

Schedule 5A
2018 Capital Budget Excluding AFUDC
Energy Supply
Total Company - By Utility

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

Utility Desc	Parent Proj Full Desc	Total
Electric	10634133 - SHCJC Coal Yard PM10 Improveme	33
	11083285 - RIV7C-U7 Hydrogen Coolers Repl	289
	11217403 - SHCCC U1&2 Coal Crushers Rpl	845
	11217405 - SHC3C U3 Waterwall Repl	250
	11217409 - SHC1C U1 Boiler Section Repl	10,000
	11228131 - SER-CHM-CHN Analyzer	65
	11358830 - SER-CHM-Discrete Analyzer	51
	11466986 - BDS0C Phase I Demo Site Remedi	8,394
	11485438 - BLLC0 Admn Bldg Battery Repl	60
	11485445 - BDS5C Cooling Water Strainer R	96
	11487761 - SHC1C Generatot Rectifier Repl	259
	11487762 - SHC1C Generator AVR Repl	250
	11487769 - SHC2C Generator AVR Repl	338
	11487770 - SHC2C Generator Rectifier Repl	190
	11487923 - SHC1C BFPT Controls Repl	400
	11488021 - SHC2C Battery Repl	615
	11488116 - SHC3C Unit Protection PLC Repl	59
	11495299 - REW0C EPA 316b FINAL RETROFIT	40
	11629383 - SHC2C Repl Transformers MSA	657
	11629446 - SHC2C Replace u2 hp-ip-lp turb	4,050
	11629449 - SHC2C drum internals - headers	100
	11629462 - SHC1C Repl u1 drum internals h	300
	11629470 - SHC1C Replace u1 battery	190
	11629473 - SHC1C Replace U1 TRANSFORMERS	275
	11629487 - SHC1C U1 Turbine Replacement	4,995
	11629878 - HBC0C 316b Entrainment Counter	124
	11629954 - BDS0C 316b Screenhouse	160
	11629961 - BDS5C 21 Lighting Transformer	85
	11630568 - SHC1C U1 Battery Charger Repl	886
	11630591 - SHC1C U1 Econ Ash Piping Repl	8
	11630593 - SHC1C U1 Inst CO-NOx Grid on E	394
	11630616 - SHC2C U2 Upgr CO-NOx Grid on E	357
	11632205 - SER-CSC-Paint Can Crusher	29
	11632388 - ANS2-C-U2 replace vanes and bl	7,343
	11634936 - WLM0C-10935 EPA 316b Final Ret	40
	11634988 - WLM0C Replace Ash Loadout Buil	98
	11635040 - WLM1C Replace U1 Lower Air Hea	63
	11635042 - WLM2C Replace U2 Lower Air Hea	63
	11635278 - REW2C REPLACE U2 GEN BANK TUBE	788
	11635316 - REW0C TOOL BLANKET 2018	30
	11635472 - REW1C REPLACE U1 SUPERHEATER	350
	11644930 - ASK1C-316b Improvements	190
Electric	11783911 - HBC0C 2018 Small Project Routi	100
	11783938 - HBC0C 2018 Emergent Work	150
	11793487 - SHCCC 2018 Small Project routi	12,600

Schedule 5A
2018 Capital Budget Excluding AFUDC
Energy Supply
Total Company - By Utility

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

Utility Desc	Parent Proj Full Desc	Total
Electric	11793489 - SHCCC 2018 Emergent work	1,600
	11793491 - SHCJC 2018 Small Project routi	200
	11793501 - SHC1C Level 2 Mill OH 2018 Fal	240
	11793504 - SHC1C Level 2 Mill OH 2018 Spr	240
	11793506 - SHC1C Level 2 Mill OH 2018 Sum	240
	11794371 - SHCJC 2018 Small Tools & Equip	182
	11794375 - SHC1C 2018 Small Project Routi	750
	11794391 - SHC1C Repl U1 Switchgear	367
	11794466 - SHC3C 2018 Small Project Routi	605
	11794475 - SHC2C Level 2 Mill OH 2018 Spr	240
	11794481 - SHC2C Level 2 Mill OH 2018 Sum	240
	11794484 - SHC2C Level 2 Mill OH 2018 Fal	240
	11794488 - SHC2C 2018 Small Project Routi	600
	11794676 - SHCJC Repl U1&2 Coal Crushr Fe	1,247
	11794850 - BDS0C 2018 Tool Blanket	75
	11794854 - BDS0C 2018 Small Project Routi	115
	11794860 - BDS0C 2018 Emergent Work	400
	11795374 - SHCCC Pond 4 Construction	4,210
	11795649 - IVH0C 2018 Tool Blanket	20
	11795801 - HBC0C 2018 Tool Blanket	50
	11795831 - HBC7C U7 CEMS Analyzer	21
	11795837 - HBC8C U8 CEMS Analyzer	21
	11795913 - HBC7C U7 CT Servo Replace 2	60
	11795970 - HBC9C ST L-O Blade Replacement	4,200
	11797316 - ANS0C Tool Blanket 2018	20
	11802870 - SER-SMC-Misc Tools & Equipment	180
	11805056 - HNI0C 2018 Small Tools and Equ	15
	11805109 - GDM0C 2018 Small Tools and Equ	10
	11805120 - GDMC0 2018 Generator Replaceme	317
	11805125 - GDMC0 Gearbox Replacemnt 2018	1,373
	11805612 - NBL0C Small Tools Equipment 20	20
	11805619 - NBL0C 2018 Gear Box Replacemen	1,660
	11806022 - BLL0C 2018 Small Tools and Equ	20
	11806222 - ASK1C Replace 17A Feedwater He	1,500
	11806235 - ASK1C Replace 17B Feedwater He	1,500
	11806248 - ASK1C 2018 Tool Blanket	150
	11806312 - ASK0C 2018 Small Project Routi	400
	11806409 - RIV0C Tool Blanket 2018	60
	11806420 - RIV0C Emergent Work 2018	150
	11806426 - RIV0C Demo Coal Dock Bulding	20
	11807397 - SER-CHM-Misc. Tools & Equipmen	51
	11807400 - SER-CHM-Automatic Visconmeter	46
	11807416 - SER-MTR-Vac Pump Stator Conduc	36
	11807424 - SER-RTC-Misc. Tools & Equipmen	20
	11807429 - SER-MMR-Purchase Alloy Analyze	38

Schedule 5A
2018 Capital Budget Excluding AFUDC
Energy Supply
Total Company - By Utility

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

Utility Desc	Parent Proj Full Desc	Total
	11807447 - SER-MMR-Purchase Video Probe (	55
	11807453 - SER-MMR-Misc. Tools & Equipmen	20
	11807918 - WLM0C /10882 2018 Tools Blanke	30
	11809489 - WLM1-U1/10891 Replace U1 Super	356
	11809534 - WLM0-Replace Breaker	125
	11809546 - WLM0-Purch Emissions Monitorin	75
	11809606 - WLM0C-Replace MCC and Breaker	125
	11809617 - WLM0-Replace Ash Mixer	100
	11809647 - WLM0-Install CEM Stack Vision	107
	11809666 - WLM2-Replace U2 B21 Screw Auge	15
	11945517 - BDS0C Black Dog U6 Simple Cycl	142
	11949438 - WLM0C DCS Software Hardware Re	35
	11961393 - HBC9C Turbine Controls Replace	1,029
	11961474 - HBC8C Turbine Controls Replace	1,054
	11961530 - HBC0C Fork Truck Purchase	55
	11962072 - HBC8C U8 Hot Gas Path	6,000
	11962228 - BDS0C Storm Water Management P	6
	11962571 - BDS5C U5 CT HGP	5,942
	11965373 - ASK1C Inst RO EDI Vessels	93
	11965386 - ASK1C -- Emergent Work 2018	1,400
	11966366 - SHCCC Bottom Ash UG Pipe Repla	244
	11966406 - RIV0C -- Replace Water Treamen	275
	11966484 - SHC1C Install CT Fan Vib Monit	100
	11966497 - SHC1C Bottom Ash Refractory Co	96
	11966516 - SHC1C 2018 Rewind 11 ID fan mo	150
	11966519 - RIV0C --61&62 Battery Room Ven	85
	11966520 - SHC1C Turbine LO Purifier Repl	27
	11966525 - SHC1C Boiler Ignitor Replaceme	1,000
	11966541 - SHC1C Repl U1 ID Fan MV Cables	300
	11966594 - SHC1C Replace Gen H2SCW Cabine	60
	11966625 - SHC1C Oil Room Bldg Roof Repl	57
	11966892 - SHC2C Inst U2 CT Fan Vib Monit	100
	11966917 - SHC2C 22 Battery Replacement	67
	11966938 - SHC2C Repl 22 & 24 ID Fan MV C	106
	11966945 - SHC2C Replace Gen H2SCW Cabine	20
	11967002 - SHCJC 12DC5 Upgrade Replacemen	595
	11967042 - SHC3C Repl U3 Boiler Area Ligh	35
	11967102 - SHC3C Level 2 Mill OH 2018 Spr	142
	11967105 - SHC3C Level 2 Mill OH 2018 Fal	142
	11968027 - BLL0-Small Capital Projects 20	25
	11970552 - REW1C U1 GENERATOR REWIND	1,375
	11970588 - WLM0C-Landfill Cell 10 Cap	340
	11974948 - WLM0C Screenhouse Control Repl	50
	11974950 - WLM0C Screenwash Pump Repl	10
	11974951 - WLM0C Screenhouse MCC Repl	50

Electric

Schedule 5A
2018 Capital Budget Excluding AFUDC
Energy Supply
Total Company - By Utility

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

Utility Desc	Parent Proj Full Desc	Total
	11993654 - SHC1C Turb Isolation Vlv TG	45
	12073063 - REW0C SMALL PROJECT ROUTINES 2	30
	12073341 - BRDW0C 2018 Small Tools and Eq	25
	12075653 - SHC1C Inst Gen Dewpoint Monito	35
	12075661 - SHC1C HP Steam RV Repl	20
	12076462 - ANS0C Small Project Routine	30
	12076921 - REW0C RELOCATE LANDFILL ACCESS	600
	12077790 - SER0C PMO Gas Analyzer 2018	20
	12077793 - SER0C PMO Pur Lab Transm 2018	41
	12077849 - IVH Gas Vlv Ctrl Replace U1-2	103
	12077855 - IVH1-Turbine Ctrls Rplc U1-2	542
	12077898 - HBC7C BFP Mezz Access	50
	12078022 - BDS0C 316b Entrainment Study	283
	12078035 - BDS5C CT Blade Path Thermocpl	69
	12078037 - BDS5C CT Expansion Joint	170
	12078039 - BDS5C CT Insulation	175
	12078040 - BDS5C CT Row 1 Inner Sup Ring	197
	12078042 - BDS5C Comb Dynamics System	450
	12078091 - BLL0-Mk. V Card Replacement -	32
	12078102 - BLL8-U8 BLL Compressor Blade R	244
	12078185 - SHC0-HVAC U1 2 4 KV Bus Room	325
	12078212 - SHC1C Gen Core Monitor repl	139
	12078294 - SHC1-Cold End AH Basket Repl.	1,000
	12078299 - SHC1-U1 Replace LP Turbines	100
	12078343 - SHC2C Valve Rpl HP Stm Relief	155
	12172024 - WLM0C 2018 Small Project Rout	30
	12172228 - RIV0-Small Capital Projects -	8
	12172229 - RIV0-Small Capital Projects -	92
	12172333 - ASK1-250VDC Pnl & Batt Charger	350
	12172336 - ASK1-Ammonia Vaporizer Replace	15
	12172342 - ASK1-East Hydrogen Cooler Retu	550
	12172350 - ASK1-West Hydrogen Cooler Retu	550
	12172354 - ASK1C Install Floor Tap Cleani	35
Electric	12172356 - ASK1C Install Upper Pond Oil W	28
	12172358 - ASK1C Repl Cyclone Sec Air Dam	3,602
	12172364 - ASK99-Crusher Dust Coll PLC Re	60
	12173754 - RIV7C-Circ Water Pumps Replace	305
Electric Total		113,124
Grand Total		113,124

Schedule 5
2016 Capital Budget Excluding AFUDC
Nuclear Generation
Total Company - All Utilities

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

Parent Proj Full Desc	Total
10390056 - PI-U2 STEAM GENERATOR REPLACE	45
10637068 - PI NSSS/BOP Annunciator Repl	345
10799344 - MNGP DAS & PPCS Rplc	2,831
10799359 - PI-Repl Steam Exclusion Damper	250
10799679 - MNGP Security Equipment Replac	674
10799684 - MNGP EDG Rplc & Voltage Reg	1,647
10800344 - PI U1 Turb/Gen Vibration Monit	329
10810832 - PI-Install New Security Trap S	500
10956933 - PI-22 CW Pump Motor Rewind	418
10958321 - PI-NFPA 805 Modifications	3,375
10958468 - PI 121 CT Deck Header Valves	1,479
11044898 - PI-NFPA 805 Fire Model	1,742
11099780 - MNGP 2013 Dry Fuel Storge Load	5,421
11100245 - PI 122 CT Pump Motor Rewind	596
11100514 - PI-Screenhouse CI Header Pipe	1,500
11101105 - PI-NMC RD Rad Monitor Repl	300
11101522 - PI-9 TN-40 Casks(39-47)	3,521
11103247 - PI-Battery Room Cooling	4,872
11201713 - Nuclear Uranium Fuel Commodity	21,871
11201715 - Nuclear Conversion Fuel Commod	3,633
11201718 - Nuclear Enrichment Fuel Commod	13,658
11230312 - PI Foxboro Proc Controls Repl	3,420
11230345 - PI-Upgrade Polar Crane Control	75
11230348 - PI 11/21 Turb Bldg Crane Upgr	599
11230596 - PI DC Pnl 11122122 Switches	456
11230621 - PI U2 HDTP Speed Control Upgr	5,848
11230759 - PI-11 FW Pump Mtr Rewind	254
11230764 - PI-12 FW Pump Mtr Rewind	215
11230768 - PI-21 FW Pump Mtr Rewind	389
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	382
11234136 - Prairie Island U1 R29 (C30)	75,056
11366799 - MNGP Rplc one RECIR M/G Gen	1,610
11366884 - MNGP Rplc NON 1E Inverter, Y-9	92
11367278 - Monticello Reload 28(C29)	2,788
11367280 - PI Unit 1 Reload 30(C31)	1,098
11367286 - PI Unit 2 Reload 29(C30)	451

Schedule 5
2016 Capital Budget Excluding AFUDC
Nuclear Generation
Total Company - All Utilities

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

Parent Proj Full Desc	Total
11367663 - MNGP HAYS 02 Monitor Rplc	424
11368268 - PI 22 RCP Motor Rewind	1,439
11468481 - MNGP Cyber Security 08-09	387
11502508 - PI 2016 Misc Tools & Equipment	575
11502515 - PI 2016 Misc Minor Improvement	975
11502541 - PI 2016 Misc Office Furniture	425
11502559 - PI 2016 I/T Capital Blanket	575
11502799 - PI PPCS DAS Upgrade	150
11502818 - PI U1 Gen Voltage Regulator	112
11502821 - PI U2 Gen Voltage Regulator	22
11503688 - MNGP 2018 Dry Fuel Storage Loa	12,684
11503753 - PI 1R Transformer Replacement	1,900
11503758 - PI 2M 2RS 2RX Transformer Re	500
11503761 - MNGP Calc Reconstitution Proje	814
11503763 - MNGP Security ISFSI Project	250
11507881 - PI Warehouse & Trailer Demolit	1,200
11507888 - PI Facilities Infrastruct Upgr	300
11507910 - PI ISFSI Security Modification	250
11634222 - PI Emerg Resp Equipment FLEX	7,800
11649839 - MNGP 2016 Site Blanket	1,250
11649893 - MNGP 2016 Plant Computer Blank	150
11650500 - MNGP 2016 Facilities Infrastru	420
11650737 - PI FLEX Implementation Ph II	1,200
11650770 - PI AFW Pump Room Cooling	2,838
11652675 - MNGP 2016 Capital Emergent Wor	600
11655240 - PI Capital Emergent Work	1,000
11679156 - PI NFPA 805 -05 Incipient Det	3,043
11712454 - MNGP NEI 09-05 Security Compli	1,696
11769305 - PI Cyber Security Modification	323
11769538 - MNGP Byron Station Electric Vo	2,000
11769892 - MNGP 2016 Tools & Equipment	400
11808178 - PI U1 Generator Replacemnt LCM	1,215
11808202 - PI U2 Generator Replacemnt LCM	309
11808219 - PI U2 GSU Transformer Repl LCM	300
11810776 - MNGP 316/B Ruling Implementati	289
11811216 - MNGP Hydrant House Rplc	27
11812631 - PI Reactor Coolant Pump Rebuil	2,192
11812670 - PI NonSafety Rel Battery Repl	104
11812679 - PI Spare Horiz CL Pump Motor	247