

Schedule 5
2017 Capital Budget Excluding AFUDC
Nuclear Generation
Total Company - All Utilities

Northern States Power - MN
(\$000's)

Parent Proj Full Desc	Total
11507888 - PI Facilities Infrastruct Upgr	100
11507910 - PI ISFSI Security Modification	530
11633394 - Monticello Reload 29(C30)	193
11634222 - PI Emerg Resp Equipment FLEX	240
11649843 - MNGP 2017 Site Blanket	1,000
11649897 - MNGP 2017 Plant Computer Blank	150
11650502 - MNGP 2017 Facilities Infrastru	401
11650511 - MNGP 2017 LPRMs	661
11650737 - PI FLEX Implementation Ph II	700
11650739 - PI 2017 Misc Tools & Equipment	575
11650741 - PI 2017 Misc Minor Improvement	975
11650742 - PI 2017 Misc Office Furniture	425
11650743 - PI 2017 I/T Capital Blanket	400
11650753 - PI 124 CT Deck Header Valves	1,479
11650770 - PI AFW Pump Room Cooling	163
11652676 - MNGP 2017 Capital Emergent Wor	600
11655240 - PI Capital Emergent Work	1,000
11679156 - PI NFPA 805 -05 Incipient Det	710
11712454 - MNGP NEI 09-05 Security Compli	1,300
11769538 - MNGP Byron Station Electric Vo	3,460
11769895 - MNGP 2017 Tools & Equipment	400
11808178 - PI U1 Generator Replacemnt LCM	940
11810776 - MNGP 316/B Ruling Implementati	465
11812707 - PI Spare Aux FW Pump Motor	385
11812710 - PI 11 CC Pump Motor Replacemnt	151
11812717 - PI 21 CC Pump Motor Replacemnt	315
11812728 - PI Spare CC Pump Motor Purch	379
11812736 - PI 11 CS Pump Motor Replacemnt	148
11812745 - PI Spare CS Pump Motor	387
11812750 - PI 11 RHR Pump Motor Replacmnt	156
11812764 - PI 21 RHR Pump Motor Replacmnt	342
11812775 - PI Spare RHR Pump Motor	402
11812803 - PI 11 SI Pump Motor Replacemnt	196
11817141 - PI 4.16 KV Bus Modifications	3,360
11818570 - MNGP Regulatory Mandated Capi	1,000
11860702 - PI ISFSI Expansion	3,555
11871747 - MNGP Hardened Vents & Filters	6,427
11939492 - PI 12 FCU Motor Rewind	239
11939496 - PI 21 FCU Motor Rewind	342

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Parent Proj Full Desc	Total
11946106 - MNGP CV 1095 A/B Condensate Pu	1,182
11979212 - PI U1 SG Narrow Rng Water Lev	50
12053872 - PI NFPA 805-01 U1 Train A AFW	1,250
12053883 - PI NFPA 805-02 U2 Train A AFW	1,250
12053891 - PI NFPA 805-03 U1 Train B AFW	1,250
12053895 - PI NFPA 805-04 U2 Train B AFW	1,250
12053906 - PI NFPA 805-10 Loss OCT 4KV Br	1,250
12053912 - PI NFPA 805-24 CT11CT12 Brkrs	1,500
12053920 - PI NFPA 805-25 Repowr MV-32078	500
12053925 - PI NFPA 805-26 Repowr MV-32180	500
12063711 - MNGP Nuclear Channels R28 (C29	1,981
12065081 - MNGP Fukushima Phase II	1,233
12076067 - MNGP Obsolete EQ RFO 28	2,653
12076076 - MNGP Obsolete EQ RFO29	123
12076246 - MNGP T-98 Cyclone Separator Up	62
12172473 - MNGP 2016/2017 Position Ind Pr	555
12173155 - PI 121 Cooling Twr Structural	6,359
12173159 - PI 124 Cooling Twr Structural	5,941
12173539 - PI RCP Pump & Inj Line Repl	10,000
12173540 - PI Security Modifications	2,000
12173541 - PI 24 Month Fuel Cycle	1,396
12173542 - PI Tornado Missile Protect-RIS	1,000
12173555 - MNGP Security Mods Post Reduct	2,000
12173581 - MNGP Tornado Missile Protect	1,000
Grand Total	269,980

Schedule 5A
2017 Capital Budget Excluding AFUDC
Nuclear Generation
Total Company - By Utility

Northern States Power - MN
(\$000's)

Utility Desc	Parent Proj Full Desc	Total
Electric	10637068 - PI NSSS/BOP Annunciator Repl	1,000
	10637816 - PI-WH Radiation Monitor Replac	500
	10799230 - PI-Cooling Water Header Valves	500
	10799344 - MNGP DAS & PPCS Rplc	4,415
	10799679 - MNGP Security Equipment Replac	650
	10799684 - MNGP EDG Rplc & Voltage Reg	253
	10800344 - PI U1 Turb/Gen Vibration Monit	61
	10958321 - PI-NFPA 805 Modifications	5,450
	10958468 - PI 121 CT Deck Header Valves	1,157
	11100514 - PI-Screenhouse CI Header Pipe	3,614
	11101522 - PI-9 TN-40 Casks(39-47)	6,437
	11103247 - PI-Battery Room Cooling	724
	11201713 - Nuclear Uranium Fuel Commodity	(16,223)
	11201715 - Nuclear Conversion Fuel Commod	(3,028)
	11201718 - Nuclear Enrichment Fuel Commod	(19,598)
	11230312 - PI Foxboro Proc Controls Repl	12,339
	11230345 - PI-Upgrade Polar Crane Control	300
	11230596 - PI DC Pnl 11122122 Switches	456
	11230621 - PI U2 HDTP Speed Control Upgr	4,858
	11230759 - PI-11 FW Pump Mtr Rewind	238
	11230764 - PI-12 FW Pump Mtr Rewind	233
	11230790 - PI-CL Sys Branch Valves	500
	11230801 - PI-11,12,13,14 Traveling Scree	250
	11230810 - PI-21222324 Traveling Scree	250
	11233547 - PI 12 CW Pump Motor Rewind	408
	11366781 - MNGP Rplc of Recirc Flow Contr	75
	11366799 - MNGP Rplc one RECIR M/G Gen	1,751
	11366884 - MNGP Rplc NON 1E Inverter, Y-9	939
	11367278 - Monticello Reload 28(C29)	78,345
	11367280 - PI Unit 1 Reload 30(C31)	1,269
	11367286 - PI Unit 2 Reload 29(C30)	75,517
	11368268 - PI 22 RCP Motor Rewind	2,713
	11484226 - PI Unit 2 Reload 30 (C31)	2
	11502799 - PI PPCS DAS Upgrade	5,000
	11502818 - PI U1 Gen Voltage Regulator	61
	11503688 - MNGP 2018 Dry Fuel Storage Loa	10,529
	11503725 - MNGP IRMs-ARDEC	100
	11503758 - PI 2M 2RS 2RX Transformer Re	6,000
	11503763 - MNGP Security ISFSI Project	1,000
	11507888 - PI Facilities Infrastruct Upgr	100
	11507910 - PI ISFSI Security Modification	530
	11633394 - Monticello Reload 29(C30)	193
	11634222 - PI Emerg Resp Equipment FLEX	240
Electric		

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Utility Desc	Parent Proj Full Desc	Total
	11649843 - MNGP 2017 Site Blanket	1,000
	11649897 - MNGP 2017 Plant Computer Blank	150
	11650502 - MNGP 2017 Facilities Infrastru	401
	11650511 - MNGP 2017 LPRMs	661
	11650737 - PI FLEX Implementation Ph II	700
	11650739 - PI 2017 Misc Tools & Equipment	575
	11650741 - PI 2017 Misc Minor Improvement	975
	11650742 - PI 2017 Misc Office Furniture	425
	11650743 - PI 2017 I/T Capital Blanket	400
	11650753 - PI 124 CT Deck Header Valves	1,479
	11650770 - PI AFW Pump Room Cooling	163
	11652676 - MNGP 2017 Capital Emergent Wor	600
	11655240 - PI Capital Emergent Work	1,000
	11679156 - PI NFPA 805 -05 Incipient Det	710
	11712454 - MNGP NEI 09-05 Security Compli	1,300
	11769538 - MNGP Byron Station Electric Vo	3,460
	11769895 - MNGP 2017 Tools & Equipment	400
	11808178 - PI U1 Generator Replacemnt LCM	940
	11810776 - MNGP 316/B Ruling Implementati	465
	11812707 - PI Spare Aux FW Pump Motor	385
	11812710 - PI 11 CC Pump Motor Replacemnt	151
	11812717 - PI 21 CC Pump Motor Replacemnt	315
	11812728 - PI Spare CC Pump Motor Purch	379
	11812736 - PI 11 CS Pump Motor Replacemnt	148
	11812745 - PI Spare CS Pump Motor	387
	11812750 - PI 11 RHR Pump Motor Replacmnt	156
	11812764 - PI 21 RHR Pump Motor Replacmnt	342
	11812775 - PI Spare RHR Pump Motor	402
	11812803 - PI 11 SI Pump Motor Replacemnt	196
	11817141 - PI 4.16 KV Bus Modifications	3,360
	11818570 - MNGP Regulatory Mandated Capi	1,000
	11860702 - PI ISFSI Expansion	3,555
	11871747 - MNGP Hardened Vents & Filters	6,427
	11939492 - PI 12 FCU Motor Rewind	239
	11939496 - PI 21 FCU Motor Rewind	342
	11946106 - MNGP CV 1095 A/B Condensate Pu	1,182
	11979212 - PI U1 SG Narrow Rng Water Lev	50
Electric	12053872 - PI NFPA 805-01 U1 Train A AFW	1,250
	12053883 - PI NFPA 805-02 U2 Train A AFW	1,250
	12053891 - PI NFPA 805-03 U1 Train B AFW	1,250
	12053895 - PI NFPA 805-04 U2 Train B AFW	1,250
	12053906 - PI NFPA 805-10 Loss OCT 4KV Br	1,250
	12053912 - PI NFPA 805-24 CT11CT12 Brkrs	1,500

Schedule 5A
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Nuclear Generation
Total Company - By Utility

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(\$000's)

Utility Desc	Parent Proj Full Desc	Total
	12053920 - PI NFPA 805-25 Repowr MV-32078	500
	12053925 - PI NFPA 805-26 Repowr MV-32180	500
	12063711 - MNGP Nuclear Channels R28 (C29	1,981
	12065081 - MNGP Fukushima Phase II	1,233
	12076067 - MNGP Obsolete EQ RFO 28	2,653
	12076076 - MNGP Obsolete EQ RFO29	123
	12076246 - MNGP T-98 Cyclone Separator Up	62
	12172473 - MNGP 2016/2017 Position Ind Pr	555
	12173155 - PI 121 Cooling Twr Structural	6,359
	12173159 - PI 124 Cooling Twr Structural	5,941
	12173539 - PI RCP Pump & Inj Line Repl	10,000
	12173540 - PI Security Modifications	2,000
	12173541 - PI 24 Month Fuel Cycle	1,396
	12173542 - PI Tornado Missile Protect-RIS	1,000
	12173555 - MNGP Security Mods Post Reduct	2,000
	12173581 - MNGP Tornado Missile Protect	1,000
Electric Total		269,980
Grand Total		269,980

Schedule 5
2018 Capital Budget Excluding AFUDC
Nuclear Generation
Total Company - All Utilities

Northern States Power - MN
(\$000's)

Parent Proj Full Desc	Total
10799230 - PI-Cooling Water Header Valves	4,000
10799344 - MNGP DAS & PPCS Rplc	795
10799679 - MNGP Security Equipment Replac	1,150
10799684 - MNGP EDG Rplc & Voltage Reg	56
10800344 - PI U1 Turb/Gen Vibration Monit	1,277
10957617 - PI-122 CT Deck Header Valves	1,479
10958321 - PI-NFPA 805 Modifications	4,725
11099780 - MNGP 2013 Dry Fuel Storge Load	2,912
11100432 - PI-Clg Twr Underground Pipe	150
11101522 - PI-9 TN-40 Casks(39-47)	9,691
11201713 - Nuclear Uranium Fuel Commodity	(10,738)
11201715 - Nuclear Conversion Fuel Commod	613
11201718 - Nuclear Enrichment Fuel Commod	8,350
11230312 - PI Foxboro Proc Controls Repl	6,756
11230596 - PI DC Pnl 11122122 Switches	454
11230621 - PI U2 HDTP Speed Control Upgr	141
11230801 - PI-11,12,13,14 Traveling Scree	250
11230810 - PI-21222324 Traveling Scree	250
11366768 - MNGP Rwnd Control Rod Hyd Mtrs	141
11366774 - MNGP Purch spare CRDH Pump Mtr	150
11366781 - MNGP Rplc of Recirc Flow Contr	900
11366799 - MNGP Rplc one RECIR M/G Gen	24
11367280 - PI Unit 1 Reload 30(C31)	63,331
11484226 - PI Unit 2 Reload 30 (C31)	201
11502799 - PI PPCS DAS Upgrade	2,850
11502818 - PI U1 Gen Voltage Regulator	1,235
11503688 - MNGP 2018 Dry Fuel Storage Loa	16,498
11503725 - MNGP IRMs-ARDEC	35
11503727 - MNGP NUMAC Controller Rplc	1,180
11503731 - MNGP EFT Controls-Ardec	1,500
11503752 - MNGP EDG Cables	206
11503753 - PI 1R Transformer Replacement	6,500
11503758 - PI 2M 2RS 2RX Transformer Re	5,000
11503763 - MNGP Security ISFSI Project	3,750
11507888 - PI Facilities Infrastruct Upgr	100
11507910 - PI ISFSI Security Modification	3,750
11633394 - Monticello Reload 29(C30)	421
11650737 - PI FLEX Implementation Ph II	200
11650753 - PI 124 CT Deck Header Valves	1,157