	12/27/2018	12/20/2018	1,314.94	0.00	0.00	1,314.94
Regulation Cost Distribution Amount	12/28/2018	12/21/2018	1,178.42	0.00	0.00	1,178.42
Resource Adequacy Auction Amount	12/22/2018	12/15/2018	(250.00)	0.00	0.00	(250.00)
Resource Adequacy Auction Amount	12/23/2018	12/16/2018	(250.00)	0.00	0.00	(250.00)
Resource Adequacy Auction Amount	12/24/2018	12/17/2018	(250.00)	0.00	0.00	(250.00)
Resource Adequacy Auction Amount	12/25/2018	12/18/2018	(250.00)	0.00	0.00	(250.00)
Resource Adequacy Auction Amount	12/26/2018	12/19/2018	(250.00)	0.00	0.00	(250.00)
Resource Adequacy Auction Amount	12/27/2018	12/20/2018	(250.00)	0.00	0.00	(250.00)

Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:

(Continued on Next Page)



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Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S7						
Resource Adequacy Auction Amount	12/28/2018	12/21/2018	(\$250.00)	\$0.00	\$0.00	(\$250.00)
Revenue Neutrality Uplift Amount	12/22/2018	12/15/2018	1,946.29	0.00	0.00	1,946.29
Revenue Neutrality Uplift Amount	12/23/2018	12/16/2018	2,860.65	0.00	0.00	2,860.65
Revenue Neutrality Uplift Amount	12/24/2018	12/17/2018	(2,578.31)	0.00	0.00	(2,578.31)
Revenue Neutrality Uplift Amount	12/25/2018	12/18/2018	(5,726.58)	0.00	0.00	(5,726.58)
Revenue Neutrality Uplift Amount	12/26/2018	12/19/2018	(5,245.10)	0.00	0.00	(5,245.10)
Revenue Neutrality Uplift Amount	12/27/2018	12/20/2018	(6,426.42)	0.00	0.00	(6,426.42)
Revenue Neutrality Uplift Amount	12/28/2018	12/21/2018	(2,499.83)	0.00	0.00	(2,499.83)
Revenue Sufficiency Guarantee Distribution Amount	12/22/2018	12/15/2018	0.00	938.49	0.00	938.49
Revenue Sufficiency Guarantee Distribution Amount	12/23/2018	12/16/2018	0.00	294.35	0.00	294.35
Revenue Sufficiency Guarantee Distribution Amount	12/24/2018	12/17/2018	0.00	1,346.40	0.00	1,346.40
Revenue Sufficiency Guarantee Distribution Amount	12/25/2018	12/18/2018	0.00	1,833.84	0.00	1,833.84
Revenue Sufficiency Guarantee Distribution Amount	12/26/2018	12/19/2018	0.00	190.21	0.00	190.21
Revenue Sufficiency Guarantee Distribution Amount	12/27/2018	12/20/2018	0.00	440.36	0.00	440.36
Revenue Sufficiency Guarantee Distribution Amount	12/28/2018	12/21/2018	0.00	94.57	0.00	94.57
Revenue Sufficiency Guarantee First Pass Dist Amount	12/22/2018	12/15/2018	32.45	0.00	0.00	32.45
Revenue Sufficiency Guarantee First Pass Dist Amount	12/23/2018	12/16/2018	177.76	0.00	0.00	177.76
Revenue Sufficiency Guarantee First Pass Dist Amount	12/24/2018	12/17/2018	1,513.51	0.00	0.00	1,513.51
Revenue Sufficiency Guarantee First Pass Dist Amount	12/25/2018	12/18/2018	705.41	0.00	0.00	705.41
Revenue Sufficiency Guarantee First Pass Dist Amount	12/26/2018	12/19/2018	139.93	0.00	0.00	139.93
Revenue Sufficiency Guarantee First Pass Dist Amount	12/27/2018	12/20/2018	743.56	0.00	0.00	743.56
Revenue Sufficiency Guarantee First Pass Dist Amount	12/28/2018	12/21/2018	288.92	0.00	0.00	288.92
Revenue Sufficiency Guarantee Make Whole Payment Amt	12/22/2018	12/15/2018	0.00	(115.14)	0.00	(115.14)
Revenue Sufficiency Guarantee Make Whole Payment Amt	12/23/2018	12/16/2018	0.00	(64.04)	0.00	(64.04)
Revenue Sufficiency Guarantee Make Whole Payment Amt	12/25/2018	12/18/2018	0.00	(127.05)	0.00	(127.05)
Revenue Sufficiency Guarantee Make Whole Payment Amt	12/26/2018	12/19/2018	0.00	(108.02)	0.00	(108.02)
Revenue Sufficiency Guarantee Make Whole Payment Amt	12/27/2018	12/20/2018	0.00	(239.47)	0.00	(239.47)
Revenue Sufficiency Guarantee Make Whole Payment Amt	12/28/2018	12/21/2018	0.00	(12.71)	0.00	(12.71)
Schedule 24 Allocation Amount	12/22/2018	12/15/2018	56.26	784.61	0.00	840.87
Schedule 24 Allocation Amount	12/23/2018	12/16/2018	39.15	752.39	0.00	791.54

Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:

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Billing Period: S7						
Schedule 24 Allocation Amount	12/24/2018	12/17/2018	\$64.51	\$798.86	\$0.00	\$863.37
Schedule 24 Allocation Amount	12/25/2018	12/18/2018	59.34	759.86	0.00	819.20
Schedule 24 Allocation Amount	12/26/2018	12/19/2018	60.97	824.33	0.00	885.30
Schedule 24 Allocation Amount	12/27/2018	12/20/2018	68.69	759.73	0.00	828.42
Schedule 24 Allocation Amount	12/28/2018	12/21/2018	59.07	800.86	0.00	859.93
Schedule 24 Distribution Amount	12/22/2018	12/15/2018	(4,651.10)	0.00	0.00	(4,651.10)
Schedule 24 Distribution Amount	12/23/2018	12/16/2018	(4,468.40)	0.00	0.00	(4,468.40)
Schedule 24 Distribution Amount	12/24/2018	12/17/2018	(4,940.05)	0.00	0.00	(4,940.05)
Schedule 24 Distribution Amount	12/25/2018	12/18/2018	(5,109.36)	0.00	0.00	(5,109.36)
Schedule 24 Distribution Amount	12/26/2018	12/19/2018	(5,086.24)	0.00	0.00	(5,086.24)
Schedule 24 Distribution Amount	12/27/2018	12/20/2018	(5,130.35)	0.00	0.00	(5,130.35)
Schedule 24 Distribution Amount	12/28/2018	12/21/2018	(5,014.06)	0.00	0.00	(5,014.06)
Spinning Reserve Amount	12/22/2018	12/15/2018	572.78	(2,000.14)	0.00	(1,427.36)
Spinning Reserve Amount	12/23/2018	12/16/2018	229.38	(1,547.58)	0.00	(1,318.20)
Spinning Reserve Amount	12/24/2018	12/17/2018	(1.81)	(2,323.88)	0.00	(2,325.69)
Spinning Reserve Amount	12/25/2018	12/18/2018	247.62	(1,763.50)	0.00	(1,515.88)
Spinning Reserve Amount	12/26/2018	12/19/2018	32.03	(1,304.60)	0.00	(1,272.57)
Spinning Reserve Amount	12/27/2018	12/20/2018	116.33	(1,082.92)	0.00	(966.59)
Spinning Reserve Amount	12/28/2018	12/21/2018	1,021.26	(2,062.99)	0.00	(1,041.73)
Spinning Reserve Cost Distribution Amount	12/22/2018	12/15/2018	1,041.41	0.00	0.00	1,041.41
Spinning Reserve Cost Distribution Amount	12/23/2018	12/16/2018	1,160.99	0.00	0.00	1,160.99
Spinning Reserve Cost Distribution Amount	12/24/2018	12/17/2018	1,516.33	0.00	0.00	1,516.33
Spinning Reserve Cost Distribution Amount	12/25/2018	12/18/2018	984.80	0.00	0.00	984.80
Spinning Reserve Cost Distribution Amount	12/26/2018	12/19/2018	812.71	0.00	0.00	812.71
Spinning Reserve Cost Distribution Amount	12/27/2018	12/20/2018	703.22	0.00	0.00	703.22
Spinning Reserve Cost Distribution Amount	12/28/2018	12/21/2018	839.53	0.00	0.00	839.53
Supplemental Reserve Amount	12/22/2018	12/15/2018	(0.97)	0.00	0.00	(0.97)
Supplemental Reserve Amount	12/23/2018	12/16/2018	(0.36)	0.00	0.00	(0.36)
Supplemental Reserve Amount	12/24/2018	12/17/2018	(4.05)	0.00	0.00	(4.05)
Supplemental Reserve Amount	12/26/2018	12/19/2018	(0.97)	0.00	0.00	(0.97)

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Supplemental Reserve Amount	12/27/2018	12/20/2018	(\$2.30)	\$0.00	\$0.00	(\$2.30)
Supplemental Reserve Amount	12/28/2018	12/21/2018	5.37	(12.15)	0.00	(6.78)
Supplemental Reserve Cost Distribution Amount	12/22/2018	12/15/2018	212.07	0.00	0.00	212.07
Supplemental Reserve Cost Distribution Amount	12/23/2018	12/16/2018	213.38	0.00	0.00	213.38
Supplemental Reserve Cost Distribution Amount	12/24/2018	12/17/2018	214.05	0.00	0.00	214.05
Supplemental Reserve Cost Distribution Amount	12/25/2018	12/18/2018	242.44	0.00	0.00	242.44
Supplemental Reserve Cost Distribution Amount	12/26/2018	12/19/2018	243.56	0.00	0.00	243.56
Supplemental Reserve Cost Distribution Amount	12/27/2018	12/20/2018	220.88	0.00	0.00	220.88
Supplemental Reserve Cost Distribution Amount	12/28/2018	12/21/2018	217.11	0.00	0.00	217.11
Transmission Guarantee Uplift Amount	12/22/2018	12/15/2018	0.00	0.00	1,343.05	1,343.05
Transmission Guarantee Uplift Amount	12/23/2018	12/16/2018	0.00	0.00	65.56	65.56
Transmission Guarantee Uplift Amount	12/24/2018	12/17/2018	0.00	0.00	174.98	174.98
Transmission Guarantee Uplift Amount	12/25/2018	12/18/2018	0.00	0.00	182.76	182.76
Transmission Guarantee Uplift Amount	12/26/2018	12/19/2018	0.00	0.00	214.77	214.77
Transmission Guarantee Uplift Amount	12/27/2018	12/20/2018	0.00	0.00	261.88	261.88
Transmission Guarantee Uplift Amount	12/28/2018	12/21/2018	0.00	0.00	45.44	45.44
Transmission Rights Full Funding Guarantee Amount	12/22/2018	12/15/2018	0.00	0.00	(1,343.05)	(1,343.05)
Transmission Rights Full Funding Guarantee Amount	12/23/2018	12/16/2018	0.00	0.00	(65.56)	(65.56)
Transmission Rights Full Funding Guarantee Amount	12/24/2018	12/17/2018	0.00	0.00	(174.98)	(174.98)
Transmission Rights Full Funding Guarantee Amount	12/25/2018	12/18/2018	0.00	0.00	(182.76)	(182.76)
Transmission Rights Full Funding Guarantee Amount	12/26/2018	12/19/2018	0.00	0.00	(214.77)	(214.77)
Transmission Rights Full Funding Guarantee Amount	12/27/2018	12/20/2018	0.00	0.00	(261.88)	(261.88)
Transmission Rights Full Funding Guarantee Amount	12/28/2018	12/21/2018	0.00	0.00	(45.44)	(45.44)
Transmission Rights Hourly Allocation Amount	12/22/2018	12/15/2018	0.00	0.00	(10,269.55)	(10,269.55)
Transmission Rights Hourly Allocation Amount	12/23/2018	12/16/2018	0.00	0.00	(5,828.60)	(5,828.60)
Transmission Rights Hourly Allocation Amount	12/24/2018	12/17/2018	0.00	0.00	(3,374.52)	(3,374.52)
Transmission Rights Hourly Allocation Amount	12/25/2018	12/18/2018	0.00	0.00	(9,697.90)	(9,697.90)
Transmission Rights Hourly Allocation Amount	12/26/2018	12/19/2018	0.00	0.00	(5,056.35)	(5,056.35)
Transmission Rights Hourly Allocation Amount	12/27/2018	12/20/2018	0.00	0.00	(6,257.41)	(6,257.41)
Transmission Rights Hourly Allocation Amount	12/28/2018	12/21/2018	0.00	0.00	(652.28)	(652.28)

Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:

(Continued on Next Page)



Invoice

Market Participant: Minnesota Power
 30 West Superior Street
 Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S7						
Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:			\$85,723.51	\$750,527.17	(\$41,136.61)	\$795,114.07



Midcontinent Independent System Operator, Inc.
 P.O. Box 4202
 Carmel, IN 46082-4202

Invoice

Market Participant: Minnesota Power
 30 West Superior Street
 Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S14						
Distribution of Losses Amount	12/22/2018	12/08/2018	\$620.74	\$0.00	\$0.00	\$620.74
Distribution of Losses Amount	12/23/2018	12/09/2018	592.92	0.00	0.00	592.92
Distribution of Losses Amount	12/24/2018	12/10/2018	574.79	0.00	0.00	574.79
Distribution of Losses Amount	12/25/2018	12/11/2018	(114.39)	0.00	0.00	(114.39)
Distribution of Losses Amount	12/26/2018	12/12/2018	171.65	0.00	0.00	171.65
Distribution of Losses Amount	12/27/2018	12/13/2018	(12.57)	0.00	0.00	(12.57)
Distribution of Losses Amount	12/28/2018	12/14/2018	62.99	0.00	0.00	62.99
Excessive Deficient Energy Deployment Charge Amount	12/22/2018	12/08/2018	0.01	0.00	0.00	0.01
Excessive Deficient Energy Deployment Charge Amount	12/25/2018	12/11/2018	0.05	0.00	0.00	0.05
Excessive Deficient Energy Deployment Charge Amount	12/26/2018	12/12/2018	0.30	0.00	0.00	0.30
Excessive Deficient Energy Deployment Charge Amount	12/27/2018	12/13/2018	(0.18)	0.00	0.00	(0.18)
Net Inadvertent Distribution Amount	12/22/2018	12/08/2018	(4.21)	0.00	0.00	(4.21)
Net Inadvertent Distribution Amount	12/23/2018	12/09/2018	(0.50)	0.00	0.00	(0.50)
Net Inadvertent Distribution Amount	12/24/2018	12/10/2018	(42.24)	0.00	0.00	(42.24)
Net Inadvertent Distribution Amount	12/25/2018	12/11/2018	(242.82)	0.00	0.00	(242.82)
Net Inadvertent Distribution Amount	12/26/2018	12/12/2018	(295.04)	0.00	0.00	(295.04)
Net Inadvertent Distribution Amount	12/27/2018	12/13/2018	(374.96)	0.00	0.00	(374.96)
Net Inadvertent Distribution Amount	12/28/2018	12/14/2018	(401.47)	0.00	0.00	(401.47)
Regulation Cost Distribution Amount	12/22/2018	12/08/2018	(0.01)	0.00	0.00	(0.01)
Regulation Cost Distribution Amount	12/23/2018	12/09/2018	0.58	0.00	0.00	0.58
Regulation Cost Distribution Amount	12/24/2018	12/10/2018	0.74	0.00	0.00	0.74
Regulation Cost Distribution Amount	12/25/2018	12/11/2018	(0.86)	0.00	0.00	(0.86)
Regulation Cost Distribution Amount	12/26/2018	12/12/2018	(2.03)	0.00	0.00	(2.03)
Regulation Cost Distribution Amount	12/27/2018	12/13/2018	(0.63)	0.00	0.00	(0.63)
Regulation Cost Distribution Amount	12/28/2018	12/14/2018	(0.07)	0.00	0.00	(0.07)
Revenue Neutrality Uplift Amount	12/22/2018	12/08/2018	9.77	0.00	0.00	9.77
Revenue Neutrality Uplift Amount	12/23/2018	12/09/2018	(4.28)	0.00	0.00	(4.28)
Revenue Neutrality Uplift Amount	12/24/2018	12/10/2018	148.77	0.00	0.00	148.77
Revenue Neutrality Uplift Amount	12/25/2018	12/11/2018	127.75	0.00	0.00	127.75
Revenue Neutrality Uplift Amount	12/26/2018	12/12/2018	354.35	0.00	0.00	354.35
Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:						(Continued on Next Page)



Midcontinent Independent System Operator, Inc.
P.O. Box 4202
Carmel, IN 46082-4202

Invoice

Market Participant: Minnesota Power
30 West Superior Street
Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S14						
Revenue Neutrality Uplift Amount	12/27/2018	12/13/2018	(\$124.58)	\$0.00	\$0.00	(\$124.58)
Revenue Neutrality Uplift Amount	12/28/2018	12/14/2018	503.88	0.00	0.00	503.88
Revenue Sufficiency Guarantee Distribution Amount	12/28/2018	12/14/2018	0.00	(14.50)	0.00	(14.50)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/22/2018	12/08/2018	471.92	0.00	0.00	471.92
Revenue Sufficiency Guarantee First Pass Dist Amount	12/23/2018	12/09/2018	74.14	0.00	0.00	74.14
Revenue Sufficiency Guarantee First Pass Dist Amount	12/24/2018	12/10/2018	953.19	0.00	0.00	953.19
Revenue Sufficiency Guarantee First Pass Dist Amount	12/25/2018	12/11/2018	396.73	0.00	0.00	396.73
Revenue Sufficiency Guarantee First Pass Dist Amount	12/26/2018	12/12/2018	4.86	0.00	0.00	4.86
Revenue Sufficiency Guarantee First Pass Dist Amount	12/27/2018	12/13/2018	1.06	0.00	0.00	1.06
Revenue Sufficiency Guarantee First Pass Dist Amount	12/28/2018	12/14/2018	173.19	0.00	0.00	173.19
Schedule 24 Distribution Amount	12/22/2018	12/08/2018	0.64	0.00	0.00	0.64
Schedule 24 Distribution Amount	12/23/2018	12/09/2018	0.92	0.00	0.00	0.92
Schedule 24 Distribution Amount	12/24/2018	12/10/2018	1.04	0.00	0.00	1.04
Schedule 24 Distribution Amount	12/25/2018	12/11/2018	(15.22)	0.00	0.00	(15.22)
Schedule 24 Distribution Amount	12/26/2018	12/12/2018	0.72	0.00	0.00	0.72
Schedule 24 Distribution Amount	12/27/2018	12/13/2018	2.82	0.00	0.00	2.82
Schedule 24 Distribution Amount	12/28/2018	12/14/2018	0.45	0.00	0.00	0.45
Spinning Reserve Cost Distribution Amount	12/22/2018	12/08/2018	0.63	0.00	0.00	0.63
Spinning Reserve Cost Distribution Amount	12/23/2018	12/09/2018	0.53	0.00	0.00	0.53
Spinning Reserve Cost Distribution Amount	12/24/2018	12/10/2018	0.79	0.00	0.00	0.79
Spinning Reserve Cost Distribution Amount	12/25/2018	12/11/2018	0.52	0.00	0.00	0.52
Spinning Reserve Cost Distribution Amount	12/26/2018	12/12/2018	0.51	0.00	0.00	0.51
Spinning Reserve Cost Distribution Amount	12/27/2018	12/13/2018	(1.18)	0.00	0.00	(1.18)
Supplemental Reserve Cost Distribution Amount	12/23/2018	12/09/2018	0.26	0.00	0.00	0.26
Transmission Guarantee Uplift Amount	12/25/2018	12/11/2018	0.00	0.00	(1.41)	(1.41)
Transmission Rights Full Funding Guarantee Amount	12/25/2018	12/11/2018	0.00	0.00	1.41	1.41
Transmission Rights Hourly Allocation Amount	12/25/2018	12/11/2018	0.00	0.00	(1.41)	(1.41)
Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:			\$3,616.97	(\$14.50)	(\$1.41)	\$3,601.06



Midcontinent Independent System Operator, Inc.
 P.O. Box 4202
 Carmel, IN 46082-4202

Invoice

Market Participant: Minnesota Power
 30 West Superior Street
 Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S55						
Asset Energy Amount	12/22/2018	10/28/2018	\$175.54	\$0.00	\$0.00	\$175.54
Asset Energy Amount	12/23/2018	10/29/2018	721.55	0.00	0.00	721.55
Asset Energy Amount	12/24/2018	10/30/2018	676.47	0.00	0.00	676.47
Asset Energy Amount	12/25/2018	10/31/2018	958.52	0.00	0.00	958.52
Asset Energy Amount	12/26/2018	11/01/2018	369.27	0.00	0.00	369.27
Asset Energy Amount	12/27/2018	11/02/2018	76.13	0.00	0.00	76.13
Asset Energy Amount	12/28/2018	11/03/2018	(256.19)	0.00	0.00	(256.19)
Auction Revenue Rights Stage 2 Distribution Amount	12/26/2018	11/01/2018	0.00	0.00	607.38	607.38
Distribution of Losses Amount	12/22/2018	10/28/2018	(178.26)	0.00	0.00	(178.26)
Distribution of Losses Amount	12/23/2018	10/29/2018	(498.56)	0.00	0.00	(498.56)
Distribution of Losses Amount	12/24/2018	10/30/2018	33.99	0.00	0.00	33.99
Distribution of Losses Amount	12/25/2018	10/31/2018	(123.85)	0.00	0.00	(123.85)
Distribution of Losses Amount	12/26/2018	11/01/2018	245.68	0.00	0.00	245.68
Distribution of Losses Amount	12/27/2018	11/02/2018	105.29	0.00	0.00	105.29
Distribution of Losses Amount	12/28/2018	11/03/2018	151.43	0.00	0.00	151.43
Excessive Deficient Energy Deployment Charge Amount	12/22/2018	10/28/2018	(0.27)	0.00	0.00	(0.27)
Excessive Deficient Energy Deployment Charge Amount	12/23/2018	10/29/2018	0.36	0.00	0.00	0.36
Excessive Deficient Energy Deployment Charge Amount	12/24/2018	10/30/2018	0.32	0.00	0.00	0.32
Excessive Deficient Energy Deployment Charge Amount	12/25/2018	10/31/2018	0.69	0.00	0.00	0.69
Excessive Deficient Energy Deployment Charge Amount	12/26/2018	11/01/2018	0.08	0.00	0.00	0.08
Excessive Deficient Energy Deployment Charge Amount	12/27/2018	11/02/2018	(0.16)	0.00	0.00	(0.16)
Excessive Deficient Energy Deployment Charge Amount	12/28/2018	11/03/2018	0.10	0.00	0.00	0.10
MVP Distribution Amount	12/25/2018	10/31/2018	(37.58)	0.00	0.00	(37.58)
Miscellaneous Amount	12/25/2018	10/31/2018	63,974.59	0.00	0.00	63,974.59
Net Inadvertent Distribution Amount	12/22/2018	10/28/2018	(125.73)	0.00	0.00	(125.73)
Net Inadvertent Distribution Amount	12/23/2018	10/29/2018	(312.29)	0.00	0.00	(312.29)
Net Inadvertent Distribution Amount	12/24/2018	10/30/2018	0.57	0.00	0.00	0.57
Net Inadvertent Distribution Amount	12/25/2018	10/31/2018	(67.59)	0.00	0.00	(67.59)
Net Inadvertent Distribution Amount	12/26/2018	11/01/2018	103.15	0.00	0.00	103.15
Net Inadvertent Distribution Amount	12/27/2018	11/02/2018	55.73	0.00	0.00	55.73

Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:

(Continued on Next Page)



Midcontinent Independent System Operator, Inc.
 P.O. Box 4202
 Carmel, IN 46082-4202

Attachment 7

Invoice

Market Participant: Minnesota Power
 30 West Superior Street
 Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S55						
Net Inadvertent Distribution Amount	12/28/2018	11/03/2018	\$95.24	\$0.00	\$0.00	\$95.24
Net Regulation Adjustment Amount	12/26/2018	11/01/2018	1.95	0.00	0.00	1.95
Net Regulation Adjustment Amount	12/27/2018	11/02/2018	1.90	0.00	0.00	1.90
Net Regulation Adjustment Amount	12/28/2018	11/03/2018	2.08	0.00	0.00	2.08
Non-Excessive Energy Amount	12/26/2018	11/01/2018	50.86	0.00	0.00	50.86
Non-Excessive Energy Amount	12/27/2018	11/02/2018	52.87	0.00	0.00	52.87
Non-Excessive Energy Amount	12/28/2018	11/03/2018	41.27	0.00	0.00	41.27
Regulation Cost Distribution Amount	12/22/2018	10/28/2018	(0.05)	0.00	0.00	(0.05)
Regulation Cost Distribution Amount	12/23/2018	10/29/2018	2.40	0.00	0.00	2.40
Regulation Cost Distribution Amount	12/24/2018	10/30/2018	(0.62)	0.00	0.00	(0.62)
Regulation Cost Distribution Amount	12/25/2018	10/31/2018	(14.89)	0.00	0.00	(14.89)
Regulation Cost Distribution Amount	12/26/2018	11/01/2018	(21.89)	0.00	0.00	(21.89)
Regulation Cost Distribution Amount	12/27/2018	11/02/2018	(38.21)	0.00	0.00	(38.21)
Regulation Cost Distribution Amount	12/28/2018	11/03/2018	(17.18)	0.00	0.00	(17.18)
Revenue Neutrality Uplift Amount	12/22/2018	10/28/2018	80.17	0.00	0.00	80.17
Revenue Neutrality Uplift Amount	12/23/2018	10/29/2018	(36.04)	0.00	0.00	(36.04)
Revenue Neutrality Uplift Amount	12/24/2018	10/30/2018	(277.20)	0.00	0.00	(277.20)
Revenue Neutrality Uplift Amount	12/25/2018	10/31/2018	(40.31)	0.00	0.00	(40.31)
Revenue Neutrality Uplift Amount	12/26/2018	11/01/2018	(222.87)	0.00	0.00	(222.87)
Revenue Neutrality Uplift Amount	12/27/2018	11/02/2018	(212.15)	0.00	0.00	(212.15)
Revenue Neutrality Uplift Amount	12/28/2018	11/03/2018	(204.11)	0.00	0.00	(204.11)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/22/2018	10/28/2018	(0.05)	0.00	0.00	(0.05)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/23/2018	10/29/2018	48.25	0.00	0.00	48.25
Revenue Sufficiency Guarantee First Pass Dist Amount	12/24/2018	10/30/2018	284.85	0.00	0.00	284.85
Revenue Sufficiency Guarantee First Pass Dist Amount	12/25/2018	10/31/2018	(18.33)	0.00	0.00	(18.33)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/26/2018	11/01/2018	(21.60)	0.00	0.00	(21.60)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/27/2018	11/02/2018	39.19	0.00	0.00	39.19
Revenue Sufficiency Guarantee First Pass Dist Amount	12/28/2018	11/03/2018	(6.76)	0.00	0.00	(6.76)
Schedule 24 Allocation Amount	12/22/2018	10/28/2018	(0.10)	0.00	0.00	(0.10)
Schedule 24 Allocation Amount	12/23/2018	10/29/2018	(0.05)	0.00	0.00	(0.05)

Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:

(Continued on Next Page)



Midcontinent Independent System Operator, Inc.
P.O. Box 4202
Carmel, IN 46082-4202

Attachment 7

Invoice

Market Participant: Minnesota Power
30 West Superior Street
Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S55						
Schedule 24 Allocation Amount	12/24/2018	10/30/2018	\$0.33	\$0.00	\$0.00	\$0.33
Schedule 24 Allocation Amount	12/26/2018	11/01/2018	0.14	0.00	0.00	0.14
Schedule 24 Allocation Amount	12/27/2018	11/02/2018	0.03	0.00	0.00	0.03
Schedule 24 Allocation Amount	12/28/2018	11/03/2018	(0.03)	0.00	0.00	(0.03)
Schedule 24 Distribution Amount	12/22/2018	10/28/2018	0.81	0.00	0.00	0.81
Schedule 24 Distribution Amount	12/23/2018	10/29/2018	5.13	0.00	0.00	5.13
Schedule 24 Distribution Amount	12/24/2018	10/30/2018	3.80	0.00	0.00	3.80
Schedule 24 Distribution Amount	12/25/2018	10/31/2018	2.13	0.00	0.00	2.13
Schedule 24 Distribution Amount	12/26/2018	11/01/2018	(2.71)	0.00	0.00	(2.71)
Schedule 24 Distribution Amount	12/27/2018	11/02/2018	(5.52)	0.00	0.00	(5.52)
Schedule 24 Distribution Amount	12/28/2018	11/03/2018	(1.80)	0.00	0.00	(1.80)
Spinning Reserve Cost Distribution Amount	12/22/2018	10/28/2018	(0.29)	0.00	0.00	(0.29)
Spinning Reserve Cost Distribution Amount	12/23/2018	10/29/2018	1.53	0.00	0.00	1.53
Spinning Reserve Cost Distribution Amount	12/24/2018	10/30/2018	2.12	0.00	0.00	2.12
Spinning Reserve Cost Distribution Amount	12/25/2018	10/31/2018	4.32	0.00	0.00	4.32
Spinning Reserve Cost Distribution Amount	12/26/2018	11/01/2018	2.16	0.00	0.00	2.16
Spinning Reserve Cost Distribution Amount	12/27/2018	11/02/2018	0.84	0.00	0.00	0.84
Spinning Reserve Cost Distribution Amount	12/28/2018	11/03/2018	1.01	0.00	0.00	1.01
Supplemental Reserve Cost Distribution Amount	12/22/2018	10/28/2018	0.03	0.00	0.00	0.03
Supplemental Reserve Cost Distribution Amount	12/23/2018	10/29/2018	0.16	0.00	0.00	0.16
Supplemental Reserve Cost Distribution Amount	12/24/2018	10/30/2018	0.38	0.00	0.00	0.38
Supplemental Reserve Cost Distribution Amount	12/25/2018	10/31/2018	0.46	0.00	0.00	0.46
Supplemental Reserve Cost Distribution Amount	12/26/2018	11/01/2018	0.17	0.00	0.00	0.17
Supplemental Reserve Cost Distribution Amount	12/28/2018	11/03/2018	(0.07)	0.00	0.00	(0.07)
Transmission Guarantee Uplift Amount	12/25/2018	10/31/2018	0.00	0.00	0.02	0.02
Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:			\$65,632.73	\$0.00	\$607.40	\$66,240.13



Midcontinent Independent System Operator, Inc.
 P.O. Box 4202
 Carmel, IN 46082-4202

Attachment 7

Invoice

Market Participant: Minnesota Power
 30 West Superior Street
 Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S105						
Demand Response Allocation Uplift Charge	12/28/2018	09/14/2018	(\$0.05)	\$0.00	\$0.00	(\$0.05)
Distribution of Losses Amount	12/22/2018	09/08/2018	7.76	0.00	0.00	7.76
Distribution of Losses Amount	12/23/2018	09/09/2018	(0.57)	0.00	0.00	(0.57)
Distribution of Losses Amount	12/24/2018	09/10/2018	0.57	0.00	0.00	0.57
Distribution of Losses Amount	12/25/2018	09/11/2018	(1.05)	0.00	0.00	(1.05)
Distribution of Losses Amount	12/26/2018	09/12/2018	1.15	0.00	0.00	1.15
Distribution of Losses Amount	12/27/2018	09/13/2018	1.65	0.00	0.00	1.65
Distribution of Losses Amount	12/28/2018	09/14/2018	(0.71)	0.00	0.00	(0.71)
Excessive Deficient Energy Deployment Charge Amount	12/24/2018	09/10/2018	0.03	0.00	0.00	0.03
Excessive Deficient Energy Deployment Charge Amount	12/27/2018	09/13/2018	0.01	0.00	0.00	0.01
Miscellaneous Amount	12/25/2018	09/11/2018	33,186.21	0.00	0.00	33,186.21
Net Inadvertent Distribution Amount	12/22/2018	09/08/2018	0.01	0.00	0.00	0.01
Net Inadvertent Distribution Amount	12/24/2018	09/10/2018	0.02	0.00	0.00	0.02
Net Inadvertent Distribution Amount	12/27/2018	09/13/2018	0.03	0.00	0.00	0.03
Net Inadvertent Distribution Amount	12/28/2018	09/14/2018	(0.02)	0.00	0.00	(0.02)
Regulation Cost Distribution Amount	12/22/2018	09/08/2018	(0.04)	0.00	0.00	(0.04)
Regulation Cost Distribution Amount	12/23/2018	09/09/2018	(0.21)	0.00	0.00	(0.21)
Regulation Cost Distribution Amount	12/24/2018	09/10/2018	0.25	0.00	0.00	0.25
Regulation Cost Distribution Amount	12/25/2018	09/11/2018	(0.31)	0.00	0.00	(0.31)
Regulation Cost Distribution Amount	12/26/2018	09/12/2018	1.23	0.00	0.00	1.23
Regulation Cost Distribution Amount	12/27/2018	09/13/2018	0.12	0.00	0.00	0.12
Regulation Cost Distribution Amount	12/28/2018	09/14/2018	0.01	0.00	0.00	0.01
Revenue Neutrality Uplift Amount	12/22/2018	09/08/2018	(59.01)	0.00	0.00	(59.01)
Revenue Neutrality Uplift Amount	12/23/2018	09/09/2018	(5.77)	0.00	0.00	(5.77)
Revenue Neutrality Uplift Amount	12/24/2018	09/10/2018	(7.23)	0.00	0.00	(7.23)
Revenue Neutrality Uplift Amount	12/25/2018	09/11/2018	(8.21)	0.00	0.00	(8.21)
Revenue Neutrality Uplift Amount	12/26/2018	09/12/2018	(2.43)	0.00	0.00	(2.43)
Revenue Neutrality Uplift Amount	12/27/2018	09/13/2018	(0.43)	0.00	0.00	(0.43)
Revenue Neutrality Uplift Amount	12/28/2018	09/14/2018	2.14	0.00	0.00	2.14
Revenue Sufficiency Guarantee First Pass Dist Amount	12/22/2018	09/08/2018	(0.41)	0.00	0.00	(0.41)
Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:						(Continued on Next Page)



Midcontinent Independent System Operator, Inc.
 P.O. Box 4202
 Carmel, IN 46082-4202

Attachment 7

Invoice

Market Participant: Minnesota Power
 30 West Superior Street
 Duluth, MN 55802

Invoice Number: 1582990

For Statements Issued: 12/22/2018 - 12/28/2018

Invoice Date: 01/02/2019

Participant ID: MPM

Payment Due Date: 01/09/2019

Invoice Type: Market Invoice

Description	Settlement Date	Operating Date	Real-Time	Day-Ahead	Other	Total
Billing Period: S105						
Revenue Sufficiency Guarantee First Pass Dist Amount	12/23/2018	09/09/2018	\$1.89	\$0.00	\$0.00	\$1.89
Revenue Sufficiency Guarantee First Pass Dist Amount	12/24/2018	09/10/2018	(0.05)	0.00	0.00	(0.05)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/25/2018	09/11/2018	(0.92)	0.00	0.00	(0.92)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/26/2018	09/12/2018	(3.98)	0.00	0.00	(3.98)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/27/2018	09/13/2018	(3.60)	0.00	0.00	(3.60)
Revenue Sufficiency Guarantee First Pass Dist Amount	12/28/2018	09/14/2018	(18.08)	0.00	0.00	(18.08)
Schedule 24 Distribution Amount	12/22/2018	09/08/2018	4.10	0.00	0.00	4.10
Schedule 24 Distribution Amount	12/23/2018	09/09/2018	(0.12)	0.00	0.00	(0.12)
Schedule 24 Distribution Amount	12/24/2018	09/10/2018	0.35	0.00	0.00	0.35
Schedule 24 Distribution Amount	12/26/2018	09/12/2018	(0.25)	0.00	0.00	(0.25)
Schedule 24 Distribution Amount	12/27/2018	09/13/2018	(0.21)	0.00	0.00	(0.21)
Schedule 24 Distribution Amount	12/28/2018	09/14/2018	(0.40)	0.00	0.00	(0.40)
Spinning Reserve Cost Distribution Amount	12/24/2018	09/10/2018	(0.12)	0.00	0.00	(0.12)
Spinning Reserve Cost Distribution Amount	12/27/2018	09/13/2018	0.13	0.00	0.00	0.13
Supplemental Reserve Cost Distribution Amount	12/24/2018	09/10/2018	0.11	0.00	0.00	0.11
Supplemental Reserve Cost Distribution Amount	12/25/2018	09/11/2018	(0.12)	0.00	0.00	(0.12)
Supplemental Reserve Cost Distribution Amount	12/27/2018	09/13/2018	0.12	0.00	0.00	0.12
Total Net (Revenue)/Charge of Real Time and Day Ahead Markets:			\$33,093.59	\$0.00	\$0.00	\$33,093.59